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IMPACT ASSESSMENT REPORT

Accompanying the document

Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the digitalisation of case management in the area of return, readmission and reintegration, and amending Regulations (EU) 2018/1726, (EU) 2018/1860, (EU) 2019/817 and (EU) 2019/818 of the European Parliament and of the Council

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Glossary

Term or acronym	Meaning or definition
AI	Artificial Intelligence
AMMR	Asylum and Migration Management Regulation
API	Application Programming Interface
BRG	Better Regulation Guidelines
CEAS	Common European Asylum System
CIR	Common Identity Repository
CRRS	Common Repository for Reporting and Statistics
CSOs	Civil Society Organisations
DG HOME	Directorate-General for Migration and Home Affairs of the European Commission
DG JUST	The Directorate-General for Justice and Consumers
DPIA	Data Protection Impact Assessment
ECRIS-TCN	European Criminal Records Information System – Third Country Nationals
EDPB	European Data Protection Board
EDPS	European Data Protection Supervisor
EES	Entry/Exit System
EF	Environmental Factor
EMN	European Migration Network
EMN-IES	European Migration Network Information Exchange System
ESP	European Search Portal
ETIAS	European Travel Information Authorisation System
ETTC	European Technology and Training Centre
EU	European Union

EUDPR	Data Protection Regulation for EU institutions, bodies, offices and agencies
eu-LISA	European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice
EUAA	European Union Agency for Asylum
EU Information Systems	EU Large-scale IT Systems: Eurodac, VIS, SIS, ECRIS-TCN, EES, ETIAS
Eurodac	European Asylum Dactyloscopy Database
FAR	Frontex Application for Return
GDPR	General Data Protection Regulation
ICD	Interface Control Documents
ICMPD	International Centre for Migration Policy Development
IOM	International Organisation for Migration
IOs	International Organisations
IRMA	Integrated Return Management Application
ISCG	Inter-Service Coordination Group
IT	Information Technology
MCA	Multi-Criteria Analysis
M&E	Monitoring and Evaluation
MID	Multiple-Identity Detector
Member States	EU Member States and Schengen Associated Countries
NGOs	Non-Governmental Organisations
RCMS	Existing Readmission Case Management System(s)
iRCMS	Future EU Integrated Readmission Case Management System
RECAMAS	Return Case Management Model
RECAP	Return Mobile Application
RIAT	Reintegration Assistance Tool
RRF	Return and Reintegration Facility
RRR	Return, readmission and reintegration

SACs	Schengen Associated Countries
sBMS	Shared Biometric Matching Service
SIRENE	Supplementary Information Request at the National Entries
S.M.A.R.T.	Specific, Measurable, Achievable, Relevant, Time-bound
SMEs	Small- and Medium-sized Enterprises
SPOC	Single Point of Contact
TCF	Technical Complexity Factor
TCN	Third Country National
TFEU	Treaty on the Functioning of the European Union
SIS	Schengen Information System
UAW	Unadjusted Actor Weight
UCP	Use Case Points
UUCW	Unadjusted Use Case/User stories Weights
UUPC	Unadjusted Use Case Points
VIS	Visa Information System

INTRODUCTION: POLITICAL AND LEGAL CONTEXT

The proper functioning and the sustainability of the European migration and asylum system relies on a **comprehensive migration system that manages migration in the long term**, which **includes the effective return of third country nationals** ('TCNs') who have no right to stay in the European Union ('EU' or 'Union').

The **Pact on Migration and Asylum** ([1]) set out the ground for such system and relies on swift and clear processes as well as close and interlinked cooperation between different authorities, within and among Member States, with European Union agencies and with third countries. The adopted Pact legislation forges a seamless link between asylum and return procedures to increase the efficiency and coherence of the asylum and migration system as a whole.

The Pact on Migration and Asylum calls for making full use of the potential of digital systems for more efficient procedures in the field of migration ([2]). Digital systems are key enablers for more effective procedures and cooperation, and for reliable data-collection, both crucial to effectively design, enforce and monitor migration policy and rules. They ultimately contribute towards achieving the political goal of establishing a comprehensive migration management system. State-of-the-art digital solutions and processes, as well as planned and possible developments in the next years, increase the potential for improved capabilities and efficiencies. This also fits into the **wider EU ambition to find and promote European solutions in the digital age**, to **simplify processes and to reduce the administrative** workload of relevant national and EU authorities.

The **Political Guidelines** of the President von der Leyen (2024-2029) announced **a new common approach on returns**, with a new legislative framework to speed up and simplify the process, ensure that returns take place in a dignified manner, digitalise case management and ensure that return decisions are mutually recognised across Europe ([3]). The **EU Strategy on Voluntary Return and Reintegration** ([4]) and the **Operational Strategy for More Effective Returns of the EU Return Coordinator** ([5]) reiterated the importance of leveraging the full potential of digital systems to improve efficiency. This point was also mentioned in the **Commission Work Programme ('CWP')** for **2025** and the **CWP for 2026** refers to the digitalisation of the return process as a way to 'continue the work to modernise the common European return system' and as an initiative 'with a strong simplification dimension' ([6]). Most

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([1]) The Pact on Migration and Asylum was published in the Official Journal of the EU, L series, on 22 May 2024. For detailed legislative acts, see Official Journal L series daily view - EUR-Lex (europa.eu).

