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Trust at Risk:

Implications for EU Policies and Institutions



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Trust at Risk:

Implications for EU Policies and Institutions

Report of the Expert Group

"Trust at Risk? Foresight on the Medium-Term Implications for European Research and Innovation Policies (TRUSTFORESIGHT)"

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Foreword



The consolidation and further development of the European Union depends on a great deal of trust from its citizens: trust in its integrity, trust in its purpose, and trust in its values.

Trust is the belief that people and organisations will behave in a predictable and reliable manner. To trust, in essence, is to take a risk based on positive expectations about others. Many observers detect 'a crisis of trust' today, especially since the recent financial and economic crisis in Europe. We see strong signals that there is a serious lack of trust in public authorities, both at the European and the national level. Between 2007 and 2013 citizens' trust in the EU and in national governments and parliaments fell dramatically.

Trust is fundamental for the good functioning of the society and the economy. Institutions are built on it. It is correlated with fairness and responsiveness to people's concerns, and helps sustain a cooperative social climate, as well as foster compliance with laws and standards. Participation in community and civic affairs is less risky and more rewarding when people trust each other.

Because of its importance for society, the European Commission is prioritising the need to regain the trust of citizens in the European project. President Juncker's political guidelines underline that the EU is not just a big common market, it is also a Union of shared values.

Using a foresight approach, this volume makes a major contribution to better understanding the disruptive effects that an erosion or collapse of trust could have for Europe: for its science, for its political and justice systems, for the regulation of economic activities, social cohesion, for public administrations and for the Internet and cyberspace in general. Its chapters elaborate not only on the potential disruptions, but also on possible policy responses to counteract a further loss of societal trust. The book is an essential contribution to a rich and pragmatic understanding of the 'crisis of trust' in Europe. It is the kind of contribution that citizens expect from foresight analysis and one that I am sure will feed into many EU policy discussions for the years to come.



Carlos MOEDAS

Commissioner for Research,
Science and Innovation
European Commission

PROLOG

Trust in the trustworthy: a key to social cohesion?

Geoffrey Hosking[1]

It is often asserted that in the UK and in the West in general we are going through a 'crisis of trust'. Many people have lost trust – or say they have – both in the market economy and in our political systems.

- Banks are more reluctant to extend credit to businesses, especially to small and medium firms; there is repeated evidence, moreover, that banks themselves have acted in an untrustworthy manner in the past and probably continue to do so now.
- Large corporations have been systematically avoiding tax, and thus deliberately failing to make their fair contribution to the facilities from which they benefit.
- The US and UK security services have been breaching our privacy on a huge scale by tapping into internet and telephone communications.
- In most European countries voters are losing trust in the established parties of government and opposition; instead they turn ever more to populist parties of both right and left.
- Likewise, in most European countries, the population is losing confidence in international organisations, especially but not only the European Union; hence the nationalist outlook of populist parties of right and left.

One could continue enumerating these recent breaches of trust. Do they have anything in common? What if anything can we do about them? The problem is self-evidently important, and also extremely serious, since an unchecked decline of trust can lead to social breakdown, as we saw in many countries during the twentieth century. However, scholars who try to understand the problem and suggest ways of tackling it face the difficulty that the concept of trust is understood in many different, sometimes mutually contradictory, ways and is in any case widely misused, even though it is regularly deployed by sociologists, political scientists and economists. The standard literature on trust is very varied – indeed confusingly so – but much of it seems to assume:

(a) That trust is a good thing. But misplaced trust is at best useless, at worst pernicious and even destructive (O'Neill 2002); without the addition 'in the trustworthy', one must regard trust itself as neutral.

(b) That trust is always voluntary. Actually it is quite often forced, in the absence of any reasonable alternative. Besides, it is psychologically intolerable not to trust anyone or anything: people search desperately for someone to trust. In a society with corrupt and untrustworthy officials they will often focus trust on the leader who is seen (usually wrongly) as being above it all. I believe that in our own societies trust is often involuntary. In spite of a series of damaging revelations about the functioning of the National Health Service, in Britain we continue on the whole to trust its employees above most other professional people. In spite of recent – and continuing – scandals concerning banks and financial institutions, we continue to hold our money in bank accounts. In both cases we have no real choice.

(c) That trust is always conscious and reflective, based on calculated choice. But in practice much trust is unreflective and even unconscious. Let us consider an example which illustrates several modes of trust simultaneously. For many people flying by air has become a routine activity. Which of us, before boarding an aircraft, checks every rivet, joint and fuel duct in it? Or even the qualifications of the engineers responsible for maintaining and repairing those parts? Obviously we never do so. Yet our lives depend on the impeccable working order of every one of those parts, the skill and conscientiousness of the engineers and of the pilots. The fact is, we take them on trust because everyone else does so, and because planes very seldom crash. Besides, to do otherwise would require us to have both time and skills we don't possess. We don't 'decide' to board an aircraft: we just do it. We trust the pilot because he is well-trained and has ample experience of flying, the engineers because they are qualified in aeronautics and metallurgy, the technicians because they know how to apply that knowledge to the repair and maintenance of aircraft, and the airline because it has a good safety record and a direct interest in keeping it up. Normally we do not reflect on these reassuring facts.

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[1] The author thanks Oxford University Press for permission to quote material from his book Trust: a History (2014).

There is yet another form of trust involved in the 'decision' to board an aircraft. How do we know that planes seldom crash? Because the media – television, radio, newspapers – report the fact when they do, and that fortunately is not often. But what if we cannot trust the media? In the Soviet Union the media never reported plane crashes that involved the domestic airline, Aeroflot. I recall that several of my acquaintances there would not fly on Aeroflot, as there were rumours that actually their planes crashed quite often. There was even a little ditty which did the rounds among sceptical potential customers:

> Quickly, cheaply, without to-do,
> Aeroflot will bury you.[2]

In flying, then, we are putting our trust in people, but not simply as individuals. We trust pilots and engineers as members of institutions which have certain procedures and draw on certain systems of knowledge. We rely on journalists who form part of honest and well-informed media organisations. Our trust in aircraft rests on complex and diverse foundations, none of which we normally reflect on. We do something similar every day of our lives, without being aware of it. Only when a crisis occurs do we realise that we may have been misplacing our trust.

(d) Some sociologists assert that collectives cannot trust, only individuals. But this is because they regard it as a feeling. One of the many difficulties involved in studying trust is that it is several phenomena at once. It is first of all, indeed, a feeling. One feels safety and security in the sense that there is no threat, that one is free to act as one wishes. Distrust awakens feelings of uncertainty, suspicion, foreboding and fear, the sense that one is constrained in one's actions, cannot do what one wishes or may even be forced to act against one's will. Both these states relate to future actions and are in part socio-culturally determined, but they are also definitely personal feelings – although, in the case of trust, that feeling is often unconscious, not brought to the surface unless some unexpected event arouses an element of distrust.

Trust is however also an attitude. It is a more or less lasting view held about some object, event or person(s) in the outside world. It is a frame of mind, outlook or perspective which influences one's behaviour or one's disposition to act or think in certain ways. The same is true of distrust. Attitudes are not unchangeable, but they are also not momentary, as feelings may be. Viewed as an attitude, it makes sense to ask questions about trust in opinion polls. These attitudes may or may not be consciously held, but they are more likely to form part of a person’s character than feelings. Those attitudes may well be shared by others, and in that way are part of the social fabric. In this sense collectives can certainly be said to trust.

Trust is also a relationship, between oneself and another person, collective of persons or institution. It is part of an ongoing interaction, and the other person's or collective's behaviour can modify the nature of that trust, even turn it into distrust. The actions of both parties can change the relationship. Here the social context is even more salient when we seek to illuminate the nature of trust.

Many sociologists who believe that trust is always based on a conscious decision assert that one should draw a strict line between trust and confidence, the latter term being reserved for unreflective trust (Luhmann 1979; Seligman 1997; Hardin 2002). It is true that the word 'confidence' is more appropriate where there is more complete prior knowledge, or in dealing with institutions rather than persons. But there is really no sharp distinction between the two words. There are considerable areas of overlap – the French word, 'la confiance', covers both concepts – and with other words: hope, faith, belief, reliance, expectation, dependence, etc.

With due recognition of the importance of the subtle distinctions between them, one should draw on these words as appropriate to delineate the various forms of attachment human beings feel for one another or the various forms of reliance which they place in one another.

I believe the concept of trust can and should be mobilised as the focus of a cluster of concepts in order to examine forms of social cohesion which do not derive entirely from either the power structure or from rational choice; they are vital to understanding how societies work. Configurations of trust are as important as those of power. Trust and distrust are part of the deep grammar of any society: the way in which we relate to each other, trust or distrust each other, determines much of our social behaviour. In order to take decisions and act in real life, we need trust – often routine and unremarked – in other people, in institutions, or simply in the future.

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[2] *Bystro, deshevo, bez khlopot/Pokhoronit vas Aeroflot*. My thanks to David Christian for reminding me of this example of Russian oral culture, and for devising the snappy translation.

Moreover, unlike many sociological terms, the word 'trust' is in no way arcane or erudite. It is easily understood and is regularly used by ordinary people to describe how they take decisions and relate to others. Yet its effect in real life is often unnoticed, precisely because it is unreflective. The historian (like me) examining texts does not immediately notice the presence of trust because it lies between the lines, in the unspoken assumptions which underlie the author's express thoughts. Spotting distrust is much easier: it is usually clearly articulated. To discern trust in people's behaviour and in their writings requires an effort of deconstruction, the uncovering of those underlying assumptions.

I have a working definition of trust:

1. Attachment to a person, collective of persons or institution, based on the well-founded but not certain expectation that he/she/they will act for my/our good.

2. The expectation, based on good but less than perfect evidence, that events will turn out in a way not harmful to me/us.

The two modes of trust are linked, since we can often provide against possible misfortune by combining with other people whom we trust.

In my understanding trust is mediated through symbolic systems[3] and the institutions associated with them. These systems help us to understand other people and to interact with them in non-destructive ways, while the institutions provide continuity and expertise for those systems.

Symbolic systems which mediate trust:

- Language, which enables the articulation of complex concepts and thoughts;
- Myth, which provides a narrative to explain the structure of the universe and the place of divine and natural forces and of human beings within it; myth is surprisingly tenacious.
- Religion, which continues the work of myth, and also provides a number of resources for the maintenance of trust both in people and in contingencies;
- Science, which establishes a maximally non-subjective framework for understanding the natural world around us, and for that purpose draws extensively on the abstract symbolic system of mathematics.
- Law, which sustains a socially sanctioned framework within which personal and institutional relationships can be conducted, and when necessary enables conflicts to be settled in a non-violent way;
- Culture and the arts, which establish a subjective and evaluative framework for our perception of the world and of social relationships.
- Money, which enables us to exchange goods and services with people about whom we know nothing, and from whom we cannot expect the reciprocity of closer social interaction.

Most of these symbolic systems generate their own institutions. Religion, for example, gives birth to a church, or a priesthood, or to a corpus of learned men who claim special knowledge of the faith and its associated myths; it creates its own educational and charitable institutions, and the organizations necessary to sustain them. Science – in the broader sense of 'Wissenschaft', or learning – gives rise to schools, universities and academies; in the ancient world and from the late middle ages onwards in Europe science and learning claimed to embody an autonomous field of value, independent of religion and political authority. Law has its courts, judges and lawyers, with their own juridical codes, professional associations, training schools and systems of learning, associated with both church and state, but claiming the right to judge both. Culture generates its own artefacts and also its own institutions: theatres, galleries, studios, concert halls, bands and orchestras, journals and publishing houses, professional associations and systems of training. Money is channelled through markets, through banks and their various devices for deposit, lending and borrowing, and through state treasuries, with their taxation systems. These institutions all have their structures, routines and accepted practices which enable people not closely acquainted with one another to 'read' with ease each other's words, gestures and actions and hence to interact with confidence. They provide the 'habitus of trust'.[4]

The Polish sociologist Piotr Sztompka, who had experience of the kinds of trust and distrust generated by a state socialist society, sketched out certain pre-conditions for the creation and

[3] Here I draw on the thought of Cassirer (1962).

[4] The importance of symbolic systems for understanding trust is further outlined in Hosking (2012).

maintenance of a 'habitus of trust' (Sztompka 1999, pp. 122-125).

1. Normative coherence: The confluence of law, morality and custom to provide a set of norms to enable people to engage confidently with each other. Within these norms trust is normally unreflective. But today throughout Europe many people feel that law and morality are getting further apart: the poor cannot afford access to the law, and austerity is applied to them while the rich get richer; this leads to unacceptable levels of inequality which themselves weaken trust. High levels of debt are forced on younger people to acquire training and education or to buy/rent a place to live, while older people already have analogous assets which they acquired more cheaply in the past. This maldistribution of burdens breaches the morality of Christianity, Judaism and Islam, which all emphasise fairness, reciprocity and mutual support.

2. Stability: The first condition will operate more effectively if it is long-lasting, and changes only gradually and in a consistent direction. Under these conditions, in everyday interaction trust does not need to be calculated but can be exercised out of habit. In periods of fast social change, on the contrary, one's expectations of other people's reactions become uncertain, and placing trust thus needs much more conscious calculation. Suspicion and distrust become much commoner. People who suddenly lose their jobs also have to reorient themselves rapidly and experience periods of depression and distrust.

Sudden unexpected events can provoke crises of distrust. The explosion at a Japanese nuclear power plant in March 2011 generated both shock and distrust within Japanese society, not only because of the sudden disruption of routines, but also because official bodies were slow to admit the truth. People lost trust in officials and scientists who received state funding: an expectant mother avoided eating fish, declaring 'I don't trust anything they say. Tokyo Electric and the government have told us so many lies'. Interestingly, as a recent study shows, they put their trust in unpaid volunteers instead, since their selfless devotion to helping others offered an example of generous and trustworthy behaviour (Avenell 2012; Brumfiel/Fuyuno 2012).

Worst of all are revolutions and civil wars, which unleash prolonged destructive waves of distrust, often within families or formerly close communities. Those who flourish in such circumstances are suspicious people with sharp reactions and a readiness to use violence. In the middle of the Russian civil war the writer Mikhail Prishvin noted in his diary: 'I can feel even the best and cleverest people... beginning to behave as if there were a mad dog in the courtyard outside' (Prishvin 1994, p. 169). The legacy of murderous distrust left by the civil war took a terrible toll during the Stalin's terror of the 1930s (Hosking 2014, chapter 1).

3. Openness: It is important that the structure of society and government is as transparent as possible, that people have information about the way they function and how their components interact, and also access to comments and ideas about them. Where a lot of information is secret or too complicated to understand, trust is likely to be withheld; then rumours, gossip and conspiracy theories will abound, and people will be more prone to look for 'enemies'. If all our most of our media outlets take only one political line, that damages openness. This is the soil in which terrorism – including state terrorism – can readily take root; in some circumstances ethnic, religious or other groups which feel victimised may form armed paramilitary formations.

In science and research policy openness and informed discussion are needed if the public is to have confidence in results which they are usually unable to assess independently. Funders of research should guarantee to publish the results of that research, otherwise the suspicion will take root that they are hiding negative or unfavourable data; universities receiving funding from the state or large corporations should insist on this as a condition of participation. It is also important that there are journalists well-informed in science but also able to select and explain those results to the public at large (Goldacre 2009). In the absence of these conditions, public distrust of even high-quality scientific research is easily aroused.

4. Accountability: When things go wrong, as happens even in high-trust societies, it is important that we should be able to identify who is responsible, hold them to account and if possible obtain some redress for damage. This is a guarantee that power will not be routinely abused and obligations will normally be respected. It is an insurance policy against misfortune, which enables people to feel more secure and to adopt a more trustful orientation towards other people, institutions and contingencies. Here the rule of law is crucial, but in the UK (at least) seeking the protection of the law is becoming more expensive and difficult. Most people feel the law is biased against them because large corporations can pay for better lawyers.

Different modes of trust

Trust can be strong or weak; it can also be thick or thin. One might use the term 'strong trust', for relationships to which individuals commit valued resources – which may be the preservation of their health, beliefs, customs, home and way of life, their profession or job, provision for their children or their own old age. That would include trusting the quality of education in a school or

college, taking out a mortgage to buy a house, committing one's free time to voluntary work for a charity or religious movement, or placing savings in a pension scheme which may not bring any benefit for several decades but could prove a godsend in old age. In all these cases, decisions will normally be preceded by serious reflection and the weighing up of alternatives.

'Weak trust' would include more routine cooperative relationships in which decisions are routine, less is at stake or the risk is very slight. This would include trusting what we read in the newspaper, trusting that the food we buy in the supermarket is fit to eat, trusting that the money I earn today will have much the same value tomorrow, next month and even next year. Sometimes, it is true, even in these relationships a malign outcome could have seriously damaging effects – the fish I buy in the shop could turn out to contain a toxic substance – but the risk is very slight and the transaction is routine, so for all normal purposes we ignore it. Here we can scarcely talk of 'decisions' at all.[5]

There is no clear and unambiguous boundary between strong and weak trust, but rather a gradation, depending on the seriousness of the risk, the value of the resources committed, and whether the transaction is routine or deeply considered. Both forms of trust are, however, very important to the functioning of society (Granovetter 1973).

There is another distinction, between 'thick' and 'thin' trust, which cuts across that between 'strong' and 'weak' trust. 'Thick' trust rests on extensive knowledge, resulting from frequent or close contact with the person or institution one trusts, whereas 'thin' trust is based on slight knowledge, on infrequent or superficial contact. Four modes of trust can thus be delineated:

Strong thick trust	*Strong thin trust*
Weak thick trust	*Weak thin trust*

The upper left-hand and lower right-hand quadrants need little explanation. An example of strong thick trust might be getting married; of weak thin trust buying food in a supermarket. The lower left-hand quadrant is also easy to explain: one does not always need to risk major resources in a close or frequent relationship; one risks little in lending a close colleague the bus fare home. What is more surprising is that the upper right-hand quadrant, 'strong thin trust', also exists. Indeed, I would argue that it is ever more prevalent in our social life today, as a result of cumulative changes which have been taking place at least in the West for a very long time. One of the main reasons we often misrecognise trust today is that we have not been aware of the growing predominance of strong thin trust.

Strong thin trust results especially from two tendencies which have become much stronger in the last 40-50 years: (a) the growth of large impersonal institutions; (b) the increasing use of money and financial institutions to guarantee security. Whereas up until quite recently people protected themselves against misfortune mainly by reliance on family, friends, village community or religious congregation, nowadays most Europeans rely on savings accounts, insurance policies, pension funds and/or state welfare schemes. This is much more effective but also much more impersonal. Those institutions deal with us in a bureaucratic not a personal manner. We believe they are reliable but we do not really know much about them.

The growth of strong thin trust is explained by the way factors of social cohesion have changed over the centuries. In his recent book, 'The Better Angels of our Nature', Steven Pinker argues that violence among human beings has been declining over recent centuries – admittedly with periodic sensational reverses. He attributes this gradual pacification to a number of developments. First, the modern state has become ever more powerful, curbing the aggressive rapacity of tribal or feudal warlords and imposing a monopoly of legitimate violence as well as ensuring a more objective, less parochial administration of justice. Second, social morals have evolved away from immediate gratification of desires and impulses, regardless of other people's feelings and of long-term consequences, towards a more reserved and calculating style of behaviour which takes into account other people's reactions and the long-term consequences of actions. Third, with the increase in both travel and dissemination of information, people have learnt both to understand other people's feelings and to appreciate that others' very different beliefs and practices are not necessarily signs of irredeemable evil. Fourth, the development of peaceful commerce has shown that acquiring goods, services or land does not have to be at others' expense but can contribute to their well-being too; that life is not a series of negative-sum games, but can be turned into positive-sum games in which both sides can benefit from transactions. In the long run, this perception has impelled the globalisation of our economies (Pinker 2011).

[5] This distinction was formulated by Tilly (2005).

In all these developments what has been happening has been a broadening of the radius of trust, upwards from local warlord to monarch; from confidence in the honour and courage of a superior to confidence in his social skills and capacity for realistic and judicious action; from narrow-minded insistence on one's own beliefs to acceptance and tolerance of others'; and from short-sighted and greedy acquisitiveness to participation in the mutual exchange of markets. One displaces risk upwards, seeking to place it on broader shoulders, to dissolve it within larger pools of resources or within institutions which ensure positive-sum games.

On the whole, this is a very positive development. One result, though, is that nowadays we know less well the larger entities with which we are dealing. Take the investment we make in a pension fund, often chosen by an employer or professional association: we entrust a large part of our lifetime savings to it, without knowing very much about it. The selection of a savings bank or insurance company might be more deliberate and more carefully assessed, but one is still likely to know little about its employees and to have little contact with them. Similarly, when we open our economies to competition from the entire world, we gain benefits but we are also taking on risks which we understand poorly or not at all, and are placing our fates in the hands of huge, globe-spanning financial institutions, whose ways are positively secretive.

The downside of enlarging the boundaries of trust, then, is that the resultant organisations are larger, more remote and usually more impersonal. Lower-level trust structures are more personal and easier to understand. Hence we do not want to lose them altogether. In contacting a large, impersonal organisation, one usually prefers to know an individual within it whom one can contact with any queries; or one pays an investment adviser to place one’s funds wisely. Traders prefer to deal with the same interlocutor in the market or port. Most of us prefer to have a 'primary care doctor' or family practitioner to help us find our way through the national health care system. Similarly, when we have to deal with the social security system, we prefer to talk to the same person face to face each week, not a different person sheltered behind a glass screen (Giddens 1991, pp. 83-88). Trust in large and impersonal institutions is still, then, best mediated by a personal trust relationship.

Today's crisis

To return to our perceived contemporary 'crisis of trust'. It has intensified in the last few years as a result of two main factors: the financial crash starting in 2007-8 and the deficient design of the euro. These factors highlighted and exacerbated the fundamental mismatch between the global scope of our economies and most people's overriding trust in the nation-state.

At first sight the nation-state is such a large and complex structure that it is difficult to see how it can be trusted. Actually, it is trusted precisely because it is large and hence offers a feeling of security in a dangerous world. Its main feature, though, is that it readily absorbs, reworks and projects symbolic systems.

Anthony D. Smith indicates the most important symbolic systems when he defines a nation as 'A named human population sharing a historic territory, common myths and historical memories, a mass public culture, a common economy and common legal rights and duties for all members' (Smith 1991, p. 14). The various elements of Smith's definition mostly correspond to trust-inducing symbolic systems or institutions. Indeed his approach is commonly referred to as 'ethno-symbolism' (Leoussi/Grosby 2006). It offers an account of the reasons why the idea of nationhood has such mass support among populations, especially but not only in Europe. It clarifies the essence of the nation as a set of institutions and symbolic systems whose function is to take advantage of shared ethnic identity and of the strong modern state to attract and deploy the trust of its members. The effect of these institutions and symbolic systems is to create or give shape to what Benedict Anderson has called an 'imagined community' – 'imagined' because we cannot possibly know, let alone trust, the great majority of our co-nationals (Anderson 1991). Smith's approach does not tackle directly the question of nationalism, that is, of how national identity hooks into politics, and how politicians manipulate it in order to gain or hold power, but it certainly helps us to understand how nationalism enables them to claim the allegiance of so many ordinary people (Breuilly 1993).

Let us consider the principal symbols and images which nations mediate. Disputes over them give rise to the most intractable conflicts, precisely because these symbols and images are crucial to fostering mutual trust and confidence in the future.

1. Territory: The nation occupies a territory where one's ancestors have lived, where one has one's home, where most of one's food is cultivated, where one lives and works. Territory is a prerequisite for confidence in the future, something which exiles bitterly miss. It follows that nations consider the boundaries of their territory sacred, to be protected at all costs.

2. Language: There will usually be an official national language, which makes the precise communication of thoughts, feelings, proposals etc. easier. A shared language facilitates mutual understanding and also compromise and settlement even when there are serious disagreements.

3. Myths and historical memories: A shared past serves as a reference point for communal narratives, and hence as a background for much symbolic interaction. Those memories are not necessarily truthfully reflected: they may be embellished, exaggerated and cleansed of discreditable elements. A mass public culture, reflecting those myths and memories, bringing the nation's members together for ceremonies in which both rejoicing and grieving can be experienced together. A shared culture enables people to communicate and negotiate more easily, even when they disagree strongly.

4. Religion: This is a much more ambiguous symbolic system. In some countries it has been strongly identified with the nation (Ireland, Spain, Poland), in some it has caused divisions (UK, Germany), while in an increasing number today it is becoming a residual category (UK, Scandinavia) with diminishing influence. God is held in reserve for major life thresholds (especially marriage and death), but is no longer actively worshipped. All the same, religion retains some of its force as a protection against outsiders of a very different faith: in this way Europeans of many countries today tend to denigrate Islam.

5. A common economy: A dense web of trade – the exchange of goods and services – much of which is concentrated within national boundaries, where the state guarantees the currency (whose relative stability is crucial), the law and the law-enforcement system. A major aspect of this common economy is the fiscal covenant: the citizen pays taxes and social insurance, and receives in return social protection in many forms. The national economy is today under severe pressure from the global economy, which draws in ever more of the wealthiest participants, and indirectly therefore all of us, in some respects weakening the fiscal covenant.

Taking these symbolic elements together, the political scientist Henry Hale sees the identity of the core ethnos as a means of 'uncertainty reduction': 'ethnic markers become convenient cognitive shorthand for rapidly inferring a wide range of information about a person one has never actually met before' (Hale 2008, p. 243). As we have seen, a common language, similar bodily gestures, shared assumptions about the community, its history and culture, make such rapid inference possible. In the modern urban world of mass communications and complex economic activity, where encounters with unknown people are frequent, shared ethnicity enables us readily to build relationships with strangers and thus bolsters generalised social trust. On the other hand, as is usual with trust, what increases trust within one group of people can also intensify their distrust towards other groups, those whose ethnicity is distinct. One begins to imagine threats and conspiracies which may not exist but are difficult to verify (Hale 2008). Ethnicity thus strengthens bonds of mutual trust within the ethnos, but also often intensifies reciprocal distrust around its boundaries.

We are now in a better position to answer the question: why trust the nation-state? A nation is an eclectic bundle of symbolic systems which fortify social solidarity. Ethnic nationhood strengthens trust by offering uncertainty reduction in dealing with strangers. Civic nationhood buttresses the prerequisites which Sztompka considers conducive to generalised social trust: normative coherence, stability, openness and accountability. The nation-state is also a fiscal covenant designed to spread risk, guarantee the financial system and moderate economic inequality. Its monopoly of violence ensures internal peace and security. In all these ways it underpins generalised social trust. The nation-state is a reliable public risk manager, or at least the most reliable we have yet discovered. No international organisation has ever come within miles of providing the same benefits. That is not to deny the importance of finding ways to enable nations to cooperate in devising positive-sum games and overcoming security dilemmas. But we must probably expect the nation-state to outbid all rivals for the foreseeable future in providing a focus for different kinds of trust.

In recent years in many EU countries public opinion has swung against the main political parties of government and opposition. They have been turning in growing numbers to populist parties of right and left, especially but not only since the economic crisis of 2007-8. What these parties have in common is that they articulate distrust of foreigners, especially immigrants, and of international organisations, especially the EU.

Much of this hostility to foreigners has taken a religious form, directed especially against Islam. In many people's eyes Islam became associated with terrorist conspiracies, with prejudice against women, and also with fanatical, bigoted and dictatorial politics. Even innocuous symbols of Islam, such as the hijab (headscarf) attract vehement distrust. In 2004 France banned it from state schools – but also banned the Jewish 'yarmulka' and large Christian crosses (Marquand 2011, pp. 85-91). Religious symbols had become such mediators of generalised distrust that it was thought prudent to prohibit all of them, including Christian ones, in public places.

It should be stressed that all the populist parties, even those which are right-wing on ethnic policy, tend to be left-wing on economic policy. They all envisage weakening the influence of international financial markets, restoring state welfare expenditure to disadvantaged members of the indigenous nation (while excluding immigrants from its benefits), and boosting state investment in infrastructure and jobs for their benefit. The parties' principal aim is the restoration of the nation's economic and ethnic integrity against the global economy in all its manifestations. When a serious crisis erupts, then, many citizens rediscover their primary trust in the nation-state.

I should emphasise that I am not trying to justify this exclusive reliance on the nation-state. On the contrary, I think it would be better to place more trust in international institutions, to work together to settle or at least mitigate conflicts between nations. In that respect the EU has been a remarkably successful institution: it has made most of Europe immeasurably more prosperous and peaceful in its nearly sixty years of life. But now, partly as a result of this success, it is operating in a different world. The global economy has brought outsiders far closer to our everyday life. International corporations and financial institutions have been operating in an arrogant, reckless and deeply untrustworthy manner, mainly because nation-states and international organisations have not worked together to restrain them.

Conclusion

I believe that in dealing with social problems, we need to put the concept of 'trust in the trustworthy' at the centre of our thinking, and to be aware that the ways we trust have changed enormously, especially over the last half-century or so.

Human beings are naturally trusting. Indeed we tend to trust beyond the point at which evidence and rational considerations would incline us to distrust. But when distrust sets in, it does so abruptly and cumulatively, and then it can become very destructive. When social trust breaks down, it tends to reconfigure in a lower-level collective, which then erects rigid boundaries around itself. Thus when trust in the state is weakened, it tends to refocus on a political party, a religious movement, an ethnic group, a regional or tribal leader, a military strong man, or on an economically powerful figure; such groups and their leaders will usually draw tighter boundaries around the community and project distrust across them. Then the impetus towards murderous conflict can become irresistible; we see this happening in Ukraine and in the Middle East today.

We grow up trusting and distrusting in ways we learn from those around us. In seeking to strengthen trust, then, we are working with the grain of human nature. But we have to find ways to do this which will work in our society – a society which has committed so much of its trust to financial, professional, scientific and governmental institutions. Far from drawing more rigid boundaries, we should attempt in a conflict situation to broaden the radius of trust by seeking higher-level positive-sum games, reaching across boundaries to solve common problems and discover common interests, hoping in the process to create the first links of mutual trust, which can then be strengthened.

Britain's decision to leave the EU exemplifies dramatically all the tendencies I have pointed to above. It was taken as a protest against the established government and opposition parties, in response to an agenda which included restricting immigration, curbing the influence of globalisation and restoring the sovereignty of the United Kingdom. The symbolic motifs of the nation-state have dominated the polemics leading up to the vote, often in defiance of logic and truth. No British citizen can feel proud of the outcome.

But neither can the European Union. Brexit is a challenge to terrible mistakes which the EU has made and to pernicious tendencies which have grown up inside it: its rigid and cumbersome bureaucratic procedures, its espousal of narrow-minded economic policies which have generated massive unemployment especially among young people, its failure to investigate and collectively pursue the tax-dodgers who deprive member states of billions of euros. Many French, Dutch, Italian and even German citizens sympathise with the Brexiteers and might copy them if there are analogous referenda in their own countries.

I believe the European Union should now demonstrate that it is tackling the economic problems which blight so many people's lives:

1. At the head of the agenda should be common action against the tax havens (not least in Britain and its dependencies) where irresponsible wealthy firms hide most of their profits. Such action will show serious intent to improve the lives of the poor and disadvantaged, and it is much better done by 27 nations acting together rather than by individual nation-states.

2. The EU should announce a major programme of investment in green industry, green technology

and the accompanying retraining of workers. With interest rates at a uniquely low level, it is irresponsible not to engage in this mitigation of the effects of climate change. Austerity and annual budget-balancing should be moderated until this investment brings about serious economic growth in the Eurozone.

3. Simplify bureaucratic procedures as much as possible, especially for small and medium businesses. Not every entrepreneur is conversant with the language and the formalities of accountants, lawyers and EU officials.

4. Identify refugees in real need at an early stage of their hazardous journeys; provide help for them and economic aid for those local authorities which have problems in offering them housing, education and health care. We know that in the long run immigration brings economic benefits to the host nations, but in the short run it creates serious problems, often at the expense of the poor and disadvantaged in the receiving countries.

5. Finally, the Union needs to become more open to democratic procedures. As a start, it would be good if the President of the European Commission were in future to be elected, not through backroom deals, but by all citizens of the EU. This would encourage ordinary people and the media inside the various countries to debate EU policies seriously and with some sense that they can influence them.

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CHAPTER 1

Trust and the future of EU policies and institutions

Heiko Prange-Gstöhl[1]

1. Setting the scene: foresight on trust in the European Union

Foresight is often misunderstood as a way to predict the future. However, foresight is not fundamentally about the future. Foresight is about dealing with change in the present and should enable decision-makers to be aware and ready to react to change in society or technology.[2]

The purpose of this report[3] is to address the implications of eroding (or even collapsing) trust in different issue areas such as political systems, justice, science, economic regulation, cyberspace, surveillance as well as ethnic, racial, and religious diversity. To develop alternative futures, authors apply a foresight approach by scanning the horizon for 'weak signals'[4] that trust may be at risk in the above defined areas, evaluate the weak signals in terms of reliability and potential impacts on society, and draw implications for the European Union's (EU) research and innovation policy in general and the EU's research and innovation funding programme Horizon 2020 in particular through the use of trend impact analysis. Trend impact analysis extrapolates past and present knowledge and data into the future, while taking potential disruptions of trends into account. This report serves to underpin the development of future research and innovation priorities by using foresight knowledge.

Many authors certify 'a crisis of trust' in today's societies (e.g., OECDa 2013; Vigoda-Gadot/Mizrahi 2014). Especially since the outbreak of the financial and economic crisis in Europe, the notion of citizens losing trust in markets, politics, politicians and institutions is widely used. A huge lack of personal, political and general trust is broadly admitted and the erosion of trust seems to be continuing (Grabbe/Lehne 2015). By way of example: while in spring 2007 still 53% of European citizens trusted the European Union, this share fell to 31% in autumn 2013. Similarly, trust in national governments fell from 41% to 23%, trust in national parliaments from 43% to 25% (RAND Europe 2014, p. 86). Besides the economic downturn, for which citizens often hold an unethical behaviour of market actors responsible, there are several more reasons for trust eroding, for example the increase of cyber-fraud, numerous global political crises, the collection of huge data volumes and their misuse, frequent attacks on privacy, counterfeiting scientific evidence, and increasing inequalities in societies.

While Europeans nowadays do not seem to be too much risk averse about science and technological innovation[5], several technological developments promise a number of uncertainties for mankind not only in political, economic and legal terms, but also in terms of human dignity,

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[1] Views expressed in this article are purely personal and do not necessarily reflect the position of the European Commission.

[2] Miles (2010) provides an analysis of the evolution of the term 'foresight'.

[3] This report is the result of the work of the expert group 'Risks of Eroding Trust - Foresight on the Medium-Term Implications for European Research and Innovation Policies', which has been set up by the European Commission's Directorate-General for Research and Innovation. The group ran from September 2014 to May 2015. The results presented in this report have been debated and developed at three workshops held in Brussels in September and December 2014 and in March 2015.

[4] On 'weak signals' see Hiltunen in this report.

[5] See http://ec.europa.eu/public_opinion/archives/ebs/ebs_419_en.pdf (accessed 30 April 2015).

human rights, personal freedom, or data protection, i.e. fundamental European values. Technological developments that touch upon such values and create reactions of concern and mistrust vis-à-vis innovation include, for example, the Internet of Things, robotics, human enhancement and augmented reality, additive manufacturing (cf. 3D-printing), advanced autonomous systems, unmanned and remote piloted aircraft systems (cf. drones), and brain-inspired technologies. These technologies herald a 'Trans-humanistic Era' or an age of the 'Hyper-connected Human' (European Commission 2014a, p. 7), in which the distinction between reality and virtuality and the distinction between human, machine and nature are getting blurred (European Commission 2014a, p. 8).

The essential role of trust for democratic European societies, for the renewal of the European economy, and the belief in European integration has been recognised by the new European Commission which took office on 1 November 2014. In his political guidelines, President Jean-Claude Juncker points out that 'in many countries, trust in the European project is at a historic low' (Juncker 2014, p. 2). He claims that mistakes have been made when tackling the financial and economic crisis:

> 'There was a lack of social fairness. Democratic legitimacy suffered as many new instruments had to be created outside the legal framework of the European Union. And, after spending several years concentrating on crisis management, Europe is finding it is often ill-prepared for the global challenges ahead, be it with regard to the digital age, the race for innovation and skills, the scarcity of natural resources, the safety of our food, the cost of energy, the impact of climate change, the ageing of our population or the pain and poverty at Europe's external borders.' (Juncker 2014, p. 2)

The aim of 're-gaining citizens' trust in the European project' by – inter alia – underlining that the EU is not only a big common market but also a Union of shared values is a key part in Juncker's narrative on 'A New Start for Europe', thereby strengthening the notion of trust that has already been taken up in the EU's Europe 2020 strategy (European Commission 2010a, p. 19). The notion of trust features also in the main initiatives the Juncker-Commission has launched. The Digital Single Market strategy[6] pays great attention to foster trust on the internet to support safe business and address security and privacy concerns of consumers.[7] The Commission acknowledges that current barriers and gaps, such as regulatory fragmentation, complexity and compliance costs, territorial restrictions, lack of interoperability, the absence of a competitive level-playing field, are all affecting trust negatively. In relation to online businesses, for example, a trust gap seems to exist as consumers may have concerns about the standing of the vendor, the way their data will be processed or the conditions that will apply to a given transaction. Cloud computing can raise trust concerns for consumers, especially when it comes to liability and lack of transparency. The trust-security-privacy nexus will certainly continue to feature high on the political agenda in the future. In a similar vein trust and solidarity are referred to as guiding principles of the plan to establish an Energy Union (European Commission 2015a).[8]

The intention of this book is to better understand the disrupting effects a potential collapse of trust could have for European politics and societies in the future. It is argued that in such a 'dark scenario' disrupting effects could create serious risks, but also extraordinary opportunities, and are therefore important factors that EU research and innovation policies and funding must consider as potential 'game-changers'. To elaborate on this argument and to identify potential risks, threats,

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[6] http://ec.europa.eu/digital-agenda/en (accessed 30 April 2015). See also speech by Vice-President Ansip "A safe and secure connected digital space for Europe", Brussels, 20 January 2015.

[7] Notably, already the Europe 2020 strategy paid attention to high levels of trust for consumers and companies in the digital era (European Commission 2010a, p. 19).

[8] See also Agence Europe, Energy: Debate on energy union project now full on, 3 February 2015.

challenges, and opportunities that need to be addressed in the future, chapters in this report address the following questions:

- What signals can be identified for trust being at risk?
- What are potential drivers for eroding trust?
- What is the impact of trust being at risk in each issue area?
- What alternative scenarios could one imagine in case of eroding trust?
- How could a strategic political response in each issue area look like?
- How should European R&I policy react?

In the next sections I will first introduce the concept of 'game changers' as triggers for change. Secondly, I will elaborate on the use of foresight in EU policy-making. Finally, I will provide a short overview of the chapters of this report putting them into the context of the state-of-the-art of studying the future of R&I policy.

2. Eroding trust: a 'game-changer' for future policies in Europe?

So-called 'game-changers' or 'disrupters' could reverse, interrupt or disrupt identified trends and outcomes. As argued above these 'game-changers' might create serious risks, but also extraordinary opportunities for European economies and politics in general, and for European research and innovation policies in particular. In this book the collapse of trust is considered as one of these potential 'game-changers' (see Rousselet 2014). In the following I will describe a few avenues of how trust in society, in politics and between individuals can be affected. The chapters in this report will address some of these avenues in more detail and with a forward-looking approach afterwards.

Trust can be defined as the belief that people (or other actors) will behave predictably and reliably.[9] In other words, 'to trust, in essence, is to take risk based on positive expectations of others' (Fulmer/Gelfand 2013, p. 100). Institutions are built on trust (but not only) and are one (not necessarily the only) means to develop trust. Institutional trust might even have an impact on well-being (Hudson 2006). Trust is said to sustain a cooperative social climate, to facilitate collective behaviour, to foster norm and regulatory compliance, and to encourage a regard for the public interest (OECDa 2013). Trust between citizens makes it easier, less risky and more rewarding to participate in community and civic affairs. Trust is correlated with fairness and responsiveness to societal concerns. The economic benefits of interpersonal trust are widely recognised. When people trust each other transaction costs in economic activities are reduced, large organisations function better, governments are more efficient, financial development is faster (e.g., Alessina/La Ferrara 2000; Dietz 2011; Fukuyama 1996; Putnam 1993). Trust fosters university to firm and firm to firm technology transactions (Jensen et al. 2015). Transaction costs occur when trust is substituted by a (legal) system in which cooperating actors have to negotiate, agree to, litigate and enforce every detail. Fukuyama (1996) calls this a kind of 'taxation' on economic activities resulting from a widespread distrust in society. However, trust is context-sensitive and 'fragile' – it takes a big effort to build it and just a slight neglect to lose it – and several developments can be identified that have the potential to let trust erode, and in the extreme case collapse, with wide-ranging threats and risks for societies (e.g., Vigoda-Gadot/Mizrahi 2014).

In fact, a loss of trust in politics can be fuelled by many factors. In periods of economic crisis citizens' can have the perception that the government is incapable of dealing with the fiscal and financial challenges (Mansbridge 1997; Newton/Norris 2000). Economic policies favouring corporate benefits over job creation and fighting (youth) unemployment, as well as responses to the financial crisis that do not address systemic weaknesses and responsibilities, but dismantling

[9] Although Li (2012) points out that no widely accepted definition of trust exists, the proposed definition serves for the purpose of this report. For some definitions of 'trust' see e.g. Blind (2006), Child (1998), Deutsch (1962), Fukuyama (1996), Hosking (2014). A comprehensive summary about the debate on trust in governments is provided by Maher (2009, pp. 285-291). See also Hermerén in this report.

welfare systems instead, further weaken citizen-government trust relations. Corruption and political scandals are also critical for trust in politics. Blind (2006, p. 12) points out that 'citizens everywhere are watchful of the lack of honesty and unethical behavior in their respective governments.'

Generally, individual and social characteristics, such as, for example, culture/tradition, race/ethnicity, religion, gender, education, language, and past experience, are likely to influence the level of trust amongst people. The wide-scale use of the Internet, however, has led to a significant increase in economic and social interactions beyond the reach of institutions, be they formal (e.g., rules and regulations) or informal (e.g., habits, cultural norms), into spaces where individual and social characteristics cannot (easily) be identified. Moreover, ambient intelligence has the potential to make many personal exchanges obsolete though automation, computer-mediated communication and device-device communication. Conducting more interactions virtually rather than with humans tends to reduce the opportunities for trust building. This raises serious questions about the trustworthiness of the components of the cyberspace system and how to build trust and stay trustworthy in the virtual world (i.e., trusting digital identities), in particular in times of rising cyber-fraud and attacks on privacy (e.g., Alahuhta et al. 2006, p. 142; Mansell/Collins 2005).[10] The concept of trust is important for understanding the future development of the cyberspace system, especially if the cyberspace is increasingly perceived as a risk laden environment.

Inequalities are another important source of declining trust in society. As inequalities contribute to social instability, they undermine trust and solidarity, the perception of unfairness gains terrain and makes society dysfunctional (Jordahl 2007; Pickett/Wilkinson 2009; Stiglitz 2012). This is particularly the case where the gap between rich and poor is large and continuing to widen. Economic inequality reduces trust (Jordahl 2007, p. 3). Moreover, perceived 'unethical behaviour', both at individual and organisational level, can lead to increased distrust, in particular if such behaviour is deemed responsible for triggering crises situations. A general crisis of confidence in political systems and social institutions could develop into social unrest, undermining the basis of human interactions and its democratic underpinnings, and generating a high degree of uncertainty impacting on commerce and the financial system.

Moreover, several empirical studies have documented a negative relation between ethnic diversity and generalized trust (e.g., Bjørnskov 2007; Putnam 2007).[11] However, as Hooghe et al. (2009) point out, much of this research is undertaken in the North American context. In a comparative analysis of Western European states they come to the conclusion that 'diversity does not exert the consistent and strong negative effects often attributed to it' and that 'the fullblown negative relationship between ethnic diversity and generalized trust does not hold across Europe' (Hooghe et al. 2009, p. 218). In fact, the negative effects of racial and ethnic diversity on trust can be mediated by intense social ties (Stolle et al. 2008).

Through the years science has led to more knowledge but also to more areas of uncertainties and there have been several cases of risks where scientific knowledge has proven inadequate or even wrong. While citizens, nevertheless, still have high regards of science and there is still a high level of trust in scientists (Yarborough 2014), the increasing fear and uncertainty about food security, the regular outbreak of pandemics, the continuous re-assessment of environmental hazards, the failure to come up with new antibiotic drugs capable of addressing new resistant bacteria, the lack of predictability of natural and man-made disasters, the failure to solve the economic and social crisis, climate change, etc. contributes to a decline of trust in the problem-solving capacity of science. Moreover, the disclosure of scientific misbehaviour can result in a decrease of trust in scientists. As Necker (2014, p. 1747) points out 'trust in scientific research is also grounded on the assumption that it is unbiased by the researchers' presumptions or strategic behavior'. Researchers are today also faced with the situation that they do not have multiple chances anymore to 'get it

[10] See Flyverbom and Wright in this report.

[11] For the link between immigration and political trust see, for example, McLaren (2012).

right' as 'modern scientific research is faster-moving and more connected, and the financial and reputational stakes are now much higher' (Yarborough 2014, p. 313).[12]

Most new and emerging technologies require deep trust not only in scientists, but also in the authorities to use technologies in accordance with widely shared ethical norms, and not to misuse information, new laws and codes of conduct and/or bans against storing sensitive types of information over any given length of time. A particular concern for citizens is that personal information is at risk of becoming less and less private, limiting the willingness to engage with others and to trust governments, institutions and private sector actors.

What seems to be consensus today amongst scholars is that the authority of science is no longer self-evident, the use of science becomes more and more controversial. Certainly better education (see already Barber 1987, p. 133) and the Internet have contributed to this development. Whether open science will further trigger these tendencies or whether it can foster the increase of trust in science by, for example, bringing more transparency into science and its uncertainties has to be seen.

A serious development since the mid-1960s is the decreasing public trust in government and political institutions in all of the advanced industrialised democracies (Blind 2006; Hetherington 2006; OECDb 2013). Blind (2006, p. 15) has observed that this decline in trust happens across countries with diverse institutional structures, histories and cultures. Trust in the national governments, national parliaments and the EU fell significantly between 2007 and 2011 in 20 of the 27 Member States, with the largest drops in average trust levels found in Cyprus, Greece, Romania, Slovakia and Spain (Eurofound 2013, p. 6f), i.e. countries that have been most strongly hit by the crisis (also Armingeon/Ceka 2014). Distrust in the EU is also particularly widespread among Europeans living in precarious financial situations (Eurofound 2013, p. 8). Today half of the young people tend to distrust the European Union and national institutions and this percentage has constantly increased in the aftermath of the crisis (Eurobarometer, Standard EB 77, spring 2012).

Notably, trust or distrust in the European Union correlates strongly with trust or distrust of citizens in their national governments and institutions which Europeans are more familiar with than with the remote EU system (Armingeon/Ceka 2014, p. 83). This means that 'citizens use attitudes toward national politics as a proxy for attitudes toward the EU' and do not 'form their opinion of the EU on the basis of information and knowledge about the EU' (Armingeon/Ceka 2014, p.104). Harteveld et al. (2013) call this the 'logic of extrapolation', which sees trust in the EU being unrelated to the Union itself, but dependent on personal social or national factors. The authors derive two important conclusions from the fact that trust in the EU can hardly be controlled by the EU itself: first, trying to 'increase trust through improved performance, greater accountability or a stimulation of European identity are destined to work partially at best'; and secondly, 'if trust in the EU is to a large extent unspecific to the EU, a decrease in trust does not necessarily indicate a direct threat to the European project' (Harteveld et al. 2013, p. 562).

While this section has sought to highlight some avenues of how trust in society, in politics and between individuals can be affected, in the following I will turn to the role that foresight plays in European research and innovation policies.

3. The use of foresight in support of EU policy-making

Foresight[13] as an instrument to underpin policy-making has a long tradition in European R&I.[14] Burgelman et al. (2014, p. 4) note that 'the Commission has used foresight as an internal advisory

[12] One prominent example where scientists did 'not get it right' were the scandals of the Intergovernmental Panel on Climate Change (IPCC) in 2009 ('Climategate') and 2010 ('Himalayagate'). The 2010 scandal started with the discovery of an error in the IPCC's 4th assessment report, which stated that the glaciers in the Himalayas would melt away completely by 2035 – the year that was correct was 2350 (see Blankesteijn et al. 2014, p. 23).

capacity by establishing dedicated intelligence units in the institution as the strongest form of foresight application in support of policy decision making'. Additionally, subsequent Framework Programmes have funded research projects and dedicated foresight studies to help priority-setting for research and innovation policy and funding.

Foresight at European level mainly started at the end of the 1970s when the then European Commissions Directorate-General for Research launched the so-called FAST-Programme ('Forecasting and assessment in science and technology') in 1979. In 1989, the Commission set-up a Forward Studies Unit, a small 'think tank' of EU officials that reported directly to Commission President Jacques Delors. This unit produced a series of forward-looking studies on all kinds of EU policies. The tradition of having a Foresight Unit directly reporting to the President was later on taken-up again when foresight activities were part of the Bureau of European Policy Advisors (BEPA) that was abolished with the Juncker-Commission. In the mid-1990s the EU established the Institute for Prospective Technological Studies as an institute of the Commission's Joint Research Center in Seville which included the Foresight for the European Research Area team. In the course of the 4th Framework Programme the EU has supported the European Technology Assessment Network (ETAN) to promote a shared understanding of the challenges for science and in order to facilitate the development of more consistent, concerted and complementary European and national S&T policies. Under the 5th Framework Programme the Strategic Analysis of Specific Political Issues (STRATA) action supported foresight activities and analysis for strategic policy-making at European level. To build a global network to share knowledge about foresight, forecasting and other future studies the European Commission supported the European Foresight Monitoring Network (EFMN) and its successor the European Foresight Platform (EFP) between 2004 and 2012.[15] A dedicated Foresight programme was reintroduced with the 7th Framework Programme. Under the Socio-economic Sciences and the Humanities specific programme, foresight was a single activity line. More than 30 projects have been funded between 2007 and 2013 focussing on the future of globalisation in Europe and the neighbouring countries; visions and trends concerning the European Research Area, science, technology and innovation; modelling, new accounting frameworks and forward-looking policies; and transitions towards a responsible socio-ecological Europe (European Commission 2014b). On the European Parliament side, the Science and Technology Options Assessment (STOA), a panel of MEPs responsible for carrying out external expert assessments of the impact of technologies for the use of Parliamentary committees, has been created in 1987.

In 2010, foresight has been made a priority for EU R&I policy-making when the Innovation Union (European Commission 2010b) document recommended to create a European Forum on Forward-Looking Activities (EFFLA) with the aim to offer advice to the European Commission on how to use foresight results for the early identification of emerging societal challenges and to provide evidence on how global trends could affect European R&I systems (see Burgelman et al. 2014, p. 6). EFFLA, which ran between 2010 and 2014, helped to further institutionalise foresight in the formulation of EU R&I polices. Harper (2013, p. 220) writes that 'the setting up of the European Forum on Forward-Looking Activities […] and the confirmation of a strong role for foresight in the new European programme, Horizon 2020, to address the grand societal challenges, highlight a level of ongoing commitment to foresight approaches at European level'.

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[13] Fuerth (2012, p. 9) provides an exemplary definition of foresight: 'Foresight is the disciplined analysis of alternative futures. It is not prediction, it is not vision, and it is not intelligence; it is a distinct process of monitoring prospective oncoming events, analyzing potential implications, simulating alternative courses of action, asking unasked questions, and issuing timely warning to avert a risk or seize an opportunity'. The output of foresight work very often involves the creation of scenarios for the future which can be analysed for their likelihood and potential impact. Foresight also commonly uses practices such as 'trend impact analysis', 'horizon scanning', or the Delphi method (see, e.g., Dreyer/Stang 2013).

[14] A comprehensive analysis of government foresight in several countries has been provided by Dreyer/Stang (2013) and May (2009).

[15] See http://www.foresight-platform.eu (accessed 27 April 2015).

The use of the results of foresight exercises, i.e., the use of foresight knowledge, in policy-making processes is normally not obvious. Although foresight knowledge allows us to 'explore possible futures and develop a vision on such futures, to identify impacts on society and implications for policy and particular stakeholders and or sectors of society, to guide and support the policy process, [and] to timely mitigate negative impacts or adapt to new situations and exploit positive outcomes' (Von Schomberg et al. 2005, p. 5f) the full implementation of foresight in a long-term policy-making context is rather an occasional phenomenon since the use of foresight knowledge within the science/policy interface needs specific process requirements to have impact on the policy discourse (Von Schomberg et al. 2005). Compered to 'normal' science, foresight is bound by uncertainty and ignorance, value laden, non-verifiable in nature and requires different types of knowledge and multi-disciplinarily as the background of the exercises. These foresight characteristics make foresight knowledge a difficult to accept input into the daily policy-making process which normally seeks directly applicable practical solutions.

Nevertheless, with the current EU research and innovation funding programme Horizon 2020 foresight has become a kind of legal base as a horizontal requirement for strategic programming of research activities. This role of foresight is defined in the Specific Programme of Horizon 2020:

> 'Detailed priority setting during the implementation of Horizon 2020 will entail a strategic approach to programming of research, using modes of governance aligning closely with policy development yet cutting across the boundaries of traditional sectorial policies. This will be based on sound evidence, analysis and foresight, with progress measured against a robust set of performance indicators.'[16]

With this mandate foresight activities are supposed to be an integral part to the European Commission's priority-setting process in research and innovation. As a result, since the beginning of 2014, the Research and Innovation Department of the European Commission (DG RTD) introduced a number of measures to improve the 'foresight culture' of the administration and to produce and use foresight knowledge in a more structured and coordinated way. Amongst those activities is the continuous monitoring of foresight activities in the EU Member States as well as scanning the horizon for early signals of important changes in society, science and technology. Moreover, DG RTD fosters an approach of turning foresight intelligence findings into policy lessons and recommendations, for example through trend impact analysis and the development of scenarios. In terms of policy-driven foresight activities strategic intelligence and sense-making activities are frequently carried out for underpinning strategic programming cycles within Horizon 2020 and to support the drafting of future Framework Programmes. However, as Horizon 2020 funds many foresight research projects and other actions ensuring that foresight is efficiently contributing to a strategic approach to EU R&I policy, an internal foresight network, steered by DG RTD, has been crated to guarantee a well-coordinated use of foresight across the relevant services of the European Commission.

In the future foresight will be an integral part of the European Commission's Better Regulation Strategy (European Commission 2015b). With this strategy the Commission aims at more transparency and a better evidence-base for EU law-making. Foresight should be used as an important tool to contribute to the resilience of new policy initiative and is also explicitly requested as part of the data-collection and data-analysis when preparing an impact assessment for a new policy proposal.

[16] COUNCIL DECISION of 3 December 2013 establishing the specific programme implementing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) and repealing Decisions 2006/971/EC, 2006/972/EC, 2006/973/EC, 2006/974/EC and 2006/975/EC, OJ L 347, 20.12.2013.

4. Foresight on trust: conceptual challenges

Based on the claim of many authors and commentators that Europe currently faces a serious 'crisis of trust', contributors to this report have addressed the potential impact and implications of eroding public trust in different issue areas such as political systems, justice, science, economic regulation, cyberspace, surveillance as well as ethnic, racial, and religious diversity. Methodologically, authors were asked to apply a foresight approach looking for so-called 'weak signals' that trust may be at risk in the above defined areas, to evaluate the 'weak signals' in terms of reliability and potential impacts on society, and to use trend impact analysis to provide some future outlook. Authors faced mainly three conceptual challenges:

- How to position 'trust' vis-à-vis 'distrust'?
- The definition, identification and reliability of 'weak signals' and their differentiation vis-à-vis 'strong signals'.
- The causal links between 'weak signals' and the erosion of trust.

4.1. Trust and distrust: two sides of the same coin

One general definition of trust is the belief that people (or other actors) will behave predictably and reliably. Such a definition is closely related to people taking risk based on positive expectations of others, which in turn are based on past performances. Politicians taking decisions following the advice of scientists is grounded on the trust politicians have in the scientific evidence and research results provided by scientists – as politicians are (in most cases) not experts. The scientist must be recognised as reliable and trustworthy. If different scientists provide alternative advice on the same issue, trust in one or the other might trigger a political decision in one direction or the other. In citizen-politician-relationships, trust is often expressed as the extent to which the citizen has confidence that politicians or the government will act in the public interest as opposed to narrow corporate greed or political interests.

In addition, two more points have to be mentioned here which are important for our understanding of 'trust'. First, the link between trust and uncertainty (see particularly Hofmann in this report). As, on the one hand, trust is not needed in situations of complete information and, on the other hand, trusting is impossible where there is an absence or asymmetry of information, trust is a mechanism that allows people to act in situations of uncertainty or incomplete information by relying on past experiences and projecting them into the future (as a hypothesis of future conduct), as Hofmann argues. This argument is particularly relevant for research and innovation (R&I) policy as this is a realm of permanent uncertainty and risk. The same holds generally also for the second point, i.e., the link between trust and efficiency. As Pitlik highlights in his contribution, trust is expected to improve economic efficiency because private contracts and cooperative behaviour are facilitated through lower costs of information, negotiation, control and enforcement. Following this economic argument, the efficiency of research investments should be higher, the higher the trust relationship between funder and the receiver of the money is as costs for information, negotiation, control and enforcement decrease. However, lower levels of trust will increase the likelihood for demanding the regulation of activities to compensate for a lack of information, misconduct or fraud, increasing the costs for control and enforcement in turn. In low-trust societies the expected harm of scientific activities is potentially high and citizens demand more comprehensive regulation (see also section 4.3.).

A strong argument of this report is that trust can hardly be separated from distrust. Trust and distrust are not opposites. While usually distrust is considered a negative phenomenon that increases uncertainty, lowers cooperation and thus increases transaction costs, authors in this report challenge the view that distrust is always 'a bad thing' (and trust is always 'a good thing'), but has its merits (see, e.g., Hofmann, Morales, Van de Walle in this report). Citing Lewicky et al. (1998, p. 450), Hofmann even states that 'social structures appear most stable where there is a healthy dose of both trust and distrust'. Morales adds that a certain degree of scepticism is healthy for democratic politics. Van de Walle reminds us that 'while trust is often seen as a virtue and an essential fuel for social life and indeed public administration, it should not be forgotten that distrust also has an essential role to play in the functioning of public administration'. According to him, low

trust in government can be considered as a healthy attitude, and routine trust as naïve. Low trust might even be an indicator of a healthy citizenry (Hardin 2002). Moreover, Van de Walle points out that 'an elaborated set of checks and balances exists within government to avoid government and public administration to be captured by elites, special interests or majorities'. He claims that traditional public administrations are based on 'institutionalised distrust'.

However, despite certain merits of distrust, high levels of political distrust can be problematic for public life because they are likely to lead to accepting and justifying illegal behaviour (Mariën/Hooghe 2011). A certain level of confidence is necessary to ensure acceptance of, and compliance with, policies and laws. Hence, Morales in her contribution concludes, 'while there might be healthy levels of political distrust, if very large majorities of the population are deeply mistrusting of both political institutions and their representatives, these are signs of system dysfunctionality'.

Considering these ambiguities of trust and distrust, Hofmann puts to question how trust and distrust actually interact and how distrust is able to unfold its positive effects. To answer these, questions she argues with Sztompka's 'paradox of democracy' (1998). According to Sztompka, democracy creates 'generalized trust' by transforming distrust into a set of rules, procedures and institutions that aim to lower the risk of the abuse of political power. Through this trust-generating force, democracy 'institutionalises' distrust.

This report acknowledges that there are several concepts of trust with unclear demarcation lines, which requires putting changes in trust always in a historical context and adapt the notion of trust to the different areas of application. Definitions of trust, hence, vary from chapter to chapter depending on the different contexts the authors address. While authors have – as a bottom-line – made explicit whether they focused on trust in systems or organisations or in persons working in these organisations, it remains a challenge to make a clear cut between (changing) trust in an organisation as such and (changing) trust in the organisation's individuals. Last but not least, authors of this report take great care of the role of distrust in our societies and for policy-making, acknowledging that distrust can be a healthy attitude for positive reform and change.

4.2. Identifying and interpreting signals of change

In this report authors were tasked to develop alternative futures in different issue areas based on the identification of 'weak signals' that trust may be at risk in those areas. Additionally, they were asked to evaluate the 'weak signals' in terms of their reliability and potential impacts on society. In general terms, 'weak signals' are the first signals of emerging change. They are the most current information about possible futures that one has. At the other end, 'strong signals' record a clear indication of a coming change near in time and place. As Hiltunen points out in her contribution, 'weak signals' are odd pieces of information that seem somehow meaningless or irrelevant. They can, nevertheless, indicate important future events. However, this approach raises both conceptual and methodological challenges:

- How do we know a signal when we see it?
- Is it 'strong' or 'weak' what we see?
- How should we interpret the signals?

Authors have addressed these questions in a practical manner. Either they have looked at numerous sources to detect changes in a certain issue area might warrant collecting as many signals as possible or they have combined some signals with trends identifying indications of change thereby relaxing the strict differentiation between strong and weak signals. This has been an important result of the recognition that a 'weak signal' to some may not be a 'weak signal' to others and that a 'weak signal' indicating a particular change in one cultural and political context may be taken to indicate something else in a different context. The strength of a signal certainly depends on the context. A genuine uncertainty about how to interpret observed changes in practices certainly remains.

5. About this report

A number of studies and research projects have dealt with the future of R&I policy in Europe as well as with alternative strategies to deal with Europe's future challenges (e.g. JRC 2010; European Commission 2016). The project 'Research and Innovation Futures 2030: From Explorative to Transformative Scenarios' (RIF2030) focused on analysing new ways of doing and organising research to help prepare for the challenges and opportunities that may arise on tomorrow's research and innovation agendas.[17] The INFU-project developed five scenarios on the development of the European innovation landscape in which it approached the question of how major socio-economic factors, such as demographic changes, environmental threats, and urbanisation, affect the development of innovation systems in Europe.[18]

In a similar vein, the project VERA ('Forward visions on the European Research Area') aimed to provide strategic intelligence for the future governance and priority-setting of the research and innovation system in Europe taking into account the shifting global environment and upcoming socio-economic challenges.[19] The need to use foresight to align research with longer term policy challenges in Europe has been addressed by the FARHORIZON-project[20] and an initiative called FUTURIUM explored the potential interactions between different areas of technology, human life and global resources (European Commission 2014c).

However, reflections on the possible impact of eroding or collapsing trust for European R&I polices are missing. This report seeks to close this knowledge gap. Following this introductory chapter, *Hermerén* addresses trust and mistrust of science. He discusses definitions of 'trust' and 'science' and identifies some conceptual, and methodological difficulties related to these terms. Some of the controversies over reasons for decreasing trust in science and its institutions are described and some scenarios of possible futures are outlined. The chapter provides some policy recommendations on how Horizon 2020 could react to meet the challenges related to eroding trust in science. However, *Hermerén* argues, that the interpretation of what a challenge is depends significantly on beliefs and values since different groups in society may have different perceptions.

Wright in his chapter considers how privacy and trust are at risk in surveillance societies. He provides some manifestations of how trust has been damaged and provides some sources for scanning the horizon for (weak) signals in the field of surveillance. He considers some scenarios or measures that could be taken to rebuild trust and provides strategic political responses in surveillance societies. The chapter concludes with several recommendations for European research and innovation policy in the context of Horizon 2020.

In the following chapter *Flyverbom* explores how developments in the digital domain have ramifications for trust. In this context, digital technologies refer not only to the internet, mobile technologies and other information and communication technologies, but also to the emergence of vast amounts of digital data requiring new modes of analysis and allowing for new forms of prediction and profiling. In the context of the digital domain, trust issues revolve primarily around the degree to which users, consumers and others consider online spaces to be safe and reliable platforms for communication, social interactions and economic transactions. But questions of trust, *Flyverbom* argues, also include more general concerns about surveillance, privacy and data aggregation and management, as well as more specialized issues such as algorithmic forms of knowledge production and governance. *Fyverbom* analyses three emergent developments in the

[17] http://www.rif2030.eu.

[18] http://innovation-futures.org.

[19] http://eravisions.eu.

[20] https://farhorizon.portals.mbs.ac.uk.

digital domain that affect trust negatively: government surveillance, leaks and data breaches, and big data profiling.

In her chapter, *Hofmann* argues as a starting point that both trust and distrust form essential elements of stable social structures. By linking trust and distrust to the political order she goes on stipulating that trust in democracies is based on the institutionalization of distrust in national constitutions, which are meant to prevent the abuse of power. Seen from a trust perspective, the striking feature of Internet governance is its lack of a constitution able to transform distrust into generalized trust. Internet governance is characterized by a broadly shared distrust against intergovernmental processes, *Hofmann* points out, and is mostly concerned with developing trustworthy institutional alternatives to the UN system, i.e. by setting up a transnational multi-stakeholder community. *Hofmann* concludes by arguing that this multi-stakeholder approach often does not live up to its principles and jeopardizes the fragile trust-distrust balance in Internet governance.

On a different notion *Pitlik* deals in his chapter with trust and the regulation of economic activities. He recalls that declining trust in private companies will increase the desired scope and intensity of regulation, whereas lack of public confidence in policymaking and policy-enforcing institutions is associated with hostility towards mandatory intervention and a stronger appeal of self-regulation. While some polls find trust in big companies and in banks waning available data on general trust in companies is incomplete, without a clear-cut trend. On this basis the chapter explores the controversy about financial regulation and the Transatlantic Trade Investment Partnership (TTIP) Agreement between the EU and the USA in the aftermath of the economic crisis. *Pitlik* finds that indeed confidence of Europeans in 'big business' is substantially eroding, while voters simultaneously tend to mistrust policymakers to produce and enforce better regulation. To better understand these developments he argues for more research on the interplay of regulatory politics, NGOs and media for a downward or upward spiral of trust building.