([2]) European Commission, Communication from the Commission to the European Parliament and the Council on a new Pact on Migration and Asylum.; COM/(2020/) 609 final, of 23 September 2020; EUR-Lex - 52020DC0609 – EN – EUR-Lex (europa.eu).

([3]) Ursula von der Leyen, Political Guidelines for the Next European Commission 2024–2029, Strasbourg, 18 July 2024; e6cd4328-673c-4e7a-8683-f63ffb2cf648_en (europa.eu).

([4]) European Commission, Communication from the Commission to the European Parliament and the Council: The EU strategy on voluntary return and reintegration; COM(2021) 120 final, 27 April 2021; EUR-Lex - 52021DC0120 - EN - EUR-Lex (europa.eu).

([5]) European Commission, Policy Document: Towards an operational strategy for more effective returns; COM(2023) 45 final, of 24 January 2023; EUR-Lex - 52023DC0045 - EN - EUR-Lex (europa.eu).

([6]) European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions; Commission work programme

recently, the **long-term European Asylum and Migration Management Strategy**, adopted on 26 January 2026, stressed again that developing digital case management systems in the area of return, reintegration and readmission will further contribute to reducing the administrative workload of national authorities, simplifying and automating processes ([7]).

On 7 October 2026, the European Parliament and the Council adopted a **regulation establishing a common system for the return of third-country nationals staying illegally in the Union** ('the Return Regulation') ([8]). **Return, readmission and reintegration ('RRR'),** are three distinct yet interlinked processes. Their common objective is to ensure that TCNs with no right to stay in the EU leave the EU ('return') in a safe and dignified manner. These procedures are characterised by a high level of complexity and diversity of actors involved at local, national and EU level, as well as in third countries.

Despite the ambition of the Return Regulation to further simplify and streamline return rules at EU level, return processes are bound to retain a number of specificities at national level. The Return Regulation envisages digital systems for managing RRR cases of TCNs as one of the components of the common system for returns, considering that digital systems are key to support the effective implementation of return rules, including to enable digital features supporting mandatory mutual recognition of return decisions. The Return Regulation sets out clear legal bases to share and transfer the data necessary to complete RRR processes, in compliance with applicable data protection rules, but does not address the technical means through which such data should be shared and transferred. Detailing these technical means will contribute to ensure that appropriate technical and organisational measures are operational and complied with ([9]).

To advance on this, the Commission contracted an external study (the '**Digitalisation Study**') ([10]). The purpose of the Digitalisation Study was twofold: (i) map the existing migration-related systems at EU and Member States' level and explore a path towards a comprehensive, integrated and digitalised EU migration management system (encompassing other migration processes, such as asylum); (ii) assess the different options to further digitalisation efforts in the specific areas of RRR. All Member States, relevant EU agencies and stakeholders have

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2026 Europe's Independence Moment; COM(2025) 870 final, of 21 October 2025; EUR-Lex - 52025DC0870 - EN - EUR-Lex.

([7]) European Commission, Communication from the Commission to the European Parliament and the Council: European Asylum and Migration Management Strategy, COM(2026) 45 final, 26 January 2026; ce0d294e-5dd9-4e2a-bf68-53d9d16fc95a_en.

([8]) Regulation of the European Parliament and of the Council establishing of 7 October 2026 establishing a common system for the return of third-country nationals staying illegally in the Union, and repealing Directive 2008/115/EC of the European Parliament and of the Council, Council Directive 2001/40/EC and Council Decision 2004/191/EC, *OJ L, 2026/2280, 15.10.2026,* ELI: http://data.europa.eu/eli/reg/2026/2280/oj). Article 40(1)(c) of the Return Regulation.

([9]) Please also refer to the Data Protection Impact Assessment in Step 1: Identification of the need for a DPIA.

([10]) Study on the way towards a comprehensive, integrated and digitalised EU migration management system, HOME-AMIF-TF2-FW-EVA1-4010, ISBN 978-92-68-37351-4; DOI 10.2837/8436041, with Annexes (ISBN 978-92-68-42383-7; DOI 10.2837/0124908); https://data.europa.eu/doi/10.2837/8436041; https://data.europa.eu/doi/10.2837/0124908.

been consulted via surveys and interviews, at dedicated workshops and other technical meetings.

Following the Digitalisation Study, the Commission is considering options to **digitalise case management in the specific areas of RRR** as an important step towards the establishment of a comprehensive and digitalised migration management system ([11]).

The Commission, EU agencies (eu-LISA, Frontex, European Union Agency for Asylum ('EUAA')), and Member States have been making significant investments and progress in the development and implementation of Information Technology ('IT') systems in the field of migration management.