To study the change of trust in public administration *Van de Walle* focusses on three indicators: first, changes in people's attitudes which can be extracted from surveys and the analysis of political discourses; second, changes in the actual behaviours of citizens, public servants and public organisations which can be seen in various expressions of 'voice' and 'choice or exit'; and third, institutional signals which include the contractualisation and juridification of interactions (and the reversal thereof), increases and decreases in monitoring and compliance tools, and the homogenisation or heterogenisation of policy making and service delivery within the public sector. Subsequently, *Van de Walle* discusses the presence of low trust as a vital feature of the public sector, visible in a deliberate fragmentation and distribution of functions within public administration, and mutual checks and balances to keep both the government and citizens accountable. Finally, the chapter identifies trends towards trust-based management and collaboration to reduce costs of transaction, monitoring, and remediation.

Morales examines the evidence that link the decline in political confidence with the drop in various forms of political participation. The chapter starts by clarifying what is meant by the terms political confidence and political behaviour and contests the assumption that both aspects are in linear decline across all European countries. Instead, *Morales* shows that a great degree of variation across Europe exists in the extent to which political confidence has declined and citizens have retreated from political participation. It is therefore argued that any recommendation for political and policy reform needs to take these variations across Europe into account. *Morales* provides profound empirical evidence on the exact nature of the connection between political confidence and various forms of political participation before ending with a discussion of the likely social and political scenarios if political confidence continues to drop depending on whether political change is fostered or not. A number of policy recommendations relating to political reform and R&I policy in connection to Horizon 2020 conclude the chapter.

Boda in his chapter starts from the general view that trust in justice is believed to foster law abiding behaviour and the willingness of the citizens to cooperate with legal authorities. He goes on arguing that trust is not only linked to general legitimacy believes about the political system, but also rooted in the perceptions people have about justice institutions. In this context trust in justice has two major determinants: first, perceptions of effectiveness/competence (how well the justice

system is believed to maintain order) and, second, normative legitimacy (the belief that justice institutions serve the common good, act rightly and fairly). Therefore, it seems obvious that citizens need to believe that the justice system is effective in order to have trust in it, and at the same time must have the perception that the system treats them right and fairly. *Boda* concludes that for achieving an increase of trust in justice a better understanding of the roots of public perceptions is needed as well as policies that address both the performance and the normative legitimacy expectations of the justice system.

Lancee reminds in his chapter on diversity and trust that an often-mentioned explanation for changes in trust is the increasing diversity that societies are faced with. Central to this argument is that the context or social environment affects how much individuals trust in one another. This chapter focuses on the potential consequences of rising ethnic and economic diversity for trust being at risk. It starts with a description of the concept of trust and social cohesion. The section on diversity as a driver for eroding trust discusses the mechanisms that explain why changing diversity can be expected to affect trust. Finally, *Lancee* proposes possible responses of the Horizon 2020 to the challenges described.

In the final chapter, *Prange-Gstöhl* summarises the report focusing on the drivers and signals of eroding trust, the impact of eroding trust on society, policies and institutions, and the related recommendations for European research and innovation policies.

Trust keeps societies together, is essential for economic activities, and eases inter-personal relations. This is not to say that a certain level of distrust is not favourable in some situations and can prevent us from taking decisions which might lead to unwanted consequences. In the sequel, *Hiltunen* confronts the reader with three 'light' scenarios assuming different levels of trust in the EU in 2030. These scenarios, building on the various chapters of this report, shall invite the reader to widen their thinking beyond the obvious paths towards the future.

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CHAPTER 2

Trust and mistrust of science

Göran Hermerén

This chapter is divided into two interrelated parts. Part I discusses definitions of the key concepts of this chapter as well as some methodological and normative issues. Part II outlines scenarios and general trends in three different research areas (climate research, food and diet research, collection and use of data and tissues in medical research) followed by policy recommendations for research and innovation (R&I) policies, Horizon 2020 and some wider EU policies.

1. Conceptual aspects

1.1. Introduction

In the first part of this chapter, the following questions will be discussed:

- How are concepts of trust and mistrust (to be) defined?
- What signals are indicating changes in trust?
- Is trust in science always good, and mistrust always bad?
- What ought to be done to improve trust, if and when mistrust is bad?

Trust is crucial in research and higher education, as well as in research policy and funding (Engwall/Scott, 2013, pp. 1f; Yarborough 2014, p. 313). One important reason for this is simply that the language of science is highly specialized and not easy to access. There are also many uncertainties concerning the outcomes, particularly in research but also in funding and policy.

But trust is an elusive notion. It also has an interesting history, recently illuminated by Hosking (2014). He suggests that trust is mediated through symbolic systems and their corresponding institutions, such as religions, money, and nation-states, and that those systems and institutions change over time. Thus changes in trust need to be put in a historical context.

Moreover, trust takes time and effort to earn and it can quickly be lost. Trust ties past actions and events to present expectations and a predictable future, a point made by Enders (2013, p. 54) and others. This is reflected in several definitions of trust.

1.2. Concepts of science and trust

1.2.1. Science and sciences

The main reason why definitions are important is that they help us to avoid debating at cross-purposes. The key words in the title of this chapter are obviously science and trust. What do they mean?

How have science and its role changed in contemporary society? The answer will to some extent depend on how 'science' is understood. Discussing the views on science by John Ziman (2000), Raymond Spier argues (2002, p. 237) that though Ziman holds that: '... science is too diverse, too protean, to be captured in full by a *definition*' (Ziman 2000, p. 12), he nevertheless characterises science in a number of ways: it is 'a social institution'; 'Science is one of a number of somewhat similar institutions, such as organized religion, law, the humanities and the fine arts'; 'The peculiarity of science is that knowledge as such is deemed to be its principle product and purpose' (all Ziman 2000, p. 4); 'Science generates *knowledge*' (Ziman 2000, p. 5); 'By its very nature, science is a complex *system*. It cannot be understood without an explanation of the way that its various elements *interact*' (Ziman 2000, p. 7); '...science has to be thought of primarily as a *heterogeneous actor network* ...'; it is '...a *sequence of refutable conjectures*, or a *bundle of research traditions*, or a *problem-solving computational algorithm*' (all Ziman 2000, p. 8).

In the present context, science will be used in a wide sense, like the German 'Wissenschaft'. If science is not limited to natural sciences, there is obviously room for many ideas about what characterizes different kinds of research. This has been widely discussed in the history and philosophy of science from Dilthey to Habermas and von Wright. The idea of falsifiability – vigorously launched by Karl Popper – is an important ideal in many of them, but as to the organization, financing and role in society there are many important differences between the natural, social, behavioral sciences as well as the humanities, which cannot be discussed here.

However, in his response to Spier's reflections, Ziman (2002, p. 254) makes clear that he is not limiting 'real science' to the natural sciences: 'In spite of Spier's assertions to the contrary, when I referred in the book to the 'human sciences' or the 'social sciences' I thought it was absolutely clear that I regarded these as being as much parts of 'real science' as physics, chemistry and biology.'

1.2.2. Different definitions of trust

The literature suggests a number of definitions of the concept of trust. For example, it is defined in terms of good will, public good, certain beliefs, expectations, reliance, favorable actions, or combinations these concepts, each of which obviously can be understood in many ways.

There are several texts with references to the traditional definitions of 'trust' – without quoting these definitions, probably on the assumption that we all know which they are and that they anyway are equivalent. It is far from clear that these assumptions are well founded, so here are some examples of definitions, which seem not to be equivalent:

'Trust has been defined as the individual's belief that the subject of trust will behave in a favourable manner to the individual, or at least in a manner that will not be harmful to the individual' (Lapidot et al. 2007, p. 17, referring to Gabbetta 1988). Lapidot et al. (2007, p. 17) continue: 'Mayer et al. (1995) have extended this definition [by *Gambetta*] and added the willingness of the individual to be vulnerable to the actions of the other based on the expectation that the other will perform a particular action important to the trustor'.

Robinson (1996, p. 576) defines trust as a person's 'expectations, assumptions, or beliefs about the likelihood that another's future actions will be beneficial, favourable, or at least not detrimental to one’s interests'.

More complex characterisations of trust also exist in the literature, for instance by Hardin (1999). He argues that trust requires (1) expectations about the likely behaviour of the person(s) to be trusted, (2) beliefs about their motivations, (3) beliefs about their capacity to act according to their motivations, and (4) beliefs that those trusted are seeking to act in the interest and for the good of those who trust.

The general idea is thus that trust is an attitude of the kind described by Robinson (1996), based on expectations, which in their turn are based on past performances. But if the expectations are not met, this may give rise to frustration, disappointment and actions. In practice, this may suggest using one of two main strategies, 'exit' or 'voice', described in other chapters of this report.

In the context of trust/mistrust in science, the exit strategy may mean: losing interest in reading about scientific results, less space in the media being devoted to scientific achievements, dropping out of doctoral programs, leaving research projects, making a living in other ways than by research, and so forth. If there are alternatives, it is possible to exit one option and select another. But if there are no alternatives, this does not work. The exit strategy has to be replaced by a voice strategy: to protest and, for instance, demand stricter regulation.

1.2.3. Trust defined in this report

The definitions proposed or used in the contributions to this report have somewhat different scope. They are intended for different areas of application. Some of them are also rather vague, others more precise and specific. In different contexts different definitions may be fruitful. But definitions have consequences, and it is therefore essential to be clear about the definitions chosen and their implications.

Boda uses the following definition: 'Trust is defined as an expectation that the given institution will produce positive outcomes'. This is a rather open definition in terms of what kind of positive outcome and for whom. There can be contexts in which rather open definitions are fruitful or where a more general concept is preferred.

For example, in her contribution, Morales is focusing on the more general concept of political confidence as she writes that it incorporates 'an expectation of competent role performance and of fiduciary obligation and responsibility'.

Pitlik focuses on individuals rather than on institutions: 'The main focus in the context of the present chapter is on trust as the general belief that people do not cheat, shirk, or act otherwise opportunistically in social interactions'. This definition specifies some of the means to undermine social relationships. Other definitions focus on the goal, i.e. to facilitate social relationships.

For instance, Hofmann characterizes trust as follows: 'Trust is commonly understood as a facilitator of social relationships'. This definition has a specific scope or area of application where it probably will work well, whereas in the context of trust in governments or the public sector other definitions may be suggested and argued for.

Wright notes in his contribution: '…for the purposes of this paper trust is defined as the extent to which the citizen has confidence that others (such as companies, intelligence agencies and government departments) will act in the public interest as opposed to narrow corporate greed or political interests.'

This definition differs from the one proposed by Robinson mentioned earlier in at least one important respect. Actions that will be in the best interest of the trusting person need obviously not be in the interest of the public good.

1.2.4. More than one concept of trust?

Thus, it seems clear that we need to be open to the possibility that there are several concepts of trust with unclear demarcation lines. Mechanic (1996, p. 173) distinguishes between two levels of trust: interpersonal and social. He argues that trust in persons is an intimate form, 'deriving from earlier experiences with family and other caretakers', while social trust 'in contrast, is more cognitive and abstract, and typically is based on inferences about shared interests and common norms and values'. However, he provides no explicit definition of these concepts.

To quote from an earlier text of mine (Hermerén 2013b, p. 63): 'In the philosophical discussions of trust it has been emphasized by several writers that accounts of trust that do not distinguish it from reliance are too broad, whereas (good) will-based accounts appear too narrow and take as paradigm case interpersonal relations rather than trust in governments and institutions,…'.

Discussing public trust in health care, Calnan and Sandford (2004, p. 96) point out that public assessment of trust tends to address the trust of care at the micro level. In the view of these authors, policy makers concerned with the erosion of public trust need 'to target aspects associated with patient centered care and professional expertise'. They also found that levels of distrust 'particularly with how the service is run and financed, are high'.

These suggestions can also be translated into discussions of eroding public trust in science. There are different levels which need to be looked into, not just cases of distrust of individual scientists

due to, for instance, allegations of fraud and/or misconduct. Aspects of the system of funding, reviewing and rewarding scientific research also need to be considered.

Thus, mere reliance is not enough for trust. It may be necessary but not sufficient. Trust may also include, as already mentioned, a disposition of those who trust to react negatively or with resentment if their expectations are not met. This is relevant to Enders' discussion (2013) which focuses on governmental reactions to alleged distrust of higher education institutions. Words like 'alleged' or 'perceived' incidentally raises epistemic issues about the grounds for trust or mistrust in science (Hermerén 2013a, p. 7). What is to be regarded as good reasons for trust and mistrust in this context?

Trust is usually analysed as a three place relation by philosophers, forward-looking 'A trusts B to do X', or backward-looking 'A trusts B to have done X'. Here A and B can stand for persons, institutions, organisations etc. The point of introducing the third variable is to be more specific about trust. If clarity is desired, it is essential to avoid talking about trust in general. Questions in surveys need to be specific; trust seldom extends to all domains of interaction. Trust can be graded, and it is tested repeatedly in different situations.

In their thorough study, McKnight and Chervany (1996) begin by identifying the lack of consensus about the meaning of trust and suggest that this is an obstacle for research on trust. They propose a classification system for types of trust, and definitions of six related trust types that can be combined into a model of trust. Going through articles and books on trust, they identify types of attributes to which trust refers in these articles and books (such as competence, expertness, predictability, goodness, etc). They also compare sets of definitions of trust in dictionaries. All this is useful and indeed essential for any in-depth conceptual analysis of trust. For the aim of this publication it is sufficient to be aware of the existence of different definitions which often serve different purposes.

What exactly is being trusted? In each context we may ask: are we focusing on trust – or erosion of trust – in systems or organisations or in persons working in these organizations? Several different levels can be distinguished, as I proposed in an earlier text (Hermerén 2013b, p. 64):

1. Research/higher education generally;
2. Research/higher educational institutions, such as universities;
3. A particular profession or activity as such, for instance social science;
4. Individual researchers.

The relations between these levels are not quite clear, in particular the extent to which information about trust or mistrust in relation to one level can be generalized to other levels. The difficulties are obvious in drawing conclusions from surveys focusing on trust in 1 or 2 to trust in 4 – and conversely. This seems to apply to policy-making and/or funding institutions as well.

Obviously, there might be lack of trust in the reasons why scientists chose certain problems, in the methodology they use, in the conclusions they arrive at, and in the way their results are applied and commercialized. It can also involve funding of science, education at different levels in science, or the will and capability to take responsibility for adverse effects of applications of scientific discoveries. If indeed trust is eroding in some aspect of scientific research or the institutions carrying out or funding it, we may want to ask ourselves: are there any signals indicating this?

1.3. Signals of eroding trust

1.3.1. Weak and strong signals

A general aim of this publication is to identify signals of eroding trust in different issue areas or policies. These signals can be weak or strong, a classification that raises both conceptual and methodological challenges since it might not be obvious to distinguish between 'strong' and 'weak signals'. Whistle-blowing can in some contexts be interpreted as a 'strong signal', in others not. Moreover, this distinction can be graded: a signal is not necessarily either weak or strong, but more or less strong or weak. The general idea is that a 'weak signal' hints at something that may

change in the future, whereas 'strong signals' record a clear indication of a coming change near in time and place, for instance, indicated by obvious and sudden changes in opinion polls.

Changes in attitudes or behaviour can sometimes be interpreted in more than one way, depending on the situation. This holds for sudden increases of regulation of previously unregulated research areas, emergence of new directions of research, or slow acceptance of previously unaccepted behaviour.

1.3.2. Methodological reminders

The sources of 'weak signals' include, as indicated in the following chapters by Hiltunen, Wright and others: news stories, blog posts, tweets, social media and scientific journals, as well as observations of something new and unusual.

The general methodological issues include first a problem of selection, since we know from psychological studies that humans are one-eyed, shortsighted and forgetful: they tend to see what they are looking for, remember what they want to remember, as noted by Sahlin (1994; 2011). There is no other way to deal with this challenge than being open about the sources and the criteria of selection.

Secondly, there is the problem of interpretation of the chosen signals. Some people may be both blind and tone deaf: what is a 'weak signal' to some may not be a 'weak signal' to others. Two people may see the same notes but hear different melodies. The signals can be interpreted in more ways than one. What is a 'weak signal' indicating a particular change in one cultural and political context may be taken to indicate something else in a different context. There is certainly also a genuine uncertainty about how to interpret observed changes in practices.

Moreover, the picture can be mixed. Trust in certain areas of research, like medicine, may still be high, whereas it is decreasing in other areas. This is obviously a warning against generalising about trust in science. In other words, it is essential to be specific about what is (mis)trusted by whom when, where – and why. There seems to be no general answer to these questions but a logical way would be to collect a number of examples, discuss different possible interpretations of them, and see if a pattern becomes visible, and if it does, argue that the signals indicate a particular change.

Transferring this to signals of mistrust, we can therefore ask for each signal:

- Is the description of the background and the situation correct (true and not misleading)?
- How can the signal be interpreted?
- Are there any alternative interpretations?
- Does the proposed interpretation fit with (interpretations of) other signals?

1.3.3. Actions and attitudes

To pave the way for a constructive discussion of signals of eroding trust and mistrust in science, we need to consider some further issues. If trust and mistrust essentially are attitudes and/or expectations, tied to beliefs, we should begin by looking for indications of changes in such attitudes and expectations.

Mistrust – growing or diminishing – can be indicated by words, texts, utterances as well as of actions of individuals or institutions. Both are related to their beliefs. We should not forget that attitudes may also be indicated by what people do not say and what they refrain from doing. What is not done, who is not mentioned, and who is not published, read or awarded? The sounds of silence should not be neglected. Silence may speak, sometimes loudly.

1.3.4. Some important drivers

Drivers of trust or mistrust in science and in possible scenarios can be combined. Such drivers could include incentive structures ('publish or perish'), fraud scandals published in the media, increased commercialisation of research, focus on quantity rather than quality by researchers as

well as by those who evaluate research, or researchers focusing too much on problems that have little or no relation to the conditions of everyday life for most people. Other drivers could include the esoteric language sometimes used in the humanities, lengthy discussions about issues that seem difficult for ordinary readers to relate to (such as 'Do pictures want to be kissed?') and other trends in humanities vividly described by Mulligan (2013).

The images of science and scientists conveyed by movies and fiction should not be neglected in this context. For better or worse, they may have more impact on the attitudes of the general public than scientific reports. This applies to movies like Steven Spielberg's *Jurassic Park*, works of fiction like Shelley's *Frankenstein*, Well's *The Island of Dr Moreau,* Huxley's *Brave New World* and Vonnegut's *Cat's Cradle*. They can help to shape people's perceptions of science and scientists in a powerful way (de Beaufort 2012).

The fact – if it is a fact – the number of people who donate cells and tissues to biobanks is slowly decreasing can be interpreted as a sign of declining trust. But it can just as well be understood as a concern for other values, like integrity, privacy – and perhaps a fear that employers and insurance companies will get access to the donated tissues and the genetic analyses made of them.

The publication in the 1970s of the way the Metropolit project in Stockholm obtained and used personal data in a longitudinal study was followed by a public outcry and a lively debate (*Dagens Nyheter* 10 feb 1986: '15 000 hemligt granskade i 20 år' [translated: 15000 people secretely surveilled during 20 years]. The willingness to answer surveys and take part as informant in social science research then dropped in Sweden during the subsequent years (Lundström 1986).

But the role of media as driver is debated. It has been argued in a study by Andersson (2014) that the effects of media coverage of fraud and misconduct in research are difficult to judge. There appears to be a relation between eroding confidence in research and increased media coverage of fraud and misconduct in research. But these associations could also be coincidences and a result of other factors (Andersson 2014, p. 46). It is also argued in this study that more research is needed on the relevant values to improve our understanding of trust and confidence, and that we need to know more about what makes informants feel more trust and confidence in certain areas of research than in others (Andersson 2014, p. 60). Thus the temporal dimension is important: initial trust may not be identical with later trust; initial risk perception may be replaced by a different risk perception later; unexpected events (such as the Harrisburg, Chernobyl and Fukushima disasters) may change the picture suddenly. Such changes and their impact can, of course, be researched.

In the literature on trust, for instance in McKnight and Chervany (1996), complaints are brought forward that the analysis of the concept of trust is sometimes mixed up with analysis of antecedents and consequences of (declining) trust. Ideally, if and when the concept of trust is clearly defined, it should be possible to study empirically its antecedents (conditions and causes) as well as its consequences.

The possibility of backward identification of 'anonymous' or 'anonymized' personal data in computerised data banks may promote fears that information will leak to insurance companies and employers. If scientists say this will not happen, and it nevertheless happens, these incidents will help to undermine trust in science and in the promises made by scientists – in a somewhat analogous way that recent incidents involving dangerous viruses/pathogens from allegedly secure labs in the US have undermined the confidence in the security measures undertaken in these labs.

Unsolved disagreements between scientists having access to essentially the same data can also help to undermine trust in science, especially if strong political or economic interests are (perceived to be) at stake. This will be developed later in this chapter. The following section will elaborate on some normative aspects of the debate on trust and mistrust in science.

1.4. Normative aspects

1.4.1. Trust – a goal or the goal?

In her contribution to this report, Hofmann stresses that trust and distrust are not opposites, and cannot be isolated from each other; and that distrust is not always necessarily bad. Also Van de Walle emphasises the merits of distrust. He suggests that absence of trust rather than mistrust is the opposite of trust. Obviously, trust can be misplaced. Trust is not always and necessarily a good thing. However, Hosking (2014, p. 198) argues that 'trust in the trustworthy' is indeed a good thing and that this should be in the focus of our attention: 'What would that guiding light be? I suggest that, in searching for solutions, we need to place the concept of trust in the trustworthy at the centre of our rethinking.'

I agree with this. But it moves the problem to a new level: the criteria of trustworthiness in individual researchers, research institutes, research projects, funding organizations, committees dealing with cases of alleged misconduct. How do we decide who is trustworthy? What are the criteria of trustworthiness? Which in fact are used? Which ought to be used? Thus we cannot take for granted that trust in research and its institutions is always justified and mistrust is always unjustified. Trust is not always a good thing and declining trust should not always be restored. Mistrust in science can be justified, and there are several instances of this in the history of science.

What can and should be done to promote (justified) trust and prevent (unjustified) mistrust? This will depend on what the reasons for (justified and unjustified) mistrust and (justified and unjustified) trust are in each particular type of case. A general point made in an earlier publication of mine may be repeated:

> 'In order to cure a disease, knowledge of its causes is crucial. This is commonplace in medicine. Combinations of causes are most likely to be at work here, so no easy or simple remedies seem readily available. Different possible causes have to be treated separately; there is not one general avenue for those who want to improve trust, combinations of approaches are called for.' (Hermerén 2013b, p. 67)

What are the best ways to maintain and improve trust when it should be improved?

1.4.2. Is openness a means to achieve trust?

In the case of eroding or collapsing trust in research, researchers, or research funding institutions, one of the remedies often stressed is openness. For instance, Yarborough (2014, p. 313) has recently argued that openness is key to keeping trust: 'I hope we can agree that research should satisfy three basic expectations: publications can consistently be relied on to inform subsequent enquiry; research is of sufficient social value to justify the expenditures that support it; and research is conducted in accordance with widely shared ethical norms'.

However, the second of these expectations raises the problem: who are 'we'? Sometimes opinions are divided on this issue. The researchers involved have their views, others may disagree. There may also be differences between different fields of research. Obviously, the Vatican, many researchers and ethics councils had conflicting views on whether human embryonic stem cell research is of sufficient social and moral value to justify the expenditures that support it.

But Yarborough's main point is that 'we need a culture that prevents and fixes mistakes not by chance, but by design. How can we fix such a culture? One of the most important steps is to recognize and identify where standards break down. We need to routinely conduct confidential surveys in individual laboratories, institutions and professional societies to assess the openness of communication and the extent to which people feel safe identifying problems in a research setting' (Yarborough 2014, p. 313).

In the context of higher education and its institutions, Engwall and Scott (2013, p. 4) have pointed out that the '… notion of trust is often linked strongly to institutional autonomy and academic

freedom'. This suggests implicitly a way to deal with declining trust: to provide more autonomy and self-regulation. But some researchers, including Yarborough (2014, p. 313) believe that 'science's ability to weed out incorrect findings is overstated.' There is much to be said for self-regulation, but it may not always work, if strong economic or political interests are at stake.

1.4.3. Limits of 'two-way' communication?

Slovic (1993, p. 680) has suggested that 'restoration of trust may require a degree of openness and involvement with the public that goes far beyond public relations and 'two-way communication' to encompass levels of power sharing and public participation in decision making that have rarely been attempted'.

Similar suggestions have also been made later by others. Wynne (2006, p. 211) argues that public engagement as traditionally advocated does not achieve the intended goals, and that this public engagement is a symptom 'of a continuing failure of scientific and policy institutions to place their own science-policy institutional culture into the frame of dialogue'. Wynne (2006, p. 211) suggests that this may be a 'possible contributory case of the public mistrust problem'.

In a somewhat similar way, Cunningham-Burley (2006, p. 204) argues that 'attention must now be paid to the way in which knowledge and expertise is expressed, heard and acted on in dialogic encounters'. She (2006, p. 204) adds that 'scepticism or ambivalence on the part of the publics are not necessarily problems to be overcome in the interest of scientific progress but rather should be mobilized to enhance open and public debates about the nature and direction of genomics research, medicine, and the related social and ethical issues'.

I will return to public involvement in science in my concluding section on policy recommendations.

2. Scenarios and recommendations

Some quotations will be used below as a brief background to the scenarios and recommendations. The first ones are about general trends, the others about specific trends in particular areas of scientific research.

2.1. General trends

2.1.1. Trust is not static

Trust in science is not static. It varies within and between groups in society as Gauchat (2012, p. 167) reminds us:

> 'Using data from 1974 to 2010 General Social Survey, I examine group differences in trust in science and group-specific changes in these attitudes over time. Results show that group differences in trust in science are largely stable over the period, except for respondents identifying as conservative. Conservatives began the period with the highest trust in science, relative to liberals and moderates, and ended the period with the lowest.'

2.1.2. Role of financial dependence

Certain factors are particularly likely to influence trust in science, such as financial dependence of researchers on private sponsors. According to the 2010 Eurobarometer survey more than 58% of Europeans feel that scientists cannot be trusted to tell the truth about controversial scientific and technological issues because of an increased dependency of money from industry.[1] Other factors may also be important, but these findings should not be taken lightly.

[1] 'Science and Technology', Eurobarometer Special Survey, No 340, Brussels: European Commission, June 2010, p. 19.

2.1.3. Alleged fraud and misconduct

The last decades have witnessed in increase in allegations of fraud and misconduct. Many difficult issues are raised. Preventive measures have been proposed, guidelines have been published, and sanctions have been discussed. Media have reported about spectacular cases in many countries. All this is relevant to public trust in science.

Different ways of dealing with this problem have been proposed. For instance, Steneck (2006, p. 67) suggests that the best way to approach irresponsible conduct in research is from the perspective of professional standards; and that 'research institutions and professional societies, working with government, should increase their efforts to make sure that professional standards for responsible research are clear, easily accessed, taught and monitored'.

2.2. Three areas of research

Three areas or branches of research, raising partly different problems, will be considered here because of their relevance to health and well-being of humans as well as to national and EU policy-making:

1. Climate research, politically very hot, involving many important actors, also the UN;
2. Food and diet research, with relevance for life styles and eating habits;
3. Collection and use of data and tissues in medical research, raising issues of integrity, data security and data protection.

2.2.1. Climate research

Climate warming is much debated in books, social and other media.[2] Leaked e-mails provided fuel to an intense debate involving many sceptics and the climate research unit at University of East Anglia. Disagreements between scientists and allegations of fraud and misconduct helped to undermine trust in the results of the research.

It has been argued by Christopher Booker that some of the key scientists 'have come up with every possible excuse for concealing the background data on which their findings and temperature records were based' (Booker 2009) and 'the third shocking revelation of these documents is the ruthless way in which these academics have been determined to silence any expert questioning of the findings they have arrived at by such dubious methods – not just by refusing to disclose their basic data but by discrediting and freezing out any scientific journal which dares to publish their critics' work' (Booker 2009).

2.2.2. Food and diet research

Here 'food and diet research' is used in a wide sense, including not only research on the advantages and disadvantages of various currently fashionable diets, like VCLD (very low calorie diet), LCHF (low carb high fat) or the 5-2 diet (eat as usual five days, and very little during two days). It also includes research on food safety and GM (genetically modified) food as well as food containing acrylamide, artificial food colouring etc. A striking feature in food and diet research is that the recommendations based on this research often change. Moreover, some of the research is partly or wholly financed by companies in the food sector. All this has started a debate about the extent to which the results of this research can be trusted.

For instance Dulloo and Montani (2015, p. 1) note:

> 'Every year, scores of millions of people - as diverse as obese and lean,

[2] For critical views see Booker (2010).

> teenagers and older adults, sedentary and elite athletes, commoners and celebrities - attempt to lose weight on some form of diet. They are often encouraged by their parents, friends, health professionals, training coaches, a media that promotes a slim image and a diet-industry that in Europe and United States alone has an annual turnover in excess of $150 billion….., there is concern as to whether dieting may paradoxically be promoting exactly the opposite of what it is intended to achieve. Does dieting really make people fatter? How?'

Concerning gestational diabetes mellitus, a major public health concern, Barbour (2014, p. 264) complains pessimistically that 'expert panels are in complete disagreement on how to diagnose and optimally treat GDM [=gestational diabetes mellitus, *the author*]. This review underscores why there remains no diagnostic standard, no agreement on whether excess dietary carbohydrate or fat should be reduced, and whether oral hypoglycemic therapy is safe given the unknown offspring effects on hepatic, pancreatic, or fat development'. Moreover, Barbour (2014, p. 264) constitutes that 'varying criteria are used by different centers resulting in confusion for both patient care and research'.

In a paper on communicating food risks in an era of growing public distrust, Lofstedt (2013, p. 192) points out that the communication and regulation of risks have changed significantly over the past 30 years and continues:

> 'In Europe, this is partly due to a series of regulatory mishaps, ranging from mad cow disease in the United Kingdom to contamination of the blood supply in France. In the United States, general public confidence in the American government has been gradually declining for more than three decades, driven by a mix of cultural and political conflicts like negative political advertising, a corrosive news media, and cuts in regulatory budgets.'

2.2.3. Collection and use of data and tissues in medical research

There are many kinds of research covered by this headline, from big data to collection of cells and tissues in repositories, where issues of personal integrity and data protection are raised. In the recent Nuffield Council report (2015, p. xv) a key question is stated as follows: 'What is the set of morally reasonable expectations about the use of data *and* [*italics by the author*] what conditions are required to give sufficient confidence that those expectations will be satisfied?'

The biological samples per se will become particularly interesting for research if they are interpreted and combined with information about the patient (age, gender, diseases, medication, effects, etc.). O'Neill (2002, p. 110) has rightly argued that 'if there are strong reasons to regulate the collection, storage, use and disclosure of uninterpreted genetic data, there are even stronger reasons to regulate the collection, storage, use and disclosure of interpreted genetic data'. Gymrek et al. (2013, p. 321) put their finger on the possibility of re-identification:

> 'Sharing sequencing data sets without identifiers has become a common practice in genomics. Here, we report that surnames can be recovered from personal genomes by profiling short tandem repeats on the Y chromosome (Y-STRs) and querying recreational genetic genealogy databases. We show that a combination of a surname with other types of metadata, such as age and state, can be used to triangulate the identity of the target. A key feature of this technique is that it entirely relies on free, publicly accessible Internet resources. We quantitatively analyze the probability of identification for U.S. males. We further demonstrate the feasibility of this technique by tracing back with high probability the identities of multiple participants in public sequencing projects.'[3]

[3] See also Angrist (2013, p. 7).

2.3. Scenarios

Two general scenarios for trust in science will be outlined, one where mistrust increases, and one where trust increases. Important parameters in these scenarios include internationalization and harmonization of regulations, economic growth and diversity, demographic changes, scientific breakthroughs, population health, migration and immigration, investments in research, regulation and regulatory budgets, democratization and transparency. Below is a brief description of what these two scenarios might mean for each of the three areas selected here.

2.3.1. Trust in science will decrease

For climate research
For this research area a low level of trust would mean that no binding and clear political agreements on the basis of the research have been made and implemented. NGO activities against researchers, politicians and policy officials increase. Uncertainties are pointed out by critics, and allegations of fraud and misconduct of leading researchers in this area are common. Research controversies are getting considerable attention in the media. Many researchers are perceived as having a political agenda, or being sponsored by organizations having a political agenda. The word 'climategate' is frequently used by critics of this research.

For food and diet research
For this research area a low level of trust would mean that effective regulations on food safety are not agreed on and not implemented. NGO activities against researchers and producers will increase. Research is to a considerable extent dependent on funding from the food industry. In social media suspicions are expressed about the hidden agenda of these companies. Also in traditional media many critical articles on industry-academia collaboration in this area are published. The general public finds it difficult to see how they benefit from this research. The impact on public health of this research is negligible. Attempts to communicate food risks (GM food, acrylamide, artificial coloring of food etc.) fail. The reasons for the failures are not examined. Criteria of acceptable level of risk are not harmonized or standardized between countries. The gap between perceived risks of certain food (GM, etc.) and fact-based risks (based on relative frequencies) increases.

Collection and use of data and tissues in medical research
For this research a low level of trust would mean that no agreements are reached on the conditions required to give sufficient confidence to the general public that basic values at stake (human rights, privacy, integrity) will be adequately protected. Many fear that the information stored will be accessed by employers and insurance companies. Concerns about the safety of the data collected are dismissed. Many decline to donate cells or tissues. The level of non-responders to surveys in social and public health research continues to increase. Conflicts over access to data and tissues in biobanks are common. Focus is mainly on innovation and collaboration with industry. The areas of responsibility of the regulatory authorities involved (such as the data protection office, the central ethics review board, and the medicinal products agency, and their counterparts in different countries) continue to be unclear.

2.3.2. Trust in science will increase

What would this mean for each of the three areas mentioned above?

For climate research
For this research area a high level of trust would mean that political agreements based on the research have been reached and implemented. NGO activities against researchers, politicians and policy officials decrease. The statistical analyses have been improved. The data on which they are based are available and can be checked. Allegations of fraud and misconduct of leading researchers in this area are rare. Research controversies and critical articles are getting less and less attention in the media. Few researchers are perceived as having a political agenda, or as being sponsored by parties having a political agenda. The word 'climategate' is rarely used in the debates on this research.

For food and diet research
For this research area a high level of trust would mean that effective regulations on the basis of research results are agreed on and also implemented. NGO activities against researchers and producers decrease. Social media are no longer filled with critical comments on food and diet research. Diet recommendations are not changing as often as they did in the past. The general public does not find it difficult to see how they benefit from this research. There is considerable collaboration between industry and academia, but the contracts and conditions of this are available for those who want to check them. Attempts to communicate food risks are, on the whole, successful. The impact on public health of this research is considerable. The gap between perceived risks of certain food (GM, acrylamide etc.) and fact based risks (relative frequencies) is diminishing.

Collection and use of data and tissues in medical research
For this research a high level of trust would mean that agreements are reached on the conditions required to give sufficient confidence that basic values at stake (human rights, privacy, integrity) will be adequately protected. Declarations about the safety of the data collected are taken seriously. Donations of cells and/or tissues to biobanks increase. The level of non-responders to surveys in social and public health research decrease. Conflicts over publication and access to data and tissues are uncommon. Focus is not mainly on innovation and collaboration with industry. The areas of responsibility of the regulatory authorities involved are clear.

2.4. Policy and research recommendations

Recommendations are based both on beliefs about future trends and on values, on what people want to achieve and avoid. A problem, of course, is that people do not always want the same. But there are also other problems.

Changes in trust in science have complex causes and effects. Such changes may have to do with the behaviour of scientists themselves, with the quality of their reports, with how and where they are published, with the ways in which these reports are dealt with by media, with the regulation or lack of regulation of research in the relevant area, with what the general public hopes, fears, believes – or with any combination of these. Thus there is a rich field for empirical and comparative studies. But the differences between, and implications of, the many definitions of the key concepts also need to be understood better.

The following proposals relate mainly, but not exclusively, to research gaps. Also research funding, priority setting and public involvement are essential. In fact, all links in the long chain of producing research are relevant here, from planning and funding to reviewing, publishing and applying the results. The general idea below is to try to link the scenarios to research gaps and science/society dialogue by pointing out what needs to be done to avoid a negative scenario, as well as what could be done to promote a positive scenario.

The recommendations below will be divided in two broad categories, (A) those indicating knowledge gaps relevant for R&I policy and/or for Horizon 2020, and (B) those also relevant for wider EU policies (such as trade policy, data protection, investment policy). The distinction is not always sharp, however. For instance, what changes should be recommended for research funding organizations, including the EC, to improve the dialogues with citizens and the taxpayers? The answer to this question may be relevant both for R&I policy and for wider EU policies concerning democratization of political life and society at large.

2.4.1. To avoid negative trust-related futures

For the purposes of the present chapter, a negative (trust-related) future is one where those who are trustworthy are not trusted and where those who are not trustworthy are trusted.

Recommendations relevant for R&I policy and/or for Horizon 2020
To avoid a future, where trust and mistrust are misplaced, the following recommendations are made:

(1) Those who have studied bad research argue that it exists in all areas and at all universities.[4] Bad research creates general mistrust of science. To make the situation better, criteria of quality in different areas of research need to be identified and implemented. The peer review processes need to be improved.

This recommendation may deserve a comment. First, quality standards vary within and between disciplines, to some extent also over time. These standards can be researched and compared. Secondly, there is a potential tension between established standards and creativity, in that certain advances in research have been made by inventing new methods and not following the standard procedures. This can also be researched by studies in the history of science.

(2) Conflicts of interest need always to be declared by researchers in their reports. Guidelines, rules and regulations related to research integrity need to be better known. Courses in research ethics should be part of the education of early career researchers and a theme for recurrent education of senior researchers. A bank of up-to-date cases from different disciplines is an important resource for this education.

It is essential not to focus merely on defensive measures, that is, to take action when something has happened (misconduct, fraud, poor quality research) but work proactively to prevent this from happening. Relevant are the efforts by the European Science Foundation/ALLEA (2011) on setting standards for research integrity, and the books and guidelines on good research practice that have been published by many research councils and academies in, for example, Australia, Finland and Sweden.

(3) Whether trust is misplaced or not will partly depend on how trust is defined, and what criteria of trustworthiness are taken for granted. We will get different and non-equivalent concepts of trust if trust is defined in terms of good will, reliance, or actions in the public interest. To avoid talking at cross-purposes, more research on conceptual maps of the sort outlined by Hosking (2014, p. 29) are required. Lack of clarity concerning what the issues are can undermine trust in the research on whether trust in science is declining or not.

(4) An increasing number of retracted scientific papers undermine trust in research, especially if the reasons for retractions are not provided.[5] Studies of retraction of research reports are therefore essential in this context to counteract negative trust-related futures. Analyses should be carried out of the reasons given, of changes in the categories of reasons and in the number where no reasons are given, related also to geographical variables and to areas of research.

(5) More empirical research on potential links between knowledge gaps and mistrust is needed. For instance, we know that many informants feel more trust and confidence in certain areas of research than in others. In which ones? Are these reactions stable or do they change? Due to what reasons?

(6) Suspicions against research may be increased if the data on which the statistical analyses (and in general, the conclusions of the research reports) are based are not made accessible to those who want to check them.

(7) Declining trust can also be due to lack of understanding of scientific praxis, and limited access to what is going on in science. Ways of increasing public involvement and training officials in risk communication and working proactively with third party experts should be explored.

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[4] At an international symposium in Lund on 20 February 2015, Sven-Ove Hansson presented the results of his studies in this area, including a variety of examples.

[5] See Fang et al. (2012) for details about the situation in the life sciences.

Again this recommendation may deserve a comment. Here it is essential to distinguish between research agenda (choice of problems and objectives) and methods. The public involvement in the discussion about the agenda concerning research on stem cells, nano structures, GMOs, avian flu virus etc. is important for trust in science, but the methods used to answer research questions should be left to the researchers or the research community.

Recommendations relevant also for wider EU policies
(1) The Eurobarometer survey referred to earlier indications that financial dependence of researchers on industry is a factor for increasing mistrust in research results. More funding of research from public funds and research councils is therefore required to make research less dependent on industry funding. This applies in particular to food and diet research – and in general to research where strong commercial interests are at stake.

(2) Media reports on allegations of fraud and misconduct in research help to undermine confidence in research. Systems for dealing with allegations of fraud and misconduct in research need to be developed to avoid that researchers in different universities are judged by different standards. In view of the increasing collaboration between researchers inside and outside the EU this needs also to apply a European and ultimately at a global level.

(3) In many research regulations, particularly those dealing with medical devices and medicinal products, regulators try to strike a balance between values that pull in somewhat different directions: patient and consumer safety is important, and so are possibilities for companies on the market to make a certain profit. The balance may be indicated by requirements as to how long follow up research is required before products can be marketed by the manufacturers. How does the balance affect the trust of citizens in regulatory agencies and in companies marketing new products? To clarify this might help to avoid negative trust-related futures in science.

(4) Export and import of data and tissues need to be regulated more strictly to avoid negative trust-related futures. For the same reasons, tissues and data in biobanks are not to be used by police and made accessible to employers without court permission. Efforts are needed to make the actual safeguards in place publicly known.

(5) Efforts should be made to harmonize regulations in different countries concerning data protection, even globally. Harmonizing criteria and standards is also very important. But some basic EU rules impose limits on what can be achieved, particularly in medical research. Different historical, political and religious traditions will also create difficulties.

(6) Overlaps and gaps between regulations can increase distrust in regulators and in the regulation of research and should therefore be identified. Pros and cons of different ways of dealing with them need to be explored.

2.4.2. To promote positive scenarios

For the purposes of this chapter, a positive trust-related future is one in which those who are trustworthy are trusted, and those who are not trustworthy are not trusted. To promote a positive future of this kind, where trust and mistrust are not misplaced, a number of recommendations will be made below. Most of the efforts mentioned above have a counterpart promoting a positive scenario.

Knowledge is a key factor. How does science help to produce benefits to many and promote equity? Examples can be provided and they are part of the explanation why people live longer and better today than 100 years ago, in spite of the population growth. But not every change is an improvement.

Recommendations relevant for R&I policy and/or for Horizon 2020
(1) Scientists should be encouraged to be more open and explicit about what they know and what they do not know, about uncertainties and knowledge gaps – being open about this is usually important for trust and confidence.

Studies in the sociology of knowledge have indicated that scientists sometimes behave politically and that science plays a political role. Noble ideals are fine, but science takes place in a context where there are conflicts of interests, competition etc. Perhaps it is too much to demand that scientists be explicit about their values and uncertainties, but even if such openness is difficult to achieve in practice, goals of this sort can have an important function. It can undermine trust if scientists pretend to know more than they actually do.

(2) Possibilities to work pro-actively with neutral third-parties deserve to be explored. This will hopefully help to promote a positive (trust-related) future for science.

(3) Studies of changes in trust of science over time within and between groups of people, also on a comparative basis (within and between countries), are essential to understand factors affecting trust and mistrust – important particularly in view of the increasing cooperation between researchers across national borders.

(4) Trust and confidence are value laden concepts. Which are the values underpinning judgments about trust, misplaced trust and misplaced mistrust? Key values include integrity, loyalty, interdependence, good will, reliance, health and knowledge. We need to know more about these values and their relations to each other.

(5) Exploring the consequences of different normative points of departure for conclusions concerning trust and mistrust, particularly concerning conditions of misplaced trust and misplaced mistrust, is a relevant research area in this context. Such points of departure include human rights, consequentialist (utilitarian) ethics, virtue ethics, possibly also libertarian (minimal state ideals), Rawlsian (contractualist) and Kantian ethics.

Recommendations relevant also for wider EU policies
(1) What is perceived as strange is often mistrusted. Public involvement in agenda-setting and the direction of research (objectives, applications) needs to be improved to promote a positive (trust-related) future for science. Principles and methods of participatory democracy should be researched and implemented. Consequences, pros and cons of different models of deliberative democracy need to be explored. As noted earlier, it is essential to distinguish between proposed topics for research and methods.

(2) As already mentioned, efforts should be increased to make research ethics and research integrity a part of the curriculum of all doctoral candidates, and also part of the contents of recurrent education of more senior researchers. This can be a way to improve the prospects of a more positive (trust-related) future for scientific research.

(3) Suppose that advantages for researchers are compared to integrity losses for those registered in data and tissue banks. Suppose also that it is decided that the advantages for researchers outweigh the risk of integrity losses for those registered in the data and tissue banks. How is this going to affect the trust in science and scientists? More research is needed to clarify this. And which is the ethical basis offered for this weighing operation? If this basis is made clear, it may promote trust in applications of research.

(4) In general, harmonizing criteria and agreements concerning end-points and benchmarks between and within countries would make it easier to compare, evaluate and draw conclusions from policies related to trust within and between different countries.

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CHAPTER 3

Privacy and trust at risk in surveillance societies

David Wright

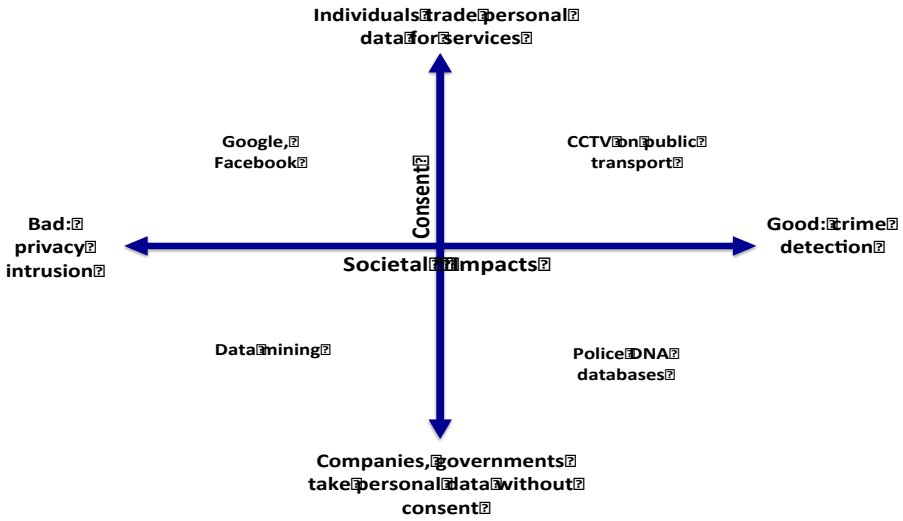
1. Introduction

This chapter examines how privacy and trust are at risk in surveillance societies. It formulates several scenarios and policy recommendations addressing the risks and concludes by suggesting a research agenda aimed at mitigating future risks.

1.1. Point of view of this chapter

Surveillance has both 'good' and 'bad' dimensions (see Fig. 1). Surveillance technologies such as CCTV can be used to detect crime (good), but they can intrude upon our privacy (bad). In some instances, people willingly trade their personal data for services (e.g., they feed Facebook), in other instances, governments and companies may take personal data without people's consent (e.g., police DNA databases).

Figure 1: A surveillance map



The above 'surveillance map' indicates the dilemma of modern society. New technologies hold benefits and dangers for society. Indeed, the computer itself, which has made so much surveillance possible, is modern society's proverbial double-edged sword, a phenomenon spotted several decades ago.[1] To the extent that they think about it at all, people confront daily the dilemma of wanting and using services that intrude upon their privacy.[2] Mobile phones track where we are in physical space. Search engines do the same in cyberspace. In order to use or obtain some

[1] A seminal report observed that 'the computer has become not only a tool to assist man in processing masses of information, but also a device which may concentrate massive power in the hands of those who operate and control information systems' (see Task Force of the Departments of Communications and Justice, Privacy & Computers, Information Canada, Ottawa, 1972, p. 18).

[2] Not all people view new technologies and services as 'intruding' upon their privacy. Some people willingly and apparently happily share personal data, not only with their friends and family, but with complete strangers who might find them on Facebook, Twitter and other social media.

services, such as those offered by mobile phones and search engines, we are compelled to provide personal data in exchange, whether we realise it or not. With the Internet, governments and companies may know more about us than our spouses and siblings.[3] The dilemma of modern society goes even deeper: While there are obvious benefits arising from a 'knowledge society', where all citizens are better educated, better informed and consequently more productive, the tools that make a knowledge society possible – computers, big data, data mining and so on – are the very tools of a surveillance society. Thus, there is an undeniable inevitability about a surveillance society.

This chapter addresses mass surveillance as distinct from targeted surveillance. Targeted surveillance is aimed at a person of interest, for example, a criminal or terrorist. Mass surveillance is indiscriminate, where everyone is of interest, whether to companies or governments. Companies engage in mass surveillance to better know their markets, in order to sell their goods and services to profiled consumers. Governments engage in mass surveillance for various reasons, to reduce crime and terrorism, to prevent benefits fraud, to understand the health, education and welfare needs of its citizenry, to conduct a census of the population, to rationalise traffic flows, and much else.

While even mass surveillance holds benefits to the populace, the point of view adopted by the author in this chapter reflects his belief that mass surveillance is a danger to Europeans' fundamental rights, notably privacy, data protection, dignity and liberty (Articles 7, 8, 1 and 6 of the Charter of Fundamental Rights of the European Union). The author adopts the view of an individual citizen opposed to much of the mass surveillance executed by intelligence agencies, government departments, big multinational companies and other institutions. The author recognises that rolling back many existing mass surveillance systems is akin to sweeping back the tide, but in the interests of freedom and democracy, attempts to curtail the abuses of mass surveillance should be welcomed.

Where the term 'we' is used, it refers to 'the people', to the citizenry as a whole, to the surveilled society. Where the paper refers to 'surveillance society' or 'surveillance societies', it particularly refers to those in 'western democracies', i.e., Western Europe, the US, Canada, Australia, Japan, and South Korea. Non-democratic countries such as Russia and China are also surveillance societies, but this paper is not particularly focused on them.

1.2. Trust between whom?

Where this paper refers to trust, it is primarily that between the citizen and, broadly speaking, the operators of surveillance systems, which includes the developers, suppliers, lobbyists, policy-makers and politicians.

1.3. Contextual nature of trust

The extent to which the citizen can trust anyone or any system depends on the context and who the other actors are. So, for example, one could assume the citizen is more likely to trust family members and friends than politicians or corporate warlords.[4] Similarly, trust is easier when the asset at stake is small. When the asset at stake is of great value, gaining trust is harder.

Trust has been defined in different ways, but for the purposes of this chapter, trust is defined as the extent to which the citizen has confidence that others (such as companies, intelligence

[3] See also the chapter by Flyverbom in this report.

[4] Although some might find the term 'corporate warlord' pejorative, the author nevertheless believes the term is apt for many corporate leaders, such as bankers and data aggregators, who have already shown their rapaciousness, greed and will to power, especially since the bankers crippled the word economy in 2008. Piketty (2014) admirably details the growing inequities in today's societies. 'Data aggregators' subsumes companies such as Google and Facebook.

agencies and government departments) will act in the public interest as opposed to narrow corporate greed or political interests.

It is useful to explicate some other terms used in this chapter. 'Transparency' refers to governments and companies informing citizens in a way that they can easily understand about surveillance practices, about the presence of surveillance technologies, who is responsible for the surveillance systems and why those systems have been deployed. Burying citizens under huge amounts of information, so that they cannot easily find what is most relevant and most important to them, is not an indicator of transparency and is not a way of earning trust. 'Secrecy' is the opposite of transparency. In some cases, there are good reasons for government or corporate secrecy, for legitimate reasons of national security or for commercially competitive or proprietary reasons. However, sometimes companies and government agencies invoke these 'reasons' for illegitimate purposes; sometimes these reasons are given to avoid transparency that might otherwise cause reputational damage to the invoker that might reveal that governments and companies sometimes act contrary to the public interest.

Although the term 'privacy' is used in this chapter, it is difficult or even impossible to define exactly what it means. Various people have tried – Brandeis and Warren defined it as the right to be let alone – but as some experts have said, it is a notoriously slippery concept (Whitman 2004, pp. 1153f). How we might define privacy is very context dependent; it changes over time and across cultures. We have, however, had more success in identifying types of privacy. Roger Clarke articulated four types of privacy[5]; Finn et al. (2013) added three other types. So their seven types are privacy of data and image; privacy of communications; privacy of the person (bodily privacy); privacy of behaviour; privacy of location; privacy of groups and association; and privacy of thought and feelings. As used in this paper, the term privacy implicitly includes all seven types. Furthermore, as indicated in Fig. 1 above, this chapter views privacy as the antithesis of surveillance.

1.4. Characterising surveillance societies

No one can or should doubt the growing ubiquity of surveillance systems in modern societies. Personal data fuels the modern economy, which is another way of saying that we live in a surveillance society. Surveillance undermines fundamental rights such as privacy and dignity. Hence, a surveillance society undermines democracy itself. One could justifiably regard 'information society', as a terminological wolf in sheep's clothing, where the information society is actually a surveillance society.

In surveillance societies, mobile phones allow telecom carriers to track our every move, so that they have a detailed log of where we have been and where we are at any moment.[6] Telecom carriers also have detailed logs of the calls we make, when we make them, to whom we make them, from where we make them, the duration of our calls and much else. The police use automated number plate recognition to monitor millions of motorists every day.[7] The DNA (and privacy) of whole families is exposed when the police record the DNA of one of its members. More than 60 countries have national DNA databases, with some, such as those of the UK and US, holding millions of records.[8] Based on our past purchases or where or what we have been browsing, companies such as Amazon predict what else we might like to buy. Governments

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[5] Clarke, Roger, 'Introduction to Dataveillance and Information Privacy, and Definitions of Terms', Xamax Consultancy, Aug 1997 (http://www.rogerclarke.com/DV/Intro.html).

[6] Cohen, Noam, 'It's Tracking Your Every Move and You May Not Even Know', The New York Times, 26 Mar 2011 (http://www.nytimes.com/2011/03/26/business/media/26privacy.html). The story is about a German Green party politician, Malte Spitz, who learned that in a six-month period, Deutsche Telekom had recorded and saved his longitude and latitude co-ordinates more than 35.000 times.

[7] Camber, Rebecca, 'Police secretly photographing 14 million motorists a day and storing images for two years', Daily Mail, 5 April 2010 (http://www.dailymail.co.uk/news/article-1263494/Police-secretly-photographing-14million-motorists-passengers-day-keeping-images-years.html).

[8] https://www.privacyinternational.org/issues/dna.

increasingly want to join up databases – such as our tax records, health care records, social security records, motor vehicle records, passport data bases and so on – for multiple purposes, increased efficiency and so on. Data fusion and predictive analytics are growing elements in our surveillance societies. Even before a baby is out of the cradle, geneticists can predict whether the infant is going to be a trouble-maker. The precrime unit in Spielberg's Minority Report is not fantasy.

2. Signals of trust at risk

In foresight studies, 'weak signals' are potential indicators of emerging trends. In the context of this chapter, we are looking for signals or signs that privacy and trust are at risk in surveillance societies. Arguably, the signals are not weak. On the contrary, there is bountiful evidence, a taste of which is presented below, that privacy and trust are at risk, are being undermined. What is less clear is a shared understanding within our societies of how great the risks are for democracy, of the polity within which we now live and how we might reclaim democracy. Social systems such as that in Russia and many developing countries are sometimes described as kleptocracies, but books such as 'The Establishment' by Owen Jones, 'Capital in the 21st Century' by Thomas Piketty and 'This Changes Everything: Capitalism vs. the Climate' by Naomi Klein make it clear that western societies are plagued by oligarchs also. Surveillance is the instrument that helps them maintain their power. The challenge for those who would like to see a 'regime change' from the oligarchies we have now to some nominally equitable social democracy is that many people, perhaps most, have become so inured to the pervasiveness of surveillance that they would find it hard to shed the conveniences of many technologies that, at the same time, are instruments of surveillance. Julia Angwin's book 'Dragnet Nation' demonstrates how formidable the challenge is for even an informed journalist from The Wall Street Journal to shed such instruments.

2.1. Manifestations of how trust has been damaged and/or is at risk

This subsection presents a few examples of how privacy and trust have been damaged or are at risk in surveillance societies.

- The revelation that the NSA was monitoring Angela Merkel's personal mobile phone not only infringed her privacy and angered the German Chancellor, but it also damaged trust between the US and Germany.[9] Trust between the two countries was further damaged when a double agent in the BND, the German intelligence agency, was arrested on suspicion of spying for the US. The man admitted that he had been passing on details about a special German parliamentary committee set up to investigate the Snowden revelations.[10]

- The UK Parliamentary intelligence committee fed questions to the security service chiefs in advance of its first public hearing.[11] This revelation damaged trust between the public and their politicians. It showed that oversight of the intelligence agencies is a façade.

- The UK government's rushing through Parliament in less than a week a new 'snooper's charter' (the so-called DRIP legislation) undermined trust in the effectiveness of parliamentary democracy.[12]

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[9] Traynor, Ian, and Paul Lewis, 'Merkel compared NSA to Stasi in heated encounter with Obama', The Guardian, 17 Dec 2013 (http://www.theguardian.com/world/2013/dec/17/merkel-compares-nsa-stasi-obama).

[10] Severin, Thorsten, 'Germany arrests suspected double agent spying for U.S.: lawmakers', Reuters, 4 July 2014 (http://www.reuters.com/article/2014/07/04/us-germany-usa-spying-idUSKBN0F914M20140704).

[11] Daily Mail, 'So much for the interrogation: Spy chiefs knew what questions were going to be asked BEFORE parliamentary committee', 17 Nov 2013 (http://www.dailymail.co.uk/news/article-2508779/Spy-chiefs-fed-questions-advance-parliamentary-committee-hearing.html).

[12] Morris, Nigel, 'New data bill: Last-minute rush 'undermines trust in Government intentions'', The Independent, 15 July 2014 (http://www.independent.co.uk/news/uk/politics/new-data-bill-lastminute-rush-undermines-trust-in-government-intentions-9608215.html).

- Social networks surveil and manipulate consumers. There have many such cases. One recent case was Facebook's altering the newsfeeds of 700.000 subscribers so that some got more positive news and others more negative news.[13] Facebook surveilled the users to see what their reaction was to the newsfeeds. By not informing consumers in advance of what they are doing, social networks undermine consumer trust in their services.

- The South Korean intelligence agency attempted to manipulate the results of a recent election.[14] If intelligence agencies are able to smear candidates they don't like based on information they collect on those candidates, then it undermines trust in electoral legitimacy.

- The revelation that Google's Street View vehicles were collecting everyone's Wi-Fi data undermined trust not only in Google[15], but also to some degree in national regulators who adopted varying and somewhat ineffectual responses to the revelation (Barnard-Wills 2014).

- Revelations that employers are spying on employees without their knowledge or consent can undermine employee trust in the employer, as Deutsche Telecom found out, when it was attempting to find the source of a leak.[16] Supermarkets have also undermined the trust of employees and customers when the latter have discovered they were being secretly monitored.[17]

- Glenn Greenwald, the first to report the Snowden revelations, has argued that 'the United States and its partners, unbeknownst to the entire world, has converted the Internet, once heralded as an unprecedented tool of liberation and democratization, into an unprecedented zone of mass, indiscriminate surveillance'.[18]

Many other instances, similar to those cited above, show that citizen-consumers are right not to trust the intelligence agencies, oversight committees, government departments and big companies. Of the instances cited above, the ability of (some) intelligence agencies to surveil and smear politicians who don't support the agencies as fully as they might is particularly worrying.

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[13] Lanier, Jaron, 'Should Facebook Manipulate Users?', The New York Times, 30 June 2014 (http://www.nytimes.com/2014/07/01/opinion/jaron-lanier-on-lack-of-transparency-in-facebook-study.html?_r=0). See also Peterson, Tim, 'Consumers Becoming Less Trusting of Google, Warier of Facebook, Twitter', Advertising Age, 9 Jan 2014 (http://adage.com/article/consumer-electronics-show/consumers-trusting-google-warier-facebook-twitter/290992).

[14] Sang-Hun, Choe, 'Prosecutors detail attempt to sway South Korean election', The New York Times, 21 Nov 2013.

[15] Orlowski, Andrew, 'Google Street View logs WiFi networks, Mac addresses', The Register, 22 April 2010 (http://www.theregister.co.uk/2010/04/22/google_streetview_logs_wlans).

[16] AFP, 'Deutsche Telekom admits to spying on employees', published in The Local [English-language news network in Germany], 25 May 2008 (http://www.thelocal.de/12081).

[17] Boyes, Roger, 'Lidl, the Big Brother supermarket, is watching you', The Times, 27 March 2008.

[18] Greenwald, Glenn, 'Why Privacy Matters', TED, Oct 2014 (http://www.ted.com/talks/glenn_greenwald_why_privacy_matters/transcript?language=en).

2.2. Sources for scanning the horizon for (weak) signals in the field of surveillance

The following subsections provide some sources for scanning the horizon for (weak) signals of eroding trust in surveillance societies. Some signals are not so weak, as the preceding section has shown. Instead, they provide good evidence of damaged trust.

2.2.1. News stories

Newspapers and other media are a principal source of (weak) signals in relation to privacy and trust at risk in surveillance societies. The quality newspapers, such as The Guardian, The New York Times, El Mundo, Le Monde, Der Spiegel and others, have devoted many column inches to surveillance stories, especially since the Snowden revelations began in early June 2013. Their coverage of surveillance predates that, of course. Newspapers bring to light that which was hidden from public view. They influence the public agenda. They send strong signals about what they consider important and worthy of public attention, if not debate. But for every 'quality' newspaper, there are a dozen that are inferior, anodyne, often with much larger readerships and with less interest in privacy and trust at risk in surveillance societies. The reportage from newspapers (or the mass media generally) may be coloured by the biases of their owners[19], hence one should be cautious in relying on the media as a source of weak signals.

There have been hundreds, if not thousands of stories flowing from the Snowden revelations that have made visible what was heretofore unseen and uncontrolled surveillance and, in so doing, have eroded the public's confidence in many of society's institutions – not only the intelligence agencies (especially the NSA and GCHQ), but also many large companies such as Apple, Google, Facebook, Microsoft, Amazon, Skype and the communications carriers such as Verizon, Vodafone, Telstra and so on. Although companies have complained to their governments that the Snowden revelations have eroded trust not only in government, but also in the companies themselves,[20] which has curtailed their business prospects,[21] the companies themselves are just as guilty as the intelligence agencies in creating the surveillance societies in which we now live.[22]

2.2.2. Public opinion surveys

One can fault many public opinion surveys for imprecisely framed questions or limited, unrepresentative samples or questions designed to elicit the responses wanted by the surveyor. Nevertheless, some surveys, such as those of Eurobarometer, provide a reasonably reliable snapshot of how Europeans view particular issues at a specific point in time. Even a snapshot, however, can be deceptive. Public opinion can shift from one month to the next. Externalities, such as the Snowden revelations, can cause such shifts. Longitudinal surveys are valuable in detecting such shifts. Until recently, there have not been many surveys addressing trust and surveillance, but since the Snowden revelations began in early June 2013, there has been a multiplicity of such surveys, which, collectively, provide a kind of longitudinal guide to what surveillance practices are acceptable and which not.

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[19] As an example of blatant bias, see Jones, Owen, 'The Establishment: And how they get away with it', Penguin, 2014, p. 104: 'All of Murdoch's 175 newspapers across the world backed the war' [in Iraq].

[20] Wyatt, Edward, and Claire Cain Miller, 'Tech Giants Issue Call for Limits on Government Surveillance of Users', The New York Times, 9 Dec 2013 (http://www.nytimes.com/2013/12/09/technology/tech-giants-issue-call-for-limits-on-government-surveillance-of-users.html?adxnnl=1&adxnnlx=1386597729-0fZ0s3tbtah9QACpnsdtTg).

[21] Stern-Peltz, Mikkel, and Jim Armitage, 'IT firms lose billions after NSA scandal exposed by whistleblower Edward Snowden', The Independent, 29 Dec 2013 (http://www.independent.co.uk/life-style/gadgets-and-tech/news/it-firms-lose-billions-after-nsa-scandal-exposed-by-whistleblower-edward-snowden-9028599.html).

[22] Pagliery, Jose, 'Big Tech vs. NSA: Pot calling the kettle black?', CNN, 10 Dec 2013.

Ipsos MORI in its survey of 27,000 Europeans for the EC-funded PRISMS project[23] found that 59% of those surveyed do not trust their governments who might be regularly capturing large amounts of data on citizens by monitoring their e-mails and threatening people's rights and freedom. 33% strongly agree that these practices make people feel vulnerable. Citizens' lack of trust extends beyond the intelligence agencies. The PRISMS survey[24] showed that 49% of Europeans do not trust how businesses use their data. 80% of respondents said defending civil liberties and human rights is very important, while 70% said protecting their privacy is very important. 64% said it was essential or very important to make telephone calls without being monitored. 80% strongly agreed and 11% tended to agree with the proposition that 'my consent should be required before information about my online behaviour is disclosed to other companies'. 78% strongly agreed or tended to agree that 'I should be able to do what I want on the Internet without companies monitoring my online behaviour'. 68% were worried that 'companies are regularly watching what I do'.

Context is important in surveys. While the surveys referenced here suggest that respondents in both the US and Europe don't trust governments and commercial companies very much and see them intruding upon their privacy, in some instances, respondents surprised the researchers. For example, a finding in the PRISMS survey was that 47% of respondents agree that the police 'definitely should' or 'probably should' be able to access DNA samples, while 43% said the police 'probably should not or definitely should not' be able to access DNA samples. 39% agreed that the police should have access to this data if they have permission from a judge. 57% said that the police should be able to monitor demonstrations, while 70% said the police should be able to monitor football matches. 59% strongly agreed or tended to agree that it is unnecessary to monitor everyone just because there are a few trouble-makers at demonstrations.