However, as regards case management in the area of RRR, the **availability, the use and functionalities of IT systems vary greatly between Member States**. The existing IT systems for RRR have been developed separately and by different actors, both at EU and national level. The possibilities for further development and data sharing are limited within the current legal frameworks and operational set-up. This results in a **fragmented and inefficient digital landscape.**

First, on **return**, **all Member States have a return case management system**. The structure and content of national return case management systems as well as their overall efficiency vary. To help Member States improve their return case management systems and ensure a minimum level of efficiency, Frontex has developed a **Return Case Management Model** (**'RECAMAS Model'**) in accordance with its mandate (also referred to as the 'EBCG Regulation') ([12]). The RECAMAS Model is a template (i.e. a document and not an IT system) that provides a basis for Member States to build and set up their own case management systems in similar ways, enabling enhanced cooperation between relevant Member States' authorities while improving data collection. As part of the Operational Strategy of the EU Return Coordinator and the Common Implementation Plan for the Pact on Migration and Asylum ([13]), all Member States should have started the development and implementation of a national system based on the RECAMAS Model in 2024-2025. So far, 26 EU Member States have a return case management system possessing a certain degree of alignment on the RECAMAS Model, but **only 12 of them operate a system fully based on the RECAMAS Model**.

Second, to enable Member States and third countries to conduct **readmission procedures** in an efficient, digital and standardised manner, the Commission has supported the development and operation of the existing **Readmission Case Management Systems ('RCMS')**, though without specific rules at EU level framing the use of these systems. The systems are physically located in and **owned by third countries** and require rolling maintenance costs. Currently, there are only six RCMS in place with **Armenia**, **Bangladesh**, **Georgia**, **Pakistan**, **Sri Lanka**, and **Ukraine**. The six RCMS allow for the submission of readmission requests to the third

([11]) As indicated in the European Asylum and Migration Management Strategy, 'the Commission plans to explore, starting in 2026, the feasibility of a dedicated proposal for digitalisation in the area of asylum, also in light of such proposal being prepared in the area of return'.

([12]) Regulation (EU) 2019/1896 of the European Parliament and of the Council of 13 November 2019 on the European Border and Coast Guard and repealing Regulations (EU) No 1052/2013 and (EU) 2016/1624; OJ L 295, 14.11.2019, p. 1; https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1896.

([13]) European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions; Common Implementation Plan for the Pact on Migration and Asylum; COM (2024) 251 final, 12 June 2024; EUR-Lex - 52024DC0251 – EN – EUR-Lex (europa.eu).

country, as well as monitoring of workflows related to verification and confirmation of nationality, issuance of travel documents and return operations. They are separate systems, each one requiring a different log-in procedure, and do not allow the direct upload of information from Member States' and EU systems. The Commission plays a leading role in facilitating the connection of willing Member States to the existing RCMS and contributes financially to their proper technical maintenance and operation.

Third, to ensure communication on **reintegration cases** between return counsellors in Member States and reintegration implementing partners in third countries, the Commission has developed the **Reintegration Assistance Tool ('RIAT')**. RIAT is part of the European Migration Network Information Exchange System ('EMN IES'), established in 2008 ([14]). In addition to communication, RIAT is used for financial and administrative handling of cases in the context of various reintegration programmes, including Frontex own EU Reintegration Programme, and data collection. Currently, all EU Member States, Switzerland, Norway, and Iceland, as well as some reintegration partners are connected to RIAT.

Fourth, to support Member States on the return and readmission process, Frontex has developed the **Integrated Return Management Application ('IRMA')**, to which all Member States are connected. The development of IRMA is a task of Frontex under its mandate. IRMA is a centralised information system, which allows for secure strategic and operational information exchange on topics such as return statistics, assessment of third country cooperation in the field of readmission, and management of Member States' needs for forced and voluntary returns, i.e. through its own **flight booking system (Frontex Application for Return ('FAR')).**

Fifth, Frontex is currently developing an off-the-shelf mobile application (i.e. to be placed at the disposal of Member States and customised by them) to facilitate the communication between return authorities and TCNs to be returned. Frontex called it 'RECAP'.

Sixth, six EU large-scale IT systems ('EU Information Systems') relevant for migration purposes are or will be soon in place at EU level. Each system contains an extended list of data of key relevance for the purposes of RRR. In particular:

- **The European Asylum Dactyloscopy Database ([15])** ('Eurodac') is the EU's centralised biometric database, which has been operational since 2003 and is undergoing a major upgrade in 2026. Eurodac helps with the management of asylum applications, by storing and comparing the fingerprint and alphanumeric data of asylum seekers and irregular migrants who have entered a Member State. Eurodac also supports the identification of third-country nationals or stateless persons illegally staying in a Member State.

([14]) Council Decision 2008/381/EC, Article 2 (e) and Article 8.