The surveys that touch upon privacy, trust, surveillance and security carry a clear message: a majority of the citizenry in the US, Canada and Europe do not trust their governments and big companies; they think there is too much surveillance and they do not trust them in regard to what they do with the personal data they collect.

2.2.3. Journal articles and reports

Academics often examine issues well before they reach the public agenda. Hence, they often form an early warning system alerting us to issues that merit public debate. Clarke's (1988) article on dataveillance was especially prescient. Other academics perceived the linkage between privacy, trust and surveillance years before the Snowden revelations began (Raab/Mason 2004).[25]

Former UK Information Commissioner Richard Thomas famously warned that we were 'sleepwalking into a surveillance society'[26] and contracted with the Surveillance Studies Network (SSN), a group of academics, who produced a well-known report entitled, appropriately enough, 'A report on the surveillance society' (Surveillance Studies Network 2006).

The value of academic papers and books as sources of signals of privacy and trust at risk in surveillance societies is that they can provide more nuanced understandings of surveillance than, for example, news stories. News stories often paint surveillance in black and white, whereas academic papers may use many shades of grey to depict surveillance. For example, with the

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[23] See www.prismsproject.eu. PRISMS (as distinct from the NSA PRISM program) focuses on an alternative to the traditional privacy-security trade-off paradigm.

[24] See for the following figures Skinner, Gideon, Ipsos MORI PRISMS survey, slides, August 2014.

[25] Bamford (2009) revealed some of the NSA's mass surveillance activities, although he did not generate quite the same level of media attention as the Snowden revelations. Campbell revealed the existence of the ECHELON spy satellite network as long ago as 1988 (see Campbell, Duncan, 'Somebody's Listening', New Statesman, 12 Aug 1988).

[26] BBC News, 'Watchdog's Big Brother UK warning', 16 August 2004.

advent of social media, Albrechtslund described our contribution to Facebook and other social media as 'participatory surveillance',[27] i.e., we contribute to our own surveillance.

2.2.4. Conference proceedings

Some conferences are useful sources of (weak) signals regarding the loss of privacy and trust in surveillance societies as well as providing opportunities for networking with other stakeholders, who may in turn stimulate consideration of weak signals.

2.2.5. Communications from the European Commission

The European Commission and the Parliament can be a source of (weak) signals regarding privacy and trust at risk in surveillance societies. The EP's LIBE committee report on NSA surveillance is a prime example (European Parliament 2014).

2.2.6. Cultural artefacts

Cultural artefacts, such as films, TV series and novels, can be a source of signals about technologies or capabilities that depict the power, reach and risks of surveillance today and/or in the future. Surveillance has featured in many films and books. Orwell's *1984* provided an image of pervasive surveillance that remains with us today: Big Brother. That novel is one of the most iconic novels of the 20th century.[28] There have been several powerful films on the theme of surveillance, such as Francis Ford Coppola's 1974 film *The Conversation*, starring Gene Hackman. The film offered some important lessons, one of which is that surveillance may lead to dangerous assumptions. A second lesson was the dehumanising effect of surveillance on the surveillants.

Steven Spielberg's 2002 film *Minority Report*, based on a Philip K. Dick short story, is interesting for many reasons, one of which is that Spielberg brought together some 20 futurists for a three-day brainstorming session to help envision a future four decades hence. The film takes place in 2054, at a time when a 'pre-crime' unit arrests people for murders they have not yet committed. In that regard, the film resonates with the notion of the reversal of the presumption of innocence that accompanies mass surveillance today. As a scenario and cultural artefact, *Minority Report* serves as a warning to present day viewers of a dystopian future that is not so far away.[29]

A surveillance film that depicts real events is Laura Poitras's Oscar-winning film, *Citizenfour*, which documents her encounter, together with Glenn Greenwald and Ewen MacAskill, with Edward Snowden. The film also serves as a source of (weak) signals regarding the lack of trust and oversight of the intelligence agencies as well as the vindictiveness of the UK and US governments in attempting to prosecute Snowden. The case of former CIA Director David Petraeus contrasts starkly with that of Snowden. Petraeus also leaked documents (to his mistress), yet appears unlikely to be prosecuted.[30]

In his book, Greenwald (2014, p. 12) declares that 'the ability to eavesdrop on people's communications vests immense power in those who do it. And unless such power is held in check by rigorous oversight and accountability, it is almost certain to be abused'. More specifically, he states that 'converting the Internet into a system of surveillance … turns the Internet into a tool of repression, threatening to produce the most extreme and oppressive weapon of state intrusion human history has ever seen' (Greenwald 2014, p. 14). These are useful signals.

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[27] See Albrechtslund, Anders, 'Online Social Networking as Participatory Surveillance', First Monday, 13(3), 3 March 2008 (http://firstmonday.org/ojs/index.php/fm/issue/view/263).

[28] Crown, Sarah, '1984 'is definitive book of the 20th century'', The Guardian, 2 June 2007.

[29] For an analysis of *Minority Report* as a scenario see Wright (2008).

[30] Timm, Trevor, 'Petraeus won't serve a day in jail for his leaks. Edward Snowden shouldn't either', The Guardian, 5 March 2015 (http://www.theguardian.com/commentisfree/2015/mar/05/petraeus-jail-leaks-edward-snowden).

From his analysis of the documents leaked by Snowden, Greenwald (2014, p. 104) says that 'the US government had built a system that has as its goal the complete elimination of electronic privacy worldwide. Far from hyperbole, that is the literal, explicitly stated aim of the surveillance state: to collect, store, monitor, and analyze all electronic communication by all people around the globe'. Such statements must provoke anyone reading them to see that privacy and trust are at extreme risk.

2.2.7. EU-funded research

The European Commission has funded various projects that are a good source of (weak) signals about privacy and trust at risk in surveillance societies. Such projects have examined various aspects and issues arising from existing surveillance practices and emerging technologies. Most often these projects have focused on the impact on privacy and trust and the implications for policy-making. Examples of such projects include SWAMI (Safeguards in a World of Ambient Intelligence);[31] PRITUIS (Privacy and Trust in the Ubiquitous Information Society); PRESCIENT (Privacy and Emerging Fields of Science and Technology);[32] PIAF (A Privacy Impact Assessment Framework for Europe);[33] SAPIENT (Rights, Privacy and Ethics in Surveillance Technologies);[34] PRISMS (Privacy and Security Mirrors);[35] and IRISS (Increasing Resilience in Surveillance Societies).[36]

These are just a very few of the projects funded by the European Commission addressing privacy, trust and surveillance in whole or in part (disclosure: the author was a partner in all of the above projects). Some common themes emerge from the projects, i.e., the need to engage stakeholders in the process of identifying privacy risks, the impacts of new technologies on privacy, assessing those risks and finding solutions.

2.2.8. Social media, including blogs

Social media provide an interesting source of signals for several reasons. Some social networks such as Facebook are constantly pushing the envelope about what the public will accept or, at least, not rebel against with regard to how much of their personal data is captured and shared. New social networks and applications come to the market every day. Some provide a useful service such as Uber, the spontaneous taxi service, but also collect personal data, including location data. Some new services bring convenience to the consumer, but at a price (not just in monetary terms, but also in terms of privacy). As consumers become aware of how their personal data is captured and used by the social media, such collection and processing may affect their trust and their perception of how trustworthy social media are.

Elsewhere, in the blogosphere, bloggers warn against mass surveillance and the damage to our privacy and trust. Many universities, projects, privacy advocacy and other organisations and activists have blogs, sometimes written by a single person, sometimes with many authors. Many invite contributions from visitors to their website. Such blogs are a good source of weak signals because they often carry items that have not yet made it to the mainstream media.

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[31] The SWAMI website no longer exists, but some of its deliverables, including its final report, can still be found (see http://is.jrc.ec.europa.eu/pages/TFS/documents/SWAMID4-final.pdf).

[32] http://www.prescient-project.eu/prescient/index.php.

[33] http://www.piafproject.eu.

[34] http://www.sapientproject.eu.

[35] http://prismsproject.eu.

[36] http://irissproject.eu.

2.2.9. Civil society organisations' research and opinions

Although many civil society organisations (CSOs) are severely resource-constrained, nevertheless some are able to conduct research and promulgate their views on the depredations caused by mass surveillance to privacy and trust.

3. Potential drivers or causes for eroding and collapsing trust

From a review of the various sources of signals referenced in the preceding section, one can identify various drivers or causes for eroding and collapsing trust including those listed below.

3.1. Governments disregard the public interest

The public may believe (and have good reason to believe) that their government disregards the public interest in conducting mass surveillance or in data fusion. Governments may believe there are efficiencies to be gained in centralising or linking databases ('linked up government', as Tony Blair spun it). They may regard the efficiencies as more important than the risks that may arise as a consequence. Linked databases become a more attractive target for hackers and attackers. Linked databases may pose a threat to citizens' privacy because a more complete, more detailed picture of the individual emerges. Governments may also be tempted to sell the data they hold in order to extract greater value from that data.[37] Governments may say that the data is anonymised, but even supposedly anonymised data has been used to identify individuals.[38] And even if personal data is supposedly anonymised, it does not stop abuses from employees rummaging around and sharing the personal data of others.[39] Stories of such abuses naturally undermine the public's trust in their government.

3.2. Companies (special interests) disregard the public interest

Governments are not the only ones to disregard the public interest in the surveillance they undertake. Companies also disregard the public interest. While some companies do take into account public sensitivities or seek to behave as good corporate citizens – to avoid regulatory action and damage to their reputation – many do not. There is an ambiguity or certain tension in companies' relationship with consumers. In order to sell their products or services, they need to produce things that can induce consumers to purchase. Consumers will not purchase bicycles with square wheels. So companies need to be sensitive to the whims, desires and needs of consumers as well as being able to convince consumers to take up their products or services. Nevertheless, in order to maximise their profitability, companies seek to optimise use of their assets, including the personal data they have collected or intend to collect. In doing so, they may use the consumer's data without informing the consumer how they are using or intend to use that data, let alone gaining the consumer's explicit, informed consent. And even if they do, supposedly, inform the consumer, they may do so in a duplicitous way, e.g., by burying what they intend to do in their product's or service's terms and conditions or in a privacy policy which is several pages long in an eight-point font. Or if they do inform the consumer properly, the consumer may want a service enough or is obliged to take it that the consumer is willing to exchange some personal data in

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[37] Meyer, David, 'England health data fiasco provides perfect case study in the importance of trust', GigaOm, 4 Mar 2014 (http://gigaom.com/2014/03/04/england-health-data-fiasco-provides-perfect-case-study-in-the-importance-of-trust). See also Wolf, Asher, 'Thanks to Care.data, your secrets are no longer safe with your GP', WIRED.co.uk, 7 Feb 2014 (http://www.wired.co.uk/news/archive/2014-02/04/care-data-nhs-healthcare).

[38] See, for example, the case where reporters were easily able to identify a person from supposedly anonymised search data from AOL. Barbaro, Michael, and Tom Zeller Jr., 'A Face Is Exposed for AOL Searcher No. 4417749', The New York Times, 9 Aug 2006 (http://www.nytimes.com/2006/08/09/technology/09aol.html?pagewanted=1&_r=0).

[39] Borland, Sophie, 'NHS data is snooped on six times every day: Staff caught looking at records of friends, family and even love rivals', Daily Mail, 14 Nov 2014 (http://www.dailymail.co.uk/news/article-2833960/NHS-data-snooped-six-times-day-Staff-caught-looking-records-friends-family-love-rivals.html).

order to have the service. The company is, of course, well aware that it is 'squeezing' the consumer, but their profitability counts above all; whether they take advantage of the consumer or not is of lesser consequence.

3.3. Secrecy and a lack of transparency

The Snowden revelations have startled not only the public by the audacity, breadth and scope of mass surveillance of the public in the US, the UK and other countries, but also senior government officials and Cabinet members who one would have expected to have known about the spying. In the UK, former Cabinet minister Chris Huhne surprised the public when he revealed that even the Cabinet had not been told about the extent of GCHQ's mass surveillance programmes.[40] Similarly, in the US, the Obama administration, like the Bush administration before it, determined to keep the NSA mass surveillance programmes secret. [41]

One can question why senior officials decided to keep these programmes secret. Certainly, the intelligence agencies successfully urged secrecy, but there must have been doubts about the legality of the programmes, as the two governments produced some legislation *after* the programs had been in operation, in some cases, for years, in order to legitimise them. The Bush administration absolved the telecommunications companies of any retroactive responsibility for having broken the law in the US.[42] Perhaps the most important reason for secrecy was a fear of how the public would react, no matter how the government 'spun' the need to combat terrorism. As the Snowden revelations became public, government apprehensions about public reactions were justified. Trust in the governments, the intelligence agencies and their corporate followers fell.

Despite politicians promising more transparency, when it comes to surveillance, secrecy rules the day. Greenwald (2014, pp. 223f) rightly comments that 'while the government, via surveillance, knows more and more about what its citizens are doing, its citizens know less and less about what their government is doing, shielded as it is by a wall of secrecy'. The relationship between the state and the citizen has become severely unbalanced. The citizen is losing rights while the government is becoming more in control of the citizen.

3.4. Lies…

It is one thing to disregard the citizen-consumer's interest, to subject the citizen-consumer's interest to that of the government agency or company, but it is quite another thing to tell lies. Nothing destroys trust quite so quickly as being caught out in a lie. For example, at a Congressional hearing on 12 March 2013, US Senator Ron Wyden asked Director of National Intelligence James Clapper: 'Does the NSA collect any type of data at all on millions or hundreds of millions of Americans?'. Clapper's reply was as succinct as it was dishonest: 'No, sir'. In the following July, however, after the Snowden revelations made plain that he had lied, Clapper finally wrote to the committee and offered a formal retraction: 'My response was clearly erroneous, for which I apologize'.[43] Was Clapper punished in any way for perjuring himself? No.

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[40] Hopkins, Nick and Matthew Taylor, 'Cabinet was told nothing about GCHQ spying programmes, says Chris Huhne', The Guardian, 6 Oct 2013 (http://www.theguardian.com/uk-news/2013/oct/06/cabinet-gchq-surveillance-spying-huhne).

[41] Lizza, Ryan, 'State of Deception: Why won't the President rein in the intelligence community?', The New Yorker, 16 Dec 2013 (http://www.newyorker.com/magazine/2013/12/16/state-of-deception).

[42] Eggen, Dan, 'Immunity for Telecoms May Set Bad Precedent, Legal Scholars Say', The Washington Post, 22 Oct 2007 (http://www.washingtonpost.com/wp-dyn/content/article/2007/10/21/AR2007102101041.html).

[43] Lizza, Ryan, 'State of Deception: Why won't the President rein in the intelligence community?', The New Yorker, 16 Dec 2013 (http://www.newyorker.com/magazine/2013/12/16/state-of-deception).

3.5. A violation of privacy and other fundamental rights

Another reason why public trust is collapsing is that mass surveillance violates privacy and other fundamental rights. Surveillance, by definition, is an intrusion upon our right to privacy. It violates other fundamental rights too, such as the right to dignity and the right to freedom of association.

Although there are global and regional conventions on human rights, such as the International Covenant on Civil and Political Rights, the European Convention on Human Rights and the European Union Charter on Fundamental Rights, their effectiveness differs according to interpretation and implementation. While privacy forms a crucial part of human rights, the role security plays in justifying an interference with privacy rights is subject to dynamic and evolving interpretation (De Hert 2005, p. 74). In the European Convention on Human Rights, the second paragraph of Article 8 provides the possibility to restrict the right to privacy in certain cases, such as those involving security. What is particularly worrying in this context is the broad interpretation of 'security' as a reason for limiting privacy, which risks becoming a 'catch-all' clause.[44]

None of our fundamental rights seems inviolable in the face of mass surveillance. Even attorney-client privilege has been routinely violated.[45] This is a dangerous development, not only in terms of a loss of trust and privacy, but also in terms of undermining social capital, indeed, democracy itself.

3.6. Cultural differences and history

A potential driver of eroding trust is cultural differences. Surveys (e.g., the PRISMS survey mentioned above) show important differences between countries in how much trust they bestow on governments and companies.

3.7. Societal disparities

Societal disparities are likely to be a factor in collapsing trust. Research has shown an inverse link between income inequality and social cohesion. In an empirical study using aggregated American state level data for the 1970s, 80s and 90s, Brown and Uslaner found that trust is strongly affected by economic equality. The authors say categorically: 'The greater the level of equality in a society, the more trust' and that 'trust can only flourish where there is considerable equality'. The converse is also true: 'Declines in trust stem from economic inequality'. We can assume that there is a similarly inverse relationship between surveillance and trust, i.e., the more surveillance there is in society, the less trust there is.

3.8. Does it affect me?

The final driver, considered here, for collapsing trust can be summarised by this question: Does it (surveillance) affect me? The more that people perceive that they are being surveilled, the less likely they are to confer trust on the surveilling entity, whether an intelligence agency or company. Especially if they feel they are innocent of any wrong-doing, the more likely they are to feel aggrieved and the greater will be their distrust.

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[44] See http://ec.europa.eu/bepa/european-group-ethics/docs/publications/ege_opinion_28_ethics_security_surveillance_technologies.pdf.

[45] Bowcott, Owen, 'UK intelligence agencies spying on lawyers in sensitive security cases', The Guardian, 7 Nov 2014 (http://www.theguardian.com/world/2014/nov/06/intelligence-agencies-lawyer-client-abdel-hakim-belhaj-mi5-mi6-gchq).

4. The impact of trust at risk in surveillance societies

4.1. Collapsing trust is a game changer

Arguably, elections are becoming irrelevant. Citizen-consumers are no longer in control of their own destiny: a recent Pew Research survey showed that 91% of respondents believe they no longer control their personal data.[46]

The revelation that the NSA had been monitoring Angel Merkel's personal phone for years was also a game changer in relations between Europe and the US (see e.g. European Commission 2013) and between Europe and US industry. Similarly, revelations that the NSA had been monitoring Brazilian president Dilma Rousseff resulted in a chilling of relations between Brazil and the US and the loss of Brazilian contracts, and development of a new Brazil-Europe undersea cable that bypasses the US.

The breakdown in trust is a game changer, but it can create opportunities, e.g., in taking measures to earn or rebuild citizens' trust.

4.2. A lack of trust hurts business

Various reports have pointed out how the Snowden revelations have caused a loss of trust and hurt US business, in particular. A report by the nonpartisan New America Foundation found that the Snowden revelations have eroded trust with serious consequences for US technology firms and for US credibility around the world.[47] The Snowden revelations have prompted foreign countries to deny large contracts to US companies. In June 2014, the German government announced that it intended to cancel its contract with Verizon, which provides Internet services to some German agencies, due to the company's co-operation with the NSA. Brazil, which has had a heated debate over the NSA's activities, passed over Boeing in December 2013 to award a $4.5 billion fighter jet contract to Swedish manufacturer Saab.[48]

The Information Technology & Innovation Foundation, an industry-funded think tank, estimated that the revelations could cost the US cloud computing industry between $21.5 and $35 billion by 2016[49], but others say those losses could be as high as $180 billion.[50] Some US companies have said they have already lost business, while UK rivals have said that UK and European businesses are increasingly wary of trusting their data to US organisations, which might have to turn it over secretly to the NSA.[51] A survey of 300 British and Canadian multinational companies found that a quarter of respondents were moving their data outside the US.[52]

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[46] Madden, Mary, 'Public Perceptions of Privacy and Security in the Post-Snowden Era', Pew Research, 12 Nov 2014 (http://www.pewinternet.org/2014/11/12/public-privacy-perceptions).

[47] Dwoskin, Elizabeth, 'New Report: Snowden Revelations Hurt U.S. Companies', The Wall Street Journal, 30 July 2014 (http://blogs.wsj.com/digits/2014/07/30/new-report-snowden-revelations-hurt-u-s-companies).

[48] ibid.

[49] Birnbaum, Michael, 'Germany looks at keeping its Internet, e-mail traffic inside its borders', The Washington Post, 1 Nov. 2013.

[50] Miller, Claire Cain, 'Revelations of N.S.A. spying cost U.S. tech companies', The New York Times, 21 Mar. 2014.

[51] Arthur, Charles, 'Fears over NSA surveillance revelations endanger US cloud computing industry', The Guardian, 8 Aug. 2013. See also Stern-Peltz, Mikkel and Armitage, Jim, 'IT firms lose billions after NSA scandal exposed by whistleblower Edward Snowden', The Independent, 29 Dec. 2013.

[52] Acohido, Byron, 'Snowden affair continues to chill cloud spending', USA Today, 8 Jan. 2014.

4.3. Chilling effect

An important impact of trust at risk in surveillance is its chilling effect. The chilling effect occurs when people are more guarded in what they say or do if they perceive that they are under surveillance. The chilling effect is real: a BBC poll showed that more than half of Internet users in 17 countries do not believe the Web is a safe place to express their views; 52 per cent disagreed with the statement that "the internet is a safe place to express my opinions". The same poll also found that one in three people do not feel free from government surveillance.[53]

The assumption that they are under surveillance is harming freedom of expression by prompting writers to self-censor their work in multiple ways, including:

- reluctance to write or speak about certain subjects;
- reluctance to pursue research about certain subjects;
- reluctance to communicate with sources, or with friends abroad, for fear that they will endanger them by doing so.[54]

4.4. Presumption of innocence

Mass surveillance reverses the principle of presumption of innocence. With mass surveillance, everyone is suspect until proven innocent. Even the innocent may be suspect because they happen to fall within some predetermined profile, which the police use for pre-crime prevention.

Efforts by the innocent to fend off unwanted mass surveillance, e.g., encrypting e-mail, may attract the attention of the police who may assume that only someone who has something to hide would encrypt their e-mail.

4.5. Diminished electoral participation

Mass surveillance may induce a collapse of trust between most people and the political and corporate powers. If people come to think that their vote won't change anything, they are less likely to vote in elections. A low voter turnout is very dangerous even for the semblance of democracy.

Activists seeking to reduce the inequalities in society may pursue one of two different strategies. One is to convince as many people as possible to participate in elections where there is a party committed to reducing inequalities. The other is to urge citizens to boycott the election or to spoil their ballots in order to show that the election lacks credibility and that the electorate has little confidence and trust in their political parties.

4.6. Loss of social capital, a dysfunctional society

The erosion of trust creates a loss of social capital; people are less inclined to contribute to the well-being of society. As trust breaks down, it creates a dysfunctional society, i.e., one where different segments are 'at war' with each other – if not literally at war, then where different segments resort to measures to undermine other segments, e.g., the rich and powerful may take steps to restrict the freedom of the people who protest against the aforementioned inequalities. They may send the police to harass them. They may seek to subjugate the people with low wages and a high cost of living, where the people have fewer and fewer rights and entitlements, where they have less and less protection against unscrupulous corporate warlords and politicians. By the

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[53] Landi, Martyn, '52% wary of expressing their views online, one in three do not feel free from government surveillance', Belfast Telegraph, 1 April 2014 (http://www.belfasttelegraph.co.uk/life/technology-gadgets/52-wary-of-expressing-their-views-online-one-in-three-do-not-feel-free-from-government-surveillance-30143204.html).

[54] Glenn Bass, Kate, 'Chilling Effects: NSA Surveillance Drives U.S. Writers to Self-Censor', Research conducted by The FDR Group, thefrdgroup.com, 12 Nov 2013.

same token, those who suffer the ill effects of surveillance may resort to civil disobedience and other measures aimed at disrupting the existing social order.

Even if the surveilled did not resort to civil disobedience, they may make less contribution to the well-being of society, with the result that society operates less optimally than it could. The size of the economy and the cohesion of society are surely going to be greater if inequalities and mass surveillance are reduced to that about which there is genuine social consensus.

4.7. Undermining democracy

If privacy has been correctly described as a cornerstone of democracy and if privacy is killed off by the intelligence agencies, government agencies and big companies, then it follows that democracy is under siege. Some would argue that democracy is already just an illusion. The UK House of Lords Constitution Committee conducted a study on surveillance in the country and did not like what they found. Commenting on the report, entitled 'Surveillance: Citizens and the State', Lord Goodlad, chairman of the Constitution Committee, said: 'The huge rise in surveillance and data collection by the state and other organisations risks undermining the long standing traditions of privacy and individual freedom which are vital for democracy. If the public are to trust that information about them is not being improperly used there should be much more openness about what data is collected, by whom and how it is used'.[55]

Security guru Bruce Scheier would agree: 'Trust is essential for society to function. Without it, conspiracy theories naturally take hold. Even worse, without it we fail as a country and as a culture. It's time to reinstitute the ideals of democracy: The government works for the people, open government is the best way to protect against government abuse'.[56]

In short, mass surveillance has undermined privacy, trust and other fundamental rights; in doing so, it has undermined democracy.

5. Policy options

In this section, I consider various scenarios presenting political responses to the ubiquity of the surveillance society.

5.1. Status quo – Go with a flow, avoid transparency, align with the rich and powerful

Politicians could simply ignore public opinion about the decline in trust and public concerns regarding the intrusions on privacy, freedom of expression, presumption of innocence and other fundamental rights, the violations of the Charter of Fundamental Rights. The status quo represents the current situation, where political leaders are aligned with or subservient to the rich and powerful. In this current situation, the intelligence agencies are out of control with virtually no meaningful oversight. The really intrusive surveillance systems are those operated by the intelligence agencies and the big companies such as Google, Facebook, Amazon, Microsoft, Yahoo. The latter are those who have lobbied hardest and most successfully against the proposed European Data Protection Regulation. Inequalities in society are growing; fundamental rights are routinely violated.

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[55] Lords Constitution Committee, 'Ever increasing use of surveillance and data collection risks undermining fundamental freedoms', Press release, 6 Feb 2009 (http://www.parliament.uk/business/committees/committees-archive/lords-press-notices/pn060209const).

[56] Schneier, Bruce, 'The Only Way to Restore Trust in the NSA', The Atlantic, 4 Sept 2013 (http://www.theatlantic.com/politics/archive/2013/09/the-only-way-to-restore-trust-in-the-nsa/279314).

5.2. Option 1 – Need for evidence of political benefit of building a trusting society

In this option politicians see the risks resulting from a loss of trust by the public in their political leaders and their political institutions. While they understand the risks, the politicians need to be convinced that there are political benefits for them in adopting credible measures to rebuild trust in society. In this option, politicians are willing to make changes in surveillance policy, but they first have to see the benefits. Many of today's politicians are less concerned about the public interest, and more concerned with how any new policies might 'play' with the public, how the public might perceive such policy changes and whether that might gain some favour from the public by adopting some measures to curtail some mass surveillance or to improve its apparent oversight.

Before introducing any new surveillance measure, the government will endeavour to establish its likely effect on public trust and the consequences for public compliance. This task could be undertaken by an independent review body or non-governmental organisation, possibly in conjunction with data protection authorities.

5.3. Option 2 – Subjecting mass surveillance systems to independent surveillance impact assessments

The second option is to subject all mass surveillance systems to surveillance impact assessments (SIAs), in which those in developing, deploying or operating the proposed system consulted 'external' stakeholders. Here, the data protection authority will review SIAs as to their adequacy. Furthermore, SIA reports would be subject to third-party, independent review and/or audit and would be published online and included in a public registry of SIAs (Wright/Raab 2012).

5.4. Option 3 – Respecting privacy, implementing do not track policies and practices

As long ago as 1973, the HEW report said there must be no personal-data record-keeping systems whose very existence is secret (HEW 1973). This principle still stands. It is effectively a cornerstone of democracy. It is more important than ever at a time when the public has discovered from the Snowden revelations that the intelligence agencies have such secret systems. In this option, governments introduce legislation that provides greater resources to regulators charged with protecting privacy and other fundamental rights. If regulators do not have adequate resources, then no further mass surveillance systems should be approved until they do. Furthermore, legislation should be introduced and adopted that gives teeth to 'do not track' policies and practices. Organisations that commit serious violations of privacy and data protection will be subject to both administrative and criminal sanctions, including prison for the principals and/or high level officials of the organisations.

5.5. Option 4 – Raising public awareness and stakeholder engagement

The Snowden revelations have had the great effect of raising public awareness of mass surveillance by the intelligence agencies and the collusion of many big companies. A global study of more than 20.000 people in 24 countries released by the Centre for International Governance Innovation in November 2014 showed that more than 60% of respondents had heard about Edward Snowden. In some countries, the percentage was much higher – e.g., in Germany the percentage who had heard about Snowden was 94%, in Brazil it was 84%, and in the United States 76%. Of those respondents who had heard of Edward Snowden, 39% had taken steps to protect their online privacy and security as a result of his revelations.[57] These numbers show that raising awareness can have a positive effect. While all major stakeholder groups should contribute to raising awareness, media and civil society organisations have been the most successful in the instance of the Snowden revelations. The media should not be prosecuted for revealing leaked documents. Press freedoms clearly need to be strengthened in some countries, e.g., the UK where

[57] Wilhelm, Alex, 'The Snowden Effect, Quantified', TechCrunch, 27 Nov 2014 (http://techcrunch.com/2014/11/26/the-snowden-effect-quantified).

representatives from the government and intelligence agencies forced The Guardian to destroy computer equipment housing the leaked documents (Harding 2014, pp. 190-193).

5.6. Option 5 – Planning for the future – social, political, technological foresight

In option 5, the European Commission and funding bodies in the Member States provide more support for foresight studies of emerging and future mass surveillance systems and technologies and their social and political ramifications. The foresight studies should alert policy-makers and stakeholders to challenges likely to arise from new surveillance capabilities.

6. Policy recommendations

This section presents some policy recommendations that could be taken to rebuild trust. It is by no means intended to be comprehensive, however, the measures here are the minimum that might indicate to citizen-consumers that those who deploy, operate and/or authorise surveillance systems recognise the need to earn their trust.

6.1. Transparency

Transparency is essential to trust, as many have observed. To regain trust, intelligence agencies, government departments and the big Internet companies need to be transparent about what they are doing.

Google, Microsoft, LinkedIn, Yahoo and Facebook have said they want more transparency, at least in regard to the number of requests they get from law enforcement agencies and intelligence agencies for access to the personal data they collect. While this transparency is necessary, it is not complete transparency, as the companies are not transparent about the amount of personal data they collect, what they do with it and to whom they sell it or with whom they share it.

The Article 29 Data Protection Working Party has called for more transparency on how surveillance programmes work.[58] Being transparent contributes to enhancing and restoring trust between citizens and governments and private entities. Such transparency includes better information to individuals when access to data has been given to intelligence services. Being transparent about these practices will help improve trust.

6.2. Dialogue (participatory deliberation)

Transparency is not enough to rebuild trust. Effective engagement with stakeholders is required. There are various methods of consultation, such as surveys, workshops, focus groups and consensus conferences. Perhaps the best form of engagement is participatory deliberation, a form of dialogue where stakeholders participate in the decision-making process by considering and discussing various options. The appropriateness of each depends on the issue and the scale of involvement that decision-makers would like, but none of the different methods is mutually exclusive. In participatory deliberation, it behoves decision-makers to ensure they have provided the relevant documents and respond truthfully and openly to the questions of stakeholders. It is not necessary for stakeholders to arrive at a consensus (although that is desirable). More important is the airing of different points of view, so that participants arrive at a shared understanding of the issue and the legitimacy of different points of view. Participatory deliberation with experts and stakeholder representatives is almost always going to pay dividends.

6.3. Stronger, more effective oversight and enforcement

Oversight of the mass surveillance activities of the NSA, GCHQ and other intelligence agencies has clearly been a failure. In the UK, Parliament does not provide effective oversight of the intelligence

[58] Article 29 Data Protection Working Party, Opinion 04/2014 on surveillance of electronic communications for intelligence and national security purposes, adopted on 10 April 2014.

committees. Nor do the regulatory agencies. The institutions put in place to provide oversight of the intelligence agencies are almost useless, mainly cosmetic in function. In its recent report on surveillance, the European Group on Ethics in Science and New Technologies (EGE) made some pertinent observations: 'The EU regulatory landscape regarding security and surveillance as a whole seems scattered and uncertain in many ways…. There is a difficult tension and balancing between human rights and privacy on the one side and national security and crime prevention on the other side. New technologies introducing surveillance, such as drones, present challenges as the current regulation may not be adequate' (EGE 2014, p. 60).

To improve this situation, oversight should take place at several levels. In legislatures, oversight committees should be chaired by a member of the opposition party, not the ruling party. Committee meetings should be open, not held behind closed doors. In addition to committee members, civil society organizations should be invited to question intelligence chiefs. Oversight committees should be adequately resourced, with an adequate research staff. The intelligence agencies should be obliged to file an annual report describing their various activities and the scale of those activities. There should be a judicial review of mass surveillance programs with regard to their legality, necessity and proportionality. Independent auditors, such as the National Audit Office (NAO) in the UK and the General Accountability Office (GAO) in the US, should audit the activities of the intelligence agencies. There should be no secret laws and no secret programs.

6.4. Surveillance impact assessment

With the increasing pervasiveness of mass surveillance, there is a clear need for mandatory surveillance impact assessments (SIA), a method that addresses not only issues of privacy and data protection, but also ethical, social, economic and political issues. The bedrock of a surveillance impact assessment is identifying and describing the surveillance technologies to be developed and deployed in a new project; dealing with the issues to which the proposed surveillance gives rise; considering the impacts, of which there could be several, that the technologies or systems may have; and identifying and engaging with the stakeholders affected by or who have an interest in the surveillance project. Project managers should be obliged to attach a completed SIA report with every budget request for any new surveillance system or technology. An adequate representation of all stakeholders should participate in the SIA process regarding mass surveillance systems.

6.5. Protection of whistle-blowers

Although whistle-blowers perform an important public service in exposing abuses to the public interest, governments typically vilify and threaten them with long terms in prison. Such was the case with Chelsea Manning who leaked US State Department cables who was sentenced to 35 years. Edward Snowden faces a similar fate should he ever return to the US.

People have two quite different points of view about whistle-blowers. Those whose documents are leaked are, of course, the most hostile towards the whistle-blower. Others think that Snowden is a selfless hero who has risked his life to expose the extent to which the intelligence agencies violate the public's right to privacy and other human rights.

So while the UK government would like to capture Snowden, a UK Parliamentary committee found that whistle-blowers were ill-treated in the UK, but deserved protection.[59] In its report on surveillance for the European Parliament, the LIBE Committee also called for protection of whistle-blowers and journalists.

Despite significant advances shown in some areas in the study on 'The Whistleblower Protection Rules in G20 Countries: The Next Action Plan', released in June 2014, many G20 countries' whistle-

[59] Grice, Andrew, 'Civil service whistleblowers need more support and protection, MPs say', The Independent, 1 Aug 2014 (http://www.independent.co.uk/news/uk/politics/civil-service-whistleblowers-need-more-support-and-protection-mps-say-9640825.html).

blower protection laws fail to meet international standards, and fall significantly short of best practices.[60]

Transparency International urges the European Commission to follow the call by the European Parliament in October 2013 to submit a legislative proposal establishing an effective and comprehensive European whistle-blower protection programme in the public and private sectors. The programme and related EU laws should comply with Articles 11, 30 and 41 of the Charter of Fundamental Rights of the European Union, which address a person's rights to freedom of expression, protection from unjustified firing, and effective remedies and a fair trial, respectively (Worth 2013).

According to the EGE report, the European Commission and Member States should ensure that an effective and comprehensive whistle-blower protection mechanism is established in the public and private sectors. In line with the Transparency International principles as articulated in the 2013 'Whistleblowing in Europe' Report, in situations where national security is involved, whistleblower regulations and procedures should be present and clear. They should maintain confidentiality or anonymity; ensure thorough, timely and independent investigations of whistle-blowers' disclosures; and have transparent, enforceable and timely mechanisms to follow up on a complaint of a whistle-blower in relation to retaliation. Where a disclosure concerns matters of national security, official or military secrets, or classified information, special procedures and safeguards for reporting that take into account the sensitive nature of the subject matter should be adopted. These procedures should permit disclosure to an autonomous oversight body that is institutionally and operationally independent from the security sector, or disclosures to authorities with the appropriate security clearance. External disclosure (that is, to the media or civil society organizations) would be justified as a last resort (see EGE 2014).

7. Recommendations for European R&I policy and Horizon 2020

This final section of the chapter sets out various recommendations for research and innovation policy and for possible funding priorities under Horizon 2020. Furthermore, the report on surveillance prepared by the European Parliament's LIBE committee made numerous recommendations, some of which should help shape new Horizon 2020 priorities.

- Trust, ethical issues and sharing personal data

Numerous cases have only confirmed the worst fears of civil society organisations regarding the centralisation of government databases and the unscrupulous ambitions of governments to privatise ever more government services and to extract value from sensitive personal data.[61] Such cases make clear that the European Commission, Member States and researchers should be devoting much more attention to trust and ethical issues generally, and data aggregation, data fusion, data matching and the sharing and sale of personal data, whether it has supposedly been anonymised or not, more specifically.

- Broadening the policy framework from data protection to other types of privacy

Data protection is just one type of data. Other types of privacy get less attention from policy-makers. As surveillance technologies become more sophisticated, they will certainly infringe these other types of privacy (indeed, such is already the case). The Commission should support research that elucidate these other types of privacy and what measures should be taken to protect them and to put them on at least the same regulatory footing in the EU as data protection – i.e., not only do

[60] Silverstein, Ed, 'New report examines whistleblower protection laws in place among G20 nations', Inside Council, 19 June 2014.

[61] See, for example, Meyer, David, 'England health data fiasco provides perfect case study in the importance of trust', GigaOm, 4 Mar 2014 (http://gigaom.com/2014/03/04/england-health-data-fiasco-provides-perfect-case-study-in-the-importance-of-trust).

we need an EU Data Protection Regulation, but we also need a more wide-ranging Privacy Regulation.

- Surveillance and technological determinism

Horizon 2020 should set a priority on surveillance technological determinism, a key question of which should be to consider the inevitability of new surveillance technologies. Just because it is possible to develop a new technology (e.g., mind reading), should it be developed? What are the ethical issues raised by prospective surveillance technologies and how should we address those ethical issues?

- Understanding the social, psychological, political, economic and cultural impacts of surveillance on democracy

Horizon 2020 should focus more on research that examines the social, psychological, political, economic and cultural impacts of surveillance on democracy, both in terms of empirical evidence and theoretical conceptualisation.

- Foresighting the impact of emerging mass surveillance technologies

As indicated above, Horizon 2020 should build on foresight focused on the ethical, social, political and economic impacts of emerging mass surveillance technologies.

- Reducing social disparities

Governments and local authorities pay more attention to surveilling street crime than to corporate malfeasance (Coleman/McCahill 2011). Horizon 2020 should correct this imbalance, in part, by looking at how corporate malfeasance, which has much more profound impacts on our societies and economies than street crime, can be better surveilled and detected. Horizon 2020 should also support research on the inequities of social sorting and how to unwind its negative impacts.

- Predictive analytics

Horizon 2020 needs a greater focus on the social and legal impacts of predictive analytics, especially as it relates to 'preventative' policing. Such studies should embrace not only predictive analytics in relation to big data (for example), but also to DNA. To what extent is DNA a predictor of whether a person will develop into a criminal or disruptor of social order? Such studies could also consider the nexus between genetic engineering and mass surveillance.

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CHAPTER 4

Datafication, transparency and trust in the digital domain[1]

Mikkel Flyverbom

'By treating the Internet as a giant surveillance platform, the NSA has betrayed the Internet and the world. It has subverted the products, protocols, and standards that we use to protect ourselves. It has left us vulnerable – to foreign governments, to cybercriminals, to hackers. And it has transformed the Internet into a medium that no one can trust.' (Schneier 2014)

This chapter explores how developments in the area of digital technologies have ramifications for trust. In particular, it investigates how the extensive kinds of transparency made possible by digital technologies and digital data relate to a possible erosion of trust and increased scepticism when it comes to digital infrastructures and data aggregation. In this context, the digital domain refers not only to the internet, mobile technologies and other information and communication technologies, but also to the emergence of vast amounts of digital data requiring new modes of analysis and allowing for new forms of prediction and profiling.

In the context of the digital domain, trust issues revolve primarily around the degree to which users, consumers and others consider online spaces to be safe and reliable platforms for communication, social interactions and economic transactions. But questions of trust also include more general concerns about surveillance, privacy and processes of data aggregation and -management, as well as more specialized issues such as algorithmic forms of knowledge production and governance. The chapter is structured as follows: the first part offers some background information about the digital domain. The second part provides some comments on methodology and gives an overview of the emergent developments in the digital domain that affect trust negatively. These discussions focus on three issue areas indicating that trust may be at risk: government surveillance, leaks and data breaches, and corporate big data profiling. While these are not exhaustive of the many intersections between trust and the digital domain, they point to some important developments in need of attention. The third part considers some current and possible future responses to these developments and provides a short conclusion, focusing primarily on regulatory and policy developments, sustainable data value chains and responsible data management, and privacy enhancing tools and the need for increased 'data literacy' and capacity-building.

1. Background and developments in the digital domain

The internet is an important infrastructure for communication, commerce and social relations, and there is a growing awareness of the significance of this domain for individuals, organizations and states. The ease with which can go online, send messages and trade via the internet often makes us forget that the internet is shaped by strong economic, political and regulatory forces. Also, we need to be aware that the digital domain is increasingly politicized and marked by contestation (Flyverbom 2011).

For historical reasons, the US plays a central role in the administration of the internet infrastructure, such as the domain name system. But the internet is also governed by technical standards securing interoperability, non-technical standards relating to costs and traffic, and international agreements pertaining to trade, copyright and privacy laws. On top of this, many governments filter content, some simply turn off the internet to silence opposition and hinder online mobilization, or seek to develop national versions of the internet. Such attempts at national, governmental control are increasingly visible, but it is important to keep in mind that in many ways the internet domain is primarily shaped by private, technical forms of governance that remain opaque and invisible to the individual user. In some ways, the governance of cyberspace resembles

[1] I thank Kalina Staikova for excellent research assistance and Pernille Tranberg for valuable discussions about data ethics, privacy and the 'dark sides' of big data.

the governance arrangements developed for other objects with societal and economic value. Similarly, the internet is shaped by multiple policy, legal and ethical concerns, including public (governmental and intergovernmental), private (corporate, civil society-based and personal) and technical (codes and technical specifications) forms of steering.

This background information is not only useful when we seek to understand the importance of digital technologies, but also helps us consider how cyberspace has consequences for trust. While the importance of digital technologies for social and economic developments have made the internet a salient and visible issue in global politics, we still have a lot of open questions and concerns, such as: how to govern this space? And how to deal with the ways it intersects with other spaces? In many ways 'the web today is a big black box' (Lohr 2014), and one that intrudes on many parts of society in potentially problematic ways. Developments in this domain have increased the fear that digital spaces offer little protection against surveillance and other forms of privacy-intruding activity, and constitutes a regulatory void marked by practices and norms that do not always match those at work in other social, political and regulatory domains. These concerns, in turn, may undermine trust and the willingness to rely on digital infrastructures in personal, corporate and political contexts.

This chapter considers how such developments intersect with questions of trust, i.e., what it means for our perception and reliance on the critical infrastructure that the internet now constitutes. Obviously, in this context, trust is an umbrella term for a host of regulatory and ethical issues that currently mark and shape the digital domain. Some of the weak (and not so weak) signals that can be identified in this area include the growing fragmentation of the internet, with national governments seeking to develop internet infrastructures that are less vulnerable and better secured. Such examples include Iran's proposal that it would develop a 'Halal Internet' respecting and promoting Islamic values, and Brazil's and other countries' attempts to strengthen national regulation when it comes to internet services. In many ways, the tension between a decentralized, global technological infrastructure and a state-centered conception of regulation and control is more visible than ever.

While the internet is an important component of the digital domain, the emergence of what is usually referred to as 'big data' is another key issue that needs to be included in any discussion of the role of digital technologies in societal developments. The amount of data produced by human activities increases rapidly and currently needs to be counted in zettabytes (trillions of gigabytes). In 2012, the world's data amounted to 2.8 zettabytes, and this is expected to double every second year and reach 40 zettabytes by 2020 (Gantz/Reinsel 2012). These data span from travel patterns captured by GPS devices, over internet traffic and searches stored online to messages on social media. The term 'big data' is used to describe these growing amounts of data and their uses, which require new forms of data storage, analysis and visualization (Chen et al. 2012), and offer new possibilities for measurement, prediction and governance. These developments are well captured by the term 'datafication' (Mayer-Schönberger/Cukier 2013).

Another area marked by declining trust is knowledge production. Digital environments allow for distributed and participatory forms of interaction, conversation and knowledge production. Earlier phases in the development of the internet were marked by a high degree of optimism that these technological possibilities would lead to democratisation, participation and mobilisation – both in politics and in knowledge production. But phenomena such as big data show some other ways in which digital technologies afford particular forms of knowledge production. These include the rapid and hidden aggregation and reuse of digital data for unexpected purposes and the reliance on advanced algorithms that operate in largely opaque ways. Such forms of knowledge production tie in with declining trust because they operate outside the public gaze, involve a range of actors whose roles and responsibilities are not very clear, and layer information so densely that the operations and resources involved become very hard to grasp.

These developments can be understood as the emergence of extensive forms of information-sharing, disclosure, observation and tracking, and may be conceptualised as a matter of increased transparency in many societal domains. But we need to keep in mind that transparency is a complex, ambiguous phenomenon (Hansen/Flyverbom 2014). We normally associate transparency with a trust in the workings of 'sunlight as a disinfectant' (Brandeis 1913), namely that disclosure and information sharing is a direct path to accountability and 'good governance'. Both in the public and private domain, transparency efforts are intended to facilitate insight and clarity that will allow

the observer to make more qualified choices. As noted by Fung et al. (2007), we witness a growing reliance on 'targeted transparency' efforts, where organizations and institutions provide information to qualify decision-making, reduce risks and enhance insight and accountability. The expected outcomes of such actions include increased efficiency, accountability, authenticity, participation, involvement, empowerment, emancipation, and trust. But we need to keep in mind that transparency is also intimately tied to other forms of observation and visibility, such as surveillance and profiling, and these 'family resemblances' (Hansen et al. 2015) must be remembered when we consider the relationship between transparency and trust in the digital domain. Furthermore, there is also a growing awareness that transparency initiatives are always strategic and carefully managed, which means that only selected parts of phenomena are made visible, or that some organizations rely on information-dumping as a way to distract attention from problematic activities. Transparency projects are often complex and multi-facetted, and rarely have clear-cut effects such as 'full disclosure' (Flyverbom 2015). Thus, partly as a result of the developments outlined above, there are also indications that we witness a declining trust in transparency as a simple solution to societal and organisational problems such as corruption and misconduct.

2. Indications of declining trust

This part of the chapter considers explores indications that trust in digital infrastructures and data collection may be eroding, and considers the potential drivers and ramifications of these developments. In particular, it outlines what may be considered a growing awareness of the problematic relationship between the internet, big data and privacy.

2.1. Methodology and sources of weak signals

In order to identify 'weak signals' of a decline in trust in the digital domain, publicly available data from a wide range of online sources were collected. The empirical material comprises online news articles, industry articles, consultancy reports, white papers, policy documents and relevant legislative proposals. Different indexes and surveys measuring the public reaction to the investigated topic were also taken into consideration. The data was gathered through search engines, online industry magazines, online editions of newspapers and expert blogs while using certain keywords: big data profiling, big data legislation, big data weak signals, big data privacy, big data trust, big data erosion of trust, data breaches, data security, Snowden affair, big data surveillance. The collected data are limited to the period February 2012 through mid-November 2014. As with any investigation based on disparate and 'weak signals', this report does not constitute a fully saturated or representative empirical study of the digital domain. Such a study would require a much more extensive and resource-demanding research effort than the present one. Still, the report offers an encompassing and revealing overview of some important current developments and challenges in this area.

The following discussion of indications that trust may be at risk in this area focuses on three themes: government surveillance, leaks and data breaches, and corporate big data profiling. While these are not exhaustive of the many intersections between trust and the digital domain, they point to some important developments that deserve attention and responses.

2.2. Government surveillance

The revelations made by computer analyst and former private contractor Edward Snowden have exposed the extensive surveillance schemes undertaken by the US National Security Agency (NSA). These leaks have generated broad public debate over issues of data security, online privacy, and the reach of government surveillance of the everyday communications of citizens worldwide. The Snowden affair has caused mistrust in both state institutions and private technology companies. In combination with other indications of a proliferation of 'weapons of mass detection' (Zuboff 2014), these developments have propelled what was previously a more academic and/or technical set of concerns about information control into the public and policy domain. That is, governments, corporations, international organisations and NGOs increasingly struggle with questions about how to control this critical infrastructure, and citizens and consumers are increasingly aware that the internet intersects with their personal lives in very tangible ways. Citizens are tracked online, governments filter the internet, and corporations use personal data for commercial purposes. Clearly, surveillance, profiling and information-gathering have always been a key concern for

anyone seeking to control and govern, and many of the developments we witness in the digital domain were anticipated long before the internet and 'big data' were everyday phenomena. But these developments may have negative ramifications for the way we perceive and use digital platforms and technologies.

In the post-Snowden era people appear to be considering their internet use. A survey in April 2014 among 2000 US adults revealed that 47% of the respondents have changed their online behaviour and think more carefully about where they go, what they say, and what they do online, while 26% said that they are now doing less banking online and less online shopping (Cobb 2014). Another survey revealed that about 25% of the Americans are less inclined to use email these days (Vijayan 2014). Also European reports on this topic confirm a growing focus on the lack of data protection and the need for more accessible and user-friendly approaches and tools in this area (Symantec 2015).

Apart from limiting their activities on the web, a growing number of internet users (31%) take actions to protect their online privacy such as editing social media profiles, blocking cookies, or using different search engines (Annalect 2013). This trend is also confirmed in a study conducted by Pew Research which found out that 86% of Internet users have taken steps online to remove or mask their digital footprints – ranging from clearing cookies to encrypting their email, from avoiding using their name to using virtual networks that mask their Internet protocol (IP) address (Rainie et al. 2013). Users are also more inclined to check websites and apps for a privacy certification or seal and to avoid clicking on online ads or enable location tracking (Truste 2014). More than one third of UK consumers say they have deleted an app on their mobile device because of concerns about the use to which their personal data is being put (Warc 2014).

Almost a year after the Snowden revelations about the NSA's data collection practices, a survey by Harris Interactive found that the scandal have eroded the public's trust in major technology companies – and in the internet as such (Vijayan 2014). About 60% of Americans are less trusting of ISPs and other technology companies than before the revelations that they are working secretly with the government to collect and monitor the communications of private citizens.

The mass surveillance undertaken by the NSA has led to erosion of trust in the security of the Internet as such (Kehl et al. 2014). As one of the main goals for NSA is to carry its signals intelligence mission by collecting information on foreign threats to national security, the widespread use of encryption technologies to secure Internet communications is considered a threat to the agency's ability to perform its duties (Kehl et al. 2014). Thus, NSA has engaged in variety of activities such as weakening widely-used encryption standards and inserting surveillance backdoors in widely-used software and hardware products. At the same time a study conducted by the US-based Pew Research found no indications that the Snowden's revelations have fundamentally altered public views about the trade-off between investigating possible terrorism and protecting personal privacy. 62% of the respondents say it is more important for the federal government to investigate possible terrorist threats, even if that intrudes on personal privacy (Pew Research 2013). A majority of Americans – 56% – say the NSA's programme tracking the telephone records of millions of Americans is an acceptable way for the government to investigate terrorism (Pew Research 2013). A report published in July 2014 by the Open Technology Institute, however, found out that the NSA surveillance scandal has direct economic costs to U.S. businesses. American companies have reported declining sales overseas as foreign companies turn claims of products that can protect users from NSA spying into a competitive advantage. Cisco, Qualcomm, IBM, Microsoft, and Hewlett-Packard all reported in late 2013 that sales were down in China as a result of the NSA revelations. The cloud computing industry is particularly vulnerable and could lose billions of dollars in the next three to five years as a result of NSA surveillance (Kehl et al. 2014).

Despite the Snowden's revelation about the mass surveillance undertaken by the NSA and the subsequent debate about the freedom of the internet, there is ample evidence about the growing state surveillance, online censorship and an increase in the governments' requests to access private companies' information about their customer base. A report from the human rights watchdog Freedom House shows that governments worldwide increased their online surveillance in 2013 (Freedom on the Net 2013). Digital rights declined in 34 of the 60 countries researched in the report since May 2012. Governments in 24 of the 60 countries implemented laws to restrict free

speech, some of which imprison bloggers with sentences of up to 14 years for writing articles criticising authorities.

In 2014 Facebook revealed that government requests for data were up by 24% to almost 35.000 in the first six months of 2014 (BBC 2014). Google also reported a 15% increase in the number of requests in the first half of 2014 compared to the prior six months, and a 150% rise in the last five years, from governments around the world to reveal user information for criminal investigations (BBC 2014). Finally, drones are increasingly used by law enforcement authorities across Britain and USA, and they have also given rise to fears of government surveillance. The number of drones operating in British airspace has soared, with defense contractors, surveillance specialists, police forces and infrastructure firms among more than 300 companies and public bodies with permission to operate these controversial unmanned aircrafts (Merrill 2014).

2.3. Leaks and data breaches

Data breaches also amplify the erosion of trust in internet companies and digital infrastructures as such. Data from the Open Security Foundation and the Privacy Rights Clearinghouse estimated in its guide that over 740 million records were exposed in 2013, making it the worst year in terms of data breaches recorded to date (PRNewswire 2014).

Such developments affect trust negatively. In the Check Point and YouGov survey of over 2.000 British people, 50% said their trust in government and public sector bodies was diminished as a result of ongoing breaches and losses of personal data over the past five years, while 44% said their trust in private companies was reduced (Net Security 2013).

Data breaches are not only getting more frequent, but they are also conducted on a larger scale. In October 2014, JPMorgan revealed gigantic data breach possibly affecting 76 million households (Ro 2014). Probably the scariest security breach for 2014 was Heartbleed, a bug found in the OpenSSL encryption library, an open-source software library that protects usernames and passwords when browsing online which is used by 66% of all internet users (Blaszkiewicz 2014). The bug went unnoticed for two years allowing hackers to collect usernames and password for a long time.

Recent data breaches including the iCloud celebrity naked photo hacks, stolen Snapchat images and the Dropbox hacks, all of which have further undermined trust in cloud storage providers that were already reeling from government surveillance and tracking revelations (Palmer 2014). Data breaches are not limited to the companies that originally collected the personal data. In 2011, hackers compromised the database of Epsilon, a marketing company responsible for sending 40 billion marketing e-mails on behalf of 2.500 customers, including such companies as Best Buy, Disney and Chase (World Economic Forum 2012).

What is often overlooked, however, is that data breaches such as these may not be the result of insufficient security and protection on the part of the companies involved. Often, the main problem is that users install so-called third party applications that are able to tap into their accounts, such as those offered by Dropbox and Snapchat. In the data breaches related to those two companies, the cause was different third party applications, such as the app Chatsaved, that users installed and gave permission to save and circulate information (Lu 2014). This implies that solutions to data breaches and enhanced security are much more complicated, and users in many cases play a central role in the leaking of their own and others' data.

These developments in the area of data breaches and leaking intensify the loss of trust in the digital domain and require that users acquire a novel set of skills and a higher degree of caution when sharing data, installing applications and otherwise navigating online.

2.4. Corporate big data profiling

Big data enables companies to create comprehensive customer profiles. Companies use thousands of pieces of information about consumers' pasts to predict how they will behave in the future. In 2007 a research done by the World Privacy Forum uncovered less than 25 profiling scores. In 2014, the research uncovered hundreds of profiling scores (World Privacy Forum 2014). A single consumer profile could be based on as many as 1.000 different factors, including age, ethnicity,

social media presence, religion, health, marital status, purchase history, sexuality, medical history marital status, ZIP code, date of birth, and financial health. Personal data is collected by governments, law enforcement agencies and private companies on a daily basis. The average Briton is recorded 3.000 times a week (Gray 2008). The data include details about shopping habits, mobile phone use, emails, locations during the day, journeys and Internet searches. In most of the case this data are held by banks or retailers, but they can be shared with government authorities upon request.

People worldwide are using technology at a high rate and place considerable value on the benefits offered by digital technology, yet only 45% of the respondents say they are willing to give up their privacy in exchange for the ability to keep receiving these benefits (EMC 2014). The results vary from country to country. In India, for example, consumers are much more inclined to trade privacy for conveniences, while German citizens are on the other end of the spectrum. The vast majority of consumers (84%) claim they don't like anyone knowing anything about themselves or their habits unless they make a decision themselves to share that information. A recent study revealed that a majority of Americans would be comfortable divulging information about themselves anonymously to their favorite stores (60%), a product brand (56%), or an app (46%). Americans would be interested in trading personal information, such as where they shop, how often they exercise, or where they are located, in exchange for benefits that could improve their shopping experience (Pymnts 2014). A global consumer study conducted by Boston Consultancy Group found out that 42% to 53% of the Americans in every generation are comfortable with providing personal data if the companies can mitigate the risk of breaches or abuse (BSG 2013). This trend is confirmed by a survey of 2.023 mobile phone users in France, Poland, Spain and the UK which revealed that consumers are generally comfortable with businesses sharing their data, but 77% of respondents said it is critical that mobile operators tell them how their data is being used (Carroll 2014).

A growing number of internet users are concerned about their online privacy which is caused more by private companies sharing their personal information with third parties and less by reports of government surveillance (Backmann 2014). A study by GfK found that 60% of US Internet users were more concerned about how companies protected personal data than they had been 12 months ago (Emarketer 2014). According to former European Justice Commissioner Viviane Reding, 72% of European citizens are concerned that their personal data may be misused, and they are particularly worried that companies may be passing on their data to other companies without their permission (Reding 2012). Only 55% of US internet users trust businesses with their personal information online, compared with 57% in January 2013 and 59% in January 2012 (Truste 2014). Almost half of UK Internet users do not trust companies with their personal data online, while 89% of the British consumers said they avoided doing business with companies they do not believe protect their online privacy (Truste 2014).

The declining trust in private companies, government institutions and traditional media contrasts with the growing trust in user-generated content (social media status updates, peer reviews). A recent study reveals that millennials (people in their mid-teens-to mid-30s) trust user-generated content 50% more than other media (Knoublach 2014). Another survey shows that over half (51%) of Americans trust user-generated content more than other information on a company website (16%) or news articles about the company (14%) when looking for information about a brand, product, or service (Bazaarvoice 2012).

2.5. Consumer profiling

Both companies and state institutions are interested in accessing personal data and both are engaged in profiling. Behavioural profiling enables firms to reach users with specific messages based on their location, interests, browsing history and demographic group (Economist 2014a). Almost every major retailer, from grocery chains to investment banks has a 'predictive analytics' department devoted to understanding not just consumers' shopping habits but also their personal habits, so as to more efficiently market to them. By installing cookies and other tracking code methods, companies collect detailed data which can reveal the age, education, income, family size, location, employment of their customers. On the most popular websites up to 1.300 companies are watching what customers do. Retailers get data through loyal schemes card, credit and debit cards and analyse the aggregated payment card data to monitor customer shopping patterns. Supermarkets are also experimenting with data-processing cameras that can locate customers

within a store and map their movements, storing the customer as a data point and not an image (Epstein 2014). Such data are used by private companies to profile their customers in order to target marketing materials. By using big data in this way, brands can not only leverage sales and boost dwell time in store; but they can also connect with customers in a new and innovative ways. Internet ads now account for around a quarter of the $500 billion global advertising business (Economist 2014b).

2.6. Risk profiling

Insurers also use 'big data' to profile their customers and design specially targeted insurances and pricing policies. Insurers often offer valuable new or improved products and services in exchange for personal data that customers provide voluntarily. The new offerings may help clients improve their health or may provide access to insurance for people who are considered risky or expensive to serve (Brat et al. 2014). Life insurance companies can use 'big data' to develop a clear and comprehensive profile of the health, wealth and behaviour of their customers (PWC 2013). Car insurers rely on telematics 'black boxes' and related smartphone apps that can measure how drivers behave. According to the British Insurance Brokers' Association (BIBA), about 300.000 cars are fitted with such technology (Wall 2014). Based on the received data, car insurers can give lower prices to less risk-proney drivers. Thus, big data is changing the way car insurance is priced based on drivers' profiling. Only 2% of the US car insurance market offers an insurance product based on monitoring driving. But that proportion is projected to grow to around 10-15% of the market by 2017 (Gittleson 2013).

2.7. Credit profiles

Traditional loan criteria based on FICO credit scores include 10-15 data points used for estimating the credit risk of a loan applicant. A growing number of start-ups around the world, however, are relying on sophisticated algorithms incorporating a large set of parameters to assess how likely it is for a borrower to return the credit. Klarna, Europe's largest specialized online payment solutions provider, uses an algorithm with over 200 variables measuring client risk. They include previous purchases, the time of the day the customer buys goods, the frequency of purchases and even how shoppers type their names (Gustafsson/Magnusson 2014). Lenders have also begun incorporating social data for credit-scoring purposes. Lenddo, Neo Finance and Affirm are among a growing number of credit companies that use personal data found on social networking sites such as Facebook, LinkedIn and Twitter to assess a consumer's credit risk (Rusli 2013). LendUp checks out the Facebook and Twitter profiles of potential borrowers to see how many friends they have and how often they interact.

2.8. Criminal profiling

The power of 'big data' and predictive analytics has also been applied to predicting potential crimes. For instance, the police departments in Las Vegas and Rochester, Minnesota have turned to high-tech analytics to forecast crime 'hot spots' and pursue leads quickly (Jinks 2012). Such software detects and predicts crime patterns by creating vast databases with more reliable information including everything from arrest records and surveillance video to unwise boasts on Facebook and Twitter. The algorithms used in criminal profiling are quickly able to narrow down the list of people who have high likelihood of being involved in violence and even rank them according to their chance of becoming involved in a shooting or a homicide (Stroud 2014).

2.9. Health profiling

Hospitals are starting to use detailed consumer data to create profiles on current and potential patients to identify those most likely to get sick, so the hospitals can intervene before they do (Pettypiece/Robertson 2014). Advanced algorithms can assess the probability of someone having a heart attack by considering factors such as the type of foods they buy and if they have a gym membership. By identifying the high-risk patients, doctors and nurses will be able to suggest interventions before patients fall ill. The UK National Health Service (NHS) rolled out in 2014 its Care Data program that will collate intimate, confidential, lifelong health care details of each patient – identified by NHS number – and store it with the new Health and Social Care Information Centre (HSCIC) (Gilbert 2014). This will allow for identifying certain risk profiles. However, some

privacy concerns over collecting such a vast database are also raised. Although companies anonymise the customers' data and identify them by numbers and not real names, anonymisation of data cannot guarantee full privacy. If these data sets are cross-referenced with traditional health information, it is possible to generate a detailed picture about a person's health, including information a person may never have disclosed to a health provider.

2.10. Big data and discrimination

'Big data' and the advance of digital technologies could render obsolete civil-rights and anti-discrimination laws and might have disproportionate impacts on the poor, women, or racial and religious minorities. The so-called reverse redlining occurs when companies using metadata can segment their customer base in certain categories and use them to customers' disadvantage. 'Big data' offers even sharper ethno-geographic insight into customer behaviour and influence: Single Asian, Hispanic, and African-American women with urban post codes are most likely to complain about product and service quality to the company (Harvard Business Review 2014). Although legal, such customer profiling can lead to a different treatment and thus to ethnic discrimination. A recent study at Cambridge University looking at almost 60.000 people's Facebook 'likes' was able to predict with high degrees of accuracy their gender, race, sexual orientation and even a tendency to drink excessively (Presman 2013). Government agencies, employers or landlords could easily obtain such data and use it to deny a health insurance, a job or an apartment. Many groups are also under-represented in today's digital world (especially the elderly, minorities, and the poor) and run the risk of being disadvantaged if community resources are allocated based on big data, since there may not be any data about them in the first place (White House 2014).

Taken together, these findings point to some important developments in societal governance efforts, in particular the reliance on big data and algorithmic calculations in efforts to solve problems, steer conduct and make decisions. As we have been hinted at by Morozov (2014a) and others, such beliefs in technological and standardized fixes to complex (sometimes fictitious) problems have many possible flaws, and may produce a further decline in trust as people see their digital traces haunt them and become the basis of new forms of regulation that seems more based on a blind trust in data and algorithms and less based on reason, experience and political decisions.

3. Effects, alternative scenarios and political responses

This part of the chapter considers the possible effects of these developments. In particular, it addresses questions about possible scenarios and consequences of the erosion of trust in this area and provides suggestions for strategic political responses, with a focus on European research and innovation policy. Since the investigation above is merely based on 'weak signals', future research should explore questions about the state of consumer trust in Internet infrastructures and citizens' trust in Internet and its uses by government. Also, more general issues such as future orientations and institutionalisations of global internet governance arrangements deserve further scrutiny[2].

In the digital domain, the most common approach to privacy revolves around 'informed consent' – when signing up for a service or using a product, we are asked to read a long list of 'terms and conditions' and by ticking a box, we more or less write off all rights to our own data. But users rarely read these, and do not consider them useful forms of protection (Symantec 2015) – and rightly so, because in most cases, it is impossible to get access to a service or product without agreeing to terms and conditions. If corporations and other organisations are to benefit from the possibilities made possible by datafication, we need to develop models that increase the trust of consumers and citizens by offering better protection, more refined approaches to privacy and a stronger sense of control. What we see in this area are some early attempts to develop products and services that have in-built privacy features, also known as 'privacy by design', and attempts to develop new business models and standards that articulate the issue of privacy. Such efforts take the shape of attempts to establish privacy as a business opportunity and a distinguishing feature of responsible corporations. A major challenge moving forward will be to address what we can think

[2] See also Hofmann in this report.

of as the 'privacy paradox', namely that people are increasingly willing to share data, but also increasingly worried about surveillance, profiling and the lack of privacy protection.