([15]) Regulation (EU) 2024/1358 of the European Parliament and of the Council of 14 May 2024 on the establishment of 'Eurodac' for the comparison of biometric data in order to effectively apply Regulations (EU) 2024/1351 and (EU) 2024/1350 of the European Parliament and of the Council and Council Directive 2001/55/EC and to identify illegally staying third-country nationals and stateless persons and on requests for the comparison with Eurodac data by Member States' law enforcement authorities and Europol for law enforcement purposes, amending Regulations (EU) 2018/1240 and (EU) 2019/818 of the European Parliament and of the Council and repealing Regulation (EU) No 603/2013 of the European Parliament and of the Council; OJ L 1358, 22.5.2024; https://eur-lex.europa.eu/eli/reg/2024/1358/oj/eng.

The Schengen Information System ([16]) ('SIS'), operational since 1995, is an information-sharing platform for border management and internal security. Since March 2023, Member States are also obliged to enter alerts on return in the SIS when a Member State issues a decision to return a TCN.

The Visa Information System ([17]) ('VIS') supports the implementation of the EU's common visa policy and facilitation of border checks by allowing the exchange of data on short-term visas ('Schengen visas'). The revised VIS, expected to enter into operations in 2027, will also store information on long-term visa and residence permit holders.

Since 12 October 2025, the **Entry/Exit System ([18])** ('EES') electronically registers the time and place of entry and exit of TCNs travelling for a short stay and calculates the duration of their authorised stay.

Expected to start operations in the fourth quarter of 2026, the **European Travel Information Authorisation System ([19])** ('ETIAS') will be a pre-travel authorisation system for visa-exempt TCNs.

The European Criminal Records Information System – Third Country Nationals ([20]) ('ECRIS-TCN') will facilitate the exchange of criminal records information on non-

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([16]) Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the use of the Schengen Information System for the return of illegally staying third-country nationals; OJ L 312/1, 7.12.2018; https://eur-lex.europa.eu/eli/reg/2018/1860/oj/eng. Regulation (EU) 2018/1861 of the European Parliament and of the Council of 28 November 2018 on the establishment, operation and use of the Schengen Information System (SIS) in the field of border checks, and amending the Convention implementing the Schengen Agreement, and amending and repealing Regulation (EC) No 1987/2006; OJ L 312/1, 7.12.2018; https://eur-lex.europa.eu/eli/reg/2018/1861/oj/eng.

Regulation (EU) 2018/1862 of the European Parliament and of the Council of 28 November 2018 on the establishment, operation and use of the Schengen Information System (SIS) in the field of police cooperation and judicial cooperation in criminal matters, amending and repealing Council Decision 2007/533/JHA, and repealing Regulation (EC) No 1986/2006 of the European Parliament and of the Council and Commission Decision 2010/261/EU; OJ L 312/1, 7.12.2018; https://eur-lex.europa.eu/eli/reg/2018/1862/oj/eng.

([17]) Regulation (EC) No 767/2008 of the European Parliament and of the Council of 9 July 2008 concerning the Visa Information System (VIS) and the exchange of data between Member States on short-stay visas (VIS Regulation); OJ L 218/60, 13.8.2008; https://eur-lex.europa.eu/eli/reg/2008/767/oj/eng.

([18]) Regulation (EU) 2017/2226 of the European Parliament and of the Council of 30 November 2017 establishing an Entry/Exit System (EES) to register entry and exit data and refusal of entry data of third-country nationals crossing the external borders of the Member States and determining the conditions for access to the EES for law enforcement purposes, and amending the Convention implementing the Schengen Agreement and Regulations (EC) No 767/2008 and (EU) No 1077/2011; OJ L 327/20, 9.12.2017; https://eur-lex.europa.eu/eli/reg/2017/2226/oj/eng.

([19]) Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System (ETIAS) and amending Regulations (EU) No 1077/2011, (EU) No 515/2014, (EU) 2016/399, (EU) 2016/1624 and (EU) 2017/2226; OJ L 236/1, 19.9.2018; https://eur-lex.europa.eu/eli/reg/2018/1240/oj/eng.

([20]) Regulation (EU) 2019/816 of the European Parliament and of the Council of 17 April 2019 establishing a centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons (ECRIS-TCN) to supplement the European Criminal Records Information System and amending Regulation (EU) 2018/1726; OJ L 135/1, 22.5.2019; https://eur-lex.europa.eu/eli/reg/2019/816/oj/eng.

EU citizens and stateless persons across Member States. The system will help judges, prosecutors and other relevant authorities to obtain comprehensive information on criminal history of TCNs, regardless of the Member State where they were previously convicted. ECRIS-TCN is set to start operations in the second quarter of 2026.