In the following, this chapter proposes that future research priorities should address specific questions about 'refined and balanced privacy regimes', 'sustainable data value chains', 'privacy enhancing products' and a number of related issues. Addressing these issues requires action at the level of regulation, at the organisational/corporate level and at the level of individuals. Following this logic, the following section offers a range of recommendations, including suggestions for research topics and projects, research policy directions and general research and innovation policies.

3.1. Regulatory level: refined and balanced privacy regimes

In response to the NSA scandal, governments around the world have come up with proposals that would strengthen data and privacy protection laws. In 2013 the UN General Assembly adopted a consensus resolution entitled 'Right to privacy in the digital age' which strongly backs the right to privacy, calling on all countries to take measures to end activities that violate this fundamental 'tenet of a democratic society' (United Nations 2013). In November 2014 Brazil and Germany have drafted a new version of the resolution, describing the collection of metadata as a 'highly intrusive act' (Meyer 2014). If adopted, the amendment will result in the abolishment of data retention laws, which force communication providers such as ISPs to store metadata for a fixed period so it can be queried by law enforcement and intelligence services.

This proposal is in contrast with the recently proposed bill in Australia where the government will make 'substantial' payments to Australian telecom companies and internet service providers under a new scheme requiring the companies to store data about their customers' activities (information on calls and internet use such as IP addresses, number of visits to a site and length of time on a page) for two years (Hurst 2014). The compulsory data retention is justified as being critical to security agencies' operations. The US Surveillance Transparency Act of 2013 is a direct response to the Snowden's revelations about NSA's domestic surveillance programs and aims at regulating the US agency to carry out its operations in a more transparent fashion. Under the proposal NSA should disclose publicly how many people have their data collected (Zakaria/Ingram 2013). It would also require the NSA to estimate how many of those people are American citizens and how many of those citizens had their data actually looked at by government agents.

The Snowden revelations have also increased governmental control over traffic and network infrastructure, accelerating the number and scope of national control proposals (Kehl et al. 2014). Several countries, such as Brazil, India, South Korea, Germany, Greece, Brunei, Vietnam, consider introducing data localization laws which will encumber the transfer of data across national borders, thus blocking the international data flow. Under these proposals foreign ICT companies maintain infrastructure located within a country and store some or all of their data on that country's users on local server. While data localisation legislation can provide greater security and privacy protection as the local governments can gain both physical control and legal jurisdiction over data being stored on local servers, these laws may also facilitate censorship and surveillance (Kehl et al. 2014).

Data localisation proposals threaten to undermine the functioning of the Internet. Governments across the world eager to increase control over the World Wide Web are also tearing it apart (Chander/Le 2014). The fracturing of the open Internet into a 'splinter net', where country-specific 'Internets' do not connect with each other to form today's global network, leads to abandoning one common Internet standard. Indications of this trend include China's 'Great Firewall' and the Iranian Halal Internet, which block thousands of websites with the purpose of offering Internet services that live up to Islamic values. Also the plans for a BRICS internet, which offers a brand new Internet backbone that would bypass the United States entirely and thereby protect both governments and citizens from NSA spying (Watson 2013), and the recent announcement made by Vladimir Putin to unplug Russia from the Internet 'in an emergency' (Harding 2014) signal the emergence of national, walled Internet infrastructures which threaten global digital connectivity[3].

[3] See also Hofmann this report.

Moving forward, there is a growing need for refined privacy regulation regimes that balance considerations about innovation, connectivity and the possible benefits of 'big data' with concerns over anonymity and protection of sensitive, personal data. Striking this balance requires research-based knowledge of existing frameworks and their consequences, as well as creative experiments with novel approaches and solutions, and strengthening such research endeavours may be worthwhile.

Such a research priority would need to explore the state of the art of privacy regulation, data protection and broader Internet governance issues in Europe and beyond. In particular, it would be important to look very carefully at the intersections of government-driven initiatives and corporate and civil society-based efforts to develop new models, standards and forms of governance in the area.

3.2. Organisational/corporate level: sustainable big data value chains

Moving closer to the level of corporations and organisations, this suggested future path for research focuses on the development of what may be understood as 'sustainable data value chains', i.e., responsible and trust-enhancing processes of turning data into valuable insights that can drive economic growth and strategy development. As existing industries take on data-driven approaches and new business develops in this area, the need for such responsible and sustainable models and arrangements will be increasingly important. Unlike more developed industries that have tended to address questions of the (often unintended) consequences of their activities and have dealt with stakeholder relations and regulatory concerns as they emerged, the internet domain and particularly big data industries have an opportunity to develop sustainable value chains from the outset.

The development of these requires that we address infrastructural, regulatory and stakeholder-related issues, and create initiatives, policies and investments that may facilitate sustainable 'big data' value chains with societal benefits. In particular, there is a need for guidelines for organisations that want to become data-driven. Many European governments are pursuing open data approaches and creating incentives for data-driven and Internet-driven growth. But a well-functioning infrastructure and affordable access to data will not by itself drive 'big data' value chains, and making it attractive and feasible for companies and other organisations to pursue data-driven approaches requires a lot more than open data. The development of sustainable and trust-enhancing big data value chains raises questions about regulation and privacy that deserve careful attention by researchers and policy-makers alike. In particular, organisations need help crafting innovative privacy policies and mechanisms for data-handling that respect customer concerns without limiting the potentials of datafication. Research investigating the necessary foundations for big data value chains should therefore be supported, and include studies of sustainable data practices, stakeholder relations marked by trust and various accountability mechanisms in place or developing in this area. If these foundations are not in place, there may be obstacles to the possible take-up of 'big data' opportunities by entrepreneurs, private companies and public organisations, as well as widespread concerns about privacy and security voiced by users, customers and citizens. Furthermore, there is a clear need for capacity-building and competence development as an important component of big data infrastructures, i.e., what we may think of as 'big data literacies' so that organizations are able to navigate in and make use of the novel opportunities offered by datafication.

These questions may be explored by focusing on sustainable 'big data' value chains, including infrastructural, operational, regulatory and personal aspects and the components and foundations of 'big data' literacies and capacity-building, both at individual and organisational levels. For instance, companies seeking to develop more integrated and interactive forms of privacy and data control, i.e., 'privacy by design' and compensation for data, should be in focus.

3.3. Individual level: data literacy and privacy enhancing products

Shifting the attention to the level of users and customers, this section outlines the paradox that many people share data freely and somewhat mindlessly in social media and other data platforms, but are also very vocal in their fear of and dislike of companies and other actors that are compiling

and (mis)using the very same digital traces. This privacy paradox needs to be addressed and reflected upon in future research efforts and strategies.

While a string of reports have revealed an increase in the surveillance undertaken by governments, it is also documented that activists, tech companies and everyday Internet users are getting better at pushing back against government efforts to restrict digital rights (Freedom on the Net 2013). Concerns about privacy and frustration over censorship and content blocking are driving millions to use privacy enhancing products. 28% of the online population (or 415 million people) surveyed by GlobalWebIndex reported that they are using tools to disguise their identity or location (Kiss 2014).

One of the most popular anonymity tools is the TOR project, free software programme that allows people to use web connections anonymously. GWI found that around 45.13 million people use TOR, the most high profile for anonymizing internet access (Kiss 2014). There is also a growing number of virtual private networks known as VPNs, which disguise the location of the user's internet connection – their IP address – and therefore bypass regional blocks on certain content. In Vietnam, India and China, around 36% of the population use VPN, while the US, UK, Germany and Ireland meanwhile all report 17% penetration, with Japan the lowest at 5% (Kiss 2014). The current problem is that uses of tools like TOR are often considered as indications of mal-conduct and criminal activities, which means that ordinary users may be unwilling to take them on for legitimate purposes.

Internet users who want to enhance their privacy also use DuckDuckGo – a search engine that does not track or share any of the users' information. DuckDuckGo distinguishes itself from other search engines by not profiling its users and by deliberately showing all users the same search results for a given search term. Users also install the HTTPS Everywhere browser plugin which automatically switch any HTTP web address over to HTTPS, which encrypts communication between the user and the server to protect against eavesdropping or impostors. Other browser extensions for enhancing privacy are Ghostery, which allows a user to block companies from collecting browsing data, and Privacy Badger, which can block third-party advertisers.

In response to the growing number of privacy concerns, popular social media sites such as Facebook have also taken measure to enhance the privacy of their users. In April 2014, Facebook's chief executive Mark Zuckerberg introduced new features that allowed users to limit the amount of personal information they share with third-party mobile apps. Facebook has also created the ability for users to connect directly to the social network via anonymizing 'dark web' service TOR, which makes it possible to visit web pages without being tracked and to publish sites whose contents do not show up in search engines (Lee 2014).

There are also a growing number of apps specially designed to enhance privacy. Wickr sends photos, video and file attachments that will eventually be deleted, but unlike Snapchat, Wickr encrypts messages and no one will have access to private messages. Anonymous messaging apps are popping up everywhere, with Secret, Whisper and Yik Yak being the most popular ones. They claim to provide anonymous, location-based discussion platforms. At the same time mobile privacy apps, such as Clueful, reveal what the apps on your phone are doing, and how your privacy may be compromised in the process (Perez 2013). Another example is The CitizenMe app, which keeps track of the Terms of Service of popular apps installed on a smartphone and ranks the apps based on a transparency index (Bryant 2014).

With the increasing commercial use of personal data and multiple security breaches, people are more and more willing to pay for privacy and privacy enhancing products (Economist 2014b). At the same time privacy is becoming a commodity as people are willing to give their personal data to companies for a certain price. This is exactly the business model of Datacoup, a US start-up which gives people $8 a month in return for access to a combination of their social media accounts, such as Facebook and Twitter, and the feed of transactions from a credit or debit card (Simonite 2014).

The emergence of 'digital self-defense' technologies and skills deserve attention, and investments in research about the development, uses and effects of these is necessary if we want to advance data-driven societies marked by trust in digital infrastructures. Such research may focus on specific issues like the potentials and possible pitfalls of a growing reliance on technologies that provide increased privacy and security, i.e., what we can think of as 'digital self-defense' and how users

practically balance data sharing and privacy concerns when relying on digital infrastructures, i.e., develop individual 'data literacies'.

3.4. Other issues in need of attention

The effects of these developments for trust in digital infrastructures can be explored along a range of other paths as well. Empirical questions about consumers' and citizens' trust in digital infrastructures as well as the emergent shape of public-private relations in this area deserve more attention. At present, the internet domain is marked by visible differences when it comes to how the public and the private sectors approach the question of data sharing and openness. Many governments push for open data approaches and have invested in platforms for the publication and sharing of data. Meanwhile many companies increasingly consider data as a valuable, proprietary resource that they aggregate and use for commercial and innovation-oriented purposes, and therefore need to protect very carefully. In between these poles, we also find organizations exploring philanthropic and other creative models for data-sharing and recirculation. These developments are not clear-cut and deserve further scrutiny. Concrete questions to be explored in this area include how technological developments and a reconfiguration of public and private responsibilities allow for new forms of knowledge production and how data sharing practices are institutionalised in public and private settings.

Also, issues such as 'big data' and algorithmic knowledge production should be central in future research and policy responses. As more and more organisations – public and well as private – rely on 'big data' for purposes of prediction and anticipation, we need to consider what the benefits and pitfalls of algorithmic forms of knowledge production may be. As Morozov (2014b) warns us, potentially the 'rise of data is the death of politics' because it replaces politics, history and experience with a naïve belief in data and algorithms. If we make decisions about healthcare, risk management and crime prevention by relying on digital traces and algorithmic calculations, Morozov points out, we let what he terms 'Silicon Valley logics' and technocratic visions undermine important and long-standing principles for societal and political governance, including the welfare state and democracy. This leads to the question of what sorts of trust/distrust are produced by the reliance on big data and algorithmic forms of governance?

Last but not least, in future a major research focus has to explore the dynamics and unintended consequences of transparency. This is important – both research-wise and politically – because: 'Whether the broad innovation of targeted transparency increases trust in public and private institutions or erodes that trust will depend both on a greater understanding of how transparency really works and the political will to translate that understanding into action' (Fung et al. 2007, p. 182). The issue of transparency and its intersections with other types of visibility remain not well understood. Therefore, answers on the emergent dynamics of transparency and the management of visibility in the digital age as well as on the emergence, institutionalisation and possible erosion of 'trust in transparency' need to be put to the fore.

4. Conclusions

This chapter has investigated a wide range of signals indicating how current developments in the digital domain affect trust. Focusing on surveillance, data breaches and profiling, the chapter has outlined how possibilities for new ways of seeing and knowing made possible by digital technologies create a wide range of challenges for citizens, corporations and governments. In times marked both by widespread calls for transparency as a solution to problems such as misconduct, and growing discomfort with surveillance and tracking activities, there is a need for a more refined understanding of the consequences of digital technologies and datafication for societal governance. In particular, efforts to restore trust in digital infrastructures require nuanced policy regimes balancing privacy and business opportunities, efforts to strengthen and regulate responsible data management, and elaborate educational efforts to develop and enhance 'data literacies' among users. Addressing these issues will require innovative research and policy development at the intersections of regulation, organisations and individual conduct.

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CHAPTER 5

Constellations of trust and distrust in internet governance

Jeanette Hofmann

1. Trust and distrust: inseparable companions

In a general sense, trust can be defined as a 'hypothesis of future conduct, which is sure enough to become the basis of practical action' and resides as a 'condition between knowing and not knowing another person' (Simmel 1906, p. 450). We do not need to trust in situations of complete information, and we cannot trust under conditions absent of any information. Hence, trust is a mechanism allowing us to act in situations of uncertainty by transforming past experiences into assumptions about the future. While Simmel's 'hypothesis of future conduct' focused on people, other authors extended it to events, systems, organisations or abstract principles (Giddens 1990, p. 34).

Trust is commonly understood as a facilitator of social relationships. Trust enables sociability and cooperation, mutual responsiveness and what Emile Durkheim called 'moral density' (Durkheim 1997; Sztompka 1998, p. 22); it enables cooperation, political participation and reduces transaction costs. Distrust, on the other hand, is usually considered a negative phenomenon that enhances uncertainty, lowers cooperation and, thus, increases transaction costs.

This chapter challenges the view that trust is conducive to the general well-being of Europe and its citizens and distrust seems to forebode crises. Instead, I argue that an overall, unqualified bias towards trust risks missing the productive and thus positive aspects of distrust and, likewise, potential downsides of unfounded, disproportionate degrees of trust. Reflecting on the desirability of trust and distrust is not just a theoretical exercise, however. 'Weak signals' for a decline of trust or other indicators thereof can only be adequately interpreted against the background of an unbiased multi-dimensional concept.

A multi-dimensional concept of trust assumes that trust and distrust are not opposite occurrences on a single spectrum but separate ones closely interlinked (Lewicky et al. 1998, p. 339). Treating trust and distrust as separate dimensions means that they can co-occur and interact with each other. Instead of an 'either-or' relationship, trust and distrust may be analysed as dynamic components of multi-faceted social relationships, through which they form evolving constellations. Lewicky et al. (1998, p. 447) come to the conclusion that in the twenty-first century 'distrust is much more prevalent than students of trust in organizations have been willing to admit'. In fact, well-established relationships between organisations can be expected to display both, high levels of trust and distrust. Trust, according to Lewicky et al. (1998, p. 443) develops from sketchy impressions to evidence-based experience that allows all actors involved to be increasingly specific about people, promises and performances they trust and those they distrust. Hence, the relationship between trust and distrust is likely to change over time, based on practical experiences individuals and organisations make with each other.

Referring to Luhmann (1979)[1], the authors reason that 'trust cannot exist apart from distrust' and that 'social structures appear most stable where there is a healthy dose of both trust and distrust' (Lewicky et al. 1998, p. 450). Too much trust or distrust without their respective counterparts is identified as potential sources of dysfunctionality. Considering that distrust is commonly regarded

[1] Luhmann's approach to trust as a (necessary) way of reducing complexity is well known. Less known is his notion of distrust as a functional equivalent. According to Luhmann (1979), both trust and distrust reduce complexity and uncertainty, just by opposite cognitive operations: Like trust, distrust is also based on simplifications that reinforce existing expectations at the cost of a more comprehensive yet less coherent picture of social reality. The area of Internet governance offers many examples of generalized distrust as a form of reducing complexity. One that comes to mind would be the common negative attitude towards intergovernmental organizations.

as something bad in need of being allayed, one may ask how trust and distrust actually interact and how the latter is able to unfold its positive effects. A key to an answer can be found in Sztompka's (1998) observations of the 'paradox of democracy'. Sztompka's work is of particular relevance to this report because it focuses on social and organisational rather than individual forms of trust and links the notions of trust and distrust to the political sphere of public discourse and rule-making.

The democratic order, Sztompka (1998, p. 25) contends, is a 'significant trust-generating force' precisely because it has managed to institutionalise distrust. Democracy creates 'generalised trust'[2] by transforming the ubiquitous distrust towards the exercise of political power into a set of rules, procedures and institutions that aim to lower the risk of its abuse. Sztompka's paradox of democracy states that the institutionalisation of distrust enables the unfolding of a culture of trust (Sztompka 1998, p. 26; see also Schaal 2004).

The observation that distrust has a productive role to play in creating cultures of trust is highly pertinent for the field of Internet governance, as I will show in the next section of this chapter. However, before I outline the interplay between trust and distrust in Internet governance, it is useful to dig a bit deeper into the conditions understood to generalise trust and to consider how democratic orders consolidate those conditions.

In the search for structural elements conducive to the unfolding of cultures of trust (and distrust respectively), Sztompka (1998, p. 23ff) identifies several conditions. In a nutshell these conditions are 1. normative certainty and stability of social order, 2. transparency of social organization, 3. accountability of power, 4. enactment of rights and obligations including the safeguarding of dignity, integrity and autonomy, and 5. enforcement of duties and responsibilities.[3] Sztompka argues that democratic orders help to produce these conditions by providing reliable safeguards against their violation. These safeguards, among them the division of power, the rule of law, independent courts, constitutionalism, legitimacy and elections, etc., in turn, reflect a profound and persistent distrust towards the exercise of power. Hence, distrust may entail the protective effect of preventing damage. It may obviate the risk of trusting a bogus email, a business deal or even the public assertions of a national secret service. Democratic constitutions are supposed to translate traditional national attitudes towards trust and distrust into an institutional apparatus of both enabling and constraining political authority (Schaal 2004, p. 36).

The reference to national constitutions as trust-generating expressions of distrust indicates how close but also ambiguous the ties are between trust and distrust. Moreover, the case of constitutions demonstrates why the mere appearance of distrust should not be interpreted as a 'weak signal' denoting an erosion of trust. Changing relations of trust and distrust may precede a crisis but they may as well reflect an ongoing learning process about the trustworthiness of organisations interacting with each other (see Schaal 2004). In practice, it is very hard, if not impossible, to distinguish a healthy from a crisis-prone constellation of trust and distrust. Yet, it should be possible to narrow down the signs for a crisis of confidence. For this purpose, it is useful to turn to Albert Hirschman's (1970) contribution on 'exit and voice'.

Hirschman identifies exit and voice as the two basic choices that we face in cases of disappointment with the performance of an organisation or individual. The political sphere is more likely to create 'voice-prone situations' (Hirschman 1980, p. 438) characterised by acts of protest or opposition while the competition-based commercial sphere lends itself to exit behaviour. To give a practical example: disappointment with the quality of service of an Internet access provider might lead to ending the contract and switching to a competitor while discontent with the political course of Internet governance organizations could result in voicing one's criticism. Hirschman offers a beautiful explanation of why 'the use of voice' may be an option even if it is costly and its

[2] As a collective trait, trustfulness represents a 'typical orientation' that increases Durkheim's 'moral density' (Sztompka 1998).

[3] Cultures of distrust are caused by the opposing conditions such as normative chaos, instable social orders, etc.

outcome fundamentally uncertain. 'It is in the nature of the 'public good'', notes Hirschman (1980, p. 433), 'that striving for it cannot be neatly separated from possessing it'. Throughout the process of political engagement for a public good such as the preservation of the open Internet or the overcoming of the digital divide, the means may turn into ends and thereby become 'the next best thing to having that policy' (Hirschman 1980, p. 433). Internet governance, a 'regulatory space' (Hancher/Moran 1989) populated to a high degree or even predominantly by volunteers, is a good example of this transformation of means into ends. Although political progress is rarely achieved in Internet governance, the loyalty of stakeholders has been high and the number of NGOs and volunteers in this area seems to be growing over the years. Yet, as research on transnational governance arrangements confirms, the foundation of global policy-making outside of intergovernmental structures tends to be fragile (Tamm Hallström/Boström 2010) and 'exit' always remains an option. Exit interpreted in the context of trust-distrust constellations would mean an erosion of loyalty and a stricter separation of means and ends, costs and benefits. A significant number of participants may lose confidence that discontent eventually leads to change and that distrust expressed will be institutionalized in the form of rules that effectively lessen the chances for an abuse of power. A noticeable decline in participation in Internet governance processes could thus be interpreted as a (weak) signal indicating an emerging crisis of the governance model. Luhmann's (1979, p. 73) reference to thresholds and turning points seems particularly relevant in this context.[4] The next section offers a brief overview of Internet governance and simultaneously contextualizes the dynamics of trust and distrust within this field.

2. Internet governance: private authority in the making

Internet governance is a 'difficult horse to catch', as Ziewitz and Pentzold (2013, p. 1) rightly observe. The field is neither well-defined nor stable or coherent. In the second half of the 1990s when the term gained currency (for an early contribution see Kahin/Keller 1997), it referred to the coordination of the technical resources that enable the Internet to be a network of autonomous networks. For the first ten years, Internet governance used to designate rule-making or policies for Internet addresses, the Domain Name System and a few other parameters, all of which have in common that uniform rules across the Internet are necessary to allow for a coherent communication space.[5] Examples for such rules refer to the allocation of Internet addresses or the assignment of Top Level Domains such as '.eu'. For the Internet to function, both 'names' and 'numbers', also referred to as Critical Internet Resources, have to be unique and therefore demand a global management process.[6] In the early 2000s, the common understanding of Internet governance began to broaden. During the UN World Summit on the Information Society (WSIS) (2002-2005), the first intergovernmental process, which systematically addressed political aspects of Internet governance such as the oversight authority over global infrastructure resources, a distinction emerged between a narrow and a broad understanding of the term. The latter included a growing number of non-technical issues such as the digital divide, copyright regulation, cybercrime prevention and cyber security, net neutrality, human rights and, particularly, freedom of speech and data protection. The most widespread definition of Internet governance which emerged out of WSIS reflects this broad notion of the term:

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[4] Thresholds are defined as an 'artificial discontinuity which levels out the area of expertise before and after the threshold, and thus makes a simplification'. The idea of turning points suggests that 'small steps can bring great changes' in the constellation between trust and distrust. If distrust gains the upper hand, it turns into a destructive force, according to Luhmann. A practical example would be precautions against the abuse of power, which increase the transaction costs in consensus building to a degree that bottom-up policy making in Internet governance becomes more or less impossible. As a result, voluntary participation, an essential source of the multi-stakeholder approach, would noticeably decline.

[5] The same is true for the international postal and telephone networks, both of which require standardized addresses, transmission techniques and procedures, etc. to allow for cross-border communication.

[6] At a minimum, Critical Internet Resources comprise the address space (IP addresses), the Domain Names System including the root servers and specific protocol parameters (protocol parameters comprise, for example, the numbering of standards, autonomous systems, TCP port numbers, etc.). Some experts add exchange points, peering arrangements and other forms of Internet service provision to the list of Critical Internet Resources.

> 'Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet' (WGIG 2005).

This rather broad definition of Internet governance goes beyond the original, strictly technical, understanding and covers norm-setting processes which, while directly affecting the Internet, its applications, services and communication processes, are not necessarily part of its established institutional landscape, now commonly referred to as the 'Internet governance eco system'. A striking feature of Internet governance is its polycentric, fragmented structure. It is quite telling that there is neither a text nor a chart available on the Internet that seeks to encompass all relevant organisations, treaties and regulatory processes that correspond to the definition of Internet governance quoted above. One of the scenarios described further below expects that, as part of a gradual process of constitutionalisation, more formal ties may emerge among organizations whose activities explicitly or implicitly contribute to Internet governance. However, for the time being, it is important to keep in mind that there is incongruence between narrow and broad understandings of the field and that, depending on the context, different definitions are in use.

Internet governance has been a contested policy area from early on. The core controversial question revolves around authority: who and what should govern the Internet, a multilateral body with corresponding treaties, a public-private or a private contract-based regime? Unlike previous communication infrastructures such as the postal and the telephone system, the Internet is not managed under the auspices of a special UN agency. The institutional evolution of Internet governance has, in fact, been shaped by a deep-rooted distrust of both intergovernmental processes and national public authorities (see Epstein 2013; Mueller 2002). One could even argue that the distrust held by key actors in the early days of Internet governance against multilateral institutions and public administrations formed a productive force driving the development of the Internet's organisational architecture.

The first battleground over the future shape of a global data network emerged in the 1970s between various standard setting communities who disagreed on the design of the network architecture. As Abbate (2000) and DeNardis (2009) convincingly showed, standards are political artifacts that aim to inscribe into technology the future location and division of control over the technical object. While the national telephone operators traditionally built centrally controlled public communication architectures and firmly distrusted the distributed, de-centralised model of network architecture envisioned by the computer engineers, the latter expressed distrust towards centrally operated networks.[7]

A similar constellation between public and private regulatory models emerged in the course of the debate over rights in and rules for the Domain Name System in the mid-1990s. One of the central issues concerned the management and expansion of this new resource that quickly gained commercial value following the privatisation of the Internet. Some observers saw the Domain Names System as a public resource 'subject to public trust' (cited in Mueller 2002, p. 144) that should therefore be co-managed by intergovernmental bodies such as the International Telecommunication Union (ITU) and the World Intellectual Property Organization (WIPO). Others argued for a market-driven solution with competition and consumer choice as the basic cornerstones. Due to the intervention of the US government, the latter approach prevailed. The US government argued that 'private-sector action' was preferable to government control and that neither governments nor intergovernmental organisations should be involved in the management

[7] Since the original funding for the development of the Internet came from US military research, the scenario used by the computer engineers concerned a hostile attack on the US communication infrastructure. A distributed network architecture, they argued, would be able to survive such an attack while a central architecture would not (see Hofmann 2007).

of the Internet infrastructure. Subsequently, in 1998, the US government founded the Internet Corporation of Assigned Names and Numbers (ICANN), an 'industry-led' organisation.[8]

With the founding of ICANN, a non-multilateral path became established that has structured the organisational but also the political development of Internet governance ever since. All operational functions that keep the global digital infrastructure running are governed by private entities.[9] There are only two noticeable exceptions to this rule. The first concerns the role of the US government. In the course of founding ICANN, the US government created a unilateral oversight position for itself, which amounts to a sort of universal stewardship role hovering over major parts of the coordination of the Internet's technical infrastructure. The second exception pertains to the Internet Governance Forum (IGF). A hybrid between a multi-lateral and a multi-stakeholder organization, the IGF is formally convened by the United Nations but practically shaped by the contributions of civil society, the private sector, the technical community and governments. Over the nearly ten years of its existence, the IGF has used its dialogue-centered mandate to help establish a transnational public for Internet governance issues.[10]

While the strong preference for private self-regulation structures can be interpreted as the result of widespread distrust among the (at that time predominantly North American) Internet community towards intergovernmental organisations, the non-governmental approach to the management of the Internet infrastructure has provoked a lot of distrust itself over the last nearly 20 years. Key reasons for this distrust are the unilateral oversight executed by the US government and the informal, partly experimental character of Internet governance organisations. Given the strong anti-multilateral impetus in this area, the evolution of the organisational landscape could not draw on internationally well-established precedents. Institutional frameworks for private authority are still new and somewhat provisional in the transnational sphere. This is particularly true for multi-actor arrangements that seek to gain legitimacy by including many different stakeholder groups. More importantly, Internet governance is not constitutionalised to a degree that could serve as a source for a culture of trust. To date, Internet governance still lacks normative certainty, robust mechanisms to hold authorities to account and a reliable enactment of rights and enforcement of duties and responsibilities.[11] Thus, Internet governance has to generate itself the specific conditions that are expected to enable a culture of trust.

In light of Schaal's (2004, p. 36) observation that constitutions reflect national discourses on political trust and distrust, one might interpret the ongoing debate about appropriate forms of Internet governance as a meandering process of transnational constitution building. Recent works

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[8] Governments have always been involved in ICANN, however. This is particularly true for the US Government. Although the National Telecommunication and Information Administration (NTIA) of the US Department of Commerce had planned to supervise the evolution of ICANN only for a limited time of approximately two years, the contractual relationship between NTIA and ICANN has only narrowed down, but as yet not disappeared. In spring 2014, the US government announced that it may relinquish its oversight role over ICANN (NTIA 2014).

[9] This includes the technical development in the form of technical standard setting, the regulation of the domain name system, the allocation of Internet addresses through regional Internet registries (RIRs), the operation of the physical infrastructure and that of Internet exchange points that allows Internet service providers to exchange data traffic.

[10] The IGF emerged out of the UN World Summit on the Information Society. The civil society groups involved in the summit had argued that Internet governance lacks a global space, which would allow interested groups to come together to discuss pertinent issues in this policy domain (Drake 2005). The WSIS declaration (Tunis Agenda 2005, para 67-79) defines the mandate of the IGF. Noteworthy about this mandate are the restrictions imposed on the activities of the IGF. The forum neither produces formal outcomes nor does it have any decision-making capacity. The IGF is designed to facilitate a dialogue in the form of a multi-stakeholder process (Epstein 2012; Mueller 2010).

[11] See Beck (2008, p. 798) who once described the need of legitimacy for large transnational corporations in these terms: 'But nowadays corporations as quasi-states also have to make political decisions, and they are at the same time fundamentally dependent on negotiation and trust, and thus thoroughly dependent on legitimation. Furthermore, they become legitimation-dependent players without being able to draw on democratic sources of legitimation.'

on global constitutionalism support such a view. This new research field pivots on 'institutional arrangements in the non-constitutional realm' assumed to have taken on a 'constitutional quality' (Wiener 2012, p. 5). Constitution in this context is not meant to be understood literally as 'public law text emanating from state authority and sitting at the pinnacle of a pyramid of legal normativity" (Zumbansen 2012, p. 50). Rather, constitutionalism represents a non-territorial frame of reference or 'vocabulary' for assessing, i.e., 'contesting or justifying' the exercise of power in terms of its legitimacy (Kumm 2014, p. 1). The legitimacy of authority, in turn, results from its commitment to constitutional norms incorporated in or expressed in the form of declarations of human rights, democracy, procedural fairness and the rule of law (Kumm 2014; Wiener et al. 2012; Zumbansen 2012).[12] Research on global constitutionalism and on global governance share the premise that transnational processes and organisations require new constitutional architectures (Wiener et al. 2012). Thus, constitutionalism has a double meaning; it denotes a frame of reference but also assumes an observable process of evolutionary norm development in a heterarchic trans-border world (Zumbansen 2012, p. 50).

The multi-stakeholder approach can be regarded as one attempt of transposing national democratic norms of participation into a transnational setting. The term multi-stakeholder in the context of Internet governance means that governments, the private sector, civil society and the technical community recognise each other as relevant actors who, to varying degrees, depend on reciprocal collaboration. Before this idea gained traction in Internet governance in the early years of the new millennium, the multi-stakeholder approach had already been put into practice in various other transnational policy contexts (Boström/Tamm Hallström 2013). Multi-stakeholder initiatives typically emerge around regulatory gaps and aim to produce voluntary, non-binding rules that cannot be enforced. Today, they are understood to 'represent a key element in the emerging global regulatory order that has been characterized as private governance' (Mena/Palazzo 2012, p. 528; also Sloan/Oliver 2013).

The outcome documents of the UN World Summit on Information Society, particularly its definition of Internet governance, 'ratified' the role of non-state actors in this domain (Mueller 2010, p. 9). Following WSIS, the multi-stakeholder approach has become associated with inclusiveness, participation, diversity of opinions and expertise. Over the last ten years, it has advanced as a common hallmark, which confers legitimacy to Internet governance processes and bodies. Various organisations, among them ICANN or the Internet Society, an influential US non-profit organization, now portray themselves as multi-stakeholder bodies. The IGF, whose programme and meeting format are supposed to reflect the collaboration of the stakeholder groups, is considered the epitome of this approach. Yet, to some extent, the reference to multi-stakeholder principles has already become ceremonial; and not all organisations and processes live up to its standard of eye-level collaboration (DeNardis/Raymond 2013, p. 16). Critics of this approach stress the power asymmetry between the participating stakeholder groups and deem it to be mere window dressing.

To conclude, a lack of trust towards the assumed opacity, exclusiveness and bureaucratic heavy-handedness of UN organisations has motivated, and legitimised, the development of innovative governance structures. The institutional evolution of Internet governance is also driven by the belief that the intergovernmental regime with its anchoring in the territorial nation state is the wrong approach to governing the non-territorial architecture of the Internet. Hence, unlike traditional communication infrastructures, trust in Internet governance is not generated through intergovernmental agencies and processes. A dominant group of Internet stakeholders[13] has managed to turn their distrust of multilateral organisations into a productive source of institution-building and thereby generate a unique, unparalleled model of transnational regulation. In this context, the multi-stakeholder concept has advanced as an experimental process of transnational coordination that nowadays strives to present itself as a counter-model to multilateral regimes. However, under the popular multi-stakeholder umbrella many different ways of going about

[12] This abstract understanding of constitutionalisation differs from that of Sztompka (1998) who refers to the traditional notion of a national legal document.

[13] There are a significant number of governments and NGOs who regard a multilateral, UN-based approach to Internet governance as the preferable, more democratic solution. The governing set of values in this field marginalises such arguments.

participation, representation and diversity can be identified, not all of them as accountable, open and transparent as the discourse on Internet governance would suggest and its participants might wish for. Echoing Sztompka (1998) once more, Internet governance can be characterised as a policy space without the basic structural and normative ingredients for the paradox of democracy to unfold its specific version of generalised trust. Internet governance lacks the safeguards that national democratic orders provide to produce and protect these conditions. As yet, there is no division of power, no independent court system, no election procedure or transnational equivalents thereof that would reduce the likelihood of abuses of power. Recalling Lewicky et al.'s (1998) observation that we can expect simultaneously high levels of trust and distrust in most contemporary organisations, one may assume in the Internet governance domain more frequent, tempestuous and perhaps also less predictable swings between expressions of trust and distrust than on the national level.

An actual example of this fragility will be presented in the next part. The impact of Edward Snowden's revelations on public mass surveillance programs forms the empirical background for two ideal-type scenarios, which sketch out opposite developments of Internet governance for the coming 15 years. The scenarios are inspired by Hirschman's 'exit and voice' concept; that is they are based on the assumption that a possible long-term loss of trust in the Internet caused by publicly organised mass surveillance and espionage may reinforce two trends or combinations thereof: the 'voice' option leading to a constitutionalisation and a gradual expansion of the scope of Internet governance, and the 'exit' option, which increasingly undermines the interoperability and cohesion of the network or networks. A mixture of these two options would mean the emergence of both, islands of constitutionalisation accompanied by growing evidence of fragmentation. The astute reader will realise that both scenarios involve different actors, actions and venues.[14] If processes of constitutionalisation and fragmentation are likely to take place in different governance arrangements, i.e. technical standard setting and transnational rule making, can one then still speak of a choice between 'exit' and 'voice'? I will address this question in more detail in the following section.

3. Two scenarios of Internet governance: constitutionalisation and fragmentation[15]

Starting in summer 2013, the revelations of Edward Snowden initiated a cascade of distrust in Internet governance, the impact of which could be felt both on the global and the national level.

The extensive national surveillance programmes and the cooperation across countries, public and private sectors they require have shaken the constellation of trust and distrust not only in the Internet and its communication services but also, to some degree, in the ability of governments to protect their citizens against the violation of human rights (CIGI/Ipsos 2014)[16]. Interestingly, this loss of trust has evoked two almost polar responses that can be interpreted in terms of Hirschman's 'voice' and 'exit'. By and large, the voice strategy consists in moves towards a more binding regulatory framework for the Internet and its use. The exit strategy amounts to reconsidering the merits of a globally distributed network architecture to regionalise specific functions and regulations at the risk of causing fragmentation of the Internet. There is enough empirical evidence to assume that both paths are being actively pursued by different groups of actors, which are nonetheless aware of each other.

[14] I thank Benjamin Bergemann for pointing out this potential inconsistency of the two scenarios.

[15] In spring 2015, shortly before I completed this text, the fellows of the Global Governance Futures Program released a document with two scenarios about Internet governance, the 'Cyber Davos' and the 'Google Shock' predicting collaboration or the collapse of the status quo respectively. While centered more on economic aspects, the scenarios share some assumptions with those presented below.

[16] http://www.cigionline.org/internet-survey.

3.1. Scenario 1: Voice - constitutionalisation of internet governance

As a consequence of the Snowden revelations, in spring 2014 the US government announced its intent to withdraw from its oversight role and transition it to the 'global multi-stakeholder community' (NTIA 2014). As part of the transition process, the NTIA asked ICANN, the present contractor of the IANA functions, to 'convene the multi-stakeholder process' to develop a consensual model (transition proposal) that would replace the supervisory role held by the USG.[17]

The withdrawal of the US government from its supervisory role would end the remaining public control over the critical Internet resources and thus eliminate the perceived 'backstop with regard to ICANN's organization-wide accountability' (ICANN 2014).[18] The 'shadow of hierarchy' against which the development of Internet governance has taken place would weaken, which is why ICANN now faces the challenge of generating, by its own means, the trust that has so far rested in the contractual relationship with the US Government. Considering the overall importance of the Internet infrastructure, this step towards full privatisation has caused nothing less than a mid-size earthquake in the Internet governance world. Following the announcement of the US government, the participants of ICANN's various constituencies have started working on procedures to replace the role of an external supervisor and simultaneously make the organisation more accountable. Looking at these activities from outside, the Snowden revelations have evoked a period of intense constitutionalisation of the management of the Domain Names System. The intended withdrawal of the US government and its effect on the accountability provisions of ICANN is just one example of how the crisis of confidence caused by mass surveillance has set in motion a process towards addressing the legitimacy of regulatory structures in Internet governance and thereby significantly changing its organisational framework.

Another initiative towards constitutionalising Internet governance goes back to Brazil's president Dilma Rousseff who, in a passionate speech to the UN General Assembly in September 2013, addressed the 'grave violation of human rights and of civil liberties' caused by pervasive surveillance. She declared that the 'time is ripe to create the conditions to prevent cyberspace from being used as a weapon of war' and announced Brazil's intention to work on a 'civilian multilateral framework for the governance and use of the Internet [...] to ensure the effective protection of data that travels through the web' (Rousseff 2013). Following that statement at the UN, governments, private sector, civil society and the technical community initiated the development of a policy framework and a roadmap for the future evolution of Internet governance, to be agreed upon at the NetMundial conference in spring 2014 in Sao Paulo. For the first time governments, private sector, the technical community and civil society co-authored a declaration, the 'NETmundial Multistakeholder Statement'.[19] While its normative substance does not go beyond agreed language of existing multilateral declarations, the collaborative process of organizing the conference and its outcome clearly set new procedural standards in Internet governance. Although none of these events come close to constitute what research on global constitutionalism defines as legitimate authority, the activities in the aftermath of the revelations by Snowden indicate a trend towards constitutionalising the sphere of Internet governance. Crises of trust may form a driver of such developments.

The constitutionalisation scenario assumes that in the coming 15 years we will witness an increasing density of the governance network. New organisations will emerge and existing organisations are likely to expand with the goal to fill the perceived gaps in the 'Internet governance ecosystem'. This may concern the implementation or enforcement of policies and standards or the strengthening of ties and collaboration between various bodies in, as well as outside, this field. Other conceivable voids to be addressed pertain to cross-arbitration, redress,

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[17] One of the conditions set by the US Government is that neither a government-led nor an inter-governmental organisation can take over the coordination of the IANA function (NTIA 2014).

[18] https://www.icann.org/stewardship-accountability.

[19] http://netmundial.br/netmundial-multistakeholder-statement. The author of this article actively contributed to the conference and its outcome document.

capacity building and consultancy. The growing density of the governance structures will be accompanied, and perhaps even driven, by the formation of a transnational public, which will, through various means, monitor and assess the performance of policy making, attempt to keep the key players in check but probably also call for an expansion of the regulatory scope.

As stated above, the scope and boundaries of Internet governance have been in flux throughout the last decade. The revelations about mass surveillance indicate a growing incongruence between policies squarely affecting the Internet on the one hand, and organisations involved in Internet governance processes so that their policies can be challenged and influenced on the other. To state the obvious, security agencies rarely participate in multi-stakeholder processes and are unlikely to voluntarily subject their strategies to public scrutiny. Yet, at the same time they do intervene in substantive ways in standard setting and technology development, the operation and use of the Internet. The constitutionalisation scenario predicts a growing public pressure towards the integration of all policy actors and policies into the Internet governance domain that are assumed to substantially affect the future development of the Internet. It further predicts that the common distinction between nationals and foreigners in state surveillance legislation will come under pressure and eventually be abandoned in order to sustain cross-border communication and trade. This process of constitutionalisation will be fueled by both civil society and the Internet industry even if for different motives. While the first stakeholder group fights for the recognition of civil rights and the rule of law in the digital sphere, the latter seeks to protect its business model and market share. Seen from a constitutionalisation perspective, the concept of legitimate authority and its underlying norms, particularly human rights, democratic participation and the rule of law, would become the generally accepted frame of reference against which principally all policies and standards affecting the Internet can be challenged or justified (Kumm et al. 2014, p. 1).

The process of constitutionalisation does not come without its downsides, however. As a response to criticism from its membership, we can expect the relevant Internet governance bodies to undergo progressive bureaucratisation. In order to improve transparency, inclusiveness, fairness of process and the overall accountability, governance activities will become increasingly burdened with procedural obligations which, in turn, will exclude a growing number of volunteers from participating in the policy making. As an unintended consequence, the constitutionalisation of Internet governance will cause a push of professionalisation and, correspondingly, a decline of voluntary participation (see also Tamm Hallström/Boström 2010, p. 167f for this phenomenon).

Paradoxically, the drive towards formally constituted legitimate authority is likely to lead to an adaptation of the Internet governance regime to the very multilateral system against which it once emerged and set itself apart from. With increasing relevance, the performance and legitimacy of Internet governance organisations will be judged against standards common for public or intergovernmental organisations and thus gradually be forced to adopt them in one form or another (Botzem/Hofmann 2010). The evolution of policy making in ICANN over the last years may illustrate such trends towards bureaucratization. Other transnational multi-stakeholder processes also seem to confirm them:

> 'We have seen a need to establish mechanisms and structures that resemble state structures (…) They refer to input, procedures, output, forms for representation, representativeness, and division of power: dividing, standard setting, accreditation, and certification, for instance. The increasing complexity of these governance arrangements relates, at least partially, to legitimacy aspirations - to aspirations to achieve various democratic ideals around deliberation, participation, and representation in the eyes of a plurality of stakeholders' (Tamm Hallström/Boström 2010, p. 168).

Thus the constitutionalisation scenario predicts that in order to respond to expressions of distrust and to conform to expectations of legitimacy, the institutional framework of Internet governance will indeed become increasingly constitutionalised; yet to the effect that the differences to intergovernmental bodies, which are highly relevant for the identity of its core organisations might gradually disappear. This process of adaptation will transform the institutional repertoire available to respond to crises of confidence but not eliminate such crises per se.

3.2. Scenario 2: Exit - fragmentation of the internet

Another widespread response to the Snowden revelations consists in a decline of trust in and support for the concept of a global, cross-border communication space. Instead of strengthening the normative basis for transnational information flows and instead of improving the security of transmitting, processing and storing data across the globe, relevant actors increasingly consider national or regional data services and suggest keeping data as much as possible in the respective country. Ideas such as 'Schengen routing', the 'Euro cloud' or nationally certified email services are enjoying growing popularity. European Internet providers, for instance, are offering special cloud services that guarantee to keep data on European ground, compliant with European data protection standards. Such new forms of territorial consciousness also affect digital hardware. The discovery of so-called backdoors, both in Chinese and American hardware products, has encouraged national efforts to strengthen the domestic Internet industry (for Brazil, see Woodcock 2013; see Chander/Le 2015 for further examples).

Recent efforts at data localisation are causing concerns over an imminent 'fragmentation of the Internet'. Referring to Berners-Lee, Hill (2012, p. 12) defines fragmentation as a state 'where the experience of one Internet user is radically different from another's. (…) A website should look the same to a person in China as it does to a person in Chile. In other words, the experience of every Internet user should be the same regardless of geographic location, computer type, or any other distinguishing characteristic of the user' (Hill 2012, p. 12). Such a broad understanding of fragmentation does not zero in on China's great firewall or Iran's plans to build a discrete national information network that can be cut off from the global Internet but covers all sorts of public and private forms of data regulation. And it implies that today's Internet is already fragmented to an alarming degree. Common examples for content-based fragmentation are censorship, mundane techniques of personalising content (Hosanagar et al. 2014), but also violations of neutrality such as the new trend towards zero rating contracts (Gillmor 2014). Other sources of fragmentation include differing privacy laws, copyright provisions and territorial licensing schemes, but also competing technical standards (Hill 2012, p. 5f).

These examples show that practices of fragmenting the Internet are by no means new. Neither are the concerns over a 'splinternet' that would break along geographic, technical and content-based boundaries. As Kuner (2015, p. 2092) argues, national frontiers on the Internet have emerged due to the 'widespread unease with the breakdown of national regulatory borders'. A case in point is the EU data protection legislation and its safe harbor provisions designed to enforce these rules also for data flows between Europe and the US. Yet, surveillance activities have doubtlessly increased existing fears for 'informational sovereignty' (Kuner (2015, p. 2091). 'The era of a global Internet may be passing', state Chander and Le (2015, p. 679) and warn against a future of 'data nationalisation'.

Given the increasing trends towards fragmenting data flows, the second scenario assumes that decreasing trust in the Internet infrastructure will manifest itself in stable and long-term forms of territorial and application-based compartmentalisation. The lack of constitutional rights in the transnational sphere will accelerate the fragmentation of the Internet. Rather than fighting for enforceable (human) rights, relevant actors will back off and begin re-orienting their activities towards local platforms and services. The regionalization of commercial, political and private online activities will be accompanied by a profound shift in values. The previous vision of a seamless global communication space able to accommodate everyone and everything will lose its progressive, emancipatory connotation and be gradually replaced by the esteem for secure communication. The more everyday objects and activities become part of digital networks, the more security concerns will outweigh those over freedom of communication and information.

The Internet industry will respond to this long-term transformation of the hierarchy of societal values and norms by shifting investment, standard setting and technology development from the open Internet architecture towards more specialised digital networks optimised for specific applications and users. In retrospect, the Internet of things will be identified as one of the crucial innovations that sealed the fate of the Internet and promoted the development of competing network architectures. Within a decade, consumers, who won't like to be called users anymore because the latter term is not recognised in national law, will have forgotten the technical features that once accounted for the open Internet.

Simultaneously, global platforms and services will be gradually abandoned in favor of more tailor-cut solutions emphasizing security, reliability, central control and homogeneity over diversity, openness and otherness. The 'Google Shock' scenario developed by Khan et al. (2015, p. 14) predicts that, following the disclosure that collaborations between intelligence agencies and Internet industry was much closer than previously reported, investors and users will 'leave Facebook in droves' leaving 'the company reeling' and ultimately going bankrupt. Inevitably, 'Facebook clones' will surface splintering the original social network along regional and national lines (Khan et al. 2015, p. 15). As a result, we can expect the innovation dynamics, the quality and reliability of cross-border services to drop. In 15 years, most of the global services and platforms will be a thing of the past, vaguely remembered as that strange fashion style of the early decades of the two-thousands. Facing cumbersome security provisions, broken links, slow connections and deserted networking sites filled with dubious content, people will find it difficult to comprehend what the dream of the global, open and decentralised Internet once was about.

Summing up, it should be highlighted that these scenarios are not fabricated but rather extrapolate present developments. This implies that they are not mutually exclusive but may well evolve simultaneously. It is indeed conceivable that we will see islands of constitutionalisation emerging around key Internet resources and functions such as the management of the Domain Name System, the allocation of Internet addresses, the development of routing policies or peering arrangements and the development of technical standards without which the Internet would cease to exist. Distrust repeatedly voiced by stakeholders including governments would bring about a system of rules and procedures for critical Internet resources more or less on a par with national regulatory regimes bound by the rule of law. Notwithstanding islands of constitutionalisation, safety on the Internet would generally become associated with services regulated by domestic law and protected by national borders. Pioneered by critical infrastructure services and security relevant industries, a growing number of digital networks independent of and in competition with the Internet will emerge and be in high demand by consumers and companies alike. The crucial factor determining the relative significance or impact of voice and exit moves is likely to be public pressure. So, even if the stakeholders pursuing these voice and exit strategies are different, the public sphere links them together and turns them into options for people to choose.

4. R&I policy recommendations

4.1. Constitutionalising the transnational sphere

The Internet constitutes a cross-border sphere of global scope. However, constitutions predominantly regulate the exercise of power on the national level. As the mass surveillance of Internet traffic shows, citizens are not sufficiently protected when they use the Internet. Considering growing trends towards transnational and international policy making, questions regarding the structural conditions for and modes of constitutionalised, legitimate authority beyond the nation state are likely to become more pertinent. Global constitutionalism is a new interdisciplinary research field able to address these issues. Constitutions, as Sztompka (1998) observes, are a crucial source of generalised trust. It would be most relevant to study whether constitutional frameworks for private authority on the transnational level have similar effects. Empirical research is needed to study indicators for processes of constitutionalisation, their drivers and obstacles as well as their actors and resources. Empirical analysis should also cover the potential role of technology in constitutionalising the transnational sphere. Even if code is not law, digital technology plays an important role in regulating the behaviour of users and data flows on the Internet, as initiatives such as 'privacy by design' show.

4.2. Potential, limits and conditions of success of multi-stakeholder arrangements

Although the multi-stakeholder approach has been in use for more than a decade in the Internet governance domain, there has yet to be a systematic analysis of its capacity, its strengths and weaknesses. Could multi-stakeholder processes that integrate governments, private sector and civil society form a basis for constitutionalising Internet governance? Critics of this approach claim that multi-stakeholder approaches unduly increase the influence of the stakeholder groups with most resources at their disposal and thus generally suffer from asymmetric power relations. It is an open question whether such imbalances of power are an inherent quality of multi-stakeholder

processes or if this model can be designed in ways to create relevant opportunities for social participation and increase the democratic quality of transnational policy making. A related question concerns the long term performance of multi-stakeholder processes. To what extent can the findings of Tamm Hallström and Boström (2010) on the increasing bureaucratisation of multi-stakeholder standard setting be generalized and is it possible to prevent such developments? A last aspect refers to the relationship between multilateral and multi-stakeholder processes. In Internet governance there is some evidence suggesting that the interplay of multilateral and multi-stakeholder processes has positive effects for the quality of the policy discourse and its potential outcome. However, a comparative perspective would be needed to confirm or qualify this impression. Although multi-stakeholder processes have gained relevance in the transnational sphere, they still form a genuine research gap.

4.3 Evolution towards a cohesive policy domain

The scenario of a gradual constitutionalisation assumes that the policy scope of Internet governance will expand over time. Comparable to the development of environmental policy in the 1970s, which integrated a number of discrete measures and tasks previously addressed by separate bodies, Internet governance, too, may come to encompass a growing array of international policies and treaties such as free trade agreements, foreign and security policies, data protection or copyright reform with significant impact on digital communication. Integrating relevant policy issues into Internet governance would allow assessing, challenging or supporting them against constitutional norms relevant to the preservation of the global Internet and, as a side effect, improve the conditions for a culture of trust. However, little research has so far been done on the modalities and mechanisms of assembling heterogeneous policy issues into a cohesive policy domain. Comparative empirical studies may help to understand how transnational governance networks emerge, agree on a policy scope and acquire regulatory authority for it.

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CHAPTER 6

Trust and the regulation of economic activities

Hans Pitlik

1. Economic and social regulation: market failure versus government failure

The term 'regulation' describes the rules imposed by policymakers (government, regulatory agency) on private actors (firms, private households) related to production activities and transactions. In contrast to general laws for all market actors, economic regulation contains specific rules for particular industries or activities, backed by governmental supervision and penalties. Regulatory rules aim at influencing the behaviour of market actors, and government acts as a referee to oversee market activity behaviour (OECD 2002).

Two strands of economic research are concerned with an analysis of regulation. The public interest theory provides normative justifications for the imposition of regulatory interventions, from externalities, ruinous competition and monopoly power, to information asymmetries between market actors. Further justifications include aspects of 'fair pricing' or 'social equality'. The notion is that under certain conditions market competition has to be restricted, as markets do not automatically lead to welfare maximising outcomes. Depending on the primary aim of imposed rules, it is sometimes differentiated between economic and social regulation (e.g., Viscusi et al. 2005). Regulatory instruments comprise, inter alia, direct rules of entry, for example, government licenses, permissions, or price controls. Other rules apply to the production process, for example, emissions standards, or working conditions, but also informational duties. Both social and economic regulations impose cost on regulated industries and reduce the degree of competition on regulated markets.

The private interest theory (Tullock 1967; Stigler 1971; Posner 1974) is based on the idea that governmentally imposed regulation also serves the interests of the regulated industries. It provides extra profits to strong insider interests by shielding from competition. In contrast to public interest theory this approach takes into account self-interest of political actors and information asymmetries between uninformed citizens and decision makers. Regulatory interventions do not necessarily improve economic or social outcomes, and the degree of government failure in regulation depends crucially on the institutional settings. In particular from this point of view trust becomes important for regulatory policies.

This chapter aims at a short discussion of potential consequences of an erosion of trust for economic regulation and suitable strategic political responses. Section 2 very briefly portrays the role of trust in the theory of economic regulation. It is argued that, at least in the longer-run, regulatory policies are influenced by social trust and in particular by public confidence in policymakers and companies. I derive scenarios regarding regulatory policy under different assumptions about changes of generalised and institutional trust. Section 3 proceeds with a theoretical assessment of the drivers of trust formation. In section 4, I turn to the empirics. I focus on companies, making use of the fact that several chapters in this report (e.g., Boda, Hermerén, Lancee, Morales, Van de Walle) cover confidence in political, administrative and judicial institutions. Two exemplary cases for the interplay of trust and policy attitudes are discussed. The controversies about financial regulation and transatlantic trade liberalisation in the aftermath of the crisis appear to support a scenario of eroding confidence of Europeans in 'big business', while trust in policymakers to design and enforce good regulation also appears to shrink. Section 5 concludes with some policy and research recommendations.

2. Trust in the theory of economic regulation

2.1. Trust, economic activities, and economic regulation as substitute for trust

While numerous definitions of trust exist (c.f., Hermerén in this report), the main focus in the context of the present chapter is on trust as a general confidence that people do not cheat, shirk or act otherwise opportunistically in social interactions (Putnam 1993). Social trust (generalised, interpersonal trust) is not related to specific persons but to unknown, anonymous others; particularised trust (or confidence[1]) in political or economic institutions (e.g., government, administration, firms) is more knowledge-based, or influenced by base rates and priors. The most important economic aspect of trust is that it is associated with a reduction of transaction costs. Trust is expected to improve economic efficiency because private contracts and cooperative behaviour are facilitated through lower costs of information, negotiation, control and enforcement. Consumers trust (or do not) manufacturers or retailer shops that the products they buy are healthy or have a certain quality; workers have to trust their employers to get their salary paid, while employers have to trust their workers that they do not shirk; account holders trust (or do not) their banks that deposits are safe. All these cases have in common that without (mutual) trust, contractual relationships require many more additional safeguards, or may collapse completely.

Economic analyses focus on effects of social trust on macroeconomic outcomes. Empirical research supports the view that social trust is conducive to growth (Knack/Keefer 1997; Bjørnskov 2012), trade (Guiso et al. 2009), or financial development and integration (Guiso et al. 2008; Ekinci et al. 2009). Moreover, social trust is associated with higher life satisfaction (Uslaner 2002; Bjørnskov 2006).[2]

The central idea regarding the relationship between trust and regulation was formulated by Tirole (1988), and later tested empirically by Aghion et al. (2010). In a nutshell, it is argued that people who lack trust, i.e., people who expect others to behave opportunistically, want governments to regulate economic activities more strictly. Transactions which require a high level of confidence of contractual partners can be impeded by bad reputation, but may be facilitated by an implicit third party guarantee, for example, by government regulation. Regulation thus could substitute for a lack of information and trust. In low-trust societies the expected harm is potentially high and voters demand more comprehensive regulation of transactions. Policies will converge towards voter preferences regarding coverage, scope, and strictness of enforcement of regulation. Aghion et al. (2010) and Pinotti (2012) accordingly report evidence that distrust is positively associated with political support for regulation.

Pitlik and Kouba (2015) argue that in the process of attitude formation the desired scope and intensity of regulation is determined also by confidence in institutions. A lack of trust in private companies will boost demand for regulation. However, a lack of confidence in policymaking authorities is associated with a stronger appeal of self-regulation, i.e., voluntary self-restraints by producers to pre-empt political action, or refusal of any regulation at all.[3]

2.2. Trust and attitudes towards regulation: some basic scenarios

The relevant trust relationships are illustrated in a highly stylised manner in Figure 1. Arrows 1 to 4 show 'particularised trust'-relationships. In addition, social trust applies to anonymous others and therefore to all 'bi-lateral' relationships. Arrow 1 draws attention to the relationship between voters (in different roles) and producers (or 'business', including the respective associations). If customers

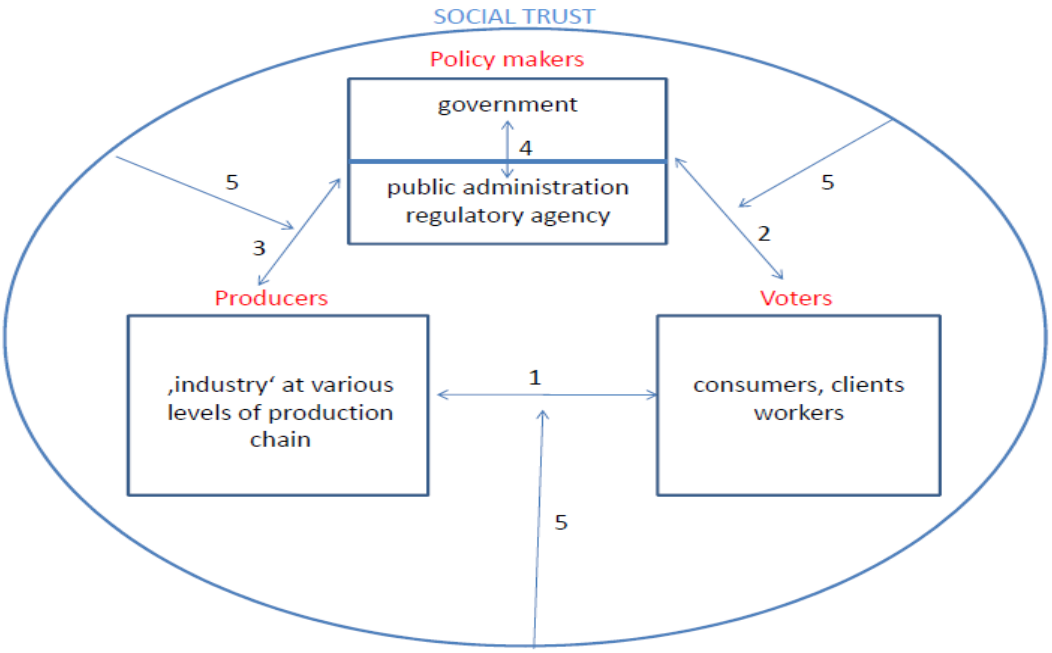
[1] In the context of institutions, I use the terms 'trust' and 'confidence' interchangeably.

[2] Social trust is associated with further desirable outcomes like democratic stability, political and civic involvement and less corruption (e.g., Bjørnskov 2010).

[3] The most important theoretical reason for self-restraints is to avoid an otherwise 'excessive' government intervention (Lyon/Maxwell 2003). In a related approach, Aniana and Nisticò (2004) discuss conduct of markets in which the regulatory agency cannot be fully trusted.

believe that firms behave opportunistically, they support a stricter regulation of the production process, through licensing requirements, labelling, standards, workers' rights, etc. Also, industries might lack trust in clients or workers, and call for a more detailed regulation of contracts. If trust between these actors is comparably high, there is less need for rules imposed and enforced by government or a regulatory agency.

Figure 1: Trust relationships in regulatory policy making



Arrow 2 illustrates the relationship between voters (consumers/clients/workers) and regulating actors. Voters will only delegate authority to regulate to political actors if they trust them to provide welfare-enhancing policies. If citizens anticipate inefficient special interest policies or corruption, they will not hand over unrestricted authority to regulate to governmental actors. Institutional trust is thus an integral element of legitimacy, and to find an authority legitimate will increase obedience to its rules (cf. Boda in this report). Trust and legitimacy may converge if the respective institution is perceived to be appropriate (Jackson/Gau 2015).

Complexity increases if one takes into account the trust relationship between producers and regulatory policy makers (arrow 3). If policymakers are unbiased agents of the general public, a decline of trust in producers will lead to higher popular demand for regulation, and the government will implement stricter rules. However, if governments and bureaucracies are captured by producer interests, regulatory policies may be biased. Environmental regulations, for example, might be designed to the advantage of incumbent producers by setting stricter rules for new plants as compared to existing ones. This creates entry barriers to newcomers and increases incumbents' profits. Popular demand for strict environmental regulation may be picked up by organised lobby groups of regulated industries and translated into legislation not in the public interest (Yandle 1983). Trust of voters in policy makers will decline, the more the people recognise that policy is biased.[4]

Arrow 3 also illustrates the reverse case. For regulated industries it is crucially important that policymakers stick to the rules set in place. Any investment requires a minimum of stability and predictability of framework conditions. If government actors repeatedly alter or renege on previous decisions, uncertainty about the future regulatory environment increases. Potential investors will

[4] Hirshleifer and Teoh (2010) provide a review of how psychological attraction bias influences regulation and reporting policy. Bad regulatory policies can result even if all participants are unselfish.

ask for higher returns of investments as to include a 'risk premium' against an unpredictable change. Institutional constraints on policymakers, including an independent judiciary (c.f., Boda in this report) may support credibility and trust building.

Arrow 4 symbolises internal trust between policymakers. Though laws are set by legislators in parliament, there are many possible arrangements to organise implementation, ranging from a hierarchical bureaucracy model to delegated authority to agents with a lot of discretion. Depending on the degree of trust in these agents, legislators and governments may choose different models and degrees of detail in the formulation of rules and discretion of agencies (c.f., Van de Walle this report).

The three arrows 5 symbolise that all confidence relationships are shaped by interpersonal trust. Uslaner (2002) argues that social trust usually promotes institutional trust merely by the fact that it is human beings who work in and represent institutions. If people trust others in general, this will probably spill over to particular trust relationships, although not necessarily to all actors to the same amount.

The main question is to which extent different changes of trust between actors work together when consumers form individual attitudes toward regulation. Figure 2 illustrates four basic scenarios. The grey shaded cells (B) and (D) point to theoretically clear-cut effects, where we have a relatively precise understanding of the change of regulatory attitudes. If polities are reasonably sensitive to voter preferences (as we assume here), this is the direction in which policies adapt. In cells (A) and (C) attitudes will (theoretically) be determined by the relative strength of trust or distrust in actors, but with a lot of ambiguity. The following remarks are hence quite vague and speculative.

Figure 2: Basic scenarios in the trust-regulation-framework

		trust in regulatory policymakers	
		increases (+)	decreases (-)
trust in (group of) producers	increases (+)	**Scenario (A)**	**Scenario (B)**
	decreases (-)	**Scenario (D)**	**Scenario (C)**

Scenario (D) describes increasing distrust in producers, and increasing trust in policymakers. We expect that regulation will become more detailed and comprehensive. If policymakers and regulatory bodies are trusted, they may be able to design a regulatory system based on 'economic principles' (e.g., a cost-benefit approach). Ideally, in a dynamic perspective such a system will contribute to the credibility and trustworthiness of producers, leading to scenario (A). In scenario (A), trust in both regulators (if they do a good job) and regulated industries (if regulation works well) increases. That would be conducive to a regime of co-regulation, in which close information exchange of actors helps increase regulatory quality. Involvement of regulated industries in the political decision-making process on regulatory issues may vary, but final decision-making power probably rests with the public authorities.

Scenario (B) is characterised by increasing trust in producers and decreasing trust in regulators. Such developments point to a system of self-regulation, in which the government's role in designing regulatory policies is reduced. Voluntary agreements and codes, and self-set standards characterise this type of regime. Probably, strictness of regulation will decrease.

The most complex scenario is (C), where we observe increasing distrust in both regulatory policymakers and regulated industries. Following the notion of public choice, (C) might be a direct consequence of exceedingly close co-regulation. If consumers believe that regulators are captured by industry-interests, and governments and producers collude against consumers and voters, trust

of the general public will fall. Consequences for the regulatory regime - in theory - depend on the relative strength of trust erosion: Even a reduced trust in policymakers can lead to higher demand for regulatory action, as long as trust in producers erodes faster. However, one may speculate that this will probably lead to a system in which precaution is dominant, as this will offer least discretion for policymakers. Other responses may include fundamental institutional reforms to restore confidence in policymaking, e.g. the shifting of responsibilities to regional authorities (devolution), the centralisation of competencies (e.g., at the European level), or the establishment of new and independent bodies, which are less likely being captured.

Effects of increasing social distrust are not so clear-cut, as lower social trust will probably spill over to distrust in policymaking institutions and producers. In Figure 2 this implies a move towards cell (C), with rather unpleasant effects: While a decline of social trust has an ambiguous effect on overall regulation attitudes, it makes regulatory rules more difficult to establish and increases the cost of enforcement.

In a nutshell, the number of trust relationships of relevant actors is substantial, and according to the theoretical contributions outlined in this section, the 'net effects' of a change in trust on attitudes towards regulatory laws and policies remain ambiguous. Moreover, the whole set of 'bilateral' relations is superimposed by social trust which co-determines trust among actors in the political regulation game.

3. Potential drivers for eroding/collapsing trust

3.1. Social trust

While in section 2 the conceivable consequences of an erosion of social trust, and confidence in companies and policymakers were discussed in the context of a highly stylised model, section 3 proceeds with a theoretical assessment of the drivers of trust formation. I review the relevant literature therefore only very briefly.

The potential drivers of generalised social trust are subject of a large (and ever-increasing) body of literature. At a very general level, social norms can be understood as a cultural trait which is transmitted from generation to generation through education and other forms of early socialisation ('cultural view'), but can also be shaped from personal experience ('experiential view').[5] The commonly held position today is that social trust is deeply rooted in cultural traits and highly stable (e.g., Uslaner 2008; Helliwell et al. 2014). Climate conditions, ethnic diversity (see Lancee in this report) or religion impact on social trust levels. That does not mean that the level of social trust in a country is totally persistent. For example, Toya and Skidmore (2014) find evidence that natural disasters have a significant positive (sic!) influence on social trust. The political-institutional environment also shapes social trust (Ljunge 2013). Institutions that stabilise expectations reduce economic and political uncertainty, and foster 'rule of law' have a positive influence on mutual trust. However, reforms take time, and require even more time before they unfold a trust-enhancing effect, as experience in post-communist societies since the 1990s has shown (e.g., Mishler/Rose 1997).

A recent debate is concerned with the idea that increasing economic inequality contributes to an erosion of social trust (e.g., Alesina/la Ferrara 2002). If unregulated markets really lead to more inequality, regulatory provisions or other forms of welfare state intervention which reduce disparities possibly increase social trust. Yet, the direction of causality remains unclear (Bjørnskov/Bergh 2014).

3.2. Trust in regulatory policymakers and companies

Trust (or confidence) in particular institutions is based on different sources. A quite obvious first idea is to assume that interpersonal trust promotes institutional trust. Empirical evidence on close

[5] Another possibility is that social trust may also have a genetic basis (see Sturgis et al. 2010).

connections between social trust, trust in business and in political institutions is yet not so clear-cut.

Uslaner (2010) reports that between 1973-2006 social trust in the U.S. was only loosely connected with confidence in federal government, judicial system and legislature, whereas the correlation of social trust and confidence in financial institutions or in business was stronger. Data from the European Social Surveys (ESS) for a set of European countries over the time span 2002-2012 are more in line with the notion that generalised trust and trust in institutions are intertwined. In Eurobarometer data social trust correlates positively with confidence in parliament and the justice system. The connection with trust in government is weak, and totally absent for trust in companies. All in all, the notion that social trust drives confidence in particularised relationships has some merit, but evidence indicates that other influential factors exist.

The basis for institutional confidence is at least to some extent calculative. Confidence then depends on perceived performance, or on procedures designed to shape future performance. It may be derived from experience, though not necessarily own experience (Yamagishi/Yamagishi 1994; Earle 2009).

- Objective outcomes are important for trust formation, but measuring the performance of regulatory agencies or of (regulated or unregulated) producers entails many subjective elements. For trust building, subjective perceptions are more important than objective data (Bouckaert/van de Walle 2003). The degree to which personal preferences coincide with actual outcome perceptions is important for the formation of trust in policymaking institutions (Dalton 2005), but certainly also for trust in private companies.
- Expectations of the public may not match those of the respective institutions. Public sector outcomes are judged according to multi-dimensional policy goals. Shareholders of a firm are interested in profits and customers in a good price-quality-relation. If the public believes that a company's priority is always and only profit maximisation, it will hardly be trusted - especially if profits are perceived to be 'immorally high'.
- The working properties of institutions matter, too. Corruption, unlawful and unethical behaviour are associated with trust erosion in regulatory institutions (Clausen et al. 2011; Grönlund/Setälä 2013). Yet, the same holds for firms where corruption, fraud and 'greed' of company managers are pertinent. The general public seems to expect some 'ethical behaviour' or 'pro-social practices' of firms. The perception that especially (big) companies are self-interested and greedy will reduce trust. 'Value for money' is important, but working conditions for employees and 'customers ahead of profits' are clearly important for trust in business, too.
- Trust building and erosion in particular institutions are influenced by 'spill-over effects' (Manning/Guerrero 2013): In the public sector, a good or bad performance of a government branch (agency, ministry, etc.) influences the perceived performance of, and trust in, other branches. Trust in regulatory policymakers may thus be influenced by the performance of a totally unconnected governmental agency. Again, such spill-over effects are probably also present in the private sector, if companies are closely related: A loss of confidence in banks will easily swap over to insurance companies, but is less likely to spill over to trust in car manufacturers.
- Yet, the group of producers even within a certain industry is heterogeneous and will not be trusted or mistrusted across-the-board. Trust often differs within industrial sectors, small businesses versus big multinational companies, or between domestic producers and foreign firms. For example, companies with headquarters in BRIC nations suffer from a general trust discount, while businesses from Germany, Sweden, Switzerland, or Canada experience a trust bonus (Edelman Trust Barometer 2014) leading to calls for policies which discriminate among different producer groups.

The upshot is that confidence in governmental or private institutions depends substantially on asymmetric information. The process of communication, thus, becomes crucial.

- While freedom of the media is frequently associated with reduced government corruption (Brunetti/Weder 2003), and therefore with higher institutional trust levels, increase of transparency may also be bad for trust, as governments are less able to influence reporting and media coverage (Norris/Inglehart 2010). Evidence indicates that scandals are important (Bowler/Karp 2004). If an institution is plagued by a scandal pushed up by the

media, an otherwise good performance and high consumer satisfaction may not be sufficient to compensate for the induced trust erosion.

- A main problem is confidence in objective information provision. Trust in communication requires the expectation that a message is true and reliable, and the sender demonstrates competence and honesty by accurate and complete information (Renn/Levine 1991).[6]
- Confidence in experts who are expected to provide objective information on a regulatory topic plays a role. Reputation problems probably arise for clinical research, or any other scientists or expert group, if predictions have to be revised frequently. Trust in experts is most likely affected by their funding sources; the general public may feel that reported evidence is biased in favour of a funder's hidden agenda (c.f., Hermerén in this report).
- While in an ideal world 'experts' offer independent advice, NGOs naturally take a partisan position when providing information. Environmentalists, human rights and consumer action groups, and grass-roots movements are supposed to stand for a certain view. Their communication effectiveness strongly depends on their trustworthiness. If general public and policymakers believe that NGOs follow a highly valued social goal, confidence in their messages is enhanced (Renn/Levine 1991). Because they usually enjoy high credibility, special interests often attempt to camouflage self-interest by counterfeiting such a movement.

Against this background the next section discusses some available empirical evidence on trust evolution, and aims at identifying potential signals of trust developments with reference to two topical cases, i.e., financial market regulation and negotiations for US-European trade liberalisation (TTIP).

4. Signals for trust at risk? Some empirical evidence

4.1. A downward trend in trust and confidence business?

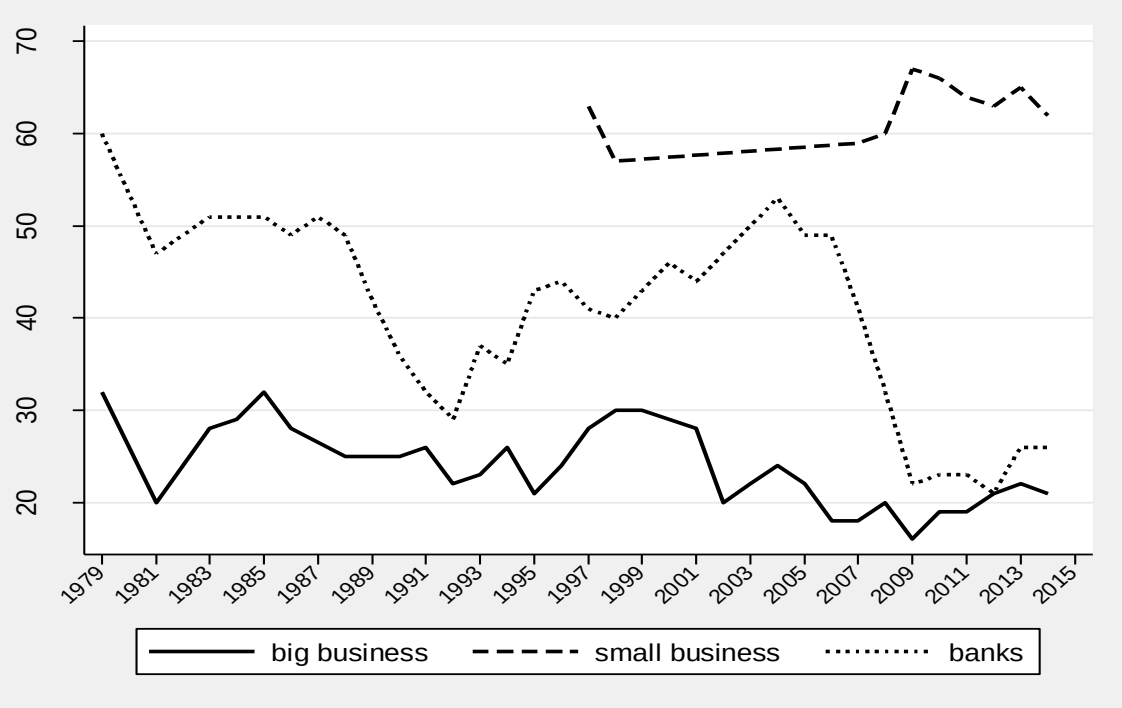
Signals of trust being at risk are an indication that the working properties of the economic and political system are at risk, too. However, the theoretical discussion of potential drivers of trust developments has also shown that declining trust could per se be a sign that something already goes wrong in the respective institutions.

Available surveys provide an enormous amount of useful information on social trust and trust in political and economic institutions, usually at the national level. Country and time coverage however varies between sources, and longer time series for confidence in business sectors are exclusively available for the U.S. While social trust is measured more or less identical in survey designs, availability of measures of trust (or confidence) in institutions over time dependent on the respective survey. As trust in government, politicians, administration, and the judiciary are examined by other contributions in this report, the data presented here focus on confidence in business and certain industries. The longest available time series for trust in business is provided for the US by Gallup. Based on their data, Figure 3 offers interesting insights.

Gallup reports public confidence in 'big business', 'small business' and 'banks'. Among these categories, smaller companies receive a much higher level of confidence than 'big business' - slightly more than 60% of respondents state that they trust small business to a great deal/quite a lot. In 2009, at the peak of the economic and financial crisis, confidence in small firms increased to 67%, and since then slightly fell to 62% in 2014. Confidence in 'big business' is always substantially lower. Since the mid-1990s it eroded, arriving at an all-time low of 16% in 2009. Since then it is slowly recovering, with a current value of 21% in 2014. The biggest one year-drop (-8 points) was recorded 2001 to 2002, reflecting the Enron-scandal. Gallup data also illustrate that confidence both in big and small businesses remains rather stable over considerable time. Trust in big companies shows a moderate downward trend, but seems to be 'shocked' by scandals and economic crises. For smaller companies that is not the case; if anything, trust in smaller firms increased during the recent financial crisis.

[6] Scandals and biased media coverage of certain topics often go hand in hand.

Figure 3: Confidence in 'big business', 'small business' and 'banks' in the U.S. (1979-2014)



Source: GALLUP

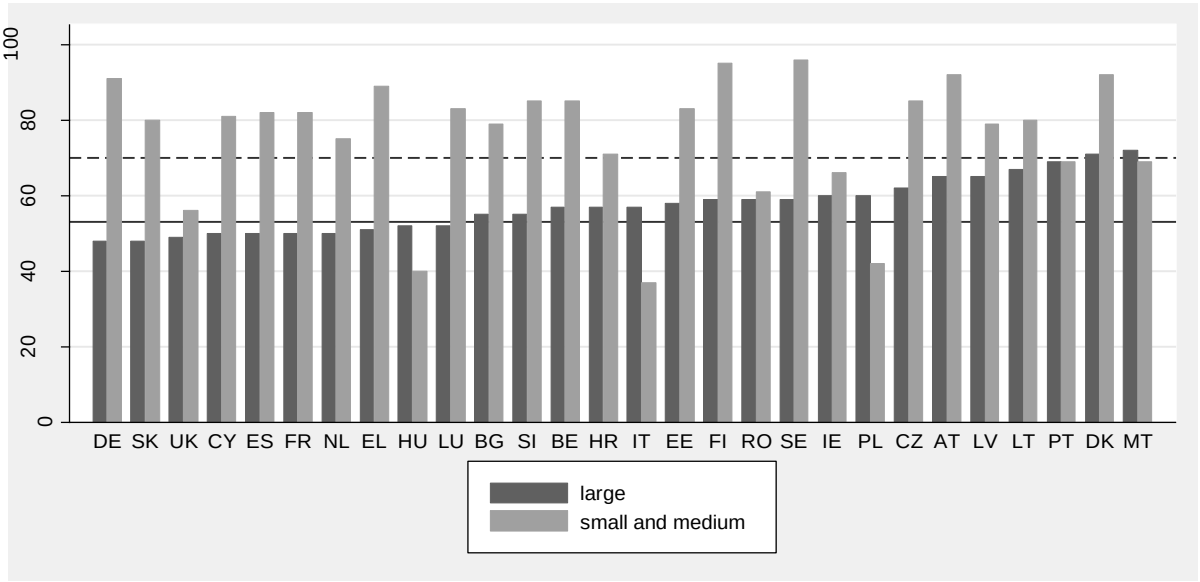
Confidence in banks shows by far the highest volatility. Starting from a peak of 60% in 1979, trust in banks melted rapidly during the Savings and Loans-crisis in the early 1980s, and again after the stock market crash 1987, reaching a low in October 1991. Confidence recovered until 2004 but eroded again dramatically in the aftermath of the recent crisis. Observed trust meltdowns in the data are always connected with turbulences in the US financial sector (Owens 2012, p. 142). During a crisis, people have a tendency to blame someone for the misery. Large companies and financial institutions are the most likely 'scapegoats' (Kenworthy/Owens 2011, p. 201).

Similar gaps in the perception of large companies on the one, and small/medium companies on the other hand, are observed in Europe. Although true 'trust' or 'confidence'-data are not available, according to recent Standard Eurobarometer 82.3 (Autumn 2014) on average 53% of the respondents in EU-28 answered that they have a very or 'fairly positive view' of large companies, while 70% have a positive view of small or medium-sized companies. Perceptions are very heterogeneous across countries (Figure 4).

Economic and political institutions are frequently judged by the macroeconomic performance of a country. Based on a simple regression analysis of the Gallup data series for the United States, Stevenson and Wolfers (2011) show that the public's confidence in big business and banks is pro-cyclical and related to the unemployment rate. The strongest effect is observed for banks. Reported confidence in big business is also pro-cyclical, but estimated coefficients are not significant at the 10%-level. Similarly, Stevenson and Wolfers report similar evidence for the pro-cyclicality of confidence in financial institutions in a world-wide and in an OECD-sample, employing Gallup World Poll data 2006-2010.[7]

[7] Roth et al. (2013) study EU-27 countries over the years 1999 to 2012, and find that the financial crisis has been accompanied by a universal decline of trust in national governments and parliaments only in periphery countries that were hit exceptionally hard by the crisis.

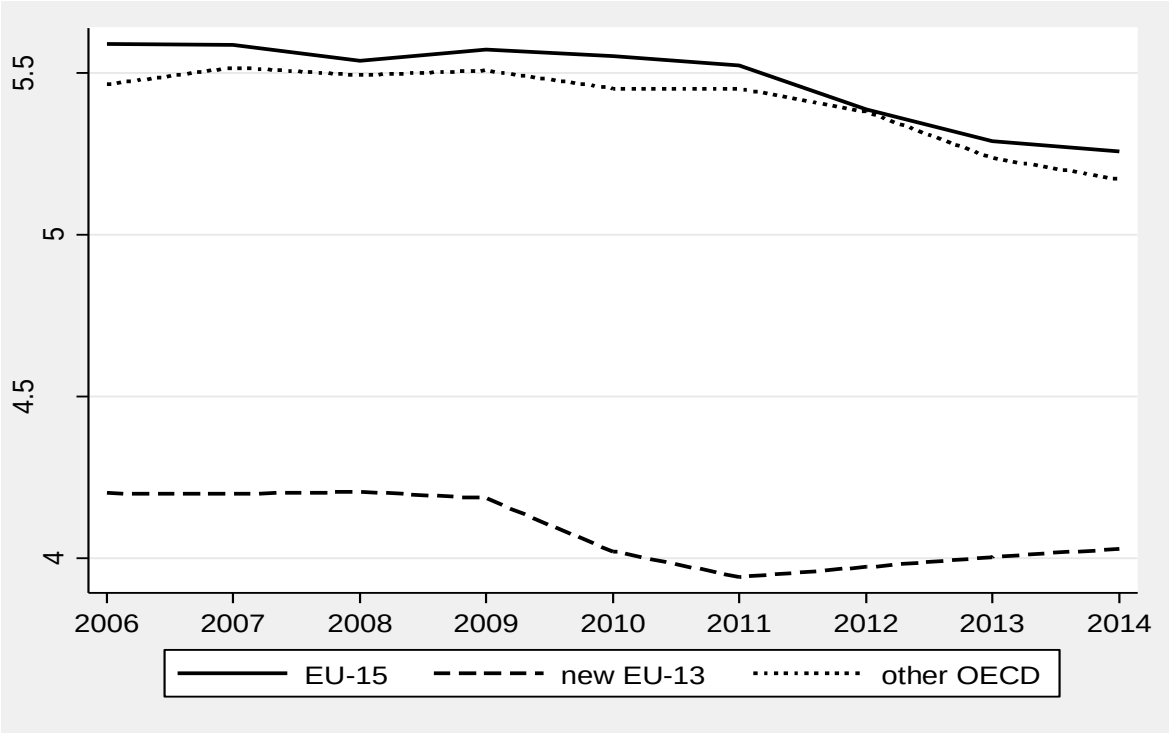
Figure 4: Percentage share of respondents with a positive perception of large and small or medium companies in EU-28 (Autumn 2014)



Source: Eurobarometer 82.3

While the previous measures provide information about confidence of the general public in companies, World Economic Forum's Competitiveness Report provides additional insights, as it is based on an Executive Opinion Survey of a representative sample of business leaders. Although there is no direct question on 'trust' or 'confidence', assessment of ethical behaviour of firms is related to trust issues. On a scale from 1 (extremely poor performance) to 7 (excellent - among the best in the world), the respondents in 'high income'-OECD and EU-countries reported on average a score of 5.1 in 2006 and 4.9 in 2014. Within the group of EU-28, the country average fell from 5.0 in 2006 to 4.7 in 2014. Figure 5 illustrates country group averages of EU-15, new EU-13, and 13 OECD countries that are not members of the EU. Obviously, the crisis in 2009 is associated with a decline of perceived corporate ethics in all country groups.

Figure 5: Corporate ethics assessment of business leaders



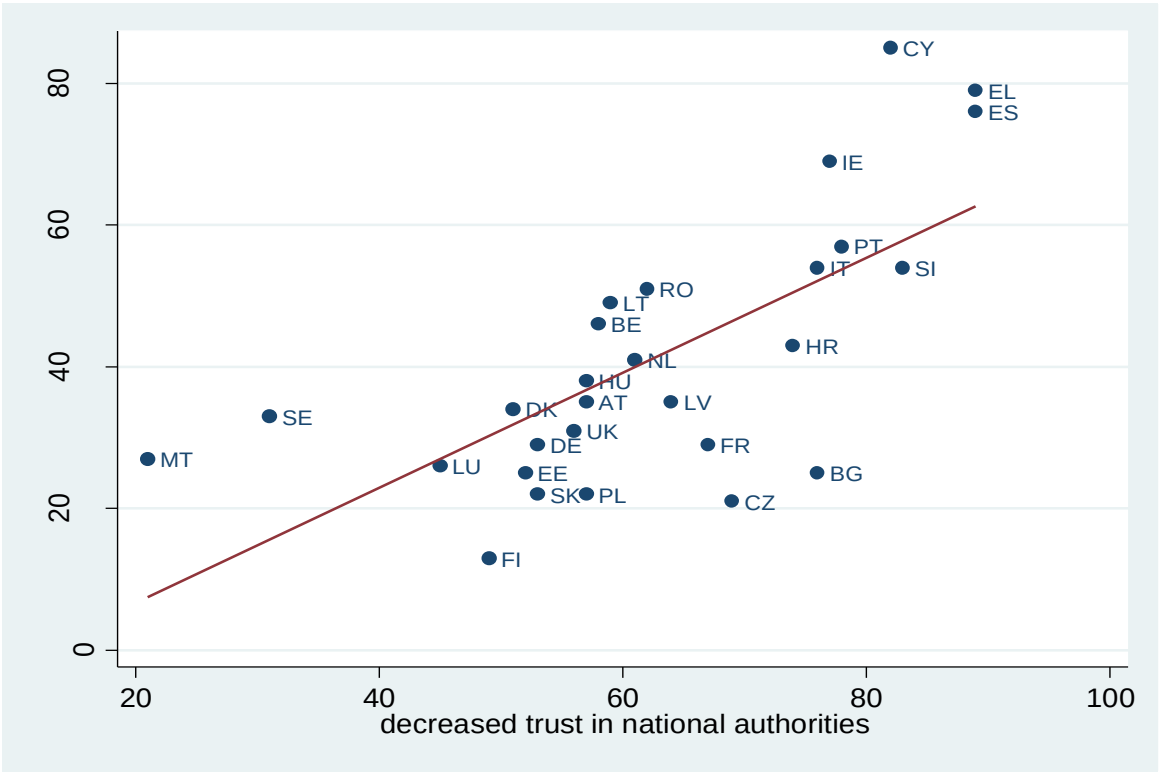
Source: World Economic Forum, Global Competitiveness Report 2015

4.2. Financial market regulation demand in the aftermath of a trust meltdown

The financial crisis broke out in the US in 2007/2008 and spread rapidly over developed countries. Following the collapse of Lehman in September 2008 the banking sector in many countries came under heavy pressure (contagion effects), and in 2008/2009 and the following years, governments launched fiscal stimulus and financial market rescue packages of an unprecedented size. Output deteriorated substantially, and government debt ballooned, contributing to a serious sovereign debt crisis in a number of countries.

Data on the evolution of confidence in the financial sector confirm that trust in banks and financial services firms deteriorated substantially. In 2014, the Financial Services industry was the least trusted sector in most developed countries covered by Edelman Trust Barometer (2014). A Special Eurobarometer 398 (2013, p. 85) reports that 63% of 26.563 respondents across EU-27 have lower confidence in the financial industry in the aftermath of the crisis. Trust erosion was even higher (64%) for national policy authorities and smaller (41%) for the respective 'own' banks. Confidence loss in policy authorities was higher in countries in which the decrease of trust in banks (or the financial sector in general) was also particularly strong, as illustrated by Figure 6.

Figure 6: Decreasing trust in own banks and national authorities in the aftermath of the crisis



Source: Special Eurobarometer 398 (2013)

Media have certainly fueled the erosion of trust in banking. Media Tenor, a media analysis firm, report that a tone of negativity regarding news on financial institutions in European countries is dominant, not confined to just a few companies but covering the entire branch (Maltese/Schatz 2014). Interest rate fixing scandals and other forms of misbehaviour and fraud have contributed to a bad reputation of the financial industry, and especially of its top management.

Trust of the public in rating agencies also seriously deteriorated over the last few years. In part this can be attributed to a performance that was weaker than expectations regarding their task (White 2010). For example, the major rating agencies still had investment grade ratings on Lehman Brothers' commercial paper on the morning that Lehman declared bankruptcy in September 2008. In Europe flourished a political debate about founding a European rating agency (instead of the US dominated firms).

Although eroding trust in (and on) financial markets has been identified as a central cause of economic turmoil since 2007, there is still no shared view on the basic root causes of a breakdown of trust in the financial system. In March 2010, leading European economists turned to a more general interest audience in a popular and highly recognised blog[8], with a plea on policy makers and financial market actors to restore trust in financial institutions. The authors claim that trust in the financial system '...was destroyed in large measure by the revelation of opportunistic behaviour that the crisis brought to light, of which the Bernard Madoff case is emblematic'. The hope that more stringent regulation will also boost trust in the financial sector is shared by the European Commission (2014b, p. 186): '[R]eform measures to reduce abusive market practices and better protect consumers and investors will enhance their trust and confidence in the financial system, which in turn is a pre-condition for the system to function in a stable (and efficient) manner.'

[8] http://www.voxeu.org/article/why-financial-regulation-must-also-rebuild-trust.

The view that opportunistic and illegal behaviour of bankers and financial market players, acting in an unregulated environment were the most important sources of trust decline which amplified economic frictions during the crisis is yet not unchallenged. Market failures coupled with regulatory failures were surely at work in the run-up to the crisis. Other researchers (e.g., Yandle 2010) however argue that prior to the US credit-market freeze of 2008 established market mechanisms collapsed due to heavy political and regulatory pressures by the federal government to expand affordable homeownership of less-wealthy people.

The complexity of multiple possible causes for the outbreak of the crisis, in combination with economists' disagreement, has contributed to a tendency to ignore economic expert advice in the debate about regulatory reform.[9] Economists have lost reputation and trustworthiness during the crisis, in particular because the profession was unable to foresee the financial crash and economic turmoil. An indicator is that respondents in a US survey by Sapienza and Zingales (2013) rarely changed their opinion on economic subjects, even if they got the information that expert economists' opinions are different. Johnson and Ballard (2014) report that people barely rely on economists as a source of information. A plain 1% of respondents trust economists 'a great deal', and over 20% report 'some' or even 'a great deal' of distrust.

The asserted trust meltdown had an enormous economic impact not only in the short term. It is expected to affect markets also in the long run, as confidence in the financial sector cannot be reinstated immediately. The main aim of regulatory reform would be to improve financial regulation and supervision to rebuild trust. The knowledge gap about the 'real' fundamental causes of the economic distress, and the associated decline of confidence in all relevant actors have changed the political debate more substantially, indicating a much heavier ideological polarisation that stands as an obstacle for a 'reason-based' regulatory reform.[10]

4.3. Transatlantic Trade and Investment Partnership negotiations and trust meltdown

The Transatlantic Trade and Investment Partnership (TTIP) is a free trade agreement currently negotiated between the European Union and the US. Its economic and social effects are heavily and controversially debated. Supporters expect a substantial positive growth impact for both economic blocks. Opponents argue that growth effects are overstated and claim that TTIP has an adverse impact on the income distribution. The most fundamental critics are yet related to rising concerns about[11]

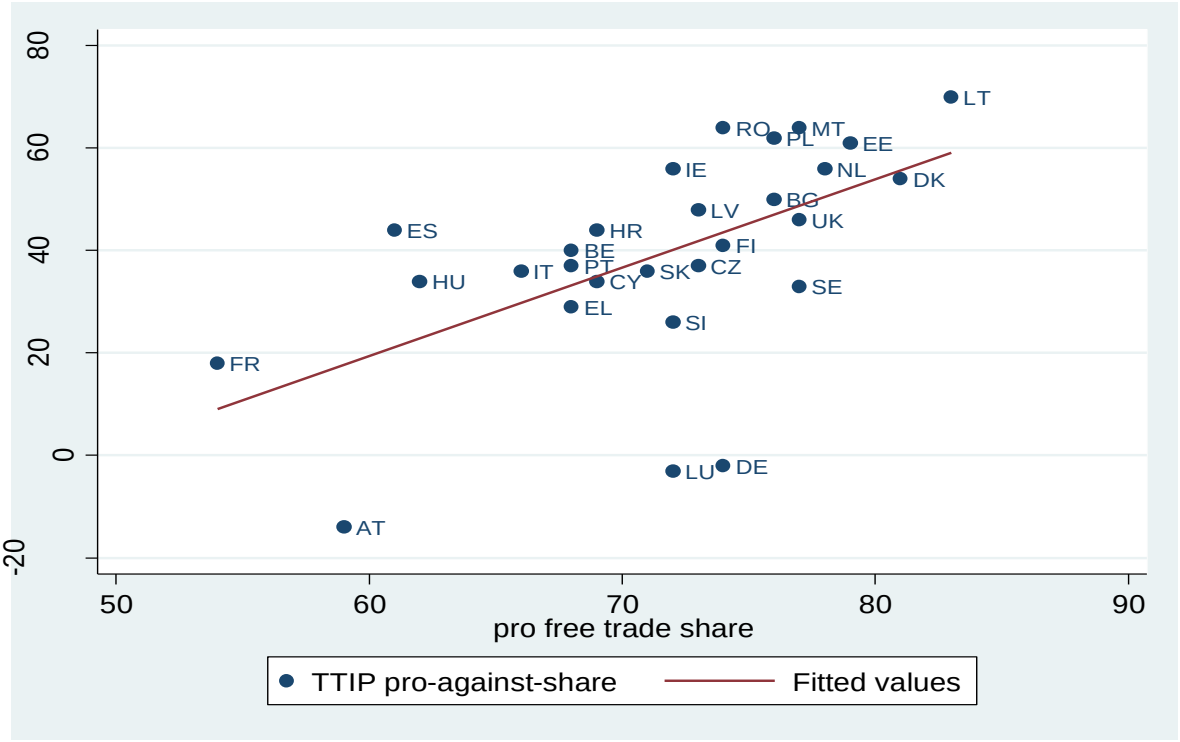
- a suspected deregulation of fundamental government services, which is said to be a 'secret' part of the negotiation agenda, of which the general public became aware of only after a leakage of EU documents in the media;
- an alleged increase of power of big multinational firms due to the 'investors-state dispute settlement' (ISDS) that would grant firms the right to use international dispute settlement proceedings against foreign governments in case of an assumed breach of investor rights. Negotiations on this topic are currently suspended.
- According to Eurobarometer 82 (Autumn 2014), a majority of Europeans are in favour of a free trade and investment agreement between the European Union and the US (58%), only 25% oppose an agreement. Support is shared by majorities in 25 Member States. The three exceptions are Austria (39% 'pro' v. 53% 'against'), Germany (39% v. 41%) and Luxembourg (40% v. 43%). Figure 8 illustrates that the share of 'pro-attitudes' is positively correlated to the share of respondents who support 'free trade' in general. Yet, as regards opposition against TTIP, these three countries appear as 'outliers'.

[9] http://business.time.com/2013/07/16/regulatory-rumpus-the-battle-over-reinstating-glass-steagall.

[10] http://www.gallup.com/poll/150191/Americans-Blame-Gov-Wall-Street-Economy.aspx.

[11] https://stop-ttip.org/what-is-the-problem-ttip-ceta.

Figure 8: Support of free trade and 'net support' of TTIP



Source: EuroBarometer 82

In spring/summer 2014 the Commission organised a public consultation across Europe. In total, 150.000 replies were retrieved. However, participation shares were rather 'unusual', as 80% of all replies originated in three Member States, the United Kingdom, Austria, and Germany. With over 33.000 replies, Austria, where Attac and 'green' NGOs lobbied heavily – was by far over-represented. The collective submissions reflected a wide-spread scepticism as regards ISDS, but there was also a majority opposing TTIP more generally, expressing concerns about governments' independence on the right to regulate.

The rejection of international private arbitration is at the heart of opposition against TTIP. The practice of investment arbitration is, however, not new. Investor-state dispute settlements (ISDS) have been in use for more than forty years. According to international practice these arbitral courts are allowed to make binding decisions which can also be enforced at national courts. Tribunals to solve disputes between international investors and national governments are already a common element of investor protection in bilateral treaties; in EU member states around 1.400 such bilateral treaties are currently in place. Since the mid-1990s, international firms make more extensive use of such provisions, but until recently claims against developed countries have been unusual. As of December 2014, ICSID had a total of registered 497 cases (ICSID Caseload Statistics 2015). Only 4% of all cases involve Western European countries, and an additional 4% concern the United States, Canada and Mexico. According to Dietz and Dotzauer (2015), with Western governments now experiencing to be sued for compensation because of sovereign public policy decisions, the role of international arbitral courts has become increasingly politicized.

TTIP negotiations are seriously affected by problems of deteriorating trust (or mutual mistrust). The basic notion of ISDS arrangements is that international investors mistrust national justice systems to provide fair trials in case of expropriation by their governments. Advocates of ISDS claim that even independent court systems in developed nations cannot fully guarantee that governments do not act opportunistically. Especially small companies would have to rely on independent arbiters if foreign governments violate investors' rights, as they do neither have

financial potential, nor experience, nor (political) connections to enforce their rights at foreign courts. Yet, there appears to be an increasing mistrust especially in large multinational companies that they will misuse such an instrument.[12]

Although secrecy of trade negotiations is not uncommon, opponents of TTIP regard this as a sign for a hidden agenda against interests of vast domestic majorities.[13] Leaked 'secret negotiation documents' appear to confirm such fears. Opponents claim that TTIP will give big business new powers over health services or education, and will possibly 'undermine rights at work, environmental protection and food safety standards.'[14] European opposition evoked the risk of imported noxious food that is produced in the US ('chlorine-washed chicken'[15]), although such imports are not allowed under European food security laws in place. TTIP negotiations deal with regulatory strategy choice only insofar, as the Working Groups address principles of future cooperation between the US and the EU. Even though that does not mean that policies are now decided on jointly, the public appears to perceive this as a threat to independent regulatory policy making of European governments.

The chlorine versus no chlorine-chicken debate is exemplary for lack of mutual trust. Apparently, European consumers (and associated NGOs) fear serious health damages associated with the consumption of chicken that are treated according to US regulations (BEUC 2014). Mistrust is directed against both against US regulatory institutions and US poultry producers. Behind these concerns lies the assumption that the European food safety system provides a higher level of consumer protection standards than the US. Mistrust in European regulation and food producers is also pertinent among consumers on the other side of the Atlantic, for example, as regards the consumption of raw milk cheese.[16]

Contrary to an oft-repeated claim, food safety standards in Europe are not fundamentally more stringent than US standards. Yet, evolution of standards somewhat differs over the past 25 years. Until the 1990s, important health, safety, and environmental risks were more strictly regulated in the US (Vogel 2012). Löfstedt (2004, p. 252) claims that precautionary measures adopted by the U.S. Environmental Protection Agency (EPA) in the 1970s also were a consequence of public distrust in the EPA. Since the late 1980s, European policies became more rigorous, and the EU puts greater weight on the precautionary principle. Food safety politics in Europe tended to become more politicised, characterised by a general suspicion of science and mistrust in both government and industry. In the US, high standards have not been tightened further, and the policy has been based since then on a cost-benefit approach, including co-regulation and self-regulation. Europe, however, appears to swing back to a less stringent precautionary approach, most notably Better Regulation initiatives, and recently a Regulatory Fitness and Performance Programme (REFIT) (European Commission 2014a).[17]

Hence, following Wiener (2013), the notion that regulation is determined by fixed cultures of risk, such as 'simplistic stereotypes of Americans as risk-taking technological optimists and of Europeans

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[12] Even The Economist argues that 'Multinationals have exploited woolly definitions of expropriation to claim compensation for changes in government policy that happen to have harmed their business' (http://www.economist.com/news/finance-and-economics/21623756-governments-are-souring-treaties-protect-foreign-investors-arbitration).

[13] http://www.wdm.org.uk/trade/opposition-eu-us-trade-deal-growing-negotiations-start-brussels.

[14] http://www.theguardian.com/commentisfree/2014/sep/02/eu-us-free-trade-deal-ttip-transatlantic-trade-investment-partnership.

[15] US poultry is chilled in antimicrobial baths that can include chlorine to keep bacteria in check. In Europe, chlorine treatment was banned in the 1990s out of fear that it could cause cancer. In Europe living poultry are tested regularly. If a single test is positive, the entire flock is eliminated.

[16] http://www.cheeseofchoice.org/#!regulations/cm2m.

[17] http://ec.europa.eu/smart-regulation/better_regulation/key_docs_en.htm.

as risk-averse technological pessimists' is not sufficient to explain changes in regulatory regimes. Wiener and Rogers (2002) argue that, among other factors, mistrust in producers and governments has become more pronounced in Europe. Spill-over effects may be at work, as the mishandling of the BSE epidemic in the 1990s, as well as several other food scandals may have reduced trust of the European public in self-regulation of food producers. The pattern of trust evolution and regulatory demands in the TTIP case offers further insights. The growing opposition against ISDS arrangements is a stark signal of increasing mistrust especially towards 'big business', and especially in some European countries. Despite waning confidence in their governments, European citizens seem to (still) have higher trust in their ability to protect European consumer interests.

5. Research and policy recommendations

The present chapter has focused on the interplay of social trust, trust in regulatory policymakers and trust in business in determining regulatory policy. It has been argued that in a situation of declining generalised trust, and - possibly associated - declining confidence in both companies and policymakers (and experts) the development of regulatory equilibria becomes ambiguous. Free trade negotiations may fail due to a lack of trust in big corporations, financial institutions and agricultural 'factories' (especially from the US), which might lead to protectionism, and financial market regulation may become overly strict. Against this background, a number of issues should be addressed in future R&I policies and funding.

Research recommendation 1: impact of various regulatory strategies on mutual trust building

In the past, strict reliance on the precautionary principle has been used in effect to strengthen public and stakeholder trust in regulatory policies. By demonstrating toughness themselves, regulators want to be seen as acting in the best interest of the general public. In doing so they may be perceived as fair, or at least unbiased in relation to big business and financial corporations, which is a main component of trustworthiness.

Yet, a substantial knowledge gap remains as regards the question which regulatory strategy is suitable to regain confidence in all relevant actors. Data on trust in big and smaller companies also indicate that sometimes trust rather shifts between institutions than erodes. In addition to improved data collection on these issues more theoretical and empirical research is needed to understand the interplay of regulatory politics, NGOs and media, and how this influences a potential downward or upward spiral of (mutual) trust building and shifting.

Research recommendation 2: causes of trust polarisation and its consequences for the design of regulatory polices

A further still open aspect for future research is trust polarisation. What are the consequences for regulatory policies if substantial parts strongly trust and other parts of the population strongly distrust certain institutions? While simple 'interest-based' policy conflicts can be resolved by negotiation and compensation, value-based (political-ideological) conflicts are much more difficult to resolve (Tait 2001).

Research recommendation 3: deeper socio-economic roots of institutional (dis-)trust

We have some knowledge about the very deep sources of social trust, from genetics to climate conditions. Research has also shown that confidence in business and in government is related to business cycles. The loss of institutional trust may not last too long and may recover soon. Existence of cycles however does not mean that a recession in general has only temporary trust impact.

Giuliano and Spilimbergo (2014) find evidence that the personal experience of a deep crisis during early adulthood has a lasting effect on the formation of beliefs. Macroeconomic shocks in 'impressionable years' shape preferences for redistribution and ideological orientation. Age cohorts who grew up during a recession show significantly stronger pro-government attitudes. However, Giuliano and Spilimbergo do not explicitly investigate the possibility that recessions also shape trust in economic and political institutions, which may be highly policy relevant: Those currently at

the age between 18 and 25 living in countries that experience the hardships of the current economic crisis, may be minted to distrust business and/or banks in the future. This could also point to further difficulties to re-build trust.

Research recommendation 4: varieties of capitalism, competition, and trust in institutions

Perceived risk from private business activities is related to supposed unethical behaviour of companies. Shleifer (2004) discusses business practices frequently described as be 'greedy', 'immoral' or unethical and shows that this may be an inevitable consequence of fierce competition. In particular, Shleifer considers child labour, corruption, CEO compensation, creative accounting and earnings manipulation, and commercial activities by universities. It is still hardly known whether different market economy systems (e.g., the Varieties of Capitalism-debate, Hall/Soskice 2001), with different combinations of social protection and social investment elements, will always be at odds with highly valued ethical norms, or whether – on the contrary – competitive forces can be steered in order to become conducive to institutional trust building.

Research recommendation 5: interplay of business practices, organised consumer groups and social media in generating trust and consumer welfare

Long-run competitive forces may also be able to contain unethical behaviour, provided that 'ethically motivated' organised customers groups honour (in their view) superior business practices. There are costs for companies to unethical behaviour from potential sanctions and reputation losses. Corporate Social Responsibility (CSR) or Ethical Impact Assessments (EIA, Wright 2011) may have the potential to help increase the competitiveness of a firm and the profit of the respective firms, and social media enhance opportunities for consumers to honour or name and shame (un)ethical behaviour, and even organise boycotts (Glazer et al. 2010). It is yet unclear, in which way CSR and organised consumers interact and whether they contribute positively to trust and economic welfare.

Policy recommendation 1: avoiding incentives for ethically doubtful behaviour

Bennett et al. (2013) argue that competition can lead firms to provide services customers demand but violate government regulations, when the government is unable to adequately monitor and enforce its laws and regulations. Sometimes firms act in a twilight zone between legal practices and unethical behaviour. Recently uncovered global corporate tax shifting and avoidance schemes of multi-national firms, which may be based on legal tax constructions, but were denounced as immoral behaviour that deprives governments (and honest tax payers) of valuable tax resources, are a case in point.[18] On the other hand, confidence in government institutions is damaged when they enacted these laws in the first place. Trust in all institutions may be enhanced if 'special' laws and regulations providing loopholes are precluded.

Policy recommendation 2: improving the balance of regulatory policies between precaution and innovation

Accepting the idea that technological progress and R&D are core elements of a European smart growth strategy, the major regulatory challenge will be, how to manage the relationship between risk and uncertainty and institutional confidence. A lack of trust in business appears to be related to technological scepticism: The 2015 issue of Edelman Trust Barometer finds that a majority of respondents believe that innovation in companies is too fast, driven by greed and business growth imperatives, while only a minority see innovation as 'to make the world a better place'. The data reveals a strong correlation between a country's level of trust in big companies and people's willingness to accept innovation. Restrictive precautionary regulation may increase trust but reduce private innovation and technological advancement. Smarter regulation, including specific tests on

[18] The media played an important role in setting accused firms 'under fire', blaming the use of tax loopholes by big international companies as 'aggressive tax planning'. And politicians cast concerns that such behaviour could undermine citizens' trust and confidence in the fairness and legitimacy of tax collection as well as in their general administrations.

innovation impact, may impact positively on both trust and innovativeness (Pelkmans/Renda 2014).

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CHAPTER 7

Trust in public administration and public services

Steven Van de Walle

1. Introduction

This chapter discusses trust in public administration. It provides some background, outlines relevant trust relations, and identifies signals that trust is at risk and what may happen when trust declines. It then focuses on causes, and reflects on trust- and distrust-based management mechanisms. Sections of this chapter are based on several of my earlier publications on trust in the public sector, but present an elaboration of some of these arguments (Van de Walle 2010, 2013; Tummers et al. 2013). This chapter will take a distant view of trust and will thus not argue for or against the need of trust. It will thus also emphasise the merits of distrust. Neither will it assume that trust is low and/or declining, and that it needs to be rebuilt. Secondly, it does not see distrust as a polar opposite of trust. The opposite of trust in this chapter will instead be absence of trust or low trust (Van de Walle/Six 2014).

2. Trust in public administration: relations to be considered

When discussing trust in public administration, one can look at a variety of trust relations. In this section, I introduce some of the main ones, partly based on the work by Bouckaert (2012).

2.1. Citizens' trust in the public sector

Citizens' trust in the public sector has in the most recent decade received quite some attention (Christensen/Laegreid 2005; Kim 2010; Marlowe 2004; Van de Walle 2007; Van de Walle et al. 2008; Van Ryzin 2011; Vigoda-Gadot 2007; Vigoda-Gadot et al. 2010). Things work more smoothly, it has been argued, when citizens trust the public sector. This reduces transaction costs because there are fewer instances where trustworthiness has to be checked prior to the transaction. Thus, citizens will be more likely to comply, obey rules and regulations, or pay taxes (Levi 1998; Tyler 1990). This makes the work of the public sector easier. Citizens may also be more likely to be attracted to public sector employment. Low trust, on the other hand may give rise to various exit and voice behaviours, such as moving to alternatives, complaining, protesting, voting differently, evading taxes, or challenging decisions by public officials (Hetherington 1999; Hooghe et al. 2011).

2.2. Public officials' trust in citizens

While citizens' trust has received a lot of attention, the opposite relation has received only marginal attention (Yang 2005). As part of their work, public officials frequently encounter citizens they consider untrustworthy: citizens who submit wrong documentation, make mistakes, do not follow procedures or commit outright fraud. Through the way how government offices are organised – the extensive monitoring and information systems it employs and the wide range of enforcement and control mechanisms available to government – it seems apparent that many public officials distrust citizens (see also King/Stivers 1998). Expressions of such distrust are visible in officials' unwillingness to involve citizens in decision making, in their unwillingness to take their views seriously (Yang/Holzer 2006), or in an overall relatively sceptical attitude toward citizens (Aberbach/Rockman 1978; Yang 2005). The reason for such distrust can be multifaceted, ranging from negative prior experience, over a belief that citizens are not sufficiently knowledgeable to play a role, to a conviction that citizens have profound negative intentions when interacting with government. Officials' distrust in citizens may evoke a reciprocal reaction, leading to a mutually reinforcing dynamic. Mutual distrust has become well documented in studies of street-level bureaucracy, and especially studies focusing on interactions between welfare officials and welfare clients, where officials suspect all claimants of cheating, and where clients perceive officials not to be there to help them, but to punish them for their dependent situation (Kelly 1994).

Public officials make decisions about the trustworthiness and worthiness of citizens (Maynard-Moody/Musheno 2000, 2003) and categorise clients (Prottas 1979). This means that some citizen failures are accepted, while others are not; some citizens receive dispensation for their wrongdoings, yet others do not. Information is very important in making decisions about clients' worthiness or truthfulness. An increasing reliance on protocol-based decisions systems and ever expanding social monitoring tools has to some extent made such decisions easier (Bovens/Zouridis 2002).

2.3. Trust between public (and private) organizations

Trust is not only important in interactions between individuals, but also in interactions between organisations. This is especially the case when public organisations work together in delivering services or making policy in areas that cut across policy areas or levels of government. Examples are ministry-agency relations, central-local relations, inter-agency collaborations, intermunicipal bodies, multilevel governance arrangements, or delivery and governance networks. Trust is also important when public organisations collaborate with private or not-for-profit actors, for instance in public-private partnerships, or in various service delivery arrangements. This trust goes beyond the mere interpersonal trust between actors within these organisations (Zaheer et al. 1998). The literature offers some evidence about the effects of trust between organisations on transaction costs and levels of formalisation of collaboration, conflicts, (perceived) performance and outcomes (Klijn et al. 2010; Gulati/Nickerson 2008; Zaheer et al. 1998).

3. Drivers - what makes trust possible, what causes low trust?

Looking at trust in the public sector does not only require distinguishing between different trust relations, but also between different types of trust. In this chapter I follow Lewicki and Bunker's (1996) distinction between three types of trust, which they consider as stages (1996, p. 124):

- Calculus-based trust
- Knowledge-based trust
- Identification-based trust

Calculus-based trust follows from a calculus of the (reputation) effects of not acting trustworthy, or the expected reward of acting trustworthy. Actors will then act in a trustworthy manner if they expect positive return from doing so. Alternatively they may act in an untrustworthy manner if the costs of doing so are low. Trust is thus based on a calculus of returns and risk. The expected cost of not being trusted thus acts as a deterrent. Calculus-based trust can be facilitated through making the consequences of acting in an untrustworthy manner clear (e.g. loss of reputation, losing future contracts, naming and shaming, blaming etc.). Effective control and deterrence are required for calculus-based trust. It can be built quite rapidly, but it is also quite fragile, and it is difficult to have a calculus-bases trust relationship with many actors at the same time because it requires permanent monitoring and a willingness and ability to undertake swift and effective retaliation if the trustee does not act in a trustworthy manner. In the public sector, the use of contractual relationships, performance-related rewards and punishments or publicly naming and shaming are all mechanisms that allow calculus-based trust to develop.

Secondly, knowledge-based trust has information about the other and predictability of the interaction as a core feature. Trusting each other is possible when actors have sufficient information about each other’s intentions and behaviours. Inserting information in the relationship makes it possible to interpret the actions of the other, and makes things predictable. Sustaining such trust requires considerable volumes of information, monitoring tools, signals etc. Knowledge-based trust can be developed in many relationships at the same time, but does take some time to develop, because of the efforts to be made to collect and interpret information. In the public sector, the desire to create knowledge-based trust has led to the introduction of instruments such as freedom of information legislation and open data, publicly available performance information, or the introductions of risk profiles of public sector clients (e.g., in policing or taxation).

Finally, identification-based trust follows from perceived shared values and a mutual identification. It is mainly emotional rather than cognitive (such as calculus– and knowledge based trust). According to Lewicki and Bunker, 'trust exists because the parties effectively understand and

appreciate the other's wants' (Lewicki/Bunker 1996, p. 122). Identification-based trust is limited to just a few relationships and generally takes time to develop. Examples in the public sector where such identification-based trust is developed are for instance situations where actors who interact share socio-economic, ethnic or political values and backgrounds, where there has been prolonged and stable elite interactions, or where interactions are facilitated by shared values (such as nationalism or ideology).

4. Signals and impact: declining trust or building trust?

To find out whether trust is stable, increasing or declining, one can look at attitudes and at behaviours. Attitudes capture stated trust. This means we are not actually talking about trust, but about perceived trustworthiness. Behaviours reveal trust and can be analysed by looking at micro-level actions, and at institutional changes. This section will first deal with the attitudes of citizens towards public administration, the attitudes of public administration towards citizens, and attitudes between other public sector actors. Such attitudes do not always translate into actions. Subsequently, I will look at behavioural signals that something may be changing in trust in public administration. These signals are voice and exit (see also Hofmann's contribution to this report). Finally, I look beyond behaviours at the micro-level, and focus on institutional changes reflecting a changing trust. Such changes include a juridification of interactions, and an increase in monitoring and accountability mechanisms. At the same time, we also see trends towards more trust-based collaboration and interaction in the public sector. One important observation in this respect is that the same signal can be interpreted as a substitute and a complement to trust.

4.1. Signals: attitudes

A first important way of capturing levels of trust is by measuring attitudes. This is not without its critics. Public administration suffers from a negative image among citizens, and stereotypes about public servants abound. Yet, when looking at the existing material, a number of things become visible. There are very few longitudinal datasets available to track the public's trust in public administration. Where these exist, they only cover a limited number of years, or do not allow for cross-country comparisons. Still, country-differences are substantial. An important observation is that the currently available empirical material is not consequently confirming the existence of a gap between citizens and public administration. The limited data available, in for instance national elections studies, the World Values Survey, or the Eurobarometer, do not show a downward trend (Van de Walle et al. 2008). In addition, while public administration in general is not among the most trusted institutions, it is by no means the least trusted of institutions. The press and political institutions generally enjoy lower trust. Monitoring changes of these trends, or in the relative position of public services among the list of most or least trusted institutions, is therefore essential in order to capture signals that trust may be changing.

Much of the material focuses on public administration in general, rather than on specific elements. General and specific views of public administration are different. A common observation in most research is that there exists a divergence between generally positive attitudes towards concrete public services, and the general, often negative, attitude towards the public sector or government at large (Goodsell 1983; Hill 1992; Katz et al. 1977; Klages 1981; Van de Walle/Van Ryzin 2012). Citizens combine a negative or neutral attitude towards the public sector in general with a more positive one towards many specific services. Health and education services, for instance, consistently attract positive views. In addition, the attitudes towards the public sector often contain many apparent inconsistences. Bureaucrats are for instance at the same time seen as being too powerful and controlling, as well as lazy and incompetent. Virtues such as efficiency rapidly become to be seen as vices when this efficiency is applied to, for example, enforcing rules or collecting taxes (Blau 1956; du Gay 2000). Also, there is little to no work on public official's trust in citizens, other than more general work on prosocial attitudes and public service motivation.

Looking at attitudes alone to establish whether trust in public administration is changing or to be considered problematic is insufficient. There are several reasons for this. There are problems with the measurement of trust because many surveys still rely on single-item measurements of trust, rather than scales. In addition, there may be issues with response bias, and non-response may actually be related to one's level of trust. Experimental approaches to capturing public attitudes are still in their infancy in public administration research. Secondly, there are attribution problems.

Much of the research looking at trust in institutions finds strong correlations between trust in one institution, and trust in a range of institutions. In addition, trust also tends to correlate quite strongly with other attitudes such as political efficacy, safety perceptions, life satisfaction etc. This begs the question: does citizens' trust in public administration have anything to do with factors inherent to public administration, or should explanations for attitudes be looked for beyond public administration itself? Finally, attitudes do not necessarily translate into action. They do tell us something about how citizens and public officials think. But do they also matter? When attitudes are not translated into behaviours, it could be argued that attitudes are cheap talk. Alternatively, it could be argued that looking at attitudes is a good way to capture as yet immaterialised behaviours or intended behaviours.

4.2. Signals: behaviours

A second set of signals about levels of trust or changes in trust is behaviours. Behaviours could be seen as stronger and often more reliable signals than attitudes. At the same time, however, there may be cases where behaviours are not reliable signals, because actors and institutions may be constrained in their behaviours, or the cost-benefit ratio of changing one's behaviour may be too negative. In this section, we mainly distinguish between exit and voice signals.

Citizens are increasingly treated as users and consumers of public services (Le Grand 2007; Newman/Vidler 2006), and liberalisation has made exit a viable option in many service settings. Even in relation to monopolistic service providers, citizens have an array of options when faced with service failure: they can complain directly or complain to external parties (ombudsman, politicians, press), become aggressive, go to court, demand compensation, blame politicians and change their voting behaviour, or end a service relationship altogether. The same goes for other actors in the public sector. Public officials may publicly complain about their employer, or quit their jobs. This is especially the case at a time when public employment is being normalised – i.e., moving towards models common in the private sector. Within the public sector, officials and organisations can decide to end or to continue their relationships with clients or providers, go to court, or shame their partners in public.

Our treatment of behavioural signals draws on Hirschman's classical exit-voice-loyalty framework (1970), developed to understand decline in (public) organisations. The two basic options when actors are not satisfied are leaving (exit/choice) or trying to repair things through voice. The choice between both depends on the degree of loyalty towards the organisation. Loyalty helps to understand why actors choose between exit and voice. This means prior attitudes towards public organisations may influence subsequent behavioural choices.

In Hirschman's exit-voice-loyalty model, exit is a response to low quality or failing institutions. It is often exercised when voice does not work or is deemed to be ineffective. Exit comes in various forms. Dowding and John (2012), for instance, distinguish between complete exit, when citizens stop using certain public services, or when other actors end their collaboration; internal exit, when users of a public service move to another public provider; and private exit, when they move to a private provider. Examples of such exit are when unsatisfied or distrusting users of a public health provider move to another public hospital, go to a private hospital, move to alternative medicine, or cease using health services they really ought to be using altogether (complete exit). Other examples are when citizens (or companies) move to non-state providers, stop using services they are entitled to (non-take-up), or begin their own alternative public service provision mechanisms; when employees leave public employment; when high-level public managers quit their positions; when citizens stop obeying rules; or when actors in public-public or public-private partnerships leave the partnership. In some cases, exit can even be physical, for example when citizens or companies leave an area or country altogether (cf., Tiebout exit). Non-compliance with rules and regulations could also be considered as a type of exit, whereby citizens stop following rules and thus send a signal something is not right. Apart from exit, the possibility of exit or the threat of exit may already have a disciplining effect (Dowding/John 2012). Exit can be a very strong signal, but its scale and impact only truly becomes visible when many actions of individual actors are being aggregated (e.g. many parents moving their children to another school). In addition, exit is not always a very attractive option, because of the alternatives available, or the costs involved. Exit can be a process that happens gradually and silently. This distinguishes it from voice, which is by definition direct and not silent.

A second group of signals is voice. Voice also comes in various shapes: complaining through official and non-official channels, going to the media, blowing the whistle, setting up new interest groups or political parties, expressing oneself publicly against policies or stimulating others to stop complying etc. Voice is not such a clear-cut signal such as exit. It is messy and comes in gradations. Unlike exit, voice is not impersonal, but very personal and direct. This also makes voice potential very risky. Whether or not an actor will opt for voice also depends on the expected impact of such voice. If expectations are that others will not bother, remaining silent or exit may be more likely options.

When looking at voice and exit as signals of low trust, it is important to have longitudinal and cross-sectional data in order to be able to interpret the signal. Voice may always have been high, and should not necessarily be interpreted as an indication of low trust. Instead, it could be an indicator of a healthy public debate. In addition, many other factors could have stimulated voice and choice, such as for instance structural possibilities to exercise voice and choice. Exit or choice is for instance easier when there are many options because a public service market is more liberalised, or when public employees have many job opportunities outside the public sector. Choice may be difficult when actors are faced with choice overload (Jilke et al. 2015). Voice is easier when formal voice procedures exist or may depend on the structure of the media. It is important to look at behavioural signals such as voice and exit in conjunction with attitudes towards public administration. Loyalty is an important attitude that drives the decision to exercise voice and exit and the choice between them.

4.3. Signals: institutional changes

A final set of signals is located at the institutional level. Organisations can change their practices, structures or interactions in response to low trust or in order to make trust possible. In this section we distinguish between three often mentioned trends, which can either be seen as an indication of decreasing trust, or as efforts to make calculus- and knowledge based trust possible.

A first signal is the juridification or contractualisation of interactions. When parties (citizens and public administration, public employees and their organisation, public sector organisations, public and private organisations) have low trust, they may want to draft contracts to regulate their interaction. Such contracts lay down detailed arrangements and include a deterrent. They can be seen as a signal that knowledge-based trust was deemed to be difficult, and contracts may remedy this by making mutual intentions and expectations explicit. Contracts also provide a way for making calculus-based trust possible, because they make the cost of behaving untrustworthy visible (e.g. fines, contract loss, reputation risk). Juridification of interactions is visible in different ways: the number of contractual vs. non-contractual arrangements, contract length, the number of legal cases involving public sector actors, the number of legal personnel involved in decisions etc. Interpreting the signal, however, is very difficult: is juridification a signal that trust has disappeared in a situation where it existed previously, or is it a signal that parties are trying to build calculus- and knowledge-based trust in situation where there was no prior trust? In other words trust and contracts can be both substitutes and complements (Klein Woolthuis et al. 2005). Brown et al. (2007) for instance demonstrated that contract completeness or and thus contract length in government' contracting for social services and refuse collection varied in response to evolutions in trust between parties. While contractualisation of interactions is an important trend in the public sector, there also is a concurrent trend of decontractualisation of interactions. This means that public organisations, in their relation with e.g. private parties move away from short-term neo-classical contracts to relational contracting (Greve 2008; Domberger 1998). Further details will be provided in a later section.

Secondly, we can look at increases or decreases in monitoring and compliance tools in public sector settings. Such tools may again be seen as substitutes or complements to trust. The tools focus specifically on knowledge-based trust, and reflect the assumption that additional information about the other party's behaviour and intentions allows for a better assessment of the trustee's trustworthiness. Alternatively, one could see the tools as an expression of low trust. Examples of such monitoring tools are performance measurement systems, sunshine laws, inspection services, audit institutions, reporting and accountability requirements, street surveillance, preventive body searches etc. Whereas previously, it was the trustor's role to prove the trustee was not acting

trustworthy, more recent developments are increasingly laying the burden of proof with the trustee. Evidence in various fields suggests a massive increase in monitoring tools. In the public sector, Power's work on the audit society is a good example (Power 1999). Knowledge and monitoring may then be used to punish the trustee for violating expectations, either directly or indirectly by making the information publicly available in order to name and shame. Violating trust may then result in serious reputation loss.

Finally, changes related to identification-based trust can be observed. In identification-based trust, mutual identification and shared values and goals make mutual trust possible. It can be observed in for instance the homogeneity and heterogeneity of collaborations and interactions, or in the existence of clear in- and outgroups. Especially in a public sector context, the existence of such in- and outgroups could be seen as problematic. Identification-based trust is likely to be high in very homogeneous groups, and could be reflected in non-diverse workforces, long tenure of position holders, low turnover of contractors, politicised administrations etc. Rather than relying on contracts or monitoring tools, politicians could for instance choose to install personal friends or party members at the head of public organisations, because this aids identification-based trust. On a more positive note, scholars on network governance have observed that trust between partners in a governance network may improve eventual outcomes (Klijn et al. 2010).

5. Scenarios: increasing and decreasing trust

Some trends and signals in the public sector point at increasing distrust: negative attitudes towards some public services or actors in public administration, voice and exit, or the introduction of strict command and control management tools. At the same time, trust is receiving increasing attention as a mechanism to regulate interactions. Trust is recognised as a mechanism that lowers transactions costs in various interactions. These transaction costs proved to be fairly high when actors in the public sector engaged in NPM-style short term contracts and collaborations, or where elaborate monitoring and compliance-enhancing tools needed to be developed to make interactions work. Also in traditional bureaucratic interactions, trust was supposed to play no role, because interactions were laid down in detailed formal instructions. Allowing trust to play a role would have been seen as opening the door to favouritism and total discretion.

This section outlines two possible scenarios of continued increasing and decreasing trust and the potential implications of such changes.

5.1. Scenario: trust is increasing. Moving towards trust-based mechanisms and interactions in public administration?

Recent developments throughout the public sector appear to suggest a gradual return to trust-based management and steering concepts (see, e.g., Bouckaert 2012; Choudhury 2008; Groeneveld/Van de Walle 2011). This goes hand in hand with the emergence of newer informal governance arrangements with relatively few formalised rules, and with changing but often long-term interactions and fairly unstable environments (Grey/Garsten 2001).

As a result, trust has resurfaced in the work of scholars interested in the functioning of governance networks, collaborative arrangements and partnerships, where partners work together to achieve shared goals. In such partnerships, trust between actors is essential for them to work (Agranoff/McGuire 2001; Huxham/Vangen 2005), and to achieve better performance and lower transaction costs. At the same time, too much trust may lead to partnerships where collaboration is too cosy and where vigilance is low. Politicisation of collaboration and nepotism is one way to ensure all partners within the partnerships trust each other, and to exclude outgroups from decision making.

Similar changes can be seen in contracting relationships, where classical contracting with relatively short term and very specific contracts is supplemented or even replaced by relational contracting (Greve 2009). In such relational contracting, partners are committed to each other for the long term and the contracts are not very detailed. Such relationships are largely based on trust and refute earlier beliefs that contracts could substitute such trust (Lane 2000). Such relational contracting goes hand in hand with a move towards replacing detailed performance metrics – often focusing on output – by more general outcome indicators.

The importance of trust has resurfaced in an age when governments want to reduce red tape and control- and inspection-related burdens. This led to innovations such as labelling or self-regulation, where companies are for instance granted exemption from regular inspections after they have proven to comply for a number of consecutive years. Systems such as sectoral self-regulation or horizontal inspection require a great deal of trust in citizens' and companies willingness to follow the law. Research on regulation and inspection suggests a trend away from punitive regulatory styles to more responsive ones, based on cooperation and trust. This trend builds on the observation that strict enforcement and coercion do not necessarily lead to better outcomes, and may increase transaction costs (Ayres/Braithwaite 1995; Six 2013; Winter/May 2001).

5.2. Scenario: low trust: voice, exit and institutionalised distrust

While trust is often seen as a virtue and an essential fuel for social life and indeed public administration, it should not be forgotten that distrust also has an essential role to play in the functioning of public administration. This stands in sharp contrast to much of the literature and public comments that have tended to see low trust as problematic and as something that should be remedied. While trust-based collaboration is currently regarded as a superior way of doing things, diverging views may see this as a risky strategy because it may preclude effective oversight and control. The traditional system of checks and balances is based on mutual distrust (Parry 1976), and many scholars consider low trust in government as a healthy attitude, and routine trust naïve (Möllering 2006). In other words, low trust can be considered an indicator of a healthy citizenry (Hardin 2002), and as a prerequisite for institutional renewal (Warren 1999).

Indeed, distrust is one of the core organising principles in public administration, and it is so for a reason (Van de Walle/Six 2014). An elaborated set of checks and balances exists within government to avoid government and public administration to be captured by elites, special interests or majorities. In addition, governments distribute considerable amounts of benefits (money, jobs, licenses) which makes abuse, shirking and slack very likely. Traditional public administration for this reason is not just structured as it is in order to achieve superior outcomes, but mainly to guarantee fairness, legality and due process. A logic of appropriateness rather than a logic of consequence guides much of bureaucracies' behaviour.

Such institutionalised distrust is visible in a deliberate fragmentation and distribution of functions within public administration. Examples are practices such as the rotation of incumbents of administrative positions and term limits; regional, ethnic, political and linguistic balances in staffing, in advisory bodies, and in boards; requirements for decisions and expenditures to be countersigned; elaborate accountability and audit processes and mechanisms (Power 1999); and extensive contracts (Choudhury 2008; Coulson 1998).

Absence of trust between principals and agents often results in expensive micromanagement (Ruscio 1996) in the interactions between organisations, between ministers and administrators, between government and private contractors, between managers and employees, or between public officials and citizens. This may result in extremely long and detailed contracts, extensive monitoring, and a resulting loss of flexibility which may hinder innovation. It also requires expensive remediation mechanisms when things go wrong in the interaction, such as court cases.

New Public Management (NPM) style approaches to government have even further institutionalised this distrust (see Van de Walle 2010 for an elaborate argument). A core feature of the NPM is that it takes organisations' and public officials' self-interest maximisation as a basic assumption, unlike other approaches that tend to see these actors as altruistic and public interest-inspired. It follows from this basic assumption that distrust-based mechanisms of control are necessary for actors to control each other. Elaborate contract-type relationships and extensive monitoring systems were introduced to make collaboration possible in such antagonistic environments. At the same time however, it would be wrong to equate the existence of monitoring and contracts to the existence of profound distrust (Van de Walle 2010). The existence of contracts for instance makes calculus-based trust (Lewicki/Bunker 1996) possible because the deterrence and associated reputation risk laid down in the contract makes trusting and being trustworthy a simple cost-benefit assessment. Extensive monitoring makes knowledge-based trust possible because it makes interactions, and especially the other party's intentions, predictable.