All these **EU Information Systems** will benefit from interoperability components, as established by the Interoperability Regulations ([21]). Today, they **all work independently, and are queried separately**. The **interoperability components** will make these systems speak to each other, allowing for enhanced information sharing and comparison of available data. The **Multiple-Identity Detector ('MID')** will enable the detection of multiple identities across different EU information systems. For example, a new identity inserted in Eurodac will be automatically compared against the identities already stored in SIS, VIS, ETIAS, EES and ECRIS-TCN. The **European Search Portal ('ESP')** will allow competent authorities to search all these information systems simultaneously. The **Shared Biometric Matching Service ('sBMS')** will enable the search and comparison of biometric data across systems, while the **Common Identity Repository ('CIR')** will store the biometric, identity and travel document data of non-EU nationals available in the EU Information Systems, and the Central Repository for Reporting and Statistics ('CRRS'). The rollout of interoperability components started in May 2025 when the sBMS entered into operation.

When fully operational, **the EU large-scale IT systems will store most of the data required to manage the return and readmission procedures** ([22]) and thanks to the interoperability of the systems, the future return and readmission IT architecture will be able to articulate and integrate this existing information into the workflows, without duplicating data collection.

PROBLEM DEFINITION

What are the problems?

The management of RRR under the current framework is not sufficiently effective to deal with the number of cases. There are often **significant delays** and, **in some instances**, it is **not possible in the end to carry out the return** and, where applicable, to provide reintegration. In 2025, 487 285 TCNs were ordered to leave, and 136 665 TCNs effectively returned to third countries. In 2025, Member States submitted 56 304 readmission requests to third countries. In 2025, the Frontex EU Reintegration Programme (EURP) provided support to approximately

([21]) Regulation (EU) 2019/817 of the European Parliament and of the Council of 20 May 2019 on establishing a framework for interoperability between EU information systems in the field of borders and visa and amending Regulations (EC) No 767/2008, (EU) 2016/399, (EU) 2017/2226, (EU) 2018/1240, (EU) 2018/1726 and (EU) 2018/1861 of the European Parliament and of the Council and Council Decisions 2004/512/EC and 2008/633/JHA; OJ L 135/27, 22.5.2019; https://eur-lex.europa.eu/eli/reg/2019/817/oj/eng, and Regulation (EU) 2019/818 of the European Parliament and of the Council of 20 May 2019 on establishing a framework for interoperability between EU information systems in the field of police and judicial cooperation, asylum and migration and amending Regulations (EU) 2018/1726, (EU) 2018/1862 and (EU) 2019/816; OJ L 135/85, 22.5.2019; https://eur-lex.europa.eu/eli/reg/2019/818/oj.

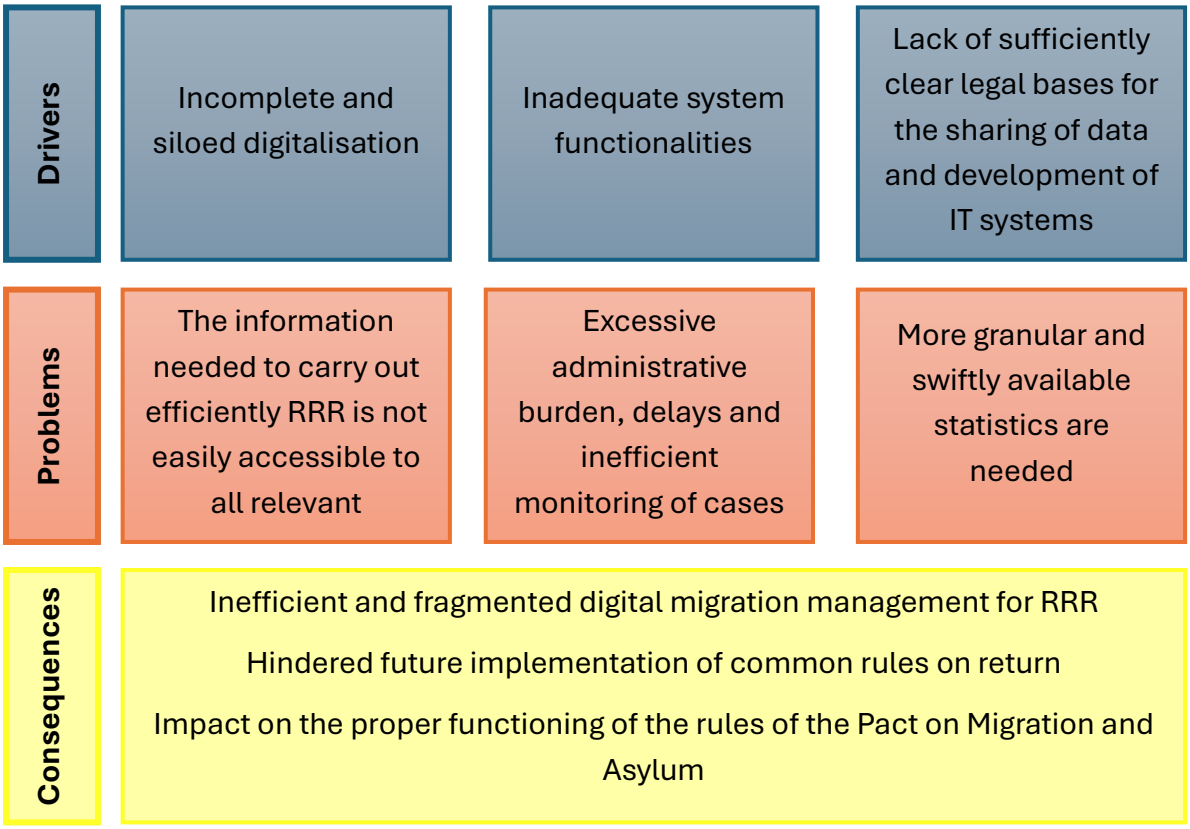
([22]) Please also refer to

Option 1 can be visualised as follows ():