The institutionalised nature of distrust is also visible in the way how public sectors interact with citizens. Citizens cannot necessarily be trusted to comply voluntarily with rules or to submit truthful information. Some public organisations have extractive functions (e.g., taxation), hold a monopoly of violence, or need to regulate other actors. For such services, an assumption of low voluntary compliance may then be a good basic working hypothesis, as is an appetite for a certain degree of surveillance.

Finally increasing distrust may become visible in high levels of voice and exit, for example through complaining about poor-performing public services, populist parties focusing on government failures and citizens blaming politicians for failing services, the emergence of private or not-for-profit and cooperative alternative service delivery mechanisms, the collapse of long-standing public-public and public-private partnerships, or high non-take-up of public services.

6. How should European (research) policy react?

Public administration and public service delivery are among the largest economic sectors in Europe. Low trust has important implications for both the size and structure of this sector, and the costs of running public services. Trust in public services is essential for the innovative capacity of the public sector, and for building the administrative capacity to deliver policy.

6.1. Recommendations for research priorities

Content-wise, research should more specifically look into the following priorities:

- Attitudes: The extent to which public sector actors trust each other (citizens trust in public administration; public officials' trust in the citizens they serve; and inter-organisational trust), and how perceived trustworthiness is created.
- Behaviours: Behavioural responses of citizens and public officials to low trust in terms of voice (complaining, public shaming, changing voting behaviours, whistle-blowing), and choice or exit (non-take-up of public services, going private and setting up alterative public service provision mechanisms, quitting one's position, abandoning collaborative networks). This can be done through observational and through experimental research.
- Changing institutional arrangements: The nature and scope of institutional signals reflecting changing levels of trust, such as the contractualisation and juridification of interactions (and the reversal thereof); increases and decreases in monitoring and compliance tools; and the homogenisation or heterogenisation of policy making and service delivery within the public sector. This has implications for the cost of running public services, accountability and equal access to policy making.
- The role of institutionalised distrust and deliberate transaction costs in the design of policies and governance structures.
- The emergence of trust-based steering mechanisms: these include relational contacting, politicisation, partnership working, or new regulatory styles, and the positive and negative effects of such developments in terms of outcomes, public service market structure, democratic accountability, rule of law, resilience, equal treatment. It should also look at what these mechanisms mean for what we expect from civil servants in terms of attitudes to citizens, their integrity, and core values.
- The extent to which changing practices in public sector governance are substitutes or complements to trust.

6.2. Recommendations EU research policy

Changing levels of trust between public officials, in particular EU administrators, and researchers may have important implications for the way how research and innovation policies and funding programmes will operate. In a situation of increasing trust, one may see long-term collaborations with relatively few monitoring mechanisms. The downside is a risk of moving towards a situation where the bulk of research funding goes to an in-group of trusted research partners. In a situation of decreasing trust, this may result in increasing levels of monitoring tools and contracts, and associated high administrative burdens. In particular, it could result in the micromanagement of projects and detailed procedural requirements before and during projects that may stifle

innovation. It may also lead to exit behaviours, such as scientists no longer bothering to apply for funding, or funders no longer willing to fund certain projects, a trend that is now already visible in hostile attitudes of governments towards the social sciences for their perceived lack of direct economic impacts.

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CHAPTER 8

Political confidence and political behaviour

Laura Morales

1. Introduction

Political scientists have worried about an alleged crisis of democracy ever since the 1970s (Crozier et al. 1975). Major empirical studies undertaken in the early and mid-1990s, with data from the 1970s and 1980s, showed there was no evidence to support such fears, as no clear declining trend in political support and confidence was visible (Klingemann/Fuchs 1995; van Deth/Scarbrough 1995). Yet, since the late-1990s, the concerns for a 'crisis of democracy' re-emerged, as the available data points to an increasing dissatisfaction with how democratic politics works and an increasing mistrust of political institutions and representatives (Newton 1999; Pharr/Putnam 2000; Dalton 2004; Dalton/Wattenberg 2000).

There is no consensus on whether political distrust is a negative (or even relevant) aspect (Inglehart 1999; Offe 1999; Warren 1999). Some argue that highly educated, sophisticated and demanding citizens understandably are critical of political authorities and institutions and that a certain degree of scepticism is healthy for democratic politics (Norris 1999b; Rosanvallon 2008). Hardin (1999) contends, persuasively, that the rational choice is not to trust government because citizens lack the necessary information to expect governments to act in their individual interests, and because trust is only beneficial if it is placed on the trustworthy.

Others argue that high levels of political distrust are problematic for public life because it leads to accepting and justifying various forms of illegal behaviour (Mariën/Hooghe 2011) and to a reticence to commit resources to policy reforms that produce collective goods (Hetherington 2005). A certain level of confidence is also necessary to ensure acceptance of, and compliance with, policy reforms and laws. Hence, while there might be healthy levels of political distrust, if very large majorities of the population are deeply mistrusting of both political institutions and their representatives, these are signs of system dysfunctionality that need addressing.

What do we mean by 'trust in politics'? Confidence in political institutions vs trust in politicians and parties

There is some debate about the concept of political trust and whether it is suitable to refer to the judgements we make about political institutions, authorities and representatives. Hardin (1999) argues that it is highly problematic, if not meaningless, when applied to political objects or subjects. Trust requires: (1) expectations about the likely behaviour of the person(s) to be trusted, (2) beliefs about their motivations, (3) beliefs about their capacity to act according to their motivations, and (4) beliefs about them seeking to act in the interest, and for the good, of the one who trusts. It is, following Hardin, unreasonable to assume that citizens can form these expectations and beliefs in relation to political institutions and representatives, as they lack the detailed information and knowledge required to form them, and they cannot reasonably believe that the primary motivation of political institutions and representatives will be to act in the individual interest of the person who trusts. In the best case scenario, politicians and public authorities will be motivated by the search of the public good, and the public good might or might not coincide with the private interests of the given individual. Thus, Hardin proposes political confidence, instead, as a much more general, less specific and less experienced-based expectation about whether political institutions and representatives will act in an appropriate manner and following the rules of the game. These general orientations incorporate an expectation of competent role performance and of fiduciary obligation and responsibility (Barber 1983). I will, follow Hardin and refer to political confidence and to its reverse, political distrust.

Some scholars consider that political confidence and political legitimacy and satisfaction with democracy are closely interrelated concepts, that all express a form of diffuse support (Easton 1965) for the political system (Hooghe/Zmerli 2011). This, however, has been disputed as empirical research has shown that the legitimacy of democracy as a political regime can be resilient

to crises of political confidence and that the declining trends in political confidence are not reflected in parallel trends of declining support for democracy (Dalton 2004; Hay 2007). Yet, while citizens regard democracy as the best form of government, they are increasingly sceptical and disappointed at the outcomes that it produces and this tension is at the heart of much of the political upheaval that we are currently witnessing.

One key problem in approaching this subject is that there are multiple political objects and subjects toward which citizens can express confidence and distrust. A primary distinction between confidence in politicians, the government and political parties versus confidence in more stable and less personalized political institutions is in order. There is considerable evidence to suggest that the former is constantly fluctuating and is very dependent on the ups and downs of political developments, whereas the latter is much more stable and often more robust (Dalton 2004, ch. 3). In other words, confidence in government, politicians and parties is more volatile and susceptible to all sorts of political events and circumstances; confidence in political institutions tends to be more resilient.[1] While not minimizing the consequences of very high levels of distrust in political representatives, the erosion of confidence in political institutions is a more worrying sign of a troubled democratic system. At the end of the day, politicians come and go, but political institutions are the pillars on which democratic government is founded.

For this reason, it will be useful throughout this chapter to distinguish between various types of objects of political confidence: politicians, political parties (as intermediary agents between citizens and government), government and parliament, leaving the detailed analysis of confidence in other key institutions such as the judicial/legal system or the police to other chapters in this report (see, e.g., Boda).

What do we mean by 'political behaviour'? The multi-dimensionality of political behaviour and the need to narrow down the focus

The notion of political behaviour encompasses a wide range of forms of action and activities that are, in one way or another, related to politics (however defined). It includes activities that go from reading the political sections of newspaper or discussing politics, to voting, and engaging in contentious forms of political action. Often, we differentiate between forms of political participation and forms of engagement with politics that do not constitute political participation (e.g., reading newspapers, keeping informed about politics, or discussing politics). This chapter will focus exclusively on the former.

Since the 1960s and 1970s scholars have acknowledged the multi-dimensionality of political participation (e.g., Milbrath 1965; Verba et al. 1971). As Huntington and Nelson (1976, p. 14) highlighted, the concept of participation is nothing more than an umbrella concept that accommodates very different forms of action. Barnes and Kaase and their collaborators (1979) introduced the now classic distinction between conventional forms of participation[2] and non-conventional participation or protest.[3] Recurrently, academic research on political participation has demonstrated that this multidimensionality is fundamental, both when looking for factors that determine individuals' participation, as well as for establishing the consequences deriving from participation (Verba et al. 1995).

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[1] There is contradictory evidence as to whether confidence in various types of actors and institutions forms a single underlying dimension of political confidence or whether specific actors/institutions should be analysed separately (Hibbing/Theiss-Morse 1995; Mariën 2011).

[2] This type of action includes forms of participation related to the electoral process – voting, wearing a political badge or emblem, contributing financially to or working for a party or candidate, joining a political party, etc. – and other activities not necessarily related to the electoral process – for example, soliciting money for a political cause, participating in political meetings, joining a citizens' association or group, working to solve local problems, or contacting public authorities.

[3] This category includes non-institutionalised actions and protest actions: e.g., signing petitions, participating in demonstrations or strikes, boycotting products or companies, participating in sit-ins or blocking the traffic, occupying buildings or factories, painting murals, damaging public or private property, or employing violence for political reasons.

For example, the various forms of political participation have different consequences for the political process. Some provide little information regarding the preferences of the participant, but the aggregation of individual actions has important consequences for the political process. This is the case of electoral activities (voting, participation in campaign activities, etc.). By contrast, other actions articulate the preferences of the citizens who undertake them but may have no or little substantive consequences on the political process (e.g., participation in demonstrations or campaigns to collect signatures).

Because different forms of political activity differ in their causes and their consequences it is not useful to treat them all as a single and homogeneous construct. Consequently, this chapter analyses the relation between political confidence and certain forms of political participation separately. But which forms of political participation should we focus on?

Electoral participation is the founding pillar of representative democracy and one of the main mechanisms to hold governments accountable and make politicians responsive to citizen demands. Yet, the vote cast provides very little information about citizens' preferences and is a limited form of controlling politicians, thus not being the most effective way to steer the direction of policy-making. Political activity between elections expresses much clearer messages around participants' preferences – since they are directed to influence specific decisions –, they contribute to political agenda-setting, and they help clarify politicians' policy positions, thus making the decision-making process more transparent.

On the basis of these considerations, in this chapter I will focus on the connection between political confidence and three forms of political participation that represent this wide range of ways of engaging in political action: voting in national legislative elections, joining political parties and engaging in protest.

2. Trends and patterns of political confidence: Europe is not homogeneous

Cross-national variations in confidence in political institutions and in politicians

One of the main difficulties for foresight and for drawing policy recommendations for all EU member states stems from the heterogeneous situation in relation to confidence in political institutions and in politicians across Europe (Mariën 2011). Although time series are limited for many European countries, the available data that goes back to the 1980s or early 1990s suggest that there is a range of trends and patterns of evolution of political confidence.

Taking confidence in the national parliament as a first example,[4] figure 1 shows that, indeed, political confidence has been declining over the years in a considerable and varied number of European democracies, and the US (included as an additional point of reference). This is the case for Austria, Britain, the Czech Republic, France, Germany, Hungary, Iceland, Ireland, Norway, and Poland. Some of these declines are very steep and continuous; others are less dramatic. Among the sharpest declines we find several Central and Eastern European countries (Czech Republic, Hungary and Poland), but also more established democracies where an intense erosion of political confidence is evident (particularly, Britain and Iceland).

Yet, this is not the only trend that we can identify. Figure 2 shows that for a considerable number of countries confidence in the national parliament was either stable or increasing until 2008.

[4] The data come from the European Values Study (EVS) for most countries (1981-2008 series) for the following question: How much confidence do you have in… Parliament? The categories used for the percentages shown are 'A great deal' + 'quite a lot'. For the UK two different data sources were available, the British Social Attitudes survey and the European Values Study. As the questions and categories differ, they provided different estimates of the level of confidence in parliament, but the trends are consistent. Here, the EVS figures are provided. For the US, the data are from the General Social Survey, item CONLEGIS and response category 'A great deal of confidence'. For Austria, the data come from the ISSP surveys, which uses an almost identical question to the EVS but the option categories are 'Complete confidence' + 'a great deal of confidence'.

Stability or fluctuations are apparent in Belgium, Italy, the Netherlands[5], Romania and Spain. Upwards trends are visible in Denmark, Finland, Malta, Portugal, Slovakia, Slovenia and Sweden. Thus, we also find a good mix of Central and Eastern European countries with increasing levels of political confidence, as well as Scandinavian and South European democracies.

Similar cross-national variation is visible for confidence in politicians (figures 3 and 4).[6] In fact, for the countries for which we have long time series, there are more countries with stable or increasing levels of confidence in politicians than countries with declining levels. Also, while in some countries the economic recession has led to decreasing levels of confidence, in others this has not happened.

[5] Bovens and Wille (2011) offer a detailed assessment of the fluctuations of political confidence in the Netherlands and conclude that short-term shocks can sometimes have strong effects and need to be distinguished from long-term trends. Thus, political confidence/trust is wavering but not withering.

[6] The data come from the European Social Survey (ESS).

Figure 1: Countries with declining trends of confidence in Parliament (EVS & ISSP data)

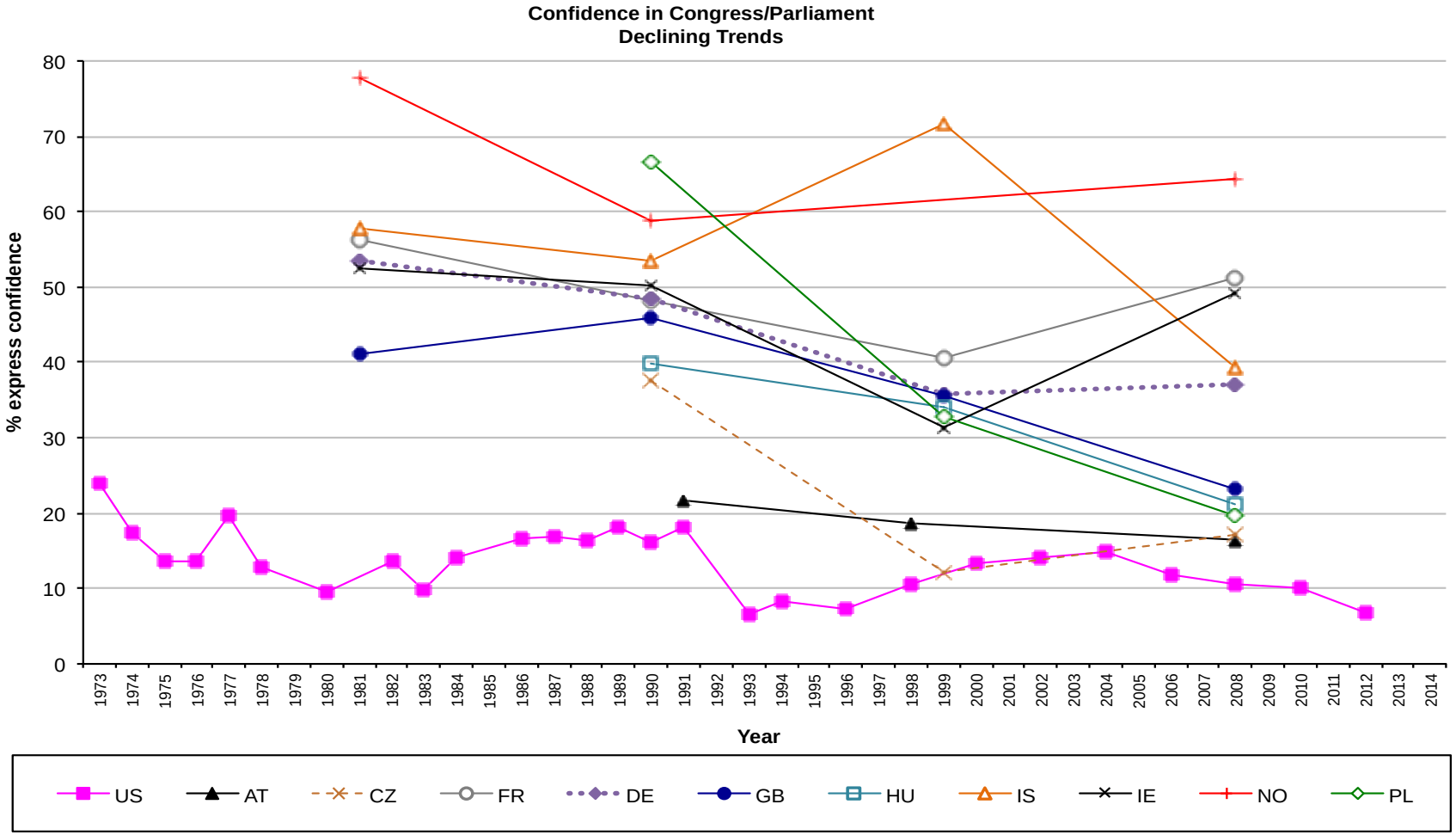


Figure 2: Countries with stable or upward trends of confidence in Parliament (EVS & ISSP data)

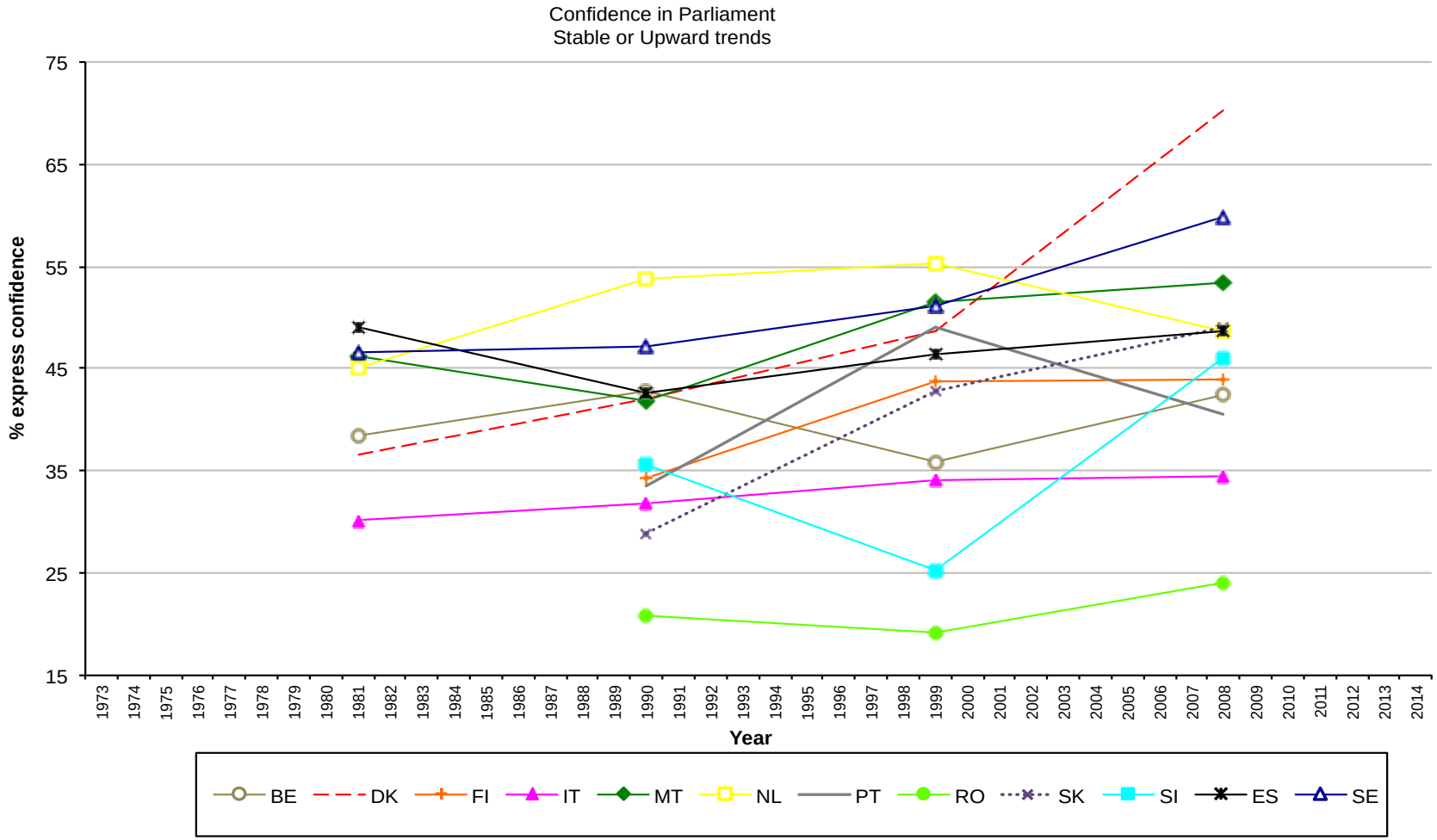


Figure 3: Countries with stable or upward trends of confidence in politicians (ESS data)

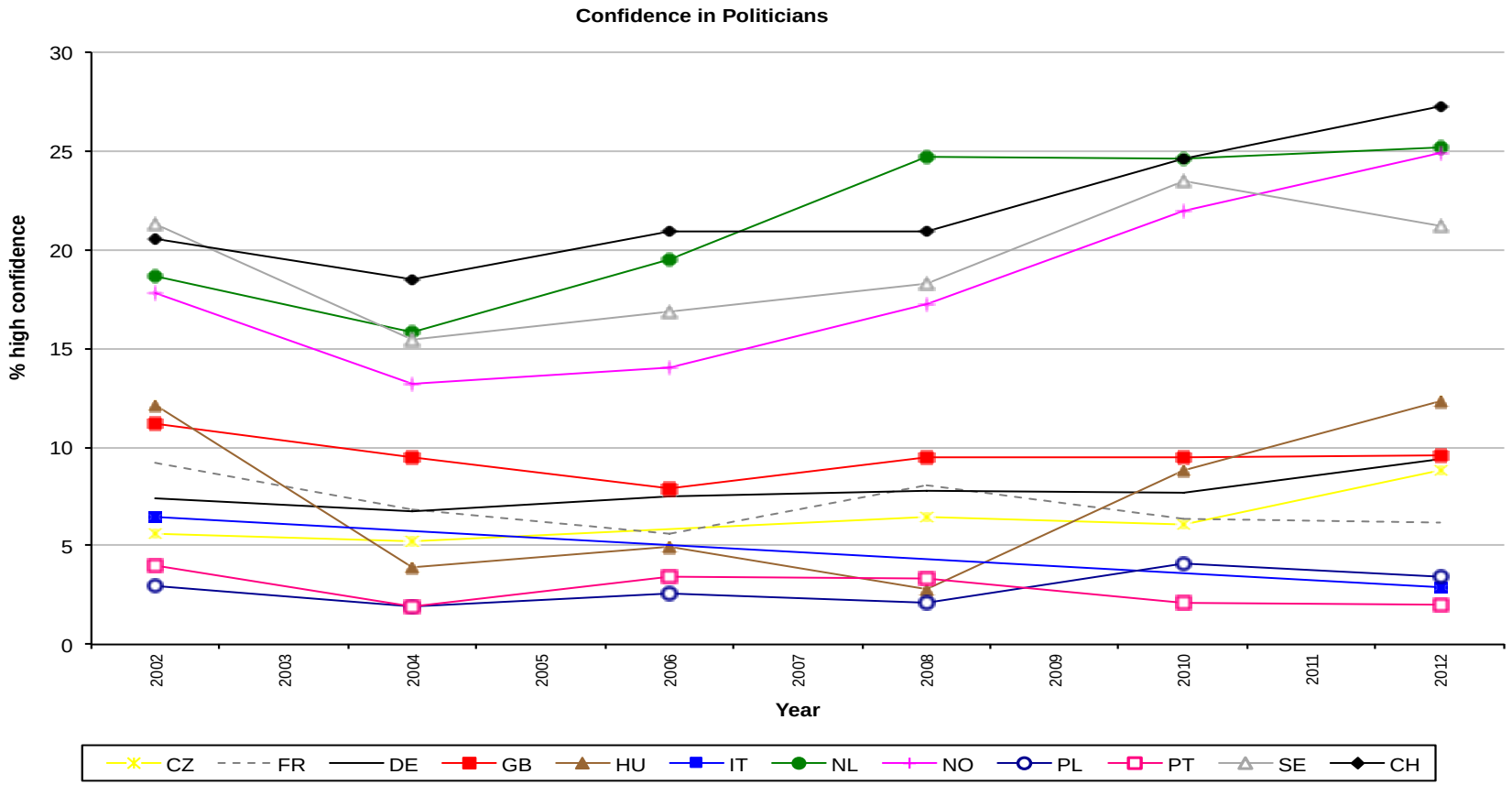
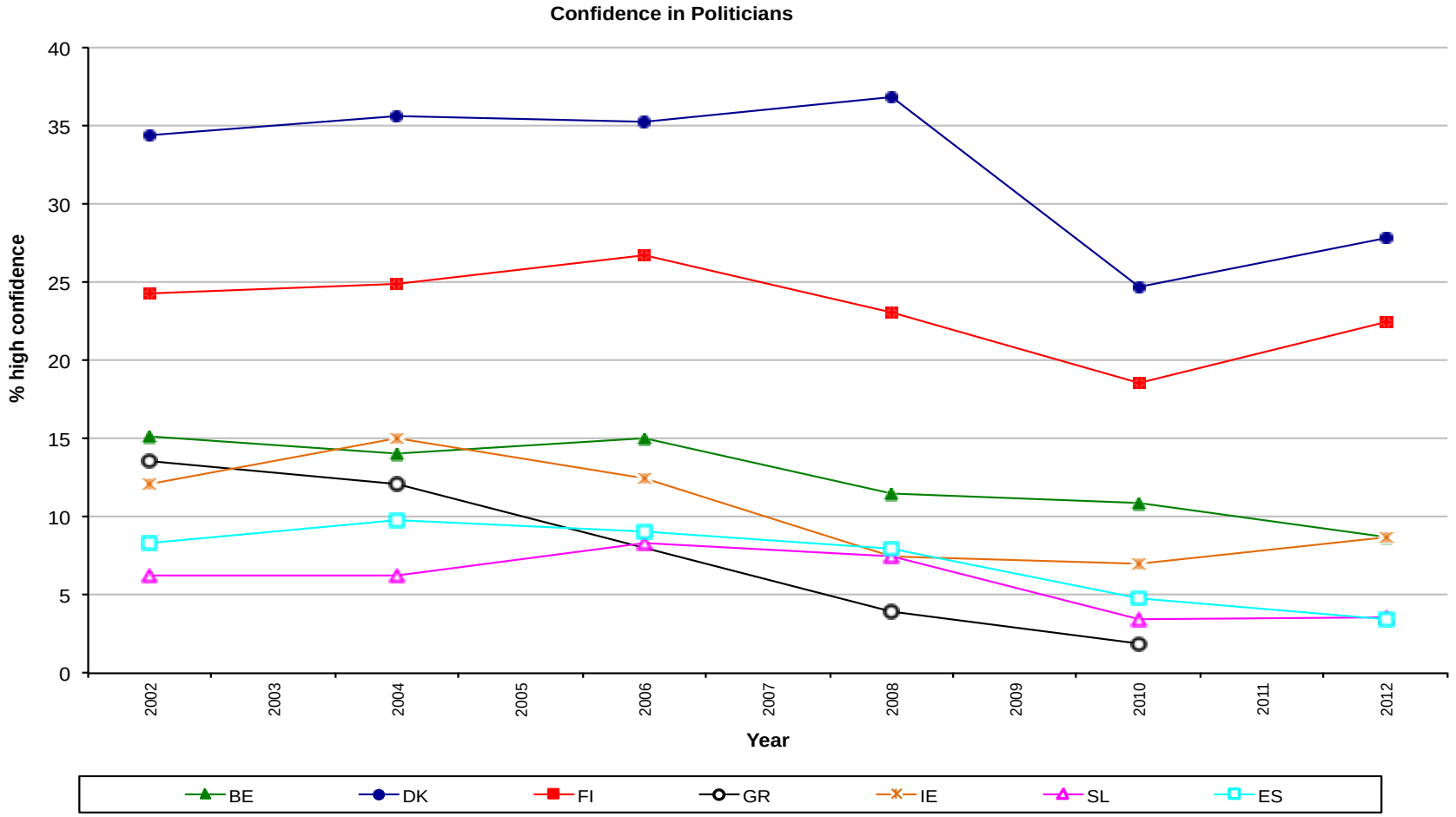


Figure 4: Countries with declining trends of confidence in politicians



Cross-group variations in confidence in political institutions and in politicians

Another important consideration is that, in addition to the aforementioned cross-national variations, we also need to be mindful of the within-country variations. There are many within-country group differences that are important, but just to illustrate this point, table 1 examines how various age groups differ in levels of political confidence. The youngest cohort is not always the more mistrusting one, as in many countries this is the cohort with highest levels of political confidence in parliament, politicians and parties. In some countries it is the older cohort of 66 years and older or the middle-aged cohorts that express higher levels of political confidence. Moreover, in some countries the differences between age groups are small, whereas in others they are considerable.

Table 1: Political confidence by age group and country, 2012 (average on 0-10 scale)

Country	Confidence in...	AGE			
		15 to 29	30 to 45	46 to 65	66 plus
BE	Parliament	**5.3**	5	5	4.7
	Politicians	**4.5**	4.1	4.3	4.3
	Parties	**4.7**	4.1	4.1	4
BG	Parliament	2	**2.2**	2.1	2.1
	Politicians	1.6	1.7	1.7	**1.9**
	Parties	1.7	1.8	1.8	**2**
CH	Parliament	**6.4**	6.2	6	5.9
	Politicians	**5.3**	5.2	5.2	5.2
	Parties	**5.3**	5	4.8	4.9
CY	Parliament	2.8	3.3	3.5	**4.2**
	Politicians	2.2	2.3	2.6	**3.2**
	Parties	2.2	2.1	2.6	**3**
CZ	Parliament	**3.8**	3.3	2.8	3
	Politicians	**3.1**	2.8	2.2	2.6
	Parties	**3.3**	2.9	2.3	2.7
DE	Parliament	**5.3**	4.9	4.7	4.7
	Politicians	**4.1**	3.7	3.6	3.9
	Parties	**4.2**	3.7	3.6	3.7
DK	Parliament	6.2	**6.4**	6.1	5.7
	Politicians	5.2	**5.4**	5.2	5
	Parties	**5.5**	**5.5**	5.3	5.1
EE	Parliament	**4.3**	3.9	3.8	3.9
	Politicians	**3.6**	3.1	3.1	3.4
	Parties	**3.6**	3	3	3.3
ES	Parliament	3.6	3.3	3.3	**3.8**
	Politicians	1.9	1.7	1.8	**2.3**
	Parties	2	1.7	1.8	**2.2**
FI	Parliament	6	**6.2**	5.8	5.7
	Politicians	**5.1**	**5.1**	4.5	4.8
	Parties	**5.4**	5	4.6	4.9
FR	Parliament	**4.4**	4.1	3.9	4.1
	Politicians	3.3	3.1	3	**3.5**
	Parties	**3.6**	3.1	2.9	3.3
GB	Parliament	**4.7**	4.3	4	4.3
	Politicians	**4.2**	3.6	3.4	3.7
	Parties	**4.3**	3.7	3.4	3.7
HU	Parliament	3.9	3.8	3.9	**4.2**
	Politicians	3.2	3.1	3.2	**3.6**
	Parties	3.3	3.1	3.2	**3.5**
IE	Parliament	**3.9**	3.3	3.5	**3.9**
	Politicians	**3.3**	2.9	3.1	**3.3**
	Parties	**3.2**	2.7	3	**3.2**
IL	Parliament	4.1	4	4.1	**4.4**

Country	Confidence in...	AGE			
		15 to 29	30 to 45	46 to 65	66 plus
	Politicians	**3.3**	3.1	3	3.1
	Parties	**3.5**	3.1	2.9	3
IS	Parliament	**4.9**	3.9	4	4
	Politicians	**4.3**	3.6	3.7	3.9
	Parties	**4.3**	3.2	3.3	3.3
IT	Parliament	3.2	3.1	3.2	**3.3**
	Politicians	**2**	1.8	**2**	**2**
	Parties	2	1.9	2	**2.2**
LT	Parliament	3.1	3	3.1	**3.4**
	Politicians	2.8	2.9	2.9	**3.3**
	Parties	2.6	2.8	2.8	**3.1**
NL	Parliament	**5.4**	5.3	5.3	5.2
	Politicians	**5.5**	5.1	5	5.1
	Parties	**5.3**	5.1	4.9	5.2
NO	Parliament	**6.4**	**6.4**	6.3	5.9
	Politicians	**5.3**	5.1	5.1	4.9
	Parties	**5.4**	5.1	5.1	5.1
PL	Parliament	3	2.9	2.9	**3.1**
	Politicians	2.3	2.1	2.2	**2.5**
	Parties	2.4	2.1	2.1	**2.5**
PT	Parliament	**2.8**	2.3	2.4	2.6
	Politicians	**1.9**	1.6	1.7	**1.9**
	Parties	1.9	1.6	1.8	**2**
RU	Parliament	3.3	3.4	3.3	**3.6**
	Politicians	2.9	2.9	2.8	**3.3**
	Parties	3	3	2.9	**3.2**
SE	Parliament	6	**6.2**	5.8	5.7
	Politicians	4.7	**5**	4.7	4.6
	Parties	4.8	**5.1**	4.8	4.8
SI	Parliament	**3.2**	2.8	2.9	2.9
	Politicians	2.5	2	2.2	**2.6**
	Parties	**2.5**	2	2.2	2.4
SK	Parliament	2.7	2.9	3.1	**3.9**
	Politicians	2.4	2.6	2.8	**3.4**
	Parties	2.3	2.7	2.8	**3.4**
UA	Parliament	**2**	1.7	1.7	**2**
	Politicians	1.8	1.6	1.6	**1.9**
	Parties	1.9	1.8	1.8	**2.1**

Source: 6th wave of the European Social Survey.
Note: The highest average score for each political object per country is highlighted in bold typeset.

The existence of such cross-national and cross-group variations in levels of political confidence in Europe calls for future research that examines in detail this heterogeneity, its drivers and its consequences.

3. Signals that confidence in political institutions and in politicians is at risk

As discussed in the previous pages, one of the main obstacles for foresight and policy recommendations is that the signals that confidence in political institutions and in politicians is at risk are not consistent across European countries. If we focus on the most recent decade, Eurobarometer (EB) time series indicate that the situation is quite varied.[1] There are a considerable number of countries that, despite the economic recession, have not seen the levels of confidence in

[1] The data can be accessed here: http://ec.europa.eu/public_opinion/cf/index.cfm?lang=en.

their respective national governments drop in any significant way (figure 5). This is the case of Austria, Belgium, Germany, Malta, Poland, Slovakia, Sweden, the Netherlands and the UK. In some of them, political confidence in national governments is subject to considerable ups and downs but is trendless. In others we can even find a gradual upward trend of greater confidence. In most other countries we see slight (Czech Republic, Estonia, France, Hungary, Latvia, Lithuania, and Luxemburg) or moderate (Denmark and Romania) downward trends.

Nevertheless, in a few countries the signals are really strong, as the decline in confidence in national governments has been very sharp (figure 6). What most of these countries seem to have in common is that they have been deeply affected by the economic recession since the late 2000s and many of them have required various 'bail-out' programmes for their banking or public sectors.

The signals of political confidence being at risk for this latter group of countries are sometimes even stronger when we focus on confidence in the European Commission. For example, the percentage of people who tend to trust the European Commission has dropped in Greece and Italy from 63% in 2004 to 23% and 33%, respectively, in 2014; and in Spain it has seen a low floor of 17% in 2013-2014. Thus, countries that had very solid levels of political confidence in EU institutions in the 1990s and early 2000s have joined the UK with some of the highest levels of mistrust in EU institutions.

Figure 5: Stable or upwards trends in confidence in the national government, 2003-2014 (EB data)

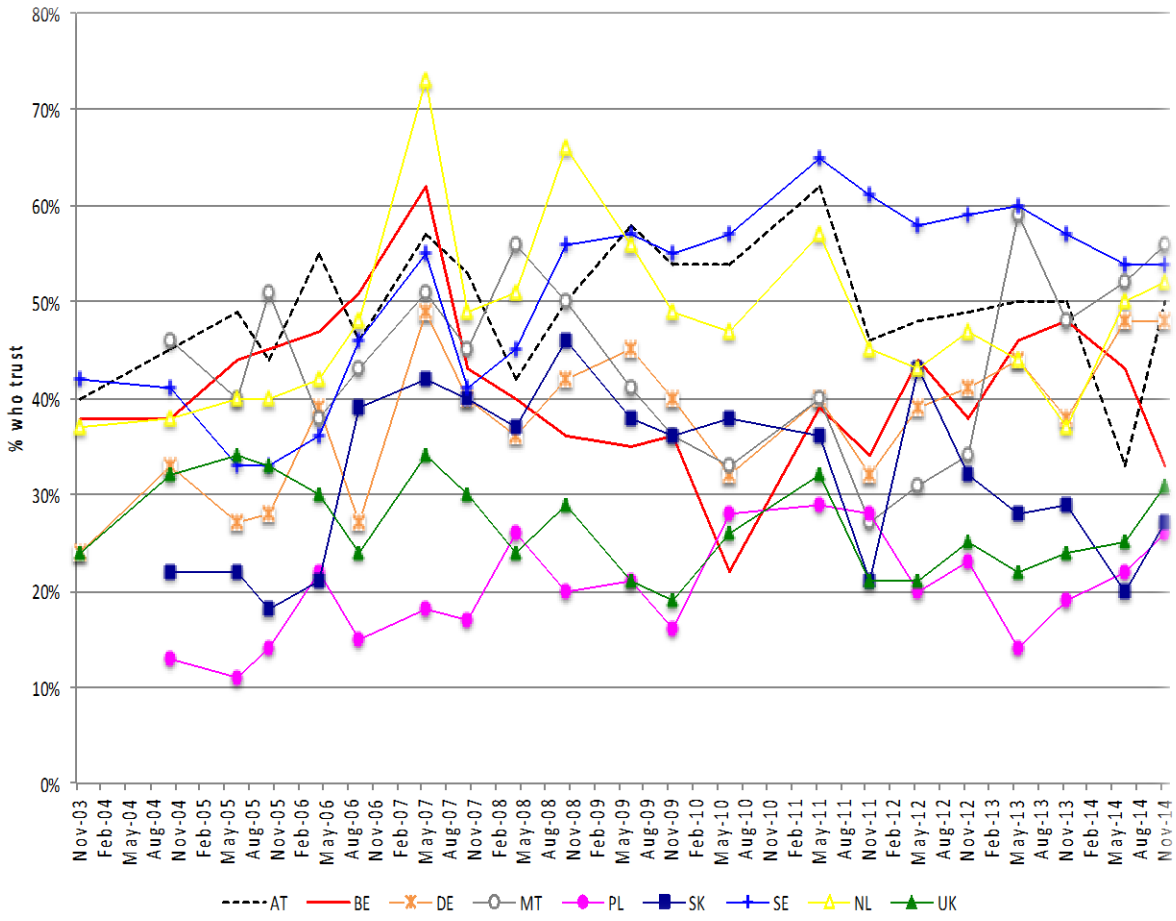
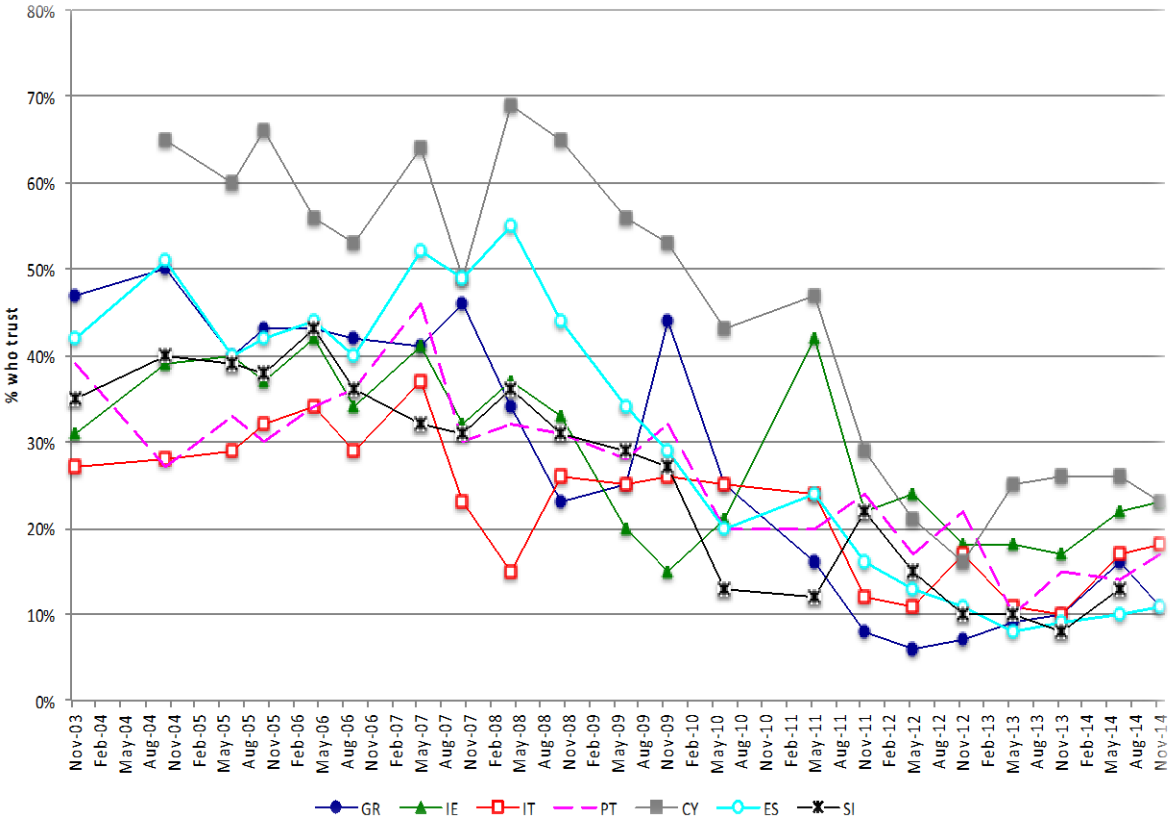


Figure 6: Confidence in the national government in countries with 'bail-out' programmes or at risk of needing them, 2003-2014 (EB data)



The signals are, thus, mixed and country-specific (table 2). In some cases the signals are alarming because political confidence is declining for most indicators – as in the Czech Republic, Greece, Ireland and Spain – and in some of these countries levels of political confidence were already quite low. These are the countries where the signals that trust is at risk are really strong. In other countries, we find mixed trends with some political confidence indicators signalling that trust might be at risk but without this being common to all political institutions and actors. This is the set of countries where the signals that trust is at risk are still weak. Yet there is another group of countries where political confidence does not seem to be particularly at risk and which are characterized by stability or even an improvement of levels of political confidence.

Table 2: Classification of countries according to patterns and trends of political confidence across indicators of political institutions/actors

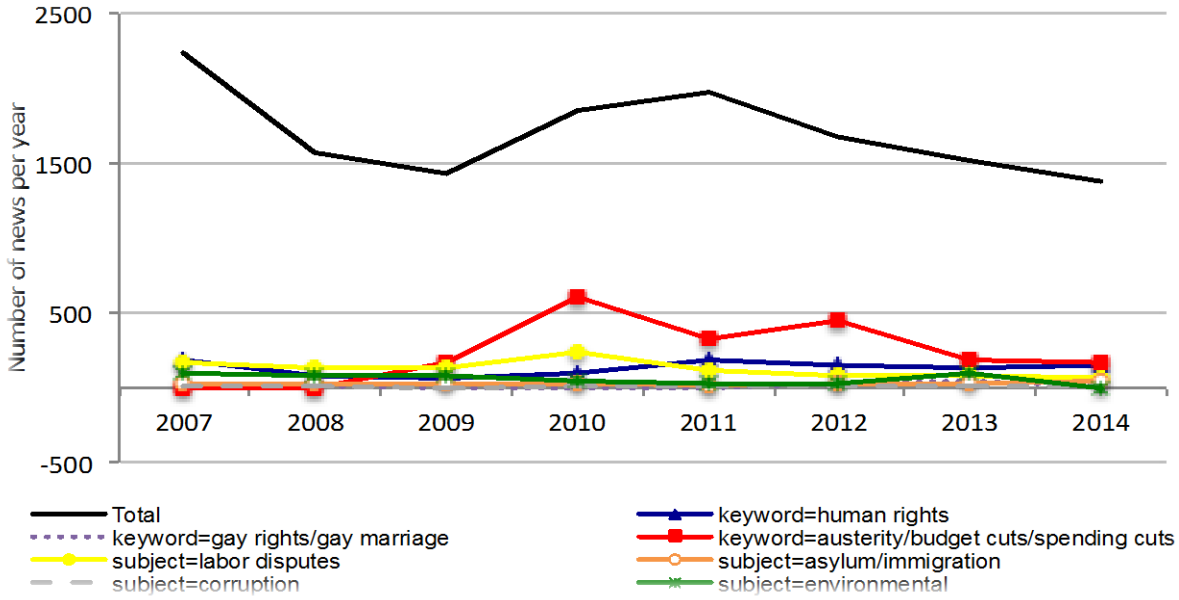
Levels of confidence *Overtime trends*	**High for most**	**High for some, low for others**	**Low for most**
Declining for most		**ES, IE**	**CZ, GR**
Mixed trends	NL, NO	AT, DE, DK, FR, IS, LU, PT	HU, IT, PL, RO, SI, UK
Upwards/stable for most	CH, SE	BE, FI, MT	SK

Note: The trends and levels are judged from the analysis of the survey data presented in previous graphs and other not shown on confidence in the national government, in parliament, in politicians, and in political parties. Strong signals are marked in bold, weak signals underlined and no signals in normal typeset.

A further set of signals that need to be considered are those relating to the political discontent expressed through forms of contentious politics. The scholarship on social movements has shown that contentious politics (and protest as a subtype of it) is often expressed in cycles (McAdam

1995; Traugott 1995; Tarrow 1999). There is a clear sense that what has been termed the 'Great Recession' – the period since 2008 – has led to a renewed cycle of contentious politics across Europe and elsewhere as a result of the social pains produced by the economic downturn (Kriesi 2014). One major limitation in our ability to monitor such cycles is the absence of a methodologically sound and technically feasible tool to collect data on various forms of contentious politics across a considerable number of countries. The GDELT database[2] is intended to deliver such a source but its methodological foundations and the quality and reliability of the information provided are not robust enough to offer reliable trends and cross-national comparisons. In the absence of a proper source, the data we can obtain are only indicative. A rough estimate can be obtained by examining the trends captured by a simple term search for 'protest' in a major press agency, Reuters.[3] Figure 7 shows how, after a lag of a couple of years, a cycle of greater contention, of which the 'Indignados' and 'Occupy London' movements are but one expression, starts in 2010 and fades away gradually from 2013. A considerable part of that protest is related to austerity measures and spending cuts. Labour disputes are an important part, but not the only or main one, of this protest mobilisation. By contrast, protest around corruption is very marginal and is never higher than protest over human rights issues, gay rights issues, environmental issues or asylum/immigration issues, which remain much more stable throughout the period.

Figure 7: Trends in protest since start of economic recession



Source: Reuters News, accessed through Factiva.

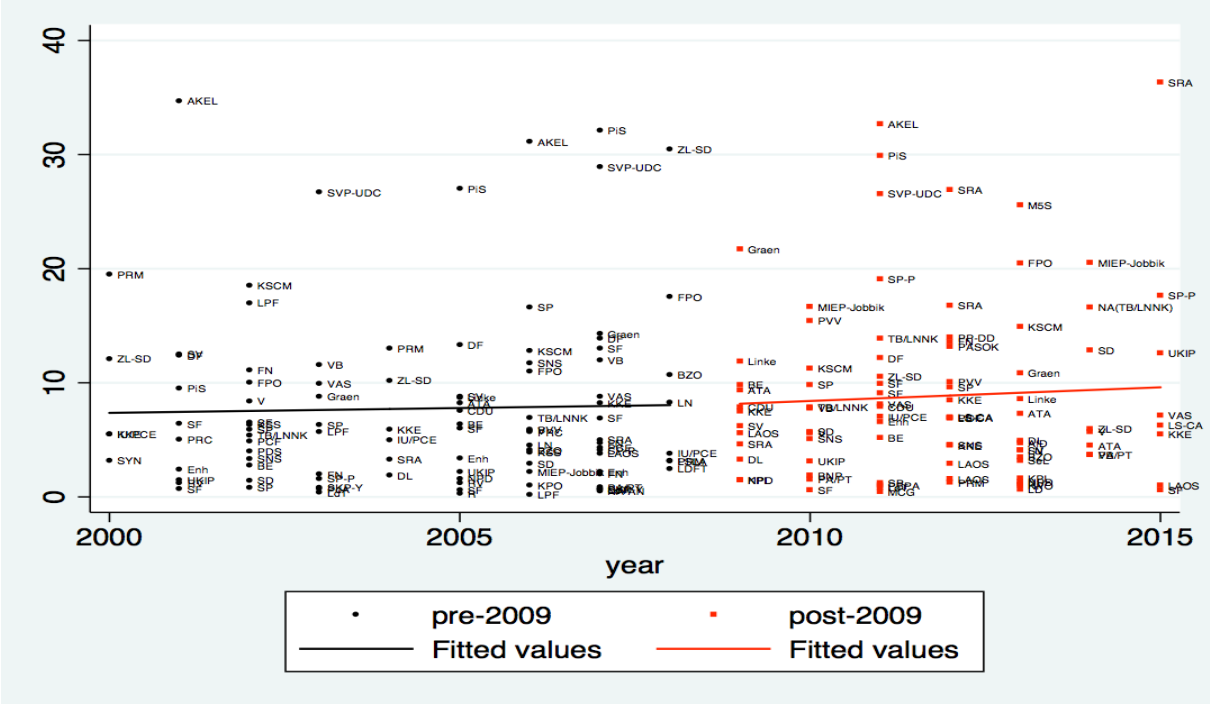
A final set of signals are related to the evolution of voting for populist, extreme or radical parties, of right and left, across Europe. Since the economic recession started in 2008, worries around the increase in support for these 'anti-system' parties have grown. Indeed the average vote share for populist, radical or extreme parties with chances of gaining representation increased from 7.7% between 2000-2008 to 8.8% between 2009-2015 for national legislative elections, and from 7% in the 2004-2007 European Parliament elections to 8.4% and 9.6% in the 2009 and 2014 elections, respectively.[4] As figure 8 shows, the support for these anti-system parties has grown more rapidly in the period after the economic recession.

[2] http://gdeltproject.org, powered by Google.

[3] The search was undertaking through Factiva and includes all the news items published in English that refer to EU countries. It is essential to stress that this is useful only for the analysis of trends and of relative levels across topics/subjects, not to estimate absolute levels of protest on each topic/subject.

[4] The parties included are: BZÖ + FPÖ + KPÖ (Austria), VB + FN + PAB/PTB (Belgium), ATA (Bulgaria), SVP/UDC+ PdA + LdT + NA/AN + MCG (Switzerland), AKEL (Cyprus), KSCM (Czech Republic), PD + Die Linke + NPD + Republikaner + AfD (Germany), DF + SF + Enhedlisten + Fobe (Denmark), IU/PCE + Podemos (Spain), Vasemmistoliitto + True Finns + SKP-Y (Finland), PCF + FN (France), UKIP + Sinn Fein + BNP +

Figure 8: Trends in populist, radical and extreme party vote share for national elections, pre and post-2008 (percentages)



Source: ParlGov data with updates from the Parties and Elections in Europe database by Wolfram Nordsieckrs and European Parliament.

These signals, thus, need to be interpreted jointly with those provided by surveys: the economic pains brought about by the recession and the austerity measures that followed have had deep consequences of political discontent, disaffection and mistrust. If they continue for much longer the erosion of the political support for democratic institutions might be hard to reverse.

4. The impact of the erosion of political confidence in political institutions on political behaviour

Past research on political confidence and political behaviour has tended to show that individuals with high levels of political confidence are more likely to vote, yet there is only evidence of modest (and sometimes mixed) effects on the inclination to engage in protests (Dalton 1996; Norris 1999a; Dalton 2004).

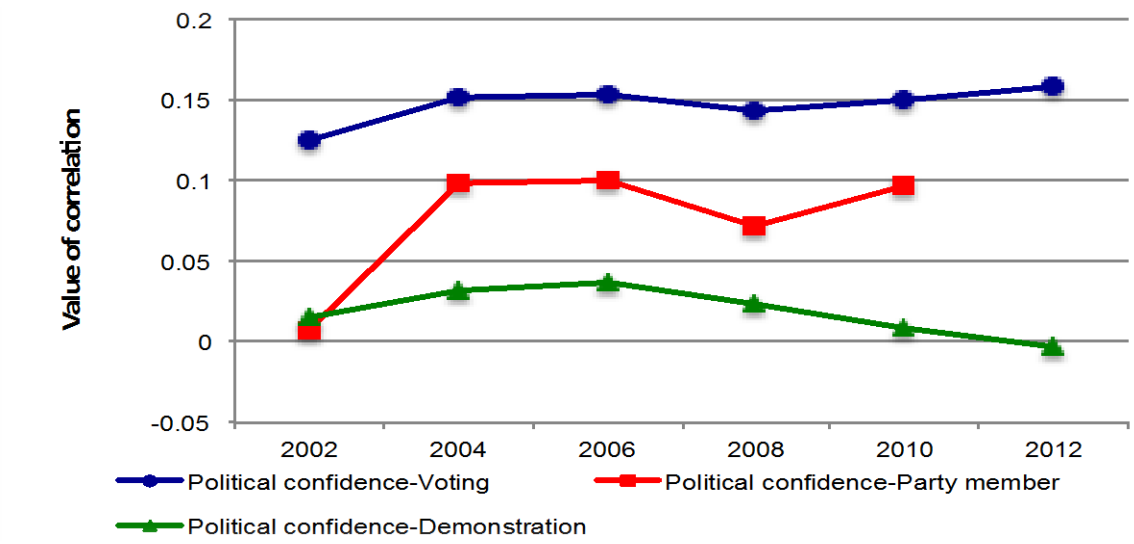
Here I take stock of the existing data available for a full decade from the European Social Survey (ESS) and analyse whether there are any signs of a changing relation between political confidence and political behaviour since the early 2000s. The analysis focuses on three types of political behaviour – voting, party membership and participation in demonstrations – because they represent a wide range of forms of political action that citizens may engage in and because the ESS includes items for these three forms of action for almost all of its six waves currently available. Political confidence is here measured as a single composite index that contains the average score of confidence (measured in a 0-10 scale) of five items of trust in the national parliament, in politicians, in political parties, in the legal system and in the European Parliament.

Respect + English Democrats + SLP (UK), KKE + Synaspismos/Syriza + LAOS + Golden Dawn (Greece), MIEP/Jobbik (Hungary), Sinn Fein + SP + PBPA (Ireland), Graen (Iceland), Lega Nord + PRC + PdCI + CI + MSFT + Sinistra-Arcobaleno + LDFT + LA + SeL + LD + M5S +Altra Europa (Italy), Die Linke + KPL (Luxembourg), NA/TB/LNNK + LSP (Latvia), LPF + SP + PVV (Netherlands), RV + SV (Norway), PiS (Poland), PCP/CDU + BE (Portugal), PRM + PP-DD (Romania), KSS + SNS (Slovakia), ZL-SD (Slovenia), V + SD (Sweden).

Figure 9 shows the trends in the relation between political confidence and each of these forms of political participation – as indicated by the correlation coefficient between each pair of variables – for the overall sample of countries included in the ESS for each wave. The results suggest that, overall, there is a moderate positive relation between political confidence and voting and that this relation has been relatively stable over time, or may have even strengthened a bit in the past few years. This indicates that individuals who express high levels of political confidence are somewhat more likely to vote than those who express low levels of political confidence and that this has remained the case throughout the 2000s. This positive relation is robust across countries and years, and there is no country for which the relation is negative and statistically significant.

There is also a positive relation between political confidence and party membership but it is much weaker, partly because joining a party is not too common a behaviour across most European countries. As with voting, the relation has remained more or less stable since the early 2000s.

Figure 9: Trends in the relation between political confidence and three forms of political behaviour (correlation coefficient)

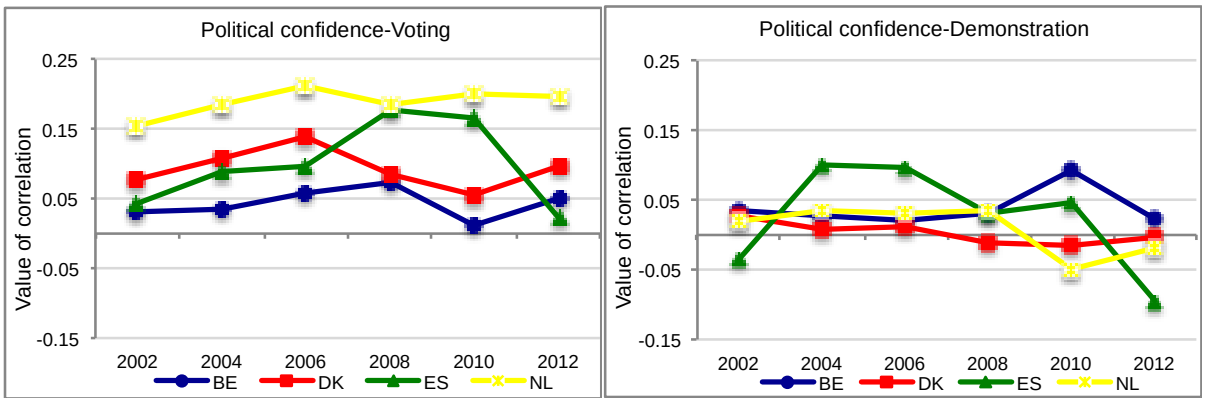


Source: ESS, waves 1-6.

As suggested by previous scholarship on the matter, the relation between political confidence and protest behaviour is very weak, such that for most years individuals with higher levels of political confidence are only marginally more likely to join demonstrations than those with low levels of political confidence. Yet, interestingly, since the onset of the economic recession, this weak relationship has tended to disappear even further and for the latest wave available (2012) the correlation is negative but not significant for the pooled sample. Nevertheless, whether the relation has been reversed since the late 2000s, and to what extent it has, depends very much on the country (see figure 10). In some countries, the relation between political confidence and protesting was negligible for most of the period (e.g., Denmark), in others it fluctuates slightly in a positive or negative direction (e.g., Belgium and the Netherlands), and yet in others it becomes significantly negative in 2012 (e.g., Spain).

Given the relation between political confidence and voting, the implications of a sharp decline in political confidence will naturally be a decrease in turnout rates and, to a lesser extent, in party membership. However, given the already low levels of party membership across Europe, and its weaker connection with political confidence, this is unlikely to be a major fall in membership. The uneven relation between political confidence and protest behaviour across countries suggests that a sustained decline in political confidence would result in lower levels of protest in some countries and in higher levels of protest in other countries. Given that in some countries those with higher levels of political confidence tend to be those who are more likely to engage in protest, a reduction in political confidence will lead to disengagement rather than more contention. Yet, where political confidence and protest are negatively related, those who are mistrusting of politics are more likely to engage in protest and further drops in confidence will lead to greater contention rather than less.

Figure 10: Illustration of trends in relation between political confidence and voting/joining demonstration for selected countries



Source: ESS, waves 1-6.

5. The drivers for eroding confidence in political institutions and trust in politicians

The correlates of confidence in politics and, more generally, of political support have been widely studied by many scholars. One approach is to focus on the individual-level correlates at any given point in time. Zmerli and Newton (2011) focus on this perspective and show that the 'winners' of society are most likely to be the ones with higher levels of all forms of trust, including political confidence. Dalton (2004) focuses instead on overtime trends and how individual and context factors affect these trends, and summarises the main explanatory factors as relating to performance, changing values, changes in social capital, and changes in the media landscape. I will review several of these succinctly.

Problems of political and economic performance

Some scholars examining declines in political confidence provide performance-based explanations for its erosion (Pharr/Putnam 2000; Newton/Norris 2000). Some view declining confidence as a product of poor policy outcomes and lack of good governance, including corruption (Della Porta 2000). This translates into citizens' disappointment with public policies that do not deliver what citizens want, and with a lack of performance consistent with democratic procedural standards (Norris 2011), as both are closely connected. If the principles of impartiality, transparency, law-abidingness and lack of corruption are not respected, policy outputs and outcomes are unlikely to be good and satisficing for citizens. Widespread corruption is particularly detrimental for political confidence, as there is evidence of a spill-over effect of distrust across political institutions and institutions (Montinola 2004).

Other scholars emphasise structural and socio-political changes that are somewhat out of the control of politicians. Hardin (2006) argues that the decline of political confidence is likely due to the increasing difficulty of formulating effective public policies to deal with complex social and political issues. These structural difficulties mean that sometimes governments are seen as less competent than in the past, while in other occasions they might actually be less so (Hardin 2000). Another potentially important factor is increasing polarisation in citizens' preferences around a number of issues, both distributive and non-distributive. If political polarisation is indeed increasing, the democratic dynamics of government alternation may increase disappointment and disaffection across the board, as losers are more likely to lose faith in government (Anderson et al. 2005).

Hay (2007), instead, suggests that academic scholarship is dominated by approaches that emphasise the 'demand-side' of the political confidence crisis. In his view, citizens are not to blame if disappointment is increasing, and suggests that the drivers are various 'supply-side' factors. Hay identifies the 'marketisation' of political competition for votes – including the convergence of policy platforms and the lack of differentiation between parties – as a key driver of political disaffection, as it contributes to the atomism of citizens and to their detachment from, and cynicism of, political affairs. Hay's arguments are echoed by Laver (2011), who demonstrates that vote-seeking parties

make voters 'miserable' and argues that not much can be done about this, as vote-seeking strategies are intrinsic to democratic electoral and party competition.

Other versions of the performance problem focus on the direct effect of economic crises and of the perceptions of the economic situation of individuals. Dalton (2004) argues that while the economic situation as such does not seem to be related to political support, there is a clear relation between economic satisfaction and some dimensions of political support, particularly governmental support and confidence in political institutions and politicians. It is not so much the objective economic conditions that drive political confidence (and support, more generally) but subjective perceptions of those conditions. Clearly, in periods of great economic turmoil, such as the current economic recession, objective conditions and subjective perceptions are likely to operate concurrently to drive political confidence down.

Social changes: values, education and social capital

Some scholars point to social changes as key drivers of declining levels of political confidence. Many of these are interconnected: increasing urbanisation, the spread of mass education, and increasing gender equality and changes in family patterns contribute to – and follow – the change in social values and in patterns of participation, cooperation and sociability.

Post-materialist values have spread in democratic societies as a result of economic abundance and generational change (Inglehart/Flanagan 1987; Inglehart 1990, 1997), and contain a certain libertarian component that leads to question authority and demand greater participation and say in public life. Value change makes citizens more critical and, indeed, levels of political confidence are significantly lower among citizens with post-materialist values, thus moderately driving declining political confidence (Dalton 2004, p. 67f).

These findings are consistent with those relating to educational change. Since the 1960s the highly educated have become ever more critical and more mistrusting of political institutions and representatives across a large number of advanced industrial democracies (Dalton 2005). While the highly educated are still more likely to show higher degrees of political confidence than those with lower educational achievement (Hooghe et al. 2015), the extent to which they do so has been declining systematically over time. These changes are also generational, as the younger cohorts are also increasingly critical (Inglehart 1997; Dalton 2005).

Declining social capital has been identified as another driver of declining political confidence (Putnam 2000; Pharr/Putnam 2000). The evidence is mixed both in relation to the existence of a universal declining trend of social capital in advanced industrial democracies, and regarding the link between overtime trends in social or interpersonal trust and of political confidence. Several scholars have repeatedly shown that the connection at the individual level between interpersonal trust and political confidence is very limited (Newton 1999; Newton/Norris 2000; Zmerliet al. 2007; Newton/Zmerli 2011). In relation to behavioural aspects of social capital, Dalton (2004) finds a correlation between group membership and political confidence at the individual level, yet Diani (2000) finds that social and political engagement at the local level does not result in higher levels of political confidence in all circumstances. Diani's findings for the Italian case suggest a complex relation between associational engagement and political confidence by which certain forms and intensities of engagement can lead to increased mistrust whereas others lead to greater confidence. The connection between the behavioural component of social capital and political confidence has not yet been examined in detail and in multiple settings, and could constitute a fruitful avenue of future research on this topic.

The role of the media: TV expansion, media cynicism and political disaffection

There is much debate about the negative or positive role of the media on political disaffection and the impact that changing media landscapes may have on how citizens evaluate political institutions and politicians. Some argue that the expansion of TV and, particularly, the change towards a 24 hours news cycle and increasing satirical political shows has had very negative effects on public perceptions of politics (Guggenheim et al. 2011). Yet, the findings are at best mixed and some have shown that modern media can contribute to increasing the political interest of citizens (Stromback/Shehata 2010) and political confidence (Claes et al. 2012). The effect of the media on political confidence is complex (Hetherington/Husser 2012; Tsfati et al. 2009) and deserves more careful scrutiny.

There are not many studies that systematically assess several of these factors in a comprehensive attempt to explain cross-national and over-time patterns of political trust. Van der Meer and Dekker (2011) constitute a rare exception and examine how macro-level determinants of political confidence – performance-based aspects such as corruption, economic performance, as well as institutional configurations, such as electoral systems – interact with individual-level determinants – such as education, income, age, etc. Their results suggest that corruption, proportional representation and past Communist rule are significantly related to lower levels of political confidence. They also show that some of the contextual effects are due to subjective evaluations of politics and politicians, thus providing evidence for the interaction between both aspects. Nevertheless, their results are limited by the fact that the time series data available in the ESS (which they use) was not employed to full capacity. Future research should make the most of the greater current data availability.

6. Alternative scenarios to a continued erosion of confidence in politics and trust in politicians

This report is particularly concerned with drawing a number of possible scenarios in relation to trends in trust. What scenarios can we anticipate in relation to future trends in political confidence and its possible political consequences? The signals examined in this chapter suggest that there is a crisis of political confidence at least in a non-negligible number of EU countries, even if it might not be universal and uniform in its manifestations. If these signals are being perceived by political elites and they are concerned by them (as many of their public statements would suggest), a logical expectation is that a substantial programme of political and institutional change and regeneration might be on the cards in one or several EU countries.

In fact, many of the political parties and opposition movements that have emerged in a number of EU countries in the last few years advocate radical programmes of political and institutional change. From UKIP's and Front Nationale's radical anti-EU reform proposals, to domestic-politics focused overhaul proposals from radical left parties such as Syriza and Podemos. Thus, one possible way of tackling this question is to think around the four possible logical scenarios determined by the 2x2 combination of the trends in political confidence and the possible political reactions by political elites to declining political confidence (figure 11).

Figure 11: Four possible scenarios relating to political confidence and political change

	No substantial political change happens (status quo prevails)	**Political elites react implementing political change**
Political confidence continues declining	Scenario 1	Scenario 2
Decline in political confidence halts	Scenario 3	Scenario 4

Scenario 1: Decline in political confidence continues and no substantial political change happens

This scenario assumes that political elites do not react in the short or medium term to the recent (sharp) declines in political confidence across several European countries with a meaningful programme of political transformation, both in terms of institutional design and of policy reforms. This scenario is a very plausible one, indeed, because institutional reform is notoriously complicated both at the national and the EU levels. Major institutional reforms require the formation of a wide consensus around new institutional designs and the balance of winners and losers of the institutional setup. In the absence of major political reforms, we could expect political confidence to erode even further with time.

In this scenario, we could foresee that the 'political normality' in many European countries becomes one of high electoral and political instability, high party system fragmentation, high electoral volatility from one election to the next, problematic government formation and government instability, etc. This scenario is not necessarily one dominated by 'chaos' or characterised by negative features only. It could bring also beneficial aspects, in that governments might have to be formed along large and encompassing consensual majorities of fragmented coalitions. However, this might entail that policy-making can be considerably slowed down and that, especially, unpopular major structural reforms (such as pension reforms, labour market

reforms, educational system reforms, etc.) will be difficult to achieve. To a certain extent, EU politics could come to resemble the situation of political stalemate that characterizes much of the major policy areas in need of structural reforms in the US.

Such a scenario could spiral into deeper discontent due to the problems of responsiveness and accountability that highly fragmented (and, oftentimes, also polarized and short-lived) coalition governments bring along. The situation could become much worse if the problems of political instability are accompanied by a continuation of the economic difficulties across Europe. The relative political stability that Europe has experienced in the decades between the 1950s and the 2000s are, partly, based on economic prosperity and income redistribution policies. And recent evidence suggests that democratic political support is partly dependent on certain levels of social protection (Lühiste 2014). A likely result of a radical change in the social pact in a context of declining political confidence and wavering political identities is that radical and populist parties, of right or left, will continue to grow and become ever more pivotal in the formation of government coalitions.

In such a scenario, R&I policy might become more contested than it has thus far. Increased polarisation and fragmentation, and the pivotal role of radical and populist parties in coalition or minority governments could lead to an increased contestation and politicisation of certain research priorities or domains. This is an evolution that we have seen happening, for example, in the US, where National Science Foundation research funding priorities have become recently a matter of political contestation in the US Congress and have led to a radical reduction in funding for the social sciences as well as to a politicisation of the focus of such research. The new political developments across Europe could lead to comparable debates about the political and strategic priorities for research funding in a way that drastically affects certain disciplinary areas. In such a scenario, it would be useful for R&I policy makers and managers to think strategically about how to embed greater resilience in the R&I system in anticipation of possible drastic changes in political priorities.

Scenario 2: Decline in political confidence continues but substantial reforms happen

In this, more optimistic scenario, political elites across Europe listen to the wakeup call of popular discontent and embark in a major programme of political reforms. The nature of these reforms can be quite varied. They might include major constitutional reforms at the national level to increase citizens' capacity to have a meaningful say in major political decision-making processes; major programmes to eradicate corruption and cronyism; major reforms of EU institutions to address the current democratic deficits of its institutional design, etc.

Such political reforms – if properly implemented and if they deliver the intended benefits in terms of improved quality of democracy – could, indeed, have the effect of reconnecting citizens with political institutions and politicians. Given that some research (Hibbing/Theiss-Morse 2002; Allen/Birch 2015) suggests that low political confidence is linked to gaps between citizens' preferences and system/political performance both in terms of policy output and in terms of democratic procedures, the implementation of successful reform programmes might result in a gradual process of re-linkage between citizens and political elites. Yet, this positive outcome is premised on the assumption that such structural reforms tackle (some of) the main drivers of declines in political confidence. In other words, it assumes that the current crisis is one driven by governance performance. However, if political confidence is declining for other reasons – for example, due to the aforementioned structural political and social factors – better and fairer institutions might not be enough to overcome fully the crisis of political confidence in the medium to long-term.

Nevertheless, even if major political and social reforms might not fully halt declining political confidence – if, for example, the latter were due to social changes that produce more critical citizens – it might still be successful in halting the increasing support for populist and radical parties. In such a situation, the political instability and fragmentation expected in scenario 1 might not unfold to its full potential and R&I policies might not be too affected by a short-lived period of political turmoil. Still, the political and institutional reforms envisioned in scenario 2 would be a big question mark or source of uncertainty in relation to how differently all policies might be designed and implemented at both EU level and member state level. A substantial institutional reform pack might include changes in the decision-making process such that national parliaments have a greater say than they now do in EU policy formulation, or include additional democratic checks and balances that might result in EU policy-making becoming slower than it now is. In such a scenario,

devising strategies about how to cope with more protracted decision-making procedures and making R&I policies and stakeholders resilient to likely political impasses might prove useful.

Scenarios 3 and 4: Decline in political confidence halts with or without political reforms

These two scenarios are, perhaps, of less interest for the purposes of this report, as the core interest is to discuss ways forward if trust is at risk. Moreover, both of these scenarios are probably less likely than the former two, given that it is doubtful that the declines in political confidence will halt 'naturally' with no reaction required from political elites (scenario 3) or that political elites will have any incentive to implement a costly programme of political reforms once the declining trends in political confidence halt (scenario 4).

Yet, these two scenarios are not completely implausible. If the economic situation – or the perceptions of the economic situation, as suggested by Dalton (2004) – are partly to blame for the more recent and sharper declines in political confidence, and if the economic situation improves (or is perceived to improve), then we could see a halt in the downward trends in political confidence in many countries. In such scenarios we could find ourselves in a situation of equilibrium but with relatively low (if not declining) levels of political confidence across many EU countries.

7. How should European R&I policy and Horizon 2020 react?

The overview provided of the existing scholarship in this scoping chapter suggests that there are a number of areas where research is already abundant. First, we have a number of solid analyses about the interconnections and multidimensionality of political support, political confidence and its relation to interpersonal or social trust. There is very little to gain from further research in this area and efforts should probably now be directed at identifying the drivers and causal mechanisms through which political confidence develops over time, in a person's lifetime and in societies as a whole.

Strategic investments in data production

While we have decent time series of political confidence, the truth is that they are at best patchy and that efforts to consolidate major data collection infrastructures (such as the European Social Survey) are key to ensuring that trends in political confidence (and in many other fundamental social and political indicators) can continue to be monitored and analysed in detail with high quality individual-level data. Beyond support for the ESS, other data producers that have been including relevant indicators on political confidence over decades (such as the European Values Study, and the ISSP collaboration) are also worthy of support; and it might be useful to signal to the Public Opinion Analysis sector of the EC that it is essential that the Eurobarometer study maintains in the future complete and comprehensive time series of the indicators of political confidence.

A welcome expansion of these data collection efforts would be to encourage all the relevant scholars and public opinion institutes that undertake national election studies to systematically incorporate indicators of confidence in political institutions and politicians in their pre- and post-electoral studies. This should ensure the availability of richer datasets that will help analyse in detail the connection between political confidence and voting behaviour.

Possible future research foci

Although it is not the only driver of declining political confidence, as previously discussed, corruption is widely identified as one of the most pervasive problems linked to the erosion of confidence in political institutions and representatives. More research is needed on which are the most effective policy reforms to tackle corruption and bring about fairer and more transparent governance. Political and policy reforms should, however, be evidence-based as the solutions that work in certain policy settings and political cultures might not work in others. Creative research programmes that combine experimental or 'pilot' reforms with careful data collection about the effects on levels of confidence in the political institutions and representatives affected could be quite useful in improving our understanding of both how reforms can (and cannot) be effectively implemented, and how and when citizens change their perceptions about the confidence political institutions and representatives deserve. These research programmes could, for example, require the collaboration and participation of public (service) organisations alongside researchers in the implementation of experimental studies.

More research on the connection between participation in social, community and political organisations and levels of political confidence would also help illuminate the mechanisms through which engagement in public life might drive (up or down) confidence in political institutions and politicians. Are citizens who engage in public affairs more or less likely to develop positive orientations towards political institutions and office holders? Is there a causal connection or just a self-selection process? Can engagement in public affairs produce disaffection when political authorities and representatives are not responsive to citizens' attempts to influence decision-making? What types of engagement in public life result in greater confidence in political institutions and representatives? This is an area where little high-quality research has been undertaken and where well-designed studies could shed much light in order to inform political reforms.

More high-quality (e.g., experimental and multi-methods) research on the media malaise hypothesis would be a welcome development. It is unclear that the alleged negative effects of the media on political confidence – and political engagement more generally – stand comparative scrutiny. It would be useful to learn more about how exposure to a wide range of media stimuli and outlets has or does not have negative effects on citizens' relation with politics and, particularly, with confidence in political institutions and politicians. Which types of media contents and platforms are more conducive to inspire political cynicism? Does the informational content offset the negative messages that some satirical or sensational media products convey? Are the effects conditional on the political context? How do different media platforms (newspapers, TV, radio, new ICTs, etc.) moderate the effects of media exposure?

Finally, and in general, future research priorities should try to make the most of the availability of improved time series for several survey sources (ISSP, EVS and ESS) and the cross-national information they provide. Analyses of pooled datasets of comparable surveys that exploit the great cross-national and over-time variation in the data would go a long way in providing clues about the political and social drivers and consequences of political confidence.

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CHAPTER 9

Trust in justice

Zsolt Boda

1. Introduction

'Trust between law enforcement agencies and the people they protect and serve is essential in a democracy. It is key to the stability of our communities, the integrity of our criminal justice system, and the safe and effective delivery of policing services' (President's Task Force 2015, p. 1). This quote is the first line of the report of US President Barack Obama's Task Force on 21st century policing and proves that trust in justice has recently been given attention not only by researchers, but practitioners as well. The reason is that multiplying evidence proves that trust in justice fosters compliance with laws and cooperation with justice institutions, such as the police.

This chapter gives an overview of the related issues and the state-of-the-art of the literature on trust in justice. Its basic aim is to present the knowledge about the roots and practical relevance of trust in justice and what problems would possibly need further clarifications.

Trust is defined as an expectation that a given institution will produce positive outcomes (Levi/Stoker 2000). That is, trust is an attitudinal variable, which, however, may have an effect upon actual behaviour. This chapter is about trust in the justice system. However, the justice system is a complex institutional setting, including the police, the courts, the public attorney, the prisons, but justice policy as such and laws or other regulatory instruments are also part of it. Similarly, potential trust relations concerning the justice system also offer a complex picture, as they may run between different social actors in different directions. We can distinguish at least between:

- people's confidence in justice institutions;
- trust of the justice system in people;
- trust inside the justice system, between its institutions and actors.

Research on trust in justice favours the first approach and is usually limited on trust in courts and the police, i.e., those institutions people may have information about, or even experience with. However, trust of specific stakeholder groups towards other institutions may also be considered, like the attitudes of inmates towards the prison (see Hawdon 2008).

The second and the third relationships have been largely neglected by researchers, although in principle they raise interesting questions (see Bouckaert 2012). Therefore, for the sake of analytical clarity and following the academic convention on researching trust in justice the chapter will focus on the first issue, i.e., trust of people in justice institutions.

2. Potential drivers for eroding trust

In order to point to the potential drivers that may contribute to the erosion of trust we should identify the factors that may have an effect on trust – for better or worse. First, trust in justice is believed to be largely influenced by perceptions on the justice system in terms of

- its performance (effectiveness, outcomes etc.);
- the normative legitimacy of its operations. Most of the studies stress the importance of procedural fairness norms, but other normative considerations may also play a role.

However, perceptions are not given or unmediated: they are not neutral observations but rather attitudes. Therefore an important question concerns the nature of information and information sources that people use when forming their attitudes, as well as the different factors and actors that influence or even construct those views. Research stresses the potential role of personal experience, media, peer-groups and politics.

At the same time trust in justice, just as confidence in other state institutions, is also influenced by some

- macro-level factors (level of development, social inequalities, political culture)
- individual-level factors (education, wealth, sociotropic evaluations and political attitudes).

2.1. Perceptions about the justice system

It is well-established in the literature that in terms of perceptions trust in justice has two major determinants: perceptions of effectiveness/competence (how well the justice system is believed to maintain order) and that of normative legitimacy (the belief that justice institutions serve the common good, act rightly and fairly). It comes as no surprise that people need to believe that the justice system is effective (the police and courts are professional, able to fulfil their roles, laws are well designed and properly implemented, etc.) in order to trust it. For instance, empirical evidence suggests that perceptions about police effectiveness are positively related to trust in the police (Hough 2007; Jackson et al. 2011; Sprott/Doob 2009; Tyler 2011a, 2011b). The literature has made more effort to demonstrate and analyse the role of normative legitimacy in building trust and fostering compliance with the law – apparently the weight of normative considerations is less obvious. By now researches have gathered enough evidences to prove that it should be: most of the studies actually argue that normative considerations are just as, or even more, important than instrumental ones in shaping institutional trust.

Tyler argues that trusting attitudes are rooted in the belief that laws serve the common good, and that the judicial system is both effective and fair (Tyler 1990). Jackson et al. (2011) define trust in the police as a belief that the police has the right intentions towards citizens and are competent to act in specific ways in specific situations. Jackson and Sunshine (2007) argue that normative expectations about the police acting as the guardian of moral values are more important than instrumental concerns for building trust. Similarly, Stoutland (2001) claims that besides perceptions about police competence, trust in police is also associated with normative perceptions of shared priorities ('Does the police share local residents' priorities and concerns?') and respectfulness ('Is the police respectful, courteous, and fair in their interactions with local residents?'). Jackson et al. (2011) also stress the expectations concerning the moral alignment of the police with the community and the fairness of the procedures the police are applying. Similarly, trust in courts was found to be related to the assessment of procedural justice of the actions of the authorities and evaluations of the trustworthiness of the motives of the authorities (Tyler/Huo 2002). Again, it was demonstrated that the way citizens are treated by legal authorities, that is the process-based problem solving of the courts, and the extent to which some concept of public good is embodied in the functioning of the authorities influence trusting attitudes of the people. Analysing ESS 2010 data the research under the FIDUCIA project[1] demonstrated that people do not trust justice institutions primarily because of instrumental concerns, or self-interest, but because they believe that the institutions represent their basic values and operate in a procedurally fair way (Jackson et al. 2012). An important finding of FIDUCIA research is that although there are differences in trust levels across countries, the same mechanisms seem to be at work at the individual level in different parts of Europe. That is, people in the new democracies of Eastern and Central Europe and in the old democracies of the West use similar evaluative criteria when developing trusting attitudes towards the legal authorities. These criteria are to a great extent linked to moral evaluations of police and court performance. Trust and legitimacy depends to a great extent on the perceived moral alignment of the authorities and the perceived fairness of their operations.

As we can see several studies argue that among the normative considerations affecting trust in justice, perceptions about procedural fairness are of crucial importance (Bradford et al. 2013; Hawdon 2008; Hough 2007; Paternoster et al. 1997; Tyler/Huo 2002; Tyler 1990, 2011b). According to Tyler (2011a), procedural fairness may refer to norms of both decision making (consistency, lack of bias, transparency, stakeholder inclusion, participation, etc.) and treatment (respect, benevolence, reliability).

2.2. Information

In addition to the substance of information about legal authorities (what people take into account when they formulate trusting attitudes towards the police), the sources of those information may also influence trust. For instance, in spite of the declining crime levels in the US and in the UK in the 2000s, overall trust in police has not increased (Tyler 2011b). This is either because people's

[1] 'FIDUCIA – New European crimes and trust-based policy' is an EU FP7 collaborative research project (www.fiduciaproject.eu).

normative expectations about procedural fairness were not met or they were simply unaware of the improving crime statistics and had false perceptions about the work of the police. Indeed, in the same period, according to several public surveys, people consistently thought that crime was on the rise (Hough et al. 2013). It seems that citizens were not aware of the real trends in terms of both criminality and police activity and this may have influenced their attitudes.

One of those channels through which people receive information about the justice system is the media. However, the media and especially the tabloids may invoke distorted and exaggerated perceptions about crime that undermine their confidence in justice (see Hohl 2012). In addition, the media is also blamed for irrationally inflating public fear of crime by reporting in detail about otherwise not too frequently occurring brutal, violent crime events (Singer/Cooper 2008).

Besides the media another way people may get information about how justice works is through personal encounters. Data confirm that personal experiences do have an effect on trusting attitudes: if people believe that the legal authorities treated them fairly and in a competent way then their confidence in the justice system gets stronger (Tyler 1990; Tyler/Huo 2002). Strong evidence suggests that police visibility and personal encounters are key factors in determining confidence in policing (Fitzgerald et al. 2002; Skogan 2006). Some research, however, found that the average effect of personal encounters on trust in legal authorities is negative: people who had contact with the police or the courts tend to trust them less (Bradford et al. 2009). Usually the opposite is true: people having had contacts with public bodies expressed a higher level of confidence towards them (Bradford et al. 2009). An obvious assumption could be that there is a self-selection bias at work here: for instance people who were stopped by the police may have good reasons to be dissatisfied or angry at the police. First, being stopped is an inconvenient situation. Second, people may feel that they are treated as potential suspects. However, data shows that those people who initiated the contact with the police themselves were, on average, even more dissatisfied with the treatment than those who were contacted by the police (Bradford et al. 2009). One reason could be that the police has little to offer immediately: victims cannot hope to get back their stolen belongings or to see criminals arrested. This may explain why the effect of contacts on trust is asymmetrical: bad experiences destroy trust, but good ones do not have a positive effect on public confidence – maybe because there cannot be 'good' contact with the police (Skogan 2006). Similar reasons may explain why personal experiences with courts have also mostly negative effects on trust. However, other studies suggest that the quality of contacts, measured in terms of procedural fairness, does have a positive effect on trust (Tyler 1990; Tyler/Huo 2002; Bradford et al. 2009).

Even media and personal experiences might not make the whole story. In a qualitative study combining media analysis and focus group research, Boda and Szabó (2011) found that young people's views about crime and the police were quite similar to the dominant interpretive frames of the media – despite the fact that participants in the research reportedly had only very limited media consumption and were extremely critical towards the media. They also had very limited personal experiences with the police or the justice system. But then, where did their opinions originate, and how is it that their opinions corresponded so closely to media content on crime and justice? Boda and Szabó (2011) suggest that these contradictions may be resolved if we consider theories that model circular, non-direct and socially filtered interactions between the media and public opinion on the one hand, and take into account communications in social networks, peer groups and the role of opinion leaders, on the other. However, confirming these ideas certainly needs further investigations.

The role of politics in boosting or eroding trust in justice can also be interpreted under the angle of information gathering and attitude formation. As Zaller (1992) argued, people rarely have fixed attitudes on specific issues; rather, they construct 'preference statements', making use of ideas that are, for any reason, the most immediately salient to them. Zaller also argued that political elites and political discourses have a strong influence on the dynamics of mass opinion. Therefore, if political discourse is critical towards the justice system, it may have an effect on what people tend to believe in that matter.

In the criminology literature penal populism refers to a policy discourse about crime, justice and punishment which suggests that the justice system privileges criminals and prisoners at the expense of crime victims and the law-abiding public (see Hough et al. 2003; Hough/Sato 2011; Pratt 2007; Roberts et al. 2003). Some argue that it appeals to emotions rather than reason as 'penal populism usually feeds on expressions of anger, disenchantment and disillusionment with the criminal justice establishment' (Pratt 2007, p. 12). It usually takes the form of 'feelings and intuitions' rather than some tangible outcomes: for example, phrases of layman communication

which revolves around public concerns about crime and disorder; anger and anxiety over the 'impotent' justice system which are gladly covered by the popular press in particular (Pratt 2007). When penal populism becomes an influential way of talking about criminal justice, politicians are eager to ensure that policy in this sphere is more reflective of the public will than the values of the criminal justice establishment (Pratt 2007, p. 14; Roberts et al. 2003, p. 4). By employing a tabloid style communication that usually brings simplicity in the discourses, penal populism seeks to step over formal political institutions to become 'of the people but not of the system'. Consequently, populist discourse about punishment spins more around the emotion that such representations invoke, rather than around rational, objective and professional judgment (Pratt 2007, p. 17). Therefore, if penal populism spreads in the public political discourse one may expect a decline in confidence towards justice.

2.3. Other, micro- and macro-level social variables

Trusting attitudes may be also influenced by social factors, operating both at the individual or the macro-level. Individual level factors may include education level, age or income, while macro-level factors refer to the features of the specific social/political culture, level of development of the given country or income inequalities in the society.

At the individual level evidences are mixed about how possible factors (income, age, education, etc.) may influence institutional trust and whether there are – and if so, what kind of – differences between countries or the regions of Europe (see Boda/Medve-Bálint 2014; Medve-Bálint/Boda 2014). However, a consistent finding of the studies is that the so-called sociotropic evaluations are positively associated to institutional trust (see e.g. Zmerli/Newton 2008; Zmerli et al. 2007). That is, those who think that the country is heading into a good direction or are satisfied with the performance of the economy express significantly higher level of confidence in state institutions, including the judiciary. This is important and suggests that trust in justice is also an expression or even indicator of legitimacy.

At the macro level several considerations deserve attention. For instance, some argue that institutional trust is part of a general trust culture. Those approaches that emphasize the role of culture argue that institutional trust originates 'in long-standing and deeply seeded cultural norms and is an emergent property of interpersonal trust which is projected onto political institutions' (Campbell 2004, p. 402). These approaches hold that institutional trust is part of a larger belief-system that influences how and how much people trust each other or impersonal organisations. To put it simply, the level of institutional trust is higher in societies where – because of specific historical and cultural factors – general social trust is higher (Kunioka/Woller 1999). Indeed, when analysing European Social Survey (ESS) data, we find that there is a remarkably strong association) between interpersonal trust and institutional trust at the country level.

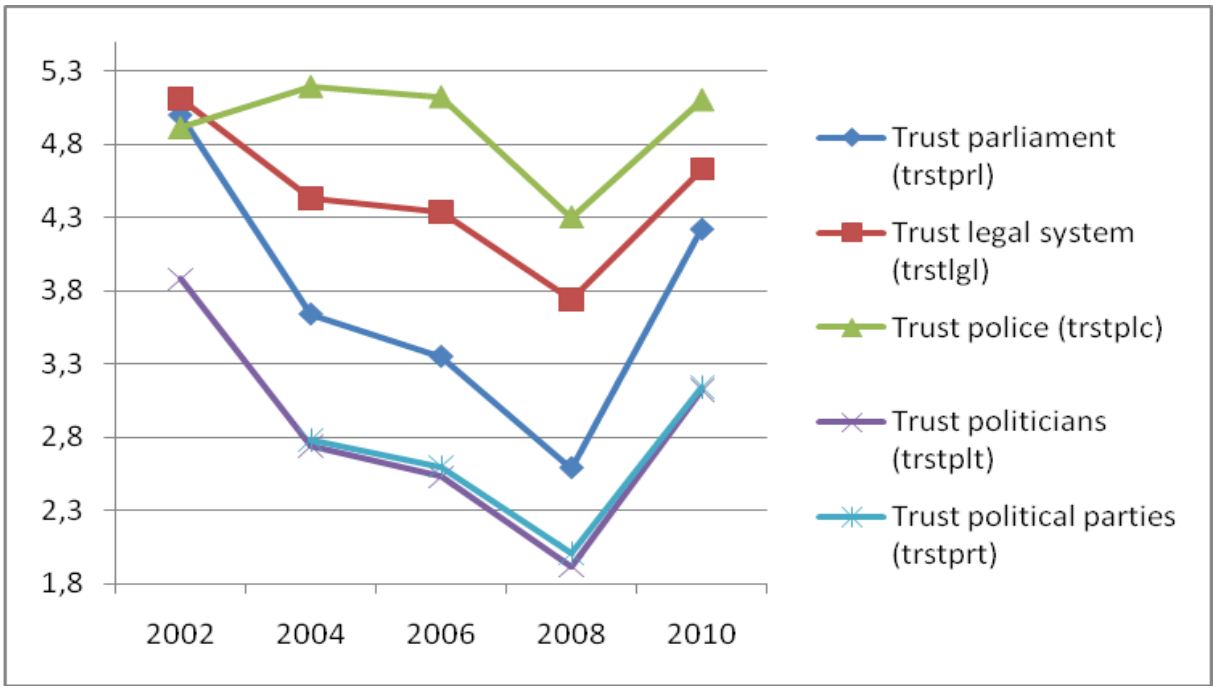
This observation suggests that those scholars who emphasize the role of culture in shaping trust may be right in a sense that the general level of trust (both institutional and interpersonal) can be interpreted as an attribute of a given society. At the same time, it is also possible that another background variable is associated with the two main dimensions of trust. This factor, as suggested by Knack and Keefer (1997) or Dearmon and Grear (2011) can also be the level of economic development. Indeed, there is a strong and statistically significant relationship between the indicator of economic development and institutional trust (Medve-Bálint/Boda 2014).

It is important to note that when editing these data into chart one finds the countries take almost identical positions. It follows from this that at the country-level institutional trust, interpersonal trust, and economic development are strongly and positively associated with each other. One may thus assume that certain societal attributes create a favourable atmosphere for trust that may also facilitate economic development, which, in turn may strengthen people's trust towards each other and in public institutions.

Now, we may dismiss them as factors that are not specific to the justice system, however, let us not forget that the correlation between different institutional trust indicators is high everywhere in Europe, although it is slightly higher in Eastern European countries than in Western Europe (Boda/Medve-Bálint 2014). We can also observe that there is a strong association between levels of GDP and institutional trust in a given country. But there is also a strong association between measures of institutional and interpersonal trust, which is confidence towards other people. If we add that the volatility of trust is relatively small, that is, trust levels are stable, and especially so in Western Europe (Boda/Medve-Bálint 2014), one could conclude that there is no need to pay special

attention to the confidence in specific institutions, as institutional trust may be interpreted as a general evaluative pattern which is changing only slowly and which is influenced by macro-level factors, like the level of development, inequalities, the trust culture of the country and so on. However, this would be a hasty conclusion. Trust in institutions indeed has a 'slow motion' which is suspected to be largely influenced by the socio-politico development and the cultural background of a country. Still, other factors, specific to a given institution have an influence on short- or medium-term changes. For an illustration, see figure 1, showing the change of institutional trust indicators for Hungary. One striking feature of the chart is how the different institutional trust indicators move together, which is consistent with the observation on the strong association between different kinds of institutional trust. However, we may also note that trust in the police behaved slightly differently: while trust in political institutions and even the legal system was steadily declining between 2002 and 2008, trust in police remained stable and was even increasing a little bit till 2006. All this may suggest that, on the one hand, trust in institutions is presumably highly influenced by some other background variables (like, for instance, the satisfaction with the performance of the polity) that make them move together on the middle run. So we may assume that the level of institutional trust is dependent on the development level of a country and its change on the long run is slow, but – at least within a range – institutional trust may considerably vary, presumably subject to general sociotropic evaluations of the polity, the direction of the country, etc. However, on the other hand, trust in specific institutions may be influenced by some factors on their own, causing short-term fluctuations and disjunction from general institutional trust trends.

Figure 1: Institutional trust indicators for Hungary, 2002-2010



Source: ESS, author's calculation.

Summarizing the main drivers, and the potential dynamics, of trust in justice:

- Trust in justice is closely related to other types of trust (both institutional and interpersonal) and as such its level is relatively stable over the long run. More developed countries with generally high trust levels tends to exhibit high public confidence in justice.
- In the mid-term, and within limits, trust in justice may change, and this is largely influenced by general evaluative attitudes on the political system and the legitimacy of governance. That is, trust in justice tends to move together with other indicators of confidence in state institutions and politics. Let us mention that the justice system is not only influenced by general legitimacy belief, but it can also have an effect on legitimacy. For instance, Tankebe (2013) argues that the police are a visible representation of the state's monopoly of violence and moral identity, and as such, conceptions of illegitimacy are likely to stem from interactions between criminal justice agents and citizens.

- However, trust in justice is also influenced by public perceptions concerning the effectiveness and normative rightness of the justice institutions themselves.

From a policy perspective this latter effect is probably the most important to be considered, as this is the one which is specific to the justice system. However, when analysing changes of trust in justice one should not forget to pay attention to the different interactions with other social variables at different levels.

3. The impact of trust on justice

Above we defined trust as an attitudinal variable, which, however, may have an effect upon actual behaviour. Trust in justice is important because it increases the probability of law abiding behaviour and the willingness of the citizens to cooperate with legal authorities. That is, trust in justice helps sustaining ordered social relationships and potentially increases the effectiveness of the justice system.

Tyler argues that people do not obey the law because they fear the sanctions, but because they put trust in it (Tyler 1990). Trusting attitudes, and more generally speaking social motivations based on normative considerations, explain the willingness of people to cooperate with authorities, including the police (Tyler 2011a). Cooperation may involve simple acts like obeying an officer's requests, but it may also mean reporting a crime event and sharing witnessed information, or actively contributing to crime prevention (Tyler 2011b).

FIDUCIA research shows that legitimacy and trust are the strongest predictors of the willingness to obey the law and to cooperate with authorities across countries (Jackson et al. 2012). Distrusting citizens, on the other hand, are more likely to calculate the costs and benefits of compliance and this might lead to free-riding practices (Tyler 2006). The International Social Survey Programme (ISSP 1998) included a questionnaire module, asking respondents whether it was wrong to misreport income in order to pay less tax and whether it was wrong to claim government benefits if one is not entitled to receive them. Dalton (2004) found that there was a strong association between these two variables and trust in parliament and trust in the courts. At the same time both trust measurements proved to be strongly related to upholding norms with regard to taxes and social benefits. Hough et al. (2010) argue that perceived police legitimacy is a powerful predictor of compliance. At the same time, if police 'treat people unfairly, legitimacy suffers and people become cynical about human nature and legal systems of justice. This then leads them to view certain laws and social norms as not personally binding' (Hough et al. 2010, p. 207).

Now, most of the studies use attitudinal surveys measuring cooperative attitudes instead of observing actual behaviour, however, some research focuses on the latter as well. For instance, in a longitudinal study Tyler and Huo (2006) found that those who expressed higher trust in legal authorities reported a lower amount of norm infringement in the subsequent weeks. Trust was also found to increase the likelihood of cooperation with the police like obeying an officer's requests (McCluskey et al. 1999).

Nivette (2014) argues that a lack of trust and legitimacy may lead citizens to: (1) reject the state monopoly of physical force and employ self-help and self-justice and/or (2) withdraw commitment from institutions, breaking down social control. The first point means that a lack of legitimacy discourages citizens from using the criminal justice system to solve interpersonal conflicts. This argument is based on the ability of the state to hold the monopoly of force, solve conflicts and to provide justice in return. Where the police are perceived as illegitimate agents of social control, citizens may fill this gap using their own tools of conflict resolution, including violence (Black 1983). Upon interviewing a sample of young men (ages 16-24) recently involved in violent offences, Wilkinson et al. (2009) found that the youth experienced a 'profound lack of access to the law' (Nivette 2014, p. 101). The participants in their study continually expressed a lack of confidence in the police that drove them to keep guns for protection and use violence to solve conflict. In a study of retaliatory homicides in St Louis, Missouri, Kurbin and Weitzer (2003) found that violent self-help is part of the 'code of the streets' (Anderson 1999), and that this 'code' functions where police are seen as illegitimate. At the same time Varese (2011) argues that state ineffectiveness and illegitimacy are key 'local conditions' for the migration and growth of organized crime groups. When a state cannot protect its citizens, settle disputes or enforce economic contracts, a demand arises for extra-legal protection typically provided by mafias. In his cross-national study Van Dijk (2007) found that effective and 'incorruptable' criminal justice systems are negatively associated with the presence of organized crime groups. At the same time Nivette

(2014) argues that we have much less empirical evidence based on observed behaviour supporting the second possible effect of falling trust, that is, growth of norms-breaking behaviour. However, the mechanism seems to be theoretically well-founded and attitudinal surveys offer some empirical underpinnings to it.

4. Signals of trust at risk

How can we measure trust in justice and foresee the potential threats to it?

Trust as an attitude may be measured through attitudinal surveys asking people explicitly how much trust they have in the justice system.[2] Besides explicit trust measures it is also meaningful to investigate people's perceptions about the crucial explanatory variables that we identified above: the performance and the normative legitimacy of the justice system. That is, indicators of the public perceptions about police effectiveness, fear of crime, corruption in the justice system etc. may be relevant to assess whether trust in justice is under threat. However, signalling changes needs time series data which are not necessarily available, and certainly not at the EU level for comparative purposes. Large scale and regular international surveys, like the European Social Survey, ask people about their trust in justice institutions, but they fail to cover the perceptions on the performance as well as the normative legitimacy of justice institutions.

In terms of perceptions and attitudes general sociotropic evaluations on the state of the polity, the direction of the country' development etc. may also be relevant, given their importance in explaining institutional trust, on one hand, and the strong association of different institutional trust indicators, on the other.

(Dis)trust in justice may have its consequences not only on people's attitudes, but their behaviour as well. Trust in justice is believed to foster compliance with the law and cooperative behaviour with legal authorities (Tyler 1990, 2011a; Tyler/Huo 2002). Therefore, declining trust may lead to, or declining trust may be signalled by, increasing non-compliance with the law and signs of non-cooperation vis-à-vis the justice system. Distrust may also be reflected rising popularity of 'alternatives' to the justice system (e.g., organisations of self-defence, vigilantism, or the growing market of security equipment etc.).

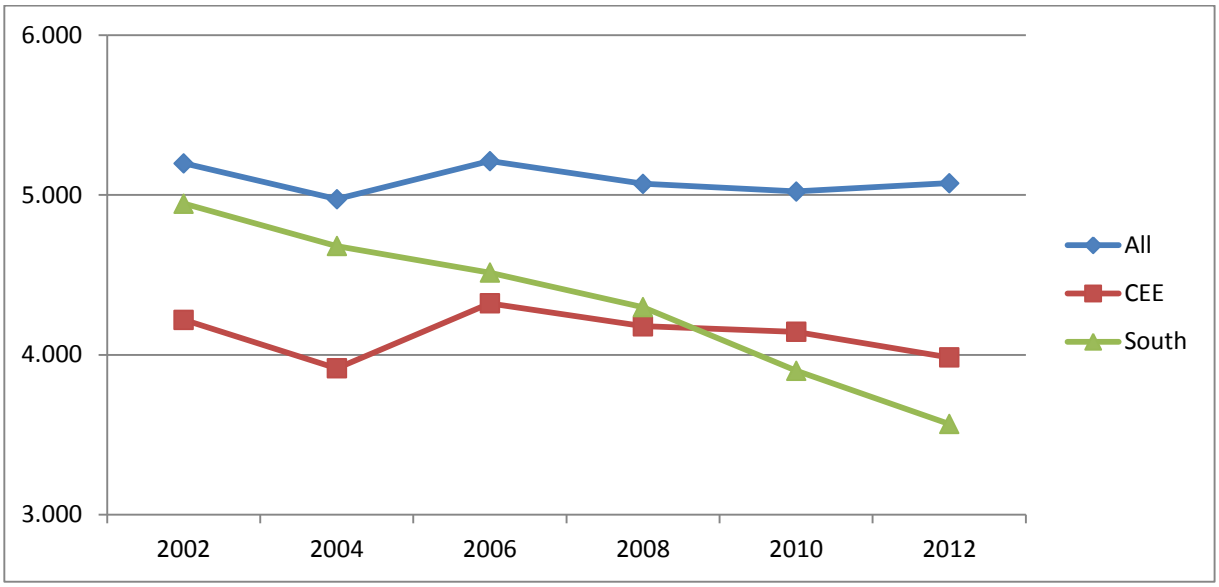
Above we identified two factors that may potentially influence trust in justice: media and politics. If the salience of crime and justice issues increases on the media agenda, this might signal a growing distrust in justice. Similarly, if populist parties increase their popularity and/or the discourse of penal populism is spreading in public discourse on justice issues than we may suspect that distrust is growing.

It is far beyond the scope of this chapter to draw a detailed picture of the state of the art of trust in justice in Europe. In the following I present some data exclusively for illustrative purposes. Figure 5 shows ESS data on trust in the courts on an 11 digit scale (0-10). While trust has been remained stable at the EU level[3], it has, however been consistently deteriorating in the South-European countries (Greece, Portugal and Spain), and in the past six years it also shows a slow, but steady decline in the CEE countries (Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia). Identifying the underlying causes would need a research on its own, therefore I retain myself from speculating on the possible roots of these phenomena. However, these data certainly suggest that trust in justice should be given attention.

[2] EUROJUSTIS, an EU FP7 research project, worked out and tested the methodology of measuring trust in justice through attitudinal surveys (eurojustis.eu).

[3] Only those countries are included where ESS surveys were not missed more than two times from 2002 till 2012: Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Netherlands, Poland, Portugal, United Kingdom, Slovakia, Slovenia, Spain, Sweden.

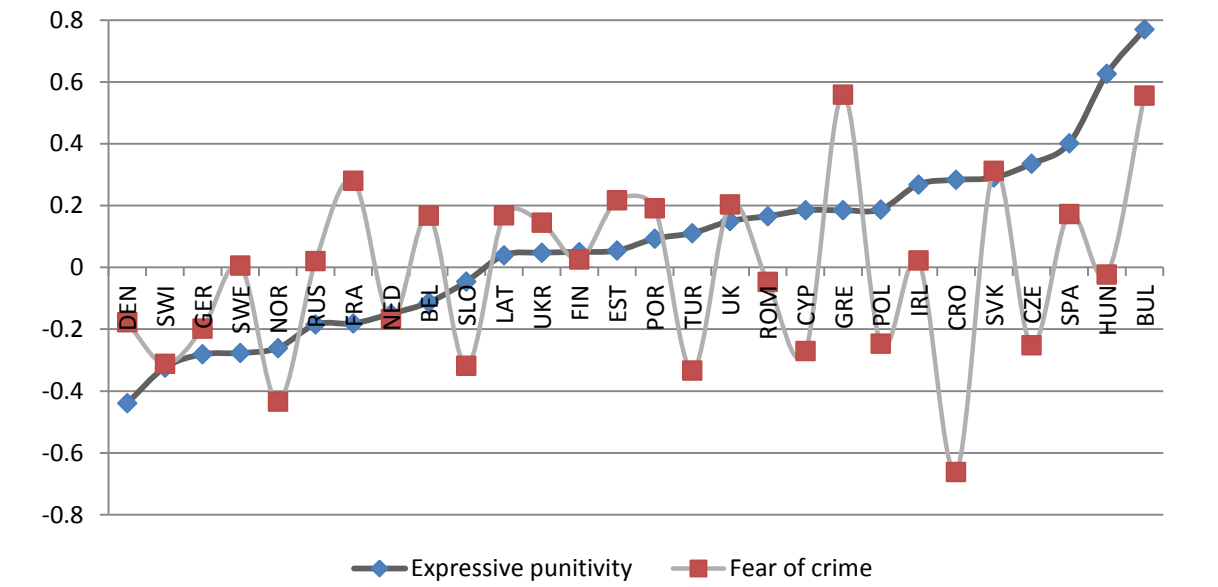
Figure 5: Trust in courts in EU countries



Source: author's calculation, ESS.

Fear of crime and punitive attitudes are related to each other, several studies find (see, e.g., Lappi-Seppällä 2008). Both measures show a great variation across countries (see Figure 6 below). As for the trends: fear of crime has been slowly decreasing in the past two decades across Europe (Smolej/Kivivuori 2008; Jackson 2008). The same is not necessarily true for punitive attitudes, although punitiveness is a more complex concept, which is difficult to measure (see Adriaenssen/Aertsen 2015).

Figure 6: Punitive attitudes and fear of crime across Europe



Source: Boda et al. 2014, ESS data, 2010.
Note: The indicators have been standardized to have a mean of zero and standard deviation of one.

Looking at the indicators of actual behaviour, the starting point is that non-compliance or crime are not easy to measure, for instance, data from victimisation survey and police statistics may considerably differ (Van Dijk 2009). However, despite the methodological difficulties Aebi and Linde (2012) argue that different indicators show a consistent picture: that of stagnating or declining crime levels throughout Europe. This does not exclude the possibility that specific countries may

represent unique cases and we should differentiate between crime types as well. For instance, while, consistent with general trends, crime has been declining in Eastern and Central European countries as well, corruption has actually been increasing in most of them (Linhartová/Volejniková 2013). Pitts (2012) is warning about the proliferation of youth street gangs in the UK.

The decline of crime in the past two decades is a somewhat surprising turn, as crime levels have generally been increasing in both the US and Europe since the 1960s. However, Mooney and Young (2006) argue that this may not be the whole story: while crime has been shrinking, some studies suggest that anti-social behaviour has been on the rise. A whole range of behaviours was identified under the rubric of anti-social behaviour: begging, public drunkenness, letting off fireworks, neighbourhood noise, hoax calls, urinating in public, etc. Criminology has not yet devoted much effort to analyse the patterns and roots of anti-social behaviour. But if Mooney and Young are right, this may be considered as a possible weak signal of trust at risk. Another, and possibly related, issue is that of unreported cases of delinquency: in some countries a huge difference exists between police statistics and surveyed victimisation in terms of simple assaults (Van Dijk 2009). Petty delinquency and anti-social behaviour are difficult to tackle by the police and people may fail to report those cases to the authorities. This might be alone a signal of lack of trust, but it can also contribute to growing distrust, if the authorities do not care about these (unreported) issues.

Obviously there are no international databases available on media content, but some studies corroborate our everyday experience that the media coverage of crime has been steadily increasing over the past decade (Smolej/Kivivuori 2008). Notably, its most probable suspected effect, that is, boosting the fear for crime, has not been proven, on the contrary – while media coverage of crime grew, fear of crime declined. Another hypothesised effect of the media is that they strengthen punitive attitudes and support penal populism. Roberts et al. (2003) argue that by devoting special attention to the coverage of violent crime, the media indirectly promote harsher sentences and penal populism. Furthermore, the way crime is framed in the media directly influences both politicians and the public on what (typically harsh) policy response would be appropriate for certain types of crime. In fact, some studies revealed a relationship between tabloid media consumption and punitive attitudes (Adriaenssen/Aertsen 2015, p. 103). In the Eastern European context, mostly drawing on the example of Poland, Kossowska et al. (2012) find that the mass media are to a great extent responsible for generating punitive attitudes in the public, which also affects politicians' stances on penal measures. Although Boda et al. (2014) could not prove that the media would have supported the 2010 punitive policy turn in Hungary, we cannot exclude a more indirect effect: contributing to the discourse of punitiveness.

The spread of punitive attitudes and penal populism might also be considered a signal (weak? strong?) of eroding trust in justice, as this approach criticizes the legal system for its alleged impotence and lenience to criminals. Penal populism is suspected to be supported by the media, but it is certainly spread around by populist movements and parties. Populism is on the rise since 1990s. This is reflected in the constantly improving electoral results of the so-called populist, typically radical right-wing parties in Europe – a phenomenon starting sometimes in the 1990s and leading to a kind of breakthrough in the 2014 European elections when right-wing parties received the relative majority of votes both in France and the UK (Le Front National and the UK Independent Party, respectively) while increasing their share in other countries as well. Populist parties generaly argue for measures to restrict immigration (Ivaldi 2011; Bale 2013). Indeed, immigration is one of the most salient political issues for populist parties in Europe, as 'migration has been constructed as an international and domestic security issue linked to urban unsafety, international organised crime, terrorism, illegality, environmental issues and public health' (Martiniello/Rath 2010, p. 8). Another policy field is that of justice: populist parties embrace law-and-order discourses and argue for punitive measures (Fekete/Weber 2010). Some populist parties, like for instance the Hungarian Jobbik, owe their popularity mainly to having problematized the allegedly growing crime and the inability of the authorities to take the necessary measures (Karácsony/Róna 2011). Ivaldi (2011, p. 5) argues that we should place immigration policies in the more general context of legislation change on issues of law-and-order and cultural liberalism. Indeed, apart from taking stance against 'liberal immigration policies', and arguing for punitive measures populist politics usually share a repulsive approach towards unpopular minorities, like Gipsies (Karácsony/Róna 2011) or gay and lesbian movements (Pappas et al. 2009). Populism is typically associated with a rejection of multiculturalism and liberal globalization (Spargue-Jones 2011).

5. Policy responses

Data do not suggest that trust in justice would be under systematic threat in Europe in general. However, we have seen that in some countries in Southern and Eastern Europe trust in justice has been declining over the past years. This decline is partly attributable to general legitimacy problems related to economic problems and the perceived performance of the polity as well as the deterioration of some social well-being indicators (like growing inequalities). However, apart from the general problems of trust and legitimacy, the justice system may also face some challenges, and not only in the aforementioned countries and regions. Maybe the biggest challenge comes from multiculturalism and its contesters.

Multicultural societies pose a challenge to the justice system at different levels. Minority groups are often less trustful to the legal authorities – and sometimes not without reasons (Hough et al. 2010). But more importantly, multiculturalism is referred to by populist movements as the main problem, and those movements are the main pushers of penal populism. What is the problem with penal populism? It is beyond the scope of this chapter to offer a complete analysis on this issue. However, it is worth mentioning that critiques point to problems concerning both the effectiveness and the fairness of punitive justice policies (Hough/Sato 2011). It is ineffective because the severity of punishment has negligible influence on criminal behavior (Darley 2005; Doob/Webster 2003) and it is costly because it incurs growing expenses on the justice system, for instance by increasing the number of prisoners (Hough et al. 2003). A frightening example is offered by the US in this respect where the imprisonment rate has been boosting in the past 30 years, reaching the level of 700 prisoners/100.000 inhabitants, as compared to 200 in the 1980s. In the same period imprisonment rate of the Scandinavian countries has remained well beyond 100 (Lappi-Seppällä 2008). Punitive measures, like the 'three strikes' principle are also unfair as they command strict punishment without giving due attention to the circumstances of a crime act. As such, some punitive measures may become problematic from a legal or human right perspective.[4]

The trust-based approach is less costly, has no inconvenient side-effects and is in line with the respect of human rights. It proposes measures such as increasing the procedural fairness of the justice system, which would reinforce citizens' normative compliance with it, or framing norm infringements as mala per se (wrong in itself), instead of being seen as mala prohibita (something that is wrong only because it is sanctioned), thus awakening people's moral sense and normative compliance (see Hough/Sato 2011).

However, a paradox may be detected here. If penal populism, by its critical discourse, triggers dissatisfaction and distrust towards to the justice system, then the punitive measures may be the appropriate means to regain popular confidence. In other words, the populist (punitive/deterrence based) and the trust-based approaches are usually contrasted to each other. But what if punitive (popular) measures seem to increase trust in justice? 'Sentencing criminals in a way that does not reflect public opinion would surely have undesirable consequences (for example, decreasing confidence in the courts)' (Adriaenssen/Aertsen 2015, p. 93).

However, one may argue that punitive policy cannot offer but selective and short-term relief to the trust problem. Selective, because it may appease the middle classes, but probably strike unevenly the lower strata and minorities who will grow dissatisfaction and distrust towards the authorities. And short-term, because disproportionately harsh sanctions will sooner or later be seen as unfair by larger social groups as well (imagine the middle-class mother who faces that his teenage son is arrested because of smoking weed with friends in a party).

Therefore, inclining before the populist demand is probably a wrong way to go for justice policies around Europe. Populism should be properly addressed by politics while justice policies should follow the trust-based approach stipulating legitimacy and normative compliance. How can this be done? Generally speaking, 'since normative compliance rests generally on an individual's morality and institutional legitimacy, the state has two routes by which to maintain order: influencing the

[4] For instance, recently the European Court of Human Rights ruled that imprisonment for life without eligibility for parole amounted to inhuman and degrading treatment (Case Laszlo Magyar vs. Hungary, see at http://hudoc.echr.coe.int/sites/eng/pages/search.aspx?i=001-144109#{%22itemid%22:[%22001-144109%22]}).

individual and improving institutional legitimacy' (Nivette 2014, p. 96). However, the first has its own problems, and one must not overstate the role of the state in shaping individual or group morality. The second route is more promising.

Policy measures in this respect may include the following (Hough et al. 2014; President's Task Force 2015):

1. Improving the legitimacy of criminal law

- Reconnecting the criminal law with morality. This may include communication campaigns stressing the mala per se nature of non-compliance (as opposed to the mala prohibita approach). A paradigmatic example of this can be found in the history of drink and drive legislation in the UK (and probably in other countries), where government advertising campaigns have successively transformed drunken driving from a tolerated minor infraction into a matter of public censure (Hough et al. 2014).
- Decriminalisation. Reconnecting the law with morality may also mean that overcriminalising banal offences should be avoided and whenever it is possible other regulatory means than criminal law should be used (Hough et al. 2014).

2. Improving the legitimacy of the police, courts and other institutions of justice

- Judicial reforms that aim at making the justice system fairer in procedural terms: treating people with dignity and fairness, increasing the accountability, integrity and legality of institutional operations, providing 'voice' to people, etc.
- Judicial reforms that aim at making the justice system more effective (see for instance the duration of cases at courts).
- Initiating justice reforms that do not follow the punitive approach, but, for example, restorative justice. Restorative justice seeks to resolve the disputes arising from norm-breaking behaviour via reintegrative shaming that combines strong disapproval of bad conduct with respect for the person who committed those bad acts (Braithwaite 2002). Restorative justice shifts to focus from punishment to restoring communities, persons and emotions. It also seeks to motivate rule breakers to become more self-regulating in their future conduct (Tyler 2006).

6. Recommendations for research priorities

As we have seen, previous research has mainly focused on:

- the role of trust in fostering compliance and cooperation;
- measuring trust in justice;
- identifying the main drivers of trust in justice in terms of people's perceptions on justice institutions.

However, there are a number of questions that have not (or only sparsely) been covered by research so far, in particular:

1. The cultural/political differences between countries and how these differences impact expectations about/trust in justice. Research has established that trust and legitimacy are equally important across countries to secure compliance with the law. However, other studies have pointed to cultural and/or political differences in terms of what makes people trust justice institutions (see Boda/Medve-Bálint 2015, Bradford et al. 2014). Are there universal recipes on how to increase trust in justice? How much is their relevance depending on the particularity of a given political culture?
2. The interaction of different level factors in influencing trust in justice. What is the role of the different factors: macro-level factors (like the legitimacy of the polity, economic development, political culture etc.) vs. individual level factors (like income, education, personal experience with crime or the police etc.)? What is more important: factors influencing trust in specific institutions vs. those determining general institutional trust level and trend? How do different levels interact with each other?
3. The higher effectiveness of trust-based approach over the deterrence-based paradigm. Can we convincingly argue for the higher effectiveness of a trust-based justice system? Should we at all, or should we consider it as normatively and politically more appealing independently from the costs and other consequences? How can we measure effectiveness?

Assuming that trust-based justice is more effective, are there any social and political conditions of it? In other words, is the effectiveness of trust-based policies dependent on some political, social and cultural contextual variables, or is it apparent in any context?

4. The patterns and relevance of other trust relations than the citizens-to-the-system relation. Researches so far have focused on the problem of citizen's trust towards the justice system. However, confidence of the system towards the citizens might be equally interesting, because the way justice institutions relate to people may influence people's attitudes and conduct. Trust is expected to yield trusting responses, but distrust will probably spur similar reactions. Finally, both the patterns and roots of trust between different institutions and/or levels of the justice system may also be worth studying, because lack of trust may increase transactions costs and duplicate work related to the judiciary process therefore rendering the justice system less effective.

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CHAPTER 10

Diversity, trust and social cohesion

Bram Lancee

1. Introduction

An often-mentioned explanation for changes in trust and social cohesion is the increasing diversity that societies are faced with. Central to this argument is that, besides characteristics of individuals, the specific context, or social environment that people live in affects how individuals trust one another. The scholarly literature has primarily addressed two types of diversity: ethnic and economic diversity.

The first argument is that trust varies with ethnic diversity. Concerns about immigration and the rising visibility of ethnic and racial minorities have triggered a lively scholarly debate on the consequences of ethnic diversity for trust and social cohesion (see for an overview Morales 2013; Schaeffer 2014; Van der Meer/Tolsma, 2014; Koopmans et al. 2015). For example, in political science and sociology, Putnam's (2007) 'hunkering down' thesis is a central focus of debate: In neighbourhoods or areas that are more ethnically diverse, citizens withdraw from public social life and reciprocity and trust go down. If trust is indeed negatively affected by migration-related diversity, this poses a major policy challenge for Western societies. On the other hand, contact theory suggests that in more ethnically diverse contexts levels of (inter-ethnic) trust are higher due to increased opportunities for inter-ethnic contact. There are also studies that do not find any evidence for a relation between ethnic diversity and trust.

Second, besides ethnic diversity, economic diversity and economic inequality are often-mentioned as drivers of trust (Uslaner/Brown, 2005; Wilkinson/Pickett 2009; Lancee/Van de Werfhorst 2012). Solt (2008; 2010), for example, concludes that higher levels of inequality are associated with lower political engagement (political interest, political discussion, and electoral participation). High levels of economic inequality imply large differences between people, resulting in the poor feeling powerless and thus less trusting. Furthermore, when resources are distributed unequally, people at the top and the bottom will not see each other as facing a shared fate (Uslaner/Brown 2005). It has also been argued that larger differences in income results in status competition (Wilkinson/Pickett 2009), which emphasizes differences between people. As a consequence, trust is lower. Because inequality has been reported to increase substantially in Europe (Nolan et al. 2014), trust might be at risk.

This chapter focuses on the potential consequences of rising ethnic diversity and economic diversity for trust being at risk. The chapter starts with a brief description of the concept of trust and social cohesion. The section on diversity as a driver for eroding trust discusses the mechanisms that explain why changing diversity can be expected to affect trust and social cohesion. Subsequently, I will discuss how responses in the research agenda might look like.

2. Trust and social cohesion

Trust is a fundamental element of socially cohesive societies. It is therefore of utmost importance to understand and explain variation in trust and social cohesion. Eroding trust could harm social cohesion in neighbourhoods and societies in general. On the other hand, high levels of trust can be a good thing for a cohesive society.

In this chapter I take a broad perspective on trust and social cohesion. Following Koopmans et al. (2015, p. 2) I refer to it as 'a community's capacity for collective action in the pursuit of public goods, and the attitudes and expectations that undergird this capacity'. Social cohesion thus refers to the collection of attitudes that express some degree of confidence in other people or institutions and shared values and norms, but also to the set of (behavioural) indicators that reflect social networks, civic participation, intergroup contacts and the like.

If diversity affects trust, this has potential consequences for a range of indicators that are often considered desirable. For example, (perceived) neighbourhood safety, social and civic participation, trust in one's neighbours, contact with neighbours, or helping behaviour. Eroding trust might have consequences on the national level. An often-mentioned risk of negative consequences of ethnic

diversity is the rising of anti-immigrants attitudes (Hopkins 2010). Some scholars refer to the rise of populism, the more general political processes of looking inward, rather than outward (for example, Euroscepticism), the willingness to pay taxes (Hopkins 2009), or more general coordination problems (Habyarimana et al. 2007). Better understanding if and, more importantly how diversity affects trust can help designing policies that contribute to a more cohesive society.

3. Ethnic diversity

In almost all Western societies, the consequences of immigration represent a key topic on both the public and political agenda. For good reasons: if people retreat from society and develop 'parallel' societies, this is of utmost importance to the on-going debate on social cohesion (Portes et al. 2005). On the other hand, increasing diverse societies trigger inter-ethnic contacts which contributes to higher levels of tolerance. The question, however, is why we can expect an association between diversity and social cohesion. Several mechanisms have been suggested to explain a relation between ethnic diversity and social cohesion (see Koopmans et al. 2015).

A first mechanism that has been put forward to explain the relation between diversity and trust is 'out-group' bias and 'in-group' favouritism. The main argument of 'in-group' favouritism is that people favour others who are alike (McPherson et al. 2001). According to the homophily principle, people build relations with others that are similar to them. Consequently, people tend to see 'in-group' members as more trustworthy, and out-group members as less trustworthy (Hewstone et al. 2002). Thus, people tend to trust people similar to them more ('in-group' favouritism), resulting in ethnic boundaries. In areas or contexts that are more diverse, people are, on average more frequently confronted with others that are 'unlike them', resulting in lower levels of trust.

'Out-group' bias is based on group threat theory and provides a more substantial explanation as to why ethnic cleavages occur. Group threat theory explains 'out-group' bias with the argument that people compete with other ethnic groups for scarce resources such as jobs and housing. As a result of this (perceived) competition, people experience threat or conflict situations with other ethnic groups. Thus, because other ethnic groups compete for the same resources, people feel threated by people unlike them, resulting in lower levels of trust. A second reason for outgroup bias to occur is social identity theory. Besides threat based on competition over resources, social identity theory assumes that 'out-group' bias is a consequence of more permanent and psychological distinctions between 'us' and 'them'. Blumer (1958) originally identified group identity, out-group stereotyping, preferred group status, and perceived threat as being intrinsic to prejudice. The theory 'assumes that individuals identify with one or more groups and that the diverse interests of different groups generate conflicts that in turn generate negative attitudes' (Hjerm 2007, p. 1254). 'In-group' favouritism and 'out-group' bias are often regarded as a key mechanism to explain why contextual diversity drives down social cohesion.

However, there are also reasons to expect a positive relation between diversity and social cohesion. The opposite, or alternative mechanism to 'out-group' bias and 'in-group' favouritism is the positive effect of inter-group contact (Allport 1979). Contact theory postulates that one of the most effective ways to reduce prejudice is when people of different backgrounds have interpersonal contact. Along this line of reasoning, people who live in a diverse area have more contact with others 'unlike' them, and will therefore trust them more. A meta-analysis indeed supports the assumptions of contact theory (Pettigrew/Tropp 2006). Thus, in neighbourhoods that are ethnically diverse, opportunities for contact with people that have other backgrounds are larger. As a consequence, levels of trust are higher. For example, Lancee and Dronkers (2011) show that in more ethnically diverse neighbourhoods in the Netherlands, interethnic trust is higher among native residents (while, on the other hand, general trust is lower). However, as Allport (1979) outlined, whether interethnic contact promotes or reduces ethnic biases is likely to depend on the quality of contact.

The relation between ethnic diversity and trust is also explained by coordination problems. It has been suggested that in contexts with higher levels of diversity, coordination problems arise. In this view, a shared language or commonly understood practices are necessary to successfully coordinate the production of common goods (Habyarimana et al. 2007). In ethnically diverse areas, it is more likely that people do not speak a common language, or perceive higher cultural barriers. As a consequence, it may be harder 'to get things done'. There is some empirical evidence that trust is lower in neighbourhoods in Australia that are linguistically more heterogeneous (Leigh 2006), although no effect of linguistic diversity on trust was found in the Netherlands (Lancee/Dronkers 2011). A related mechanism to coordination problems is that of shared

preferences. A condition for collective action is that there is a shared goal. In more diverse areas, such shared goals might be insufficiently present. Page (2008) has argued that asymmetrically distributed preferences may erode trust because they are a potential for disagreement.

Another mechanism that is put forward by Koopmans et al. (2014) is network effects of diversity on trust and social cohesion. Network theory generally assumes that with social closure (i.e. a high degree of interconnectedness between people), there are better opportunities for social control. That is, with high levels of network closure, everybody knows everybody, which improves the sanctioning capacity in the network (Buskens 1998, 2002). As a consequence, levels of trust, social capital and social cohesion are higher in networks with social closure (Coleman 1990). Social closure is less likely in more diverse contexts. For example, there is evidence that friendship in school classes cluster along ethnic lines. Also, because of 'out-group' bias and 'in-group' favouritism, ethnic cleavages imply that social closure is lower. The network mechanism thus refers to the network effects of ethnic cleavages and its detrimental effects on trust.

4. Economic diversity

Similar to explanations for the consequences of ethnic diversity, also economic diversity has been argued to affect trust. Many scholars report a negative association between income inequality and trust and social cohesion (Rothstein/Uslaner 2005; Uslaner/Brown 2005; Wilkinson/Pickett 2009; Solt 2010; Lancee/Van de Werfhorst 2012; Burgoon 2013). As income inequality in Europe is rising (Nolan et al. 2014), a negative effect on economic diversity on trust is of great interest to policy makers concerned with social cohesion in Europe. This section discusses the arguments that explain why we can expect a relationship between economic diversity and social cohesion.

A first reason why there is a negative relation between inequality and trust is the unequal distribution of recourses. Resource theory argues that it is the availability of resources that affects social cohesion and trust. Lynch et al. (2000) claim that 'under a neo-material interpretation, the effect of income inequality […] reflects a combination of negative exposures and lack of resources held by individuals, along with systematic underinvestment across a wide range of human, physical, health, and social infrastructure'. The central idea in the resources argument is thus that if there are people who have little resources, they can or do not want to participate. As Uslaner and Brown (2005) put it: 'The direct effect of inequality on participation arises when inequality of resources leads people in lower economic brackets to refrain from participating, either because they have fewer resources or because they believe that getting involved will be fruitless because the system is stacked against them'. For example, income inequality restricts access to housing for low-income households (Dewilde/Lancee 2013). In other words, in neighbourhoods or other contexts with high levels of inequality, there is a substantial amount of people with little resources, who do not have the means to participate, be it socially, civic or otherwise. Along that line of argumentation, reduced social cohesion in more unequal contexts results in lower trust too. Neckermann and Torche (2007) label the resource explanation a 'mechanical effect' of inequality: because economic status is related to social participation, rising inequality will result in a corresponding increase in disparities in social participation.

A second reason why inequality depresses trust can be labelled the psychosocial explanation. Whereas the first explanation refers to the consequences of the unequal distribution of tangible resources, the second explanation stipulates that economic diversity has psychosocial consequences, because it affects the way that people relate to each other.

A first psychosocial mechanism that has been suggested in the literature is that if increasing status differences and resulting status competition. The central argument why inequality reduces trust is that as economic differences between people are larger, uncertainty increases and trust in other people subsequently goes down. According to Wilkinson and Pickett (2009), greater differences between status group members exist with higher levels of inequality, resulting in status gaps. These gaps trigger status competition to the detriment of a range of desirable outcomes, including trust. Wilkinson and Pickett argue that 'the scale of income differences has a powerful effect on how we relate to each other'.

Besides the negative effects of status competition, there may also be status anxiety, rooted in feelings of relative deprivation. Neckerman and Torche (2007) label this an 'externality' effect where 'living in a context of high inequality might intensify feelings of relative deprivation among low-income individuals'. As Oxendine (2009) puts it: '[i]n an atmosphere of economic stratification, the poor will feel degraded, will be envious and will continually covet the riches they lack'. Lancee

and van de Werfhorst (2012) conclude indeed that both resources and psychosocial processes explain the negative relation between income inequality and social participation. They find that even when taking into account resources on the individual and societal level, there still is a negative effect of income inequality on social participation. Furthermore, differences in individual income matter more under conditions of high inequality: whereas lower income individual participate less than higher income individuals, this gap is even larger in highly unequal societies.

However, similar to ethnic diversity, contact theory predicts a positive relation between economic diversity and social cohesion. In contexts that are economically diverse, there are more opportunities for people of other income groups to meet. Contact between different economic groups contributes to better mutual understanding and tolerance. Along this line of reasoning, economic diversity contributes to a socially cohesive society by increasingly 'open' attitudes.

A last mechanism, in line with contact theory, is that economic diversity and the resulting heterogeneity in society may breed creativity. According to Burt (2004), good ideas are disproportionally in the hand of people who have connections between groups. Burt argues that 'opinion and behaviour are more homogeneous within than between groups, so people connected across groups are more familiar with alternative ways of thinking and behaving'. As a consequence, this creates 'good ideas', resulting in social capital. It can be expected that in more economically diverse contexts, more between-group connections. Indeed, Lancee and Dronkers (2011) find a positive effect of economic diversity in neighbourhoods on trust in the neighbourhood.

5. General mechanisms

Several arguments have been discussed that explain why we can expect a relation between ethnic and economic diversity. There are mechanisms that imply a negative relation between diversity and social cohesion, but there also mechanisms that stipulate a positive relation. The most researched mechanism that theorizes a negative relationship is likely that of 'out-group' bias and 'in-group' favouritism. On the other hand, contact theory is a prominent explanation for a positive relationship between diversity and trust.