Figure 5 – Baseline scenario

20 000 returnees to 40 countries of origin. While the Return Regulation already addresses many of the underlying problems ([23]), it does not cover the digital management of RRR cases.

Figure 1 – Problem tree



Source: Commission

This Section describes the specific problems and problem drivers that can be identified and linked to the overarching question of digitalisation.

The information needed to carry out efficiently RRR is not easily accessible to all relevant authorities

Several categories of data are needed to support the authorities in performing their tasks relating to processing RRR cases in an effective and timely manner. They include ([24]): information necessary to establish the identity of the TCN (e.g. surnames, biometric data), information related to the nationality and the travel document(s) of the TCN (e.g. nationality, type of travel document); information related to the TCN's places of residence, routes travelled, languages spoken and contact details (e.g. phone number); information on residence documents or visas issued by a Member State or a third country; information related to the return operation of the TCN (e.g. flight details); information related to the reintegration of the TCN (e.g. work experience, diplomas); grounds for any return decision taken concerning the TCN, information as to whether the TCN was detained or alternatives to detention were applied to the individual;

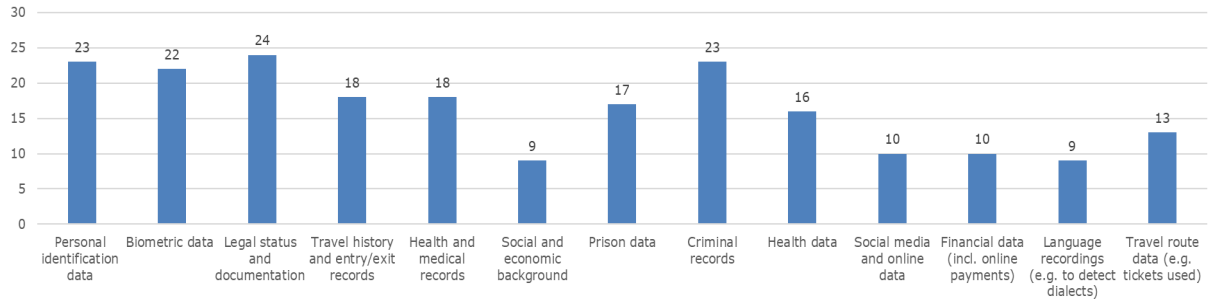
([24]) Return Regulation, Article 36.

information related to the criminal records or related to the threat to public policy, public security or national security posed by the TCN; information on vulnerability, health and medical needs of the TCN.

Without this information, the RRR process can often not be completed or becomes lengthy and dependent on the cooperation of the person and/or their country of origin. For instance, a third country will generally not readmit a TCN if its nationality is not first established. The data necessary to swiftly complete RRR processes is often available to other entities/administrations that have interacted with the third country nationals during their migration journey (e.g. data were collected when the TCN asked for a visa, applied for asylum) but not at the ready disposal of the relevant authorities in charge of RRR since it is not shared sufficiently (i) within the same Member State, (ii) between Member States and between Member States and Frontex, and (iii) between Member States or Frontex and third countries.

(i) As regards the sharing of data within the same Member State, the majority of Member States did not expressly report limitations during the consultations ([25]). Yet, Member States also indicated that, in practice, only a few categories of information are widely used for RRR purposes (personal identification data, biometric data, legal status and documentation, and criminal records). **Many useful data categories, that when easily available would increase the effectiveness of the process and speed it up, are not used or fully exploited by most Member States**, as shown in the Figure below.

Figure 2 - Different data used in Member States to manage RRR cases (n=24) ([26])



Source: Digitalisation Study

(ii) As regards the sharing of data with other Member States and Frontex, the consultation evidenced certain shortcomings (see Table 1). A total of 18 Member States reported that there are legal barriers to cross-border data sharing ([27]), which in practice means a Member State might need to re-start the RRR process after a TCN crosses an internal border, even if the process was already advanced in another Member State. This is all the more problematic that the number of TCNs subject to a return decision found in a Member State different than the one that issued the return decision amounted to 72 320 in 2025 ([28]). Several (15) Member States face challenges in collecting and analysing data and nine Member States complained about

([25]) 18 Member States indicated that the data available is sufficient to manage RRR cases at national level, as opposed to six Member States which reported to experience limitations; Digitalisation Study, Table 127.

([26]) 'n=24' means that the data was available for 24 Member States.

([27]) Digitalisation Study, Table 139.

([28]) Estimates based on the number of SIS hits on alerts on return; SIRENE mail statistics produced by eu-LISA.

data accuracy as the main difficulty ([29]). For 10 Member States, significant differences in data quality between Member States undermine the overall efficiency of digital management of RRR processes. 19 Member States consider integration with other information systems as the main challenge ([30]). These findings are corroborated by the evaluation of Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the Schengen Information Systems for the return of illegally staying TCNs. Users of the system who participated in the focus groups conducted in the context of the SIS study acknowledged that, while the SIS has improved communication between Member States on return cases, shortcomings remain regarding data completeness and quality.

Table 1 - Type of data collected by Member States and shared with other Member States and through EU Information Systems

Type of Data	Number of Member States collecting and using data	Number of Member States sharing data
Legal status and documentation (e.g. existence of residence permit, approved asylum application, etc.)	24	17
Biographic data (e.g. name, date of birth, nationality)	23	22
Information on criminal records	23	20
Biometric data (e.g. fingerprints, facial recognition)	22	21
Travel history and entry/exit records	18	9
Health and medical records	18	5

Source: Digitalisation Study

While much relevant data can be shared via existing and upcoming EU Information Systems (e.g., SIS, Eurodac, EES), there are **no channels to exchange some categories of data** or **data are not stored long enough** as they must be deleted before the RRR processes are fully completed. These **structural limitations** are evident in three distinct scenarios:

- The **data has not yet been recorded in the EU Information Systems**. For instance, return related data in the SIS can only be exchanged once a return decision is issued. Before the issuance of a return decision, no data is recorded in the SIS, and consequently no information can be shared among Member States, even when operational needs may already exist. For instance, a return case is opened by Member State A in relation to an illegally staying TCN, but this TCN absconds to Member State B before a return decision is issued. Member State A has collected some information that would be useful to Member State B to process the return case, but it is unable to record it in the SIS because there is no return decision and hence no alert in SIS.

- The **data has been deleted from the EU Information Systems before the RRR procedures are finalised**. For instance, reintegration support may require information exchanges for several years after the person has effectively returned. However, the SIS

([29]) Digitalisation Study, Tables 130 and 131. Survey results indicate that 55% (N=13) of Member States identified data completeness as a key issue and 41% (N=9) highlighted data accuracy as a major concern (see Figure 50 in Annex V of the Digitalisation Study).

([30]) Digitalisation Study, Table 131.

Return Regulations provide that return alerts must be deleted without delay following the receipt of the confirmation of return ([31]).

- **The data are queried for purposes not covered by the EU Information Systems' corresponding legal framework**. For instance, Member States need to exchange data for the purpose of reintegration, while such purpose is not referred to by the SIS Regulations.

The insufficient sharing of data within the same Member State, between Member States, and between Member States and Frontex leads to delays in RRR procedures and may prevent their successful completion. On **return**, the lack of sharing impedes the detection and management of secondary movements (e.g. because the national RECAMAS is not connected to SIS, which prevents a smooth access to return alerts created in the SIS by other Member States). On **readmission**, this causes delays in the identification procedures (e.g. because the RCMS being used is not connected to the national RECAMAS, which complicates the retrieval of proofs of nationality). On **reintegration**, the lack of sharing may lead to an accrued risk of reintegration-shopping and double payments as the data on whether a TCN already benefitted from reintegration assistance may not be available (e.g. because the national RECAMAS is not connected to RIAT or because RIAT is not accessing the relevant Eurodac data on reintegration assistance).

(iii) As regards the sharing of data between Member States or Frontex and third countries, the situation is characterised by **inconsistent approaches between Member States and, in several cases, the lack of sharing of necessary data with third countries** ([32]). The insufficient sharing of data between Member States or Frontex and third countries (due to the lack of sufficiently clear legal bases to share the personal data ([33])) prevents in some cases the readmission process from being completed (e.g. when certain information relating to criminal records cannot be shared with the third country of return). The cumbersome sharing of data (due to the lack of RCMS established with the said third countries) may cause **delays and hampers the overall readmission process**, as the exchange of data with third countries is then done in a less standardised manner (e.g. via emails, postal mails or note verbales).

Excessive administrative burden, delays and inefficient monitoring of cases

Manual intervention in managing RRR cases, such as recording relevant data and uploading documents, places a considerable strain on competent authorities across the EU, contributing to **lengthy procedures**. Many Member States perceive manual processes as problematic, resulting in increased operational, labour, and administrative costs. 17 Member States identify manual processes that could be, at least partly, automated as a crucial operational challenge ([34]).

([31]) Article 6 and Article 16 of Regulation (EU) 2018/1860.

([32]) As confirmed by the information collected in preparation of joint committees of readmission agreements and arrangements as well as in relevant Council Working Groups and Commission Expert Groups.

([33]) In accordance with the GDPR and the EUDPR, the processing of personal data may be lawful if necessary for a task carried out in the public interest. This merely indicates that such processing is not prohibited, but subject to the fact that this processing, in the first place, has a legal basis in national or EU law explicitly enabling the authorities to process the data.

([34]) Digitalisation Study, Table 133.

The lack of automation and system integration leads to a **duplication of efforts**, **higher likelihood of errors and omissions**, and **administrative burden and costs**. These inefficiencies delay procedures, overburden staff, hamper cooperation between Member States and undermine the overall effectiveness of management of RRR processes ([35]).

Specific issues include the **manual copying of data** between national information systems and between national and EU Information Systems (for instance to create return alerts and upload them in the SIS), **manual exchanging data with another Member State**, and the **manual adaptation to new data formats and standards**. For instance, one Member State estimated that it takes approximately 30 minutes to create manually an alert on return and upload it into the SIS ([36]). Given that there were 464 985 return decisions in the EU in 2024 ([37]), this amounts to 29 062 working days ([38]) for a total cost of EUR 7 788 499 ([39]). Member States also estimated that integrating applications like FAR and RIAT could save 30 minutes per case ([40]). With 112 040 effective returns from the EU in 2024 ([41]), this could in theory equate to 7 003 working days saved annually, or up to EUR 1 876 670 in labour costs ([42]). These figures highlight the significant potential of improved interconnection.

The **involvement of multiple stakeholders** subject to different requirements leads to **complex demands for manual information transmission**, further increasing administrative burden. Member States highlighted data entry needs, communication via email, and reliance on physical files as major inefficiencies. The absence of automated data exchange mechanisms further **hampers the generation of reliable analytics and statistics**. Consequently, these manual processes create significant additional workloads for authorities ([43]). **Data entry errors** occur more without interconnection and automation and **undermine system efficiency** and **data integrity and reduce trust** in data shared between Member States. This in turn risks hindering Member States' willingness to collaborate ([44]).

15 Member States identify overall manual data entry as a major operational challenge ([45]), leading to bottlenecks, higher labour costs and delays in RRR case management. The perceived

([35]) In the framework of the Digitalisation Study, most Member States were unable to provide data or estimates to quantify the extent of manual intervention. One Member State reported that approximately 70% of its asylum and return processes are conducted manually, with only 20% partly automated and 10% fully automated. This situation likely reflects a broader reliance on manual processes across many Member States, although the degree of manual processing may vary significantly between Member States, leading to a fragmented landscape and differing levels of maturity in their systems. Digitalisation Study, Section 1.1 of Part 2.

([36]) Bilateral meetings conducted with national competent authorities in 2025.

([37]) Eurostat, [migr_eiord] Third country nationals ordered to leave - annual data (rounded).

([38]) Counting 8h per working day.

([39]) Based on the average hourly labour cost in 2024 i.e. €33.5: EU hourly labour costs ranged from €11 to €55 in 2024 - News articles - Eurostat.

([40]) Digitalisation Study, Section 1.1 of Part 2.

([41]) Eurostat, [migr_eirtn] Third country nationals returned following an order to leave - annual data (rounded).

([42]) Based on the average hourly labour cost in 2024 i.e. €33.5: EU hourly labour costs ranged from €11 to €55 in 2024 - News articles - Eurostat.

([43]) Digitalisation Study, Section 5.1.1 of Annex V.

([44]) Digitalisation Study, Section 1.2.3 of Part 2.

([45]) Digitalisation Study, Annexes to Part 2, Annex V, Figure 51.

limited user-friendliness of EU-level and national systems' interfaces further exacerbates the issue. The resulting data inaccuracies and correction efforts impede timely decision-making and affect both authorities and TCNs through delays in RRR procedures. National authorities interviewed as part of the Digitalisation Study reported human resource shortages and operational challenges, such as tight deadlines under applicable procedures, which further complicate timely case processing ([46]).

The **lack of automation also impedes the effective monitoring and follow-up of RRR procedures**. In particular, the lack of automation hinders the efforts to ensure that each return decision is enforced and that readmission procedures are timely launched so that the overall return process can be completed. Return decisions are not always meant to be followed up by readmission requests (e.g. in case the TCN is documented, returns voluntarily and by its own means). That being said, in 2024, 464 985 TCNs were ordered to leave ([47]) and only 59 593 readmission requests were submitted to third countries ([48]). In 2025, 487 285 TCNs were ordered to leave ([49]) and only 56 304 readmission requests were submitted to third countries ([50]).

More granular and swiftly available statistics are needed

Statistics relating to RRR are first and foremost based on information collected at national level. This information is then transmitted at EU level (for example through the SIS or directly to Eurostat and Frontex), which allows to produce statistics on RRR.

At present, **many Member States face significant shortcomings in data collection**. As part of the Study, 15 Member States report significant difficulties in collecting and analysing data ([51]). Nine Member States consider that inadequate data analytics and reporting are a crucial operational challenge in existing systems