Figure 1 summarises the mechanisms that are discussed above. This list is not exhaustive; one can most likely identify additional mechanisms. However, the list shows that there are different and even competing explanations for a relation between diversity and social cohesion. The central question is to better understand when, how and under which conditions these mechanisms operate. Answering these questions will advance our understanding of trust and social cohesion.

Figure 1: Mechanisms that may explain a relation between diversity and social cohesion

Mechanism	Ethnic diversity	Economic diversity
Out-group bias and in-group favouritism	Ethnic threat due to competition over resources and ethnic identity.	Status competition exacerbates group differences and feelings of 'us' versus 'them'.
Intergroup contact	Inter-ethnic contacts result in mutual understanding and tolerance.	Contact between income groups increases mutual understanding and tolerance.
Creativity	Between-group connections induce different ways of thinking and result in good ideas.	Between-group connections induce different ways of thinking and result in good ideas.
Coordination problems	Language and cultural barriers result in reduced coordination and thus cooperation.	
Shared preferences	Asymmetric preferences due to cultural differences	Status anxiety, feelings of relative deprivation implies that common goals are difficult to define and achieve.
Network effects	Reduced sanctioning capacity and social control due to ethnic cleavages in networks	
Resources		Resources that are required for social and civic participation are unevenly distributed.

6. Knowledge gaps

While there are many studies on the topic that look at associations between indicators of diversity, we know relatively little about which mechanism explains the (absence of) associations. Several knowledge gaps can be identified that would benefit from future research in order to better understand how and if diversity affects social cohesion.

First, more research is needed to find out which mechanisms operate in the relation between diversity and social cohesion. The set of mechanisms listed in figure 1 suggests that there are multiple mechanisms that explain if and how diversity and social cohesion are related to one another. To better understand how societies can deal with changing diversity, we first need to understand how its effects on social cohesion come about.

Second, the mixed results of previous empirical studies suggest that the relation between diversity and trust is conditional on other factors. Future research will have to be carried out about the conditions under which there is a relation between diversity and trust. Which processes moderate the relation between diversity and social cohesion? Are these processes the same in different countries, or for different social groups? Central in this conditional analysis is, again, the mechanism that link diversity to social cohesion.

Furthermore, findings may depend on the level of analysis (countries, regions, neighbourhoods, the workplace). It is an unanswered question whether the mechanisms described above function similarly at different contextual levels. Can we expect the same processes in societies, neighbourhoods, school classes, or work environments? Future research could be directed at studying the role of the level of analysis.

This chapter discusses ethnic and economic diversity, but there are other forms of diversity that may equally matter for social cohesion, for example, in terms of religion, education, or age. While the literature on the effect of ethnic and economic diversity is relatively abundant, we know much less about potential effects of other forms of diversity on trust. To better understand the relation between diversity and cohesion, it is desirable to study other forms of diversity too. A likely candidate to study is religious diversity (Wuthnow 2011). For example, does religious diversity have similar effects as ethnic diversity? Are effects of income inequality different from wealth inequality? Can we expect similar effects of diversity in terms of educational attainment? Furthermore, studies on the consequences of ethnic diversity almost exclusively focus on non-western ethnic minorities. Yet, in Europe there is a high amount of intra-European migration and mobility, which is often high skilled. It can be expected that effects of migration related diversity are different when other social groups are considered. Especially in light of the European internal labour market, we need to better understand the consequences of ethnic diversity that is spurred by intra-European migration.

Last, while much empirical research analyses the relation between diversity and trust, the majority of studies use cross-sectional data and consequently studies associations. Most research available is correlational, and often tests the same hypothesis with cross-sectional data in different settings. Such associational research is less likely to make an innovative contribution to scholarly literature. To formulate policy responses, it is desirable to know more about the causal mechanism that drives this relationship. Empirical research would be desirable that analyses the underlying causal mechanism that links diversity to trust. This requires the collection of new data and the use of different methods (longitudinal analysis, experimental methods, qualitative fieldwork).

7. Scenarios of changing diversity, trust and social cohesion

How can we expect diversity and trust to develop in the future? While the evidence for an association between diversity and social cohesion is growing, we know very little as to how to effectively build trust in diverse contexts. Given these largely unanswered research questions, it is very difficult to identify likely scenarios. In this section, I provide some tentative thoughts about how diversity and social cohesion might develop in Europe. It has to be emphasized that these scenarios are, by definition, both speculative and extreme cases. However, the scenarios illustrate the possible consequences of diversity for social cohesion and provide a tool for 'forward thinking' in how to deal with diversity, both in terms of future research and designing policy.

The starting situation for the scenarios is to specify a trend in diversity. We assume a trend of increasing economic inequality, stagnating non-western immigration, and rapidly increasing intra-European mobility. As several scholars have pointed out, inequality is rising; economic differences between individuals are thus growing, both in terms of income (Nolan et al. 2014) and wealth (Piketty 2014). Furthermore, immigration from non-European countries is unpopular and immigration is politically highly opposed (Lubbers et al. 2002), threatening the nation state (Joppke 1998) and thus largely banned. At the same time, because of the freedom to move within the EU, the accession of new member states, and the economic crisis, intra-European mobility surges (Fligstein 2008; Kuhn 2015). Thus, in this scenario, we have a situation with stagnating, non-Western immigration, extremely high intra-European mobility and expanding socio-economic cleavages due to rising economic inequality.

In the first scenario, the dominant mechanism in the relation between diversity and social cohesion is one of threat due to 'out-group' bias and 'in-group' favouritism. Under this scenario, we can expect a more fragmented society, and lower levels of trust, especially in groups 'unlike you'. Some citizens reap the benefits of high mobility, and economic opportunities, while others, mostly lower educated are left with lower paying jobs in less attractive places. As a consequence, there will be a clear demarcation of winners and losers of globalization (Kriesi et al. 2006; Burgoon 2013), and this cleavage is likely to be economic, as well as cultural. Besides a bifurcation of attitudes, physical segregation is likely to increase as well (Massey 1993). Thus, in a scenario of increasing diversity and a dominant mechanism of 'in-group' favouritism it might be speculated that a more fragmented society creates 'islands of trust'; separated sub-groups or regions that show high internal cohesion, which are less open for between-group connections. As a consequence, societies are less cohesive. 'Out-group' bias breeds misunderstanding between social groups, resulting in lower levels of trust, social and civic participation, as well as more extreme political attitudes, such as xenophobia.

In a second scenario, intergroup-contact is the dominant operating mechanism. Under the 'contact scenario', the consequences for trust and social cohesion are very different. In this scenario, individuals of different economic and cultural background are able to build cross-cutting networks, that increase creativity, resulting in 'better ideas' (Burt 2004). Thus, in this scenario, increasing diversity goes hand in hand with increased mutual understanding, because different groups have contact with one another (Pettigrew/Tropp 2006). As a consequence, solidarity increases, as well as social and civic participation; attitudes are generally more 'open'. This scenario may be likely because change in ethnic diversity refers to intra-European mobility, which is less threatening than an increase of non-western immigration, to whom cultural distance is substantially larger (Schneider 2008). In the contact scenario, the increasing economic differences between people might even increase solidarity. For example, Kenworthy and Pontusson (2005) find that increasing inequality has resulted in more redistribution, as 'existing social-welfare programs compensated for the rise in market inequality'. Thus, in the 'contact scenario', diversity breeds socially cohesive societies with high levels of trust, also between groups.

Another possible and likely development is that, besides the increase in diversity sketched above, also immigration from non-western countries to Europe continues to grow rapidly. In this scenario, European countries are faced with an ever-increasing diversity of cultures that are vastly different from their own (Koopmans et al. 2005). Important in this vein is immigration from Muslim countries, as this implies the arrival of individuals who are very different culturally, religiously, and in terms of language. Moreover, immigration from low-income countries also exacerbates economic differences over and above the developments in inequality that have been mentioned already. Such rapid immigration is likely to increase changes described under both the conflict and the contact scenario.

8. Policy responses

Which kind of policies can be suggested to prevent a threat scenario to occur? What policies could foster a scenario that results in socially cohesive societies? While there are many open questions on the relation between diversity and social cohesion, there are also many questions on the policy implications and, more importantly, the effectiveness of policies. Many existing studies focus on the analysis of the relation itself, while the policy implications are largely under studied. It is therefore a relatively open question how a policy response could look like. Moreover, we know little about the effectiveness of policies that are suggested. Future research could thus explicitly support the impact analyses of existing policies. Such research would yield much needed evidence on the effectiveness of existing policies.

However, assuming a 'threat' scenario, some very general policy suggestions can be made. In order to avoid the development of islands of trust, and fragmentation across social groups several forms of mixing have been suggested, to create opportunities for (positive) contact (Allport 1979; Pettigrew/Tropp 2006). One could think of mixed school classes and neighbourhoods, but also of companies with explicit diversity policies. When people are more used to the (ethnic) differences around them, and when in a context that facilitates positive contact is the thought, a threat scenario can perhaps become a contact scenario.

Another condition for intergroup contact to result in positive (interethnic) attitudes, as opposed to threat is the presence of common goals (Allport 1979). Policies could thus aim for defining a common goal; in the neighbourhood, but also on the level of nation states, and Europe. For example, when people feel that the European project is one of their own, they are more likely to accept the consequences of increasing ethnic diversity as a consequence of intra-European migration. If people have a shared goal, they are more likely to work together and cooperate. For example, transnational experiences foster a more positive European identity (Kuhn 2015). Similarly, if a neighbourhood strives for a common goal like clean streets, cooperation is more likely and differences between people may be less of an obstacle.

In defining the conditions for contact to contribute to more positive inter-group attitudes, Allport also emphasised the necessity for authorities to support the contact and equal working of different groups. This seems a logical task for (new) policies. For example, a goal in the neighbourhood of cleaner streets could be supported by the authorities in terms of a budget and an infrastructure that facilitates meetings of the residents. It has also been suggested that all is a matter of time. Putnam (2007), for example, suggests that the negative consequences of ethnic diversity largely disappear when time passes. Over time and generations, people get more used to diversity and it therefore becomes less problematic in terms of people's perception of differences.

In sum, however, it should be emphasized that given the complexity of the topic at hand (different mechanisms, levels of analysis, and moderating conditions), it is difficult to provide general policy recommendations. Given the vivid scholarly debate about the nature of the relationship between diversity and cohesion, it is difficult to recommend and design policy. This is all the more complex since there are few studies that explicitly evaluate policies that already exist. For example, randomised controlled trials that evaluate neighbourhood policies on diversity are rare.

9. How could European R&I policy and Horizon 2020 react?

This chapter has discussed several arguments and empirical work why diversity and social cohesion may be related. Subsequently, knowledge gaps have been identified. The Horizon 2020 program could respond to these research challenges in the following ways.

First and foremost, a future research program could and should be explicitly targeting the knowledge gaps that are identified in the section 'knowledge gaps'. In short, these are: 1) identifying the different mechanisms that explain the relation between diversity and social cohesion; 2) studying the conditions under which diversity affects social cohesion; 3) the empirical analysis of the causal mechanisms that link diversity to social cohesion; 4) studying potential other forms of diversity and its effect on social cohesion.

Second, and related to the first point, much existing empirical work is limited because of available data. Especially when studying the consequences of diversity, comparative studies are essential. Comparative work, however, requires good comparable data. Future projects could include the collection of new data that allows for comparative research. Similarly, experimental data can help

to study specific mechanisms and causal relations. Furthermore, especially contextual data that measures diversity in different contexts comparably is hard to come by. For example, research effort could be aimed at creating a European data archive on country, neighbourhood, and regional contextual data. This could help researchers to access data, facilitate comparative work and improve possibilities for replication studies.

Third, general policies could be developed that explicitly take into account the conditions for positive inter-group contact, as discussed in the policy response section. While more research is needed to find out which policies are most likely to be successful, examples are mixing in neighbourhoods and classrooms, diversity and anti-discrimination policies in companies, and exchange programmes to foster a collective (European) identity.

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CHAPTER 11

Trust at risk: conclusions on the implications for EU policies and institutions

Heiko Prange-Gstöhl[1]

This final chapter summarises the main findings of this report. While the chapter tries to catch the main threads of the various contributions, it cannot capture the richness of the evidence gathered in all the chapters. The succinct sections address three core questions: 1) 'why' is trust at risk and what are the signals and drivers of change?; 2) 'what' are the implications of trust being at risk (i.e. of eroding trust) for EU policies and institutions?; 3) 'how' should we address trust at risk in the future (i.e., recommendations for policy responses)?

1. The erosion of trust: what signals, what drivers?

Why is trust at risk? Authors of this report have detected a huge number of signals that trust is at risk in the different issue areas as well as drivers that trigger the erosion of public trust in persons, organisations and institutions. Broadly, these signals and drivers can be subsumed under the following headlines: a) changing values and norms; b) growing inequalities and crises; c) changing state-citizen relationships.

1.1. Values and norms

The first argument is that changing values and norms can be key drivers for changing levels of trust. Some scholars point to social changes as key drivers of declining levels of political confidence. Value change makes citizens more critical and, indeed, levels of political confidence are significantly lower among citizens with post-materialist values, thus moderately driving declining political confidence (see Morales in this report).

Boda has argued in his contribution that trust in justice is believed to be largely influenced by perceptions of the justice system in terms of the normative legitimacy of its operations. This means that 'people do not trust justice institutions primarily because of instrumental concerns, or self-interest, but because they believe that the institutions represent their basic values and operate in a procedurally fair way'. The perceived moral behaviour of the authorities is an equally important factor for trust levels. The cultural argument goes that institutional trust originates in long-standing and deeply seeded cultural norms and is an emergent property of interpersonal trust which is projected onto political institutions.

Values such as integrity or privacy can play an important role for changing levels of trust in science. If such values are violated, for example by employers and insurance companies getting access to 'anonymous' or supposedly 'anonymised' personal data in digital data banks, or such data is leaked, trust in science will be undermined – especially if scientists have continuously emphasised that such incidents would never happen. The same holds for dangerous viruses escaping allegedly secure scientific labs (see Hermerén in this report). An ever increasing parameter influencing public trust in science is the financial dependence of researchers on private funders. Hermerén reports that according to the 2010 Eurobarometer survey, more than 58% of Europeans feel that scientists cannot be trusted to tell the truth about controversial scientific and technological issues because of an increased dependency on industry. The violation of the value of scientific integrity through perceived financial dependence results in a high risk that trust in science is further eroding.

In the past decade, several high-profile cases of scientific misconduct have been made public. In this context, the peer review system has come under scrutiny: it is at risk of being abused and corrupted, giving reviewers an advantage if they work on the identical question or an opportunity to silence criticism from a competitor. Some argue that the peer review system values insufficiently originality and voices differing from the mainstream. The UN Scientific Advisory Board (2014, p. 4) therefore argues that the 'increase in cases of misconduct, combined with the increased visibility of science, calls for considering even more rapid and fundamental changes in order to safeguard scientific integrity and, thus, also trust in science'.

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[1] Views expressed in this article are purely personal and do not necessarily reflect the position of the European Commission.

Wright finds that fundamental rights (e.g., privacy, dignity, freedom of association) are seriously violated by mass surveillance leading to collapsing public trust. Surveillance is an intrusion upon people's right to privacy. Surveillance can be executed in many ways: by intelligence agencies, through the use of social networks' data, in the public through cameras, in companies. The loss of trust can hit both public and private actors and institutions, and is mainly triggered either through intransparency and secrecy or lying (see the examples in Wright's chapter).

In a similar vein as Wright Flyverbom makes clear that 'surveillance, profiling and information-gathering have always been a key concern for anyone seeking to control and govern'. While surveillance, profiling and information-gathering were used long before the internet and big data were everyday phenomena, more recent developments (i.e., citizens are tracked online, governments filter the Internet, and corporations use personal data for commercial purposes) may, nevertheless, have negative ramifications for the way people perceive and use digital platforms and technologies. As citizens and consumers are increasingly aware that the Internet intersects with their personal lives, a growing number of Internet users take actions to protect their online privacy such as editing social media profiles, blocking cookies, or using different search engines, Flyverbom points out. The Snowden revelations and data breaches have helped to erode trust in technology and technology companies, on the one hand, making citizens aware of values worth protecting, on the other hand.

Flyverbom makes a final crucial point in this respect linking big data to the violation of some fundamental rights. Big data enables companies to create comprehensive customer profiles segmenting their customer base in certain categories and use them to the customers' disadvantage. Such possibilities offer sharper ethno-geographic insight into customer behaviour and influence. If this is the case, digitalisation could render civil-rights and anti-discrimination laws obsolete and might have negative impacts on marginalised societal groups and minorities.

1.2. Inequalities and crises

Economic, social and ethnic diversity are drivers of change in trust levels. As Hosking points out, 'ethnic nationhood strengthens trust by offering uncertainty reduction in dealing with strangers'. Civic nationhood buttresses the prerequisites for generalised social trust, i.e., coherence, stability, openness and accountability.[2] Research has shown that basically people favour others who are alike (McPherson et al. 2001). Thus, people tend to be more trusting of people who are like them. Inter-group contacts can have a positive effect on trust levels between ethnically different groups as Lancee points out in his chapter. Whether this is the case depends on the quality of the contact between people.

In relation to economic crises, one can see a strong decline in confidence in national governments of countries deeply affected by the economic recession since the late 2000s. Political discontent expressed through forms of contentious politics has grown. In particular between 2010 and 2013 civil movements such as 'Indignados' and 'Occupy London' are one expression of this discontent in politics and political institutions. Morales argues in her contribution that a considerable part of that protest is related to austerity measures and spending cuts.

The evolution of voting for populist, extreme or radical parties, of right and left, across Europe is another signal of eroding trust in the existing system. The support for these anti-system parties has grown more rapidly in the period after the economic recession in Europe (see Morales in this report). Hosking argues that all populist parties envisage weakening the influence of international financial markets, restoring the welfare state expenditure, and boosting state investment in infrastructure and jobs. Voting for these parties manifests a desire to restore the 'nation's economic and ethnic integrity' and the rediscovery of citizens' trust in the traditional nation-state.

In relation to private actors, the economic crisis of 2008/9 has led towards a moderate downward trend of trust in big companies while trust in smaller firms increased (see Pitlik in this report). The crisis seems to be associated with a decline of perceived corporate ethics leading to an erosion of trust.

[2] A 'civic nation' consists of all those who subscribe to its political systems, rules and values regardless of ethnicity or race, religion, gender, or language. 'Ethnic nationhood', on the other hand, is defined by language, religion, customs and traditions.

1.3. State-citizen relationships

State-citizen relationships are changing. Citizens' expectations in their state representatives and administrations are growing. Some scholars provide performance-based explanations for the erosion in political confidence, i.e., declining confidence is a product of poor policy outcomes and lack of good governance, including corruption.

At the same time there is an increasing polarisation in citizens' preferences around a number of issues and policies with governments and politicians trying to navigate between the extremes. Such extreme positions exist for example in relation to the envisaged Transatlantic Trade and Investment Partnership (TTIP) between the US and the EU – but not only (see Pitlik in this report). Citizens do not accept any more the secrecy and lack of transparency in trade negotiations which they regard as a sign of a hidden agenda against their interests; and they do not trust their governments to defend their interests, in particular, when they see tendencies to delegate state duties, such as jurisdiction, to private actors (i.e., in the case of investor-state dispute settlement arrangements). Even more importantly mistrust in transatlantic trade negotiations has generated spill-over effects, meaning that TTIP has turned into a synonym for the all kinds of bad impacts of globalisation in general, and is negatively influenced by a number of non-trade issues, such as the role of American intelligences services in Europe or the declining confidence in the EU administration.

Relationships between the state and its citizens are particularly sensitive in public services and the work of public administrations. Citizens stopping to use certain public services, moving to private providers or beginning their own alternative public service provision mechanisms can be interpreted as a sign of rising distrust in public services (see Van de Walle in his contribution). Another signal of trust erosion is the non-compliance with rules and regulations by citizens. According to Van de Walle in this report, 'exit' is a strong signal of people losing trust in services and administrations, but its scale and impact become visible only when many actors chose the 'exit' option. In case 'exit' is not an attractive option because of missing alternatives or the high costs involved, 'voice' might be preferred. Increasing distrust through 'voice' might be expressed, for example, through complaining about poor-performing public services or populist parties focusing on government failures and citizens blaming politicians for failing services.

The nature of the trust-distrust relation is also visible in the way how public sectors interact with citizens. Public sectors may find that citizens cannot necessarily be trusted to comply voluntarily with rules or to submit truthful information. While normally public organisations already have the tools (e.g., fines) to punish their clients for non-compliance, the assumption of low voluntary compliance may also be a good argument for raising the degree of surveillance.

The choice of 'exit' from public structures and institutions is also for Boda and Hofmann a sign of eroding trust. Boda claims that distrust may be reflected in the rising popularity of 'alternatives' to the justice system, i.e., mainly the organisation of self-defence, vigilantism and the growing market for security equipment. Hofmann interprets the strong preference for private self-regulation structures in the area of Internet governance as the result of widespread distrust in governmental and inter-governmental organisations. Key reasons for this distrust, she argues, are the unilateral oversight executed by the US government and the informal, partly experimental character of Internet governance organisations.

2. The implications and impact of eroding trust on European policies and institutions

What are the implications of eroding trust on European policies and institutions?

A first important point is made by Morales. She reminds us that in some countries those with higher levels of political confidence tend to be those who are more likely to engage in protest – not those with lower levels of political trust. This will, she argues, lead to disengagement rather than more contention in case political trust will further erode. In other words, individuals or societal groups choose 'exit' from public life in case of eroding trust in politicians or political institutions.

In such a situation of a breakdown of trust in politics, the political normality would be high electoral and political instability, high party system fragmentation, high electoral volatility from one election to the next, problematic government formation and government instability (see Morales in this report). The possible consequences for R&I policy should not be underestimated. Increased polarisation and fragmentation, and the pivotal role of radical and populist parties in coalition or minority governments could lead to an increased contestation of certain research priorities,

domains or disciplines.[3] For R&I policy-makers it would, therefore, be useful to think strategically about how to embed greater resilience into the R&I system in anticipation of possible drastic changes in political priorities. Measures to bolster the resilience of the R&I system might include increasing the capacity of citizens to have a meaningful say in major political decision-making processes, major programmes to eradicate corruption and cronyism, and major reforms of EU institutions to address the current democratic deficits of their institutional design.

Wright, in his contribution, mainly focuses on three implications of decreasing trust in surveillance practices. First, a lack of trust hurts business. In particular, Snowden's revelations have prompted foreign countries to deny large contracts to US companies. Examples are: in June 2014, the German government announced that it intended to cancel its contract with Verizon, which provides Internet services to some German agencies, due to the company's co-operation with the NSA. Brazil, which has had a heated debate over the NSA's activities, passed over Boeing in December 2013 to award a $4.5 billion fighter jet contract to Swedish manufacturer Saab. Especially, the cloud computing industry has been hit. There are estimations that the revelations could cost the US cloud computing industry between $21.5 and $35 billion by 2016[4], some estimates even speak of losses as high as $180 billion.[5] More and more British and Canadian multinational companies were moving their data outside the US as they are increasingly wary of trusting their data to US organisations.[6]

Secondly, Wright claims that an important impact of trust at risk in the surveillance society is its chilling effect. The chilling effect occurs when people are more cautious in what they say or do if they perceive that they are under surveillance. Figures show that the chilling effect is real: more than half of the Internet users in 17 countries do not believe the Web is a safe place to express their views, and one in three persons do not feel free from government surveillance.[7] In fact, this means that an increased awareness of being surveilled leads not only to the erosion of trust in the Web but in a further step to the erosion of trust in governments and other state authorities resulting in the end in harming freedom of expression by prompting writers to self-censor their work.

Thirdly, the erosion of trust in the state as a consequence of mass surveillance – going along with a loss of privacy – can easily create a loss of social capital and civil disobedience as parts of society will counter-act those surveillance practices. Those parts of society will seek 'exit' (tax avoidance strategies, cheating social systems, emigration) or 'voice' (e.g., protest, abstain from elections, civil movements, unlawful behaviour) options. For Wright, all this has a final, logical consequence: if privacy is a cornerstone of democracy and if privacy is attacked by the intelligence agencies, government agencies and big companies, then it follows that democracy is under siege.

Flyverbom brings another important aspect to this debate. Increased datafication has led to what he calls the 'privacy paradox', namely that people are increasingly willing to share data, but also increasingly worried about surveillance, profiling and the lack of privacy protection. This has already led to several technological advances and behavioural change of consumers. There are, for example, a growing number of virtual private networks (VPNs), which disguise the location of the user's Internet connection – their IP address – and therefore bypass regional blocks. The biggest lack of trust in the Internet (or more precisely, the government's surveilling the Internet) seems to exist in Vietnam, India and China, where more than one-third of the population use VPN, whereas in the US, UK, and Germany only one-sixth do (Kiss 2014). To increase the trust of consumers and citizens there are also some attempts to develop products and services that have in-built privacy

[3] In the US the National Science Foundation research funding priorities have become recently a matter of political contestation in the US Congress and have led to a radical reduction in funding for the social sciences as well as to a politicisation of the focus of such research.

[4] Birnbaum, Michael, 'Germany looks at keeping its Internet, e-mail traffic inside its borders', The Washington Post, 1 Nov. 2013.

[5] Miller, Claire Cain, 'Revelations of N.S.A. spying cost U.S. tech companies', The New York Times, 21 Mar. 2014.

[6] Acohido, Byron, 'Snowden affair continues to chill cloud spending', USA Today, 8 Jan. 2014.

[7] Landi, Martyn, '52% wary of expressing their views online, one in three do not feel free from government surveillance', Belfast Telegraph, 1 April 2014 (http://www.belfasttelegraph.co.uk/life/technology-gadgets/52-wary-of-expressing-their-views-online-one-in-three-do-not-feel-free-from-government-surveillance-30143204.html).

features, also known as 'privacy by design', and attempts to develop new business models and standards that articulate the issue of privacy.

However, any trust-enhancing measure will be undermined by governments' attempts to fracture the open Internet. More and more countries establish or plan to establish specific 'Internets' that do not connect with each other. Indications of this trend include China's 'Great Firewall' and the Iranian Halal internet, which block thousands of websites with the purpose of offering Internet services that live up to Islamic values. Moreover, there are plans for a BRICS internet, which would offer a new Internet backbone that would bypass the United States entirely and thereby protect both governments and citizens from NSA spying.

With regard to the public sector, Van de Walle argues that distrust within the sector has led to a deliberate fragmentation and distribution of functions within public administrations, such as frequent staff rotations and term limits; regional, ethnic, political and linguistic balances in staffing, in advisory bodies, and in boards; and elaborate accountability and audit processes and mechanisms. Van de Walle also observes extensive micromanagement in the interactions between organisations, for example, between ministers and officials, between governments and private contractors, or between public officials and citizens, leading to extensive monitoring systems and reporting procedures.

Boda points out that trust in justice is important because it increases the probability of law abiding behaviour and the willingness of the citizens to cooperate with legal authorities. That is, trust in justice helps sustaining ordered social relationships and potentially increases the effectiveness of the justice system. If citizens feel unfairly treated by justice, legitimacy suffers and people become cynical about the legal systems. This then leads them to view certain laws and social norms as not personally binding. A lack of trust and legitimacy may lead citizens to: (1) reject the state monopoly of physical force and employ self-help and self-justice and/or (2) withdraw commitment from institutions, breaking down social control.

Lancee demonstrates how decreasing trust and increasing diversity interact and might impact on societies. Under a situation of continued immigration, high intra-European mobility and expanding socio-economic cleavages, he describes a fragmented society characterised by low levels of trust due to 'out-group' bias and 'in-group' favouritism. In such a society some citizens are able to reap the benefits of high mobility and economic opportunities, while others, mostly lower educated, are left with low-paid jobs in less attractive environments. There will be a clear demarcation of winners and losers of globalisation both in economic and cultural terms. Thus, in a scenario of increasing diversity and a dominant mechanism of 'in-group' favouritism a more fragmented society might create 'islands of trust', i.e., separated sub-groups or regions that show high internal cohesion, which are less open for inter-group contacts. As a consequence, misunderstandings between societal groups are breeding, resulting in lower levels of social and civic participation as well as more extreme political attitudes. Lancee suggests that such developments could be avoided by stimulating intergroup contacts to build networks of individuals of different economic and cultural backgrounds.

3. Avenues of possible policy responses

How should European policies react to decreasing trust? Building on the signals for and drivers of change and drawing on the respective implications and impacts of eroding trust, authors of this report engaged in a number of 'light' scenarios or future options in the different issue areas based on trend impact analysis. The final section of this chapter concludes on some avenues of possible policy responses following from this analysis along four lines: create greater responsibility of actors; increase transparency and participation for higher legitimacy of political action; consider regulation as trust-enhancing tool; study the role of trust in society.

3.1. Create greater responsibility of actors

Responsibility of actors is core to keeping a high trust-level in society. Hermerén concludes for the world of science that quality criteria need to be strictly implemented. A solid, trustworthy peer review process is essential. However, it must be kept in mind that quality standards vary within and between disciplines and to some extent also over time. Quality standards can be time- and culture-sensitive. Moreover, the peer review process is not unproblematic.[8] Some say it is ineffective, slow, expensive, inefficient, easily abused and prone to bias. Opening up the review

[8] See, for example, http://www.theguardian.com/science/occams-corner/2015/sep/07/peer-review-preprints-speed-science-journals.

process, for example, by publishing reviews and by making raw data available for a possible reproduction of published research are therefore becoming more popular. Guaranteeing responsible scientists also requires life-long ethics sensitisation, which includes the handling and disclosure of financial sources. Proactive measures are needed to prevent misconduct and fraud, instead of focusing on defensive or re-active measures.

Another area where greater responsibility is required is the use of data. Trust is essential for profiting from the full potential of datafication without undermining further citizens' privacy. Flyverbom recommends a focus on the development of 'sustainable data value chains', which would be a responsible and trust-enhancing process of turning data into valuable insights. As more business develops in this area, the need for responsible and sustainable models and arrangements is increasingly important. New Internet and big data industries still need support in developing sustainable value chains, for example, when drafting innovative privacy policies and mechanisms for data-handling that respect customer and regulatory concerns without limiting the potentials of datafication. Furthermore, there is a clear need for capacity-building and competence development as an important component of big data infrastructures to avoid 'big data literacies' and enable organisations to make use of the novel opportunities offered by datafication.

3.2. Increase transparency and participation for higher legitimacy of political action

Transparency contributes to enhancing and restoring trust between societal actors, i.e., citizens, governments and other public organisations (e.g., courts, the police, political parties), non-governmental bodies and private entities. Transparency involves the provision of complete information to individuals, for example, when access to data has been given to intelligence services or on the data and methodology used in scientific projects and publications to enable reproducibility. However, transparency could have a trust-eroding effect if it leads, for example, to the relentless disclosure of misbehaviour, fraud or corruption of governments, administrations or private actors. Therefore, Wright argues that transparency is not enough to rebuild trust, but must come along with the effective engagement of citizens and stakeholders through participatory and deliberative methods.

This is particularly relevant for science and research as a decline in trust can be the result of a lack of understanding of scientific praxis, and a limited openness of the science community. Scientists must be open and explicit about what they know and – even more important – what they do not know, about the uncertainties they have to deal with and about the knowledge gaps that exist. Scientists should not assume they know what users want and need, but rather must work closely with civil society, industry, business and political leaders to create relationships built on trust, and devise solutions to big challenges. Policy-makers and scientists themselves must support ways of increasing public involvement in agenda-setting and the direction of research (citizens' science) and train researchers in risk communication to promote a trust-related future for science. The legitimacy of (and trust in) research results would also increase through more public funding of research areas of high sensitivity for consumers as financial dependence on industry is a factor for increasing mistrust in research endeavours.

Internet governance is an exemplary case where legitimate authority beyond the nation state is becoming more pertinent for improving a culture of trust. Internet governance encompasses a growing array of international policies and treaties such as free trade agreements, foreign and security policies, data protection or copyright reform with significant impact on digital communication. Integrating these policy issues would be a crucial step towards the constitutionalisation of the institutional framework of Internet governance, which would in turn be a necessary response to expressions of distrust and a confirmation to expectations of Internet governance legitimacy. This process will transform the institutional repertoire available to respond to crises of trust but not eliminate such crises per se.

The legitimacy of activities of public administrations would be positively influenced by the application of trust-based management and steering mechanisms. These mechanisms rely to a large extent on transparency and participation and include relational contacting (i.e., partners are committed to each other for the long term and the contracts are not very detailed; detailed performance metrics are missing), partnership working, but also new regulatory styles (e.g., relatively few formalised rules; self-regulation of citizens and companies). It has been observed that strict enforcement and coercion do not necessarily lead to better outcomes, and may increase transaction costs.

An important issue to consider is what these trust-based management and steering mechanisms mean for the behaviour of the actors involved, for example, for civil servants and citizens (including researchers). Changing levels of trust between public officials and researchers may have

important implications for the way in which research and innovation policies and funding programmes will operate. In a situation where research funding goes mainly to an 'in-group' of trusted research partners, exit behaviour is highly likely as the majority of scientists will have no incentive anymore to apply for funding.

A breakdown of trust in the justice system would have disastrous effects on society, including for science, research and innovation. Relying on the rule of law and a fair justice system is essential for the freedom of science and speech. The legitimacy of the institutions of justice is therefore core to keep a high-level of trust in the system, as Boda argues in this report. Improving institutional legitimacy is closely related to decriminalisation (e.g., over-criminalising minor offences should be avoided), policies that aim at a fairer justice system in procedural terms (treating people with dignity and fairness, increasing the accountability, integrity and legality of institutional operations, and giving the people a 'voice'), and at a more effective justice system (by, for example, reducing the duration of cases at courts). However, any policy must consider that different economic circumstances, the political culture, individual income situations or personal experiences have an influence on the level of trust in justice systems.

3.3. Consider regulation as a trust-enhancing tool

Some contributions in this report call for putting greater attention to rules and regulations as trust-enhancing tools. The rationale behind this is that where general trust in society decreases or collapses rules and regulations have to come in and bolster societal relations. Institutions, here rules and regulations, would substitute trust. Trust might be regained in systems where institutional action and the rule of law are predictable (rule-based trust; cf. Kramer 1999). Strict regulations could be seen as a precautionary measure 'to avoid negative trust-related futures' (Hermerén). Restrictive precautionary regulation may increase trust in innovators but may also hamper innovation and technological advancement as innovative activity requires risk taking (which precautionary regulation hardly allows). A high level of trust in companies (possibly triggered by precautionary regulation) correlates positively with citizens' willingness to accept innovation (see Pitlik). These interrelations create a classical policy dilemma: on the one hand, the stricter the regulation, the higher the trust in the innovator and the higher the citizen's acceptance, but the lower the innovativeness of an economy; on the other hand, the lighter the regulation, the lower the trust in the innovator and the lower the citizen's acceptance, but the higher the innovativeness of an economy. Smarter (or 'better') regulation, which recognises specific tests on how innovation impacts on the economy, the environment, and the society, could help overcome the dilemma situation resulting in increasing trust (through more transparency for citizens regarding the innovation impacts of regulations) and innovativeness (relaxing the precautionary principle in regulations).

Similar dilemmas exist in other areas. Flyverbom, in this report, argues that while legislation that fosters data localisation can provide greater security and privacy protection for citizens and companies as governments gain both physical control and legal jurisdiction over data being stored on local servers, these laws may also ease censorship and surveillance. Not to undermine the functioning of the Internet needs refined privacy regulation regimes that balance innovation, connectivity and the possible benefits of big data with concerns over anonymity and protection of sensitive, personal data. However, as such a framework does not exist yet, experiments with novel approaches and solutions must be researched and tested.

3.4. Studying the role of trust in society

This report provides a quite rich analysis of the role of trust in different areas of society, what a decrease of trust would mean, and how Europe should react to such developments. However, authors are also clear about knowledge gaps prohibiting a full understanding of the effects of declining trust on society, policies and institutions.

First, as values play a core role in trusting or being trusted, a better understanding of values, such as integrity, loyalty, interdependence, good will, and reliance, and their relations to each other is required. Generally, more attention of research funders should be devoted to trust and ethical issues, for example, in the context of surveillance, data aggregation, data fusion and the sale of personal data, and further to the meaning of surveillance for democracy.

Second, since increasing diversity is one of the main societal challenges in Europe there is a need to study this increasing diversity and its impact on various forms of trust.

Third, issues such as big data and algorithmic knowledge production should be central in future research. As more and more organisations – public and well as private – rely on big data for purposes of prediction and anticipation, one needs to know about the benefits and pitfalls of

algorithmic forms of knowledge production. The implications of making decisions about healthcare, risk management and crime prevention by relying on digital traces and algorithmic calculations on long-standing institutions, including the welfare state and democracy, are not well understood yet.

Fourth, we are not clear about whether constitutional frameworks for private authority on the transnational level have a similar trust-generating effect as they have on the national level. However, such knowledge, as well as an analysis of the capacity, the strengths and weaknesses of multi-stakeholder processes, is important for designing effective global governance regimes.

Fifth, improved data collection on several aspects of trust should be a preference. Careful data collection, for example, about what effects the level of trust in political institutions and political representatives could be quite useful in improving our understanding of both how policies can (and cannot) be effectively implemented, and how and when citizens change their perceptions about the trust political institutions and political representatives deserve.

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EPILOG

Weak signals and scenarios: how to utilise them to assess the future of trust in European Union research and innovation policies

Elina Hiltunen

1. Introduction

Predicting the changes of trust in the European Union in 2030 is impossible. Trust, as described in the chapters of this report, is connected to various drivers, and the changes in them could lead to various changes of the state of trust in the EU. From the point of view of future studies, predicting the future is not essential. What is essential is considering various possible alternative futures for opening our minds to new possibilities, i.e. scenario thinking.

Limiting our view to only one prediction can be fatal, as this particular image of the future becomes a dominant view in our minds, and in the worst case could make us blind to other possibilities of future developments leading in the end to a policy decision with unintended consequences. Using scenario thinking we are forced to think the 'unthinkable' and be prepared for various situations. The idea of scenario thinking is not to bet on some scenarios, but to treat all the scenarios as equal futures, and to rethink our strategies in these various future worlds.

There are no strict guidelines how to produce scenarios. One rule in scenario thinking is that there should be at least two different scenarios simultaneously. If only one scenario exists we can speak of a prediction or a forecast.

According to Lindgren and Bandhold (2009, p. 22) 'a scenario is well-worked answer to the question: What can conceivably happen? Or what would happen if…? Thus it differs from either a forecast or a vision, both of which tend to conceal risks'. Lindgren and Bandhold also emphasize that scenarios are vivid descriptions of plausible futures, while forecasts describe probable futures and visions of desired future.

Scenarios can be built in various methods and using different philosophies. There are for example explorative scenarios and normative scenarios. The Intergovernmental Panel on Climate Change (IPCC) that is using scenario techniques in its work describes them as follows[1]:

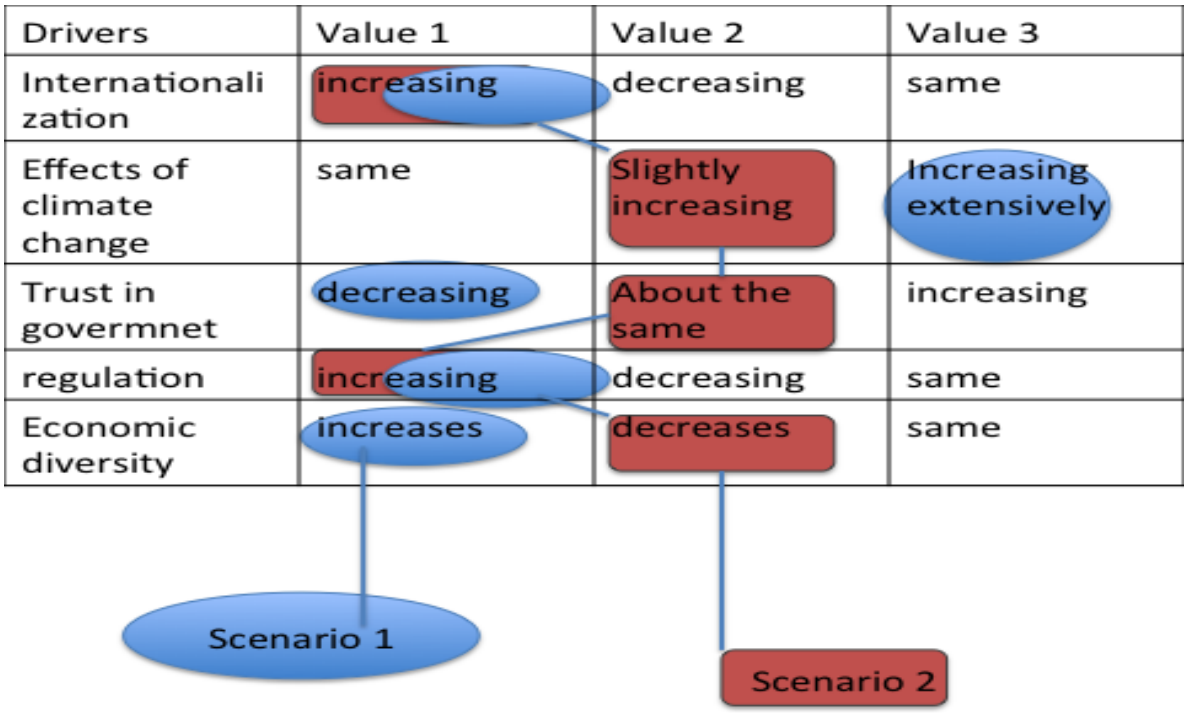
> 'Exploratory (or descriptive) scenarios describe how the future might unfold, according to known processes of change or as extrapolations of past trend.'
> 'Normative (or prescriptive) scenarios describe a prespecified future, presenting a picture of the world achievable (or avoidable) only through certain actions.'

There are also for example probability-based scenarios, scenarios with war gaming logic (focusing on interaction of actors) and event-driven scenarios. Some systematic methods have been developed by researchers on how to create scenarios (e.g., see Lindgren/Bandhold 2009; Godet 2006; Wilson/Ralston 2006; Wright/Cairns 2011; van der Heijden et al. 2002; Seppälä 1984). On the other hand in many cases scenarios are designed without a specific method.

One particular scenario tool is the 'Futures Table' developed by Seppälä (1984), who has redefined it from a method called Field Anomaly Relaxation (FAR) (see for example Coyle 2003). This tool is used in this chapter to develop scenarios of trust in the EU politics and institutions in 2030. By using a 'Futures Table' various drivers (like trends, emerging issues, megatrends and events) are given different values. By combining these drivers with different values, various scenarios are formed. Figure 1 provides an example of a 'Futures Table'.

[1] See http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=126.

Figure 1: Example of a 'Futures Table'



Source: own source

As already mentioned, the 'Futures Table'-method includes trends, megatrends, emerging issues and events. In the following sections these concepts are defined.

2. Trends and megatrends

The concept of megatrends was first published by futurist John Naisbitt in 1982 (see Naisbitt 1982). He has defined megatrends in a following way (Naisbitt/Aburdene, 1991, p. XVII-XVIII):

> 'Megatrends do not come and go readily. These large social, economic, political and technological changes are slow to form, and once in place, they influence us for some time – between seven and ten years, or longer.'

Thus megatrends are global big trends that are already here and if not struck by a wild card (a sudden unexpected event) they could be expected to continue in the future for some time.

Cornish (2005), for example, lists six supertrends (similar to megatrends) that in his opinion will affect the future. These are: technological progress, economic growth, improving health, increasing mobility, environmental decline and increasing deculturalisation. Other megatrends are: globalisation, increase of wealth (increase of global middle class), aging of population, increase of global population, urbanisation, and climate change.

Trends are, on the other hand, smaller and more local than megatrends. Trends can exist in various geographical locations or in various industries or areas in life. We can talk about trends in work, lifestyle, communication technology, social media, education, etc. Some examples of trends are presented in the previous chapters of this report. Lindgren and Bandhold (2009) define a trend as something that represents a more profound change, not a passing fad. Celente (1991, p. 3) defines a trend in a following way: 'A trend is a definite, predictable direction or sequence of events, like warming of the earth's climate'.

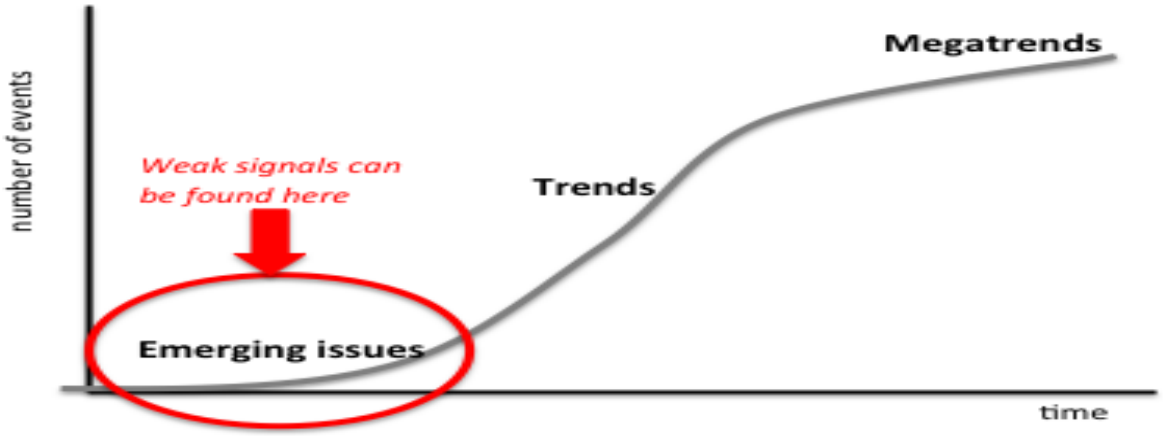
When thinking about possible future societal changes it is important to analyse trends and megatrends in a holistic way, not focusing only on a particular issue. A framework for holistic trend thinking is called 'PESTE', which means looking at trends in the fields of Politics, Economy, Society, Technology, and Environment. In practise this means that if one wants to consider the impact of changing trust in the future, it is important to consider trends in various areas of life (like, for example, climate change and its effects to the society).

3. Weak signals

Weak signals are the first signals of emerging change. They are the most current information of the future that we have. Considering the innovation/change S-curve, weak signals can be found at the beginning of the curve (see figure 2). They exist already before the trend or megatrend occurs. By nature, weak signals are odd pieces of information that seem somehow meaningless or irrelevant. They can be, for example, new events, behavioural changes of people, changes in accustomed, small news, twitter feeds, new innovations, rumours, hits, and ways to do things differently. Even though they seem small, little irrelevant things, they can indicate important future events to happen. Weak signals are especially important as a change can come quickly, where there is no past trend indicating it to happen. Collecting weak signals in an open manner is therefore essential, even though they do not seem to be of immediate relevance to someone.

In the best case, by collecting and analysing weak signals it is possible to anticipate changes. Weak signals can also be used as inspiration for scenario thinking. Weak signals are good not only for anticipation or foresight purposes but they are also useful for innovation and communication processes between an organization and its shareholders.

Figure 2: S-curve of change

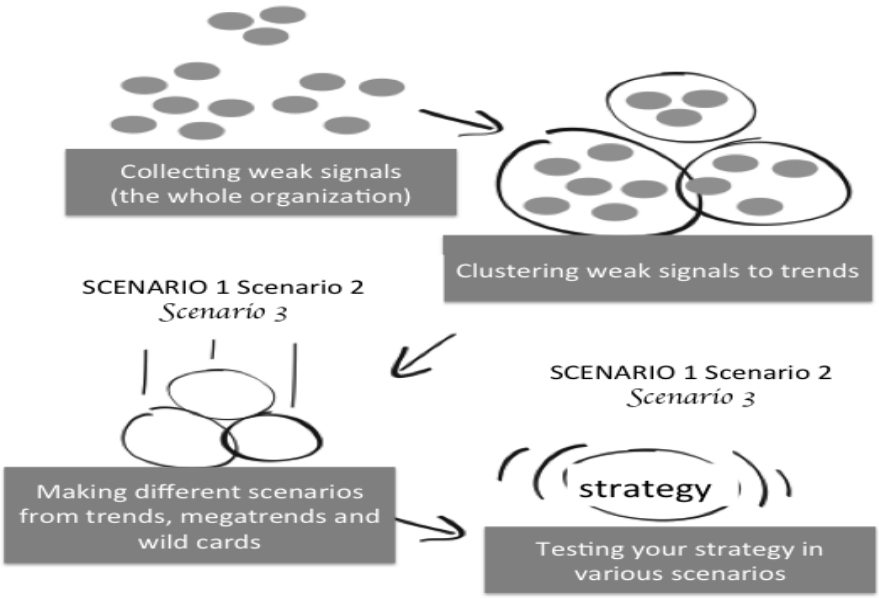


Source: adapted from Molitor (2003)

Processing weak signals in foresight exercises includes four phases (see Figure 3):

1. Collecting a numerous amount of weak signals;
2. Combining them with possible emerging trends;
3. Creating scenarios by using these possible emerging trends, megatrends and wild cards;
4. Testing the strategy in various scenarios, creating foresight action planning and reformulating the strategy.

Figure 3: Processing weak signals



Source: Hiltunen (2010)

In this process (see figure 3) the signals are used to anticipate possible future scenarios. There is also another method in which weak signals can be used, which is 'backcasting'. Backcasting starts with scenarios of the future, followed by the development of possible events that could turn these scenarios into reality (looking backwards from the future to the present).

Collecting weak signals works at best when they are crowdsourced. Crowdsourcing weak signals demands certain prerequisites to be successful: it needs crowds (i.e., a huge amount of people with different backgrounds), it should be somehow mandatory to the participants, the tool that is used for collecting weak signals should be simple to use and it should have a database for the collected weak signals, and most importantly resources must be allocated to analyse and cluster the weak signals for further purposes. The results should be communicated clearly to give the participants feedback that the information that they have collected is used and processed (Hiltunen 2011). Table 1 provides some weak signals that have been used for inspiration for the scenarios. Additional weak signals can be found in the other chapters of this report.

Where can weak signals best be spotted? Hiltunen (2007) found that futurists prefer scientist/researchers, other futurists, colleagues, academic and scientific journals, and reports of research institutes as good sources of weak signals. However, since that study was done there have been major changes in the use of the internet. Facebook, Twitter, YouTube and other social media make it much easier to detect weak signals. There is also an intense discussion about citizen journalism, i.e., citizens are increasingly participating in reporting of everyday life occurrences, increasing the chance for easily identifying a huge number of weak signals even more.

In most parts of the world accessing information is no challenge anymore. According to the consulting agency DOMO (2012) every minute users globally upload 48 hours of YouTube video, share about 684.000 posts in Facebook, send over 200 million emails, create about 570 websites. Today we are talking about big data. By applying special algorithms big data is even used to predict the future. There are various examples: Twitter feeds have been analysed to predict the stock market changes or Hollywood movies' box-office revenues (see Bollen et al. 2011; Asur/Huberman 2010). In the US Army's 'Durkheim project' the Facebook status of US veterans is analysed by an algorithm. The algorithm calculates the increased risk of the veteran to commit a suicide[2]. A company called Predpol[3] uses algorithms to predict possible places of a crime to occur based on the past type, place and time of a crime. For example, the Santa Cruz police is using the service to direct the patrols to the places where the crime might happen. There is a proven track record of crime reduction by using the algorithm provided by Predpol. Target (a shop chain in US) uses the customer data they have received from the customer loyalty programme to better target

[2] www.durkheim.org.

[3] www.predpol.com.

its advertisement. In 2012 Target, based on data mining with an algorithm analysing consumer consumption information, was able to pinpoint a pregnant teen before even her parents knew about her pregnancy. Following this analysis Target had sent tailor-made adverts. The algorithms had found, for example, that pregnant women tend to buy cosmetic products that have milder odour (Hill 2012).

For this report some examples of weak signals connected to changes of trust were identified. These weak signals are listed in the table 1. The weak signals in this table were used for inspiration of the scenario work.

Table 1: Examples of weak signals of events that have happened in Finland lately

Examples of weak signals connected to trust in the EU
Helsinki opens all of its invoicing to public in the name of transparency. The Mayor emphasizes that this operation will also lead to a decrease of money spent. (Finland 2014)
Shoplifting and other minor criminal cases by teenagers are being solved without police in a shopping centre in Helsinki. In these cases the teenagers have to work for example in the storehouse in order to pay his/hers damages. (Finland 2014)
A mother of an autistic boy asked for help through social media service in order to get an old plate with a certain design. That plate was the only plate the boy accepted to use. The mothers helped and the boy got his plates. (Finland 2014)
Kysysuoraan.net ('ask directly') is an internet campaign in Finland where people can ask questions to immigrants. (Finland 2014)
Honestby is a fashion company that is totally transparent. In their internet pages you can for example see the subcontractors and prices of the raw materials.
Finnish prime minister Alexander Stubb is criticized by his extensive use of Twitter. He is for example twittering about his triathlon hobby. (Finland 2014)
The hoax twitter account was formed in the name of Finnish foreign minister, Erkki Tuomioja. (Finland 2014)

Theories may help us to understand the course of events in the future. If there are universal theories like for example in natural sciences, and we already know the chain of events, it is easy to use weak signals for anticipating the future. For example, in the case of boiling water, when heating the kettle you can see the first small bubbles (i.e., weak signals). They indicate that the water in the kettle is about to be boiling soon if the heating continues. In the social sciences linking the theory to practise is far more difficult than in natural sciences. Even small events can trigger unexpected changes when it comes to human beings. However, some links between events have been noticed by researchers. The other chapters of this report are mainly discussing the theory of trust building and maintaining trust in various areas of the society.

They are discussing for example the following linkages:

- Trust in justice is closely related to other types of trust (both institutional and interpersonal) and as such the level of trust is relatively stable over the long run (see Boda);
- Political confidence is positively linked to voting, in such a way that those with higher levels of confidence in politicians and political institutions are more likely to vote (see Morales);
- The increase of government surveillance on the internet contributes to an erosion of trust (see Flyverbom);
- Cultural differences are potential driver of eroding trust (see Lancee).

One can assume that if those drivers impacting on trust are changing (e.g., cultural difference, government surveillance) also the level of trust in general is highly likely to change.

4. Scenarios for different levels of trust in the EU in 2030

In the following, three scenarios for different levels of trust in the EU in 2030 are developed. The scenarios are presenting three worlds: a high level of trust in the EU among citizens and organizations (scenario 3), trust in the EU is medium (scenario 2), and a low level of trust in the EU (scenario 1).

Scenarios in this chapter are hypothetical descriptions of what could happen as regards citizens' trust in the EU until 2030. The scenarios are not predictions of what will really happen in the future, and they are not expected to happen one-to-one. The future of the EU will probably be something else, being a mixture of various scenarios. The purpose of these scenarios is to open diverse views for the development of citizens' trust in the EU. The drivers and their values in the 'Futures Table' are based on the discussions of other chapters of this report.

Table 2: 'Futures Table' of trust in the EU 2030
In the table (Driver Category) P= political, E= Economic, S= social, T= Technological and En = Environmental.

Driver Catego-ry	Driver	"Happy, happy family" Scenario 1: High level of trust in the EU 2030	"The Queen media" Scenario 2: Medium level trust in the EU 2030	"We trust no-one" Scenario 3: Low level of trust in the EU 2030
MAIN Driver	level of trust in EU	high	medium	low
Cause	the selection of cause drivers are based on backcasting - i.e. what are the factors that hypothetically could have led to this situation described in the scenario title and by the main driver?	investments in technology pay off. EU citizens are monitoring of the system, which increases trust	slight increase on economy because of intensive trade to Asia. Media opposes EU	climate change has caused financial decline, and this has caused decline in trust
P	level of transparency in the EU government	high, citizens can easily monitor the system	the system is partly transparent. Media is the key force of monitoring that the system works	low
P	transparency of politics	election funding is transparent to all the voters	transparency exists to some extent	politicians do not have to show the origins of their campaign funding.
P	possibility of people to affect laws and regulations	referendums of certain laws and regulations are a norm. People can also affect the laws in social media platforms by presenting their opinions about it.	low, the only possibility is to vote politicians in elections and affect in this way	low, the only possibility is to vote politicians in elections and affect in this way
P	populist parties	minority	only a few	majority (focus on immigration)
E	economic development measured by increase (%) of GNB in EU	moderate (GNP % 1-3)	moderate (GNP % 0-1)	negative (GNP % < 0)
E	economic inequality (measured by Gini coefficient 0-1)	low Gini coefficient (0-0,29)	moderate Gini coefficient (0,3-0,69)	high Gini coefficient (>0,70)
E	producers (industry)	high morality (which is partly driven by the transparency of the society)	medium	lacking of morality, which can be seen in the low quality, unethical issues and high prices
E	effects of climate change	under control	challenges with climate issues	climate change causes huge problems to the society
S	immigration	medium, immigrants are well dissolved into the society	medium	high, mostly climate refugees
S	media	press has its freedom, yet high morality. Social peer to peer media has huge power.	Media is the power to control the system. Yet the attitude is against the EU.	In order to get more readers the press and media is focusing on criticizing the government and justice system. This causes more lack of trust among people.
S	level of corruption	Low	medium	high
S	internationali-zation	High	high, special focus on Asia	medium, markets are local, but people represent various nationalities

S	social media	used extensively in communication	as in 2015	spreading rumours of the failure of government
T	cyber security	high	medium	low Hoaxes, identity thefts, and cyber-attacks are normal and affecting everyday life
T, S	surveillance	strict legislation about surveillance of citizens	some surveillance of the citizens	government and companies are is monitoring its citizens
En	climate change	under control	manageable	chaos
En	environmental issues	strict legislation has led to better state of the environment.	as same	not in the priority of the politicians
En	natural resources	sufficiently, because of the effective recycling and reuse of materials and products	lack of some materials. recycling is increasing industry	scarcity

Based on the 'Futures Table' three narratives are presented in the following of what the EU could be in year 2030 reflecting different levels of trust in society.

Table 3: Scenario 1

Scenario 1: We Trust no-one! *Low trust in the EU* *Main cause: Uncontrollable climate change events*
It all started because of the surprisingly strong effects of the climate change. Floods became worse than ever, unconventionally strong storms swiped in various areas of the world. Drought hit the southern part of Europe, and especially affected Africa. Immigration to Europe from areas that became inhabitable increased radically. This means that the number of immigrants has increased substantially in all around Europe in 2030. As many of the immigrants are illegally in EU, many of the younger generation immigrants are missing education, and many of the adults are missing workplaces and access to services like health care. Because of massive disasters of the nature, businesses and economies suffered all over the world. This has caused the world economy to fall. Thousands of homes, office buildings, factories, and other facilities have been destroyed in various natural disasters. As economic situation is poor, unemployment has risen dramatically and caused social challenges like frustration of the younger people and increasing poverty. As the government money has decreased because of decreased taxes and increased costs for the unemployed people and pensions, education, health care and suffering as services. Poor housing conditions have led to increase of slums in EU countries. As a result, diseases, criminal activities and even (cyber) terrorist attacks have increased. EU politicians and officials that were not prepared for these kinds of situations, have lost their trust among the citizens as a problem solver. Politicians try to calm down the heated situation by setting up new regulations and laws for example to restrict immigration and grey economy. The amount of bureaucracy has increased in the EU in order to avoid the misuse of the system. This has made the decision making process slow and frustrating. Corruption blossoms. Riots against politicians and officials are regular around the Europe. No-one seems to care about the new legislations and regulations. Black markets and grey economy flourishes. As the government officials are ineffective, populist parties raise their popularity amongst the citizens by promising solutions to the chaotic situation. "You should take care only about yourself" attitude has gained popularity in various countries in the EU and this has led to the increase of opposing the EU in many of the member states. Peer- to-peer media (with its own agenda) has increased its popularity by spreading the messages of the malpractices of EU officials and government. The first steps towards a breakdown of the EU have been taken.

Table 4: Scenario 2

Scenario 2: The Queen Media *Medium trust in the EU* *Main causes: Increased trade with Asia and investment in green tech and health care R&D; media is opposing the EU*
The economic situation has increased slowly and slightly since 2015. The EU has tightened it relationships with Asia and Africa and the increasing trade with the rising economies have boosted the economy also in the EU. The most popular trade products that are exported to Asia and Africa are related to the green economy like decreasing of pollution, carbon capture and storage (CCS), water purification, and health care. The reason for this is that the rise of the standard of living in Asia and Africa has caused more and more challenges for the environment. Moreover, the aging of population in Asia - as in Europe too - has demanded new health solutions and products. There is also an increased need for educational services especially in Africa. These areas are of great interest for the EU in its research and development policies. The consequence of the investments in these technologies has caused EU to be a pioneer in green tech solutions and e-health. This has increased the attractiveness of EU businesswise. Even though the economic situation has increased in the EU overall, the increase has not been equal between the EU countries. There are some countries that have a decrease of GNP. This uneven situation has caused some tension between the nations. As some of the countries consider themselves as winners in the EU, some of the countries feel that they are paying for the EU for nothing. Local media has the key role in spreading the news about unequal situation in various countries in EU. News that subsidies to poorer areas in the EU have been misused by local officials, the unequal use of EU research and development money, high salaries of EU officials, costs of the bureaucracy are constantly on the headlines of the media. Media plays a key role in forming attitudes towards the EU. To fight against the media's attacks on the EU and its representatives, the EU has allocated a huge amount of money to open and simplify the EU processes to the public. The EU has also started a European wide communication campaign to correct the misunderstandings about its functioning amongst the citizens. The EU took also other paths to show its openness and transparency: it has decreased bureaucracy in order to make its processes more understandable and accessible to the wider audience. Instead of regulating small details the EU now emphasizes on the bigger strategic lines of European integration and global politics. As a consequence mutual trust between the EU and its stakeholders has increased. In this world of balancing trust and mistrust it possible for the EU, its politicians and officials to deal with increasing demands of citizens and other stakeholders.

Table 5: Scenario 3

Scenario 3: Happy, happy family *High trust in the EU* *Main cause: High technology and increase of the power of social media and peer to peer communication*
Investments in technology, especially in ICT have brought new solutions to citizens in their daily life and communication. New technological mobile solutions like instant translator, health applications, educational apps, cultural learning applications and location based services have lifted the level of knowledge and awareness of the citizens and decreased costs of public services, like for example for health care. Investments in research of cyber security have finally paid off: for example quantum cryptography has enabled the mobile communication to be safe. The power of social media and peer to peer communication has increased rapidly during the last five years as the prices of the smart devices has lowered, the digital natives are actively involved in social media, and the internet access has become cheaper (includes roaming). This has led to breaking down hierarchies and increase of transparency. Government officials are demanded to be accessible to all citizens. Transparency of their actions is also demanded. This has led to the fact that transparency of EU governance has increased. All the data from the negotiations memos, reports, invoicing, travel bills to salaries are published publicly on the Internet. Certain citizen groups consider their task to monitor that there is no misuse of EU money. In case of misuse, the message to the citizens will travel in fast speed via social media. The citizens trust the peer control of EU functions, thus citizens trust the government officials. Citizen power is utilized in all the projects of EU. Ideas are constantly crowdsourced, and citizen panels are utilized in various projects. Referendums are frequently performed to seek the EU citizens' opinions. The results of the referendum guides decision making of EU politicians. Direct

democracy is flourishing triggering high confidence and trust in the EU. The level of bureaucracy has been decreased, more transparency and citizens' monitoring further stabilizes trust relations within the EU system. Innovative methods and new systems are introduced to the EU governance, which include for example transparent invoicing of EU government (visible in internet), and social media tools that help the government to be in more direct contact with the citizens.

Within this climate the EU has been successful in avoiding cultural conflicts. Various programmes have been established to increase the cultural understanding between diverse groups. Cultural understanding has also been accepted as one of the topics to learn at schools. This has led to increase of understanding on other nations and the integrity of EU citizens has increased.

5. How to utilize the scenarios for the Horizon 2020

As presented in the other chapters of this report, trust is connected to various events and developments in the society. The three scenarios raise three hypothetical worlds with various developments paths to the future in 2030 for EU. The purpose of scenarios is not to give specific answers what the future is going to be. They are aimed at widening our thinking out of the obvious paths towards the future. In relation to preferred scenarios, one could ask how to achieve such a scenario. In relation to scenarios that are not preferred, one could ask how not to achieve such a scenario.

To judge a potential impact of certain scenarios on Horizon 2020 and how R&I policy should react to a certain scenario one has to ask the following questions:

- Could a certain scenario really happen?
- Is the scenario preferable or is it a future we do not want to see?
- If it is a non-preferred scenario, how could we avoid that it might happen?
- If it is a preferable scenario, how could research under Horizon 2020 support enable that future to happen?
- If one scenario would come true, what would be its implications to the EU in general and R&I policy in particular? What should be the focus of Horizon 2020 in this case?

This set of questions combined with the three scenarios can give valuable new insights for planning the directions of Horizon 2020 and lead to the following recommendations:

- Develop tools and processes for anticipating wicked problems of the society (for example collective weak signals collecting tool), which would help to prevent them to materialise in advance. These tools could use cognitive computing, data mining, algorithms etc.
- Create scenarios for the future of Europe, and create surveillance systems and strategies for European research based on these scenarios.
- Encourage the development of algorithms for big data mining in order to anticipate and prevent wicked problems.

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Trust is a fundamental condition for a fair and cooperative society. But what if trust collapses?

This report is aimed at a better understanding of the disrupting effects an erosion of trust could have for European policies and institutions. The report's main argument is that a breakdown of trust could create serious risks, but also opportunities, for the European Union (EU) and is therefore an important factor that the EU must consider when designing its policies and strategies.

By using a rigorous forward-looking and trend impact analysis approach, the report provides insights and options on how strategic political responses for the EU could look like to bring trust back into the European project.

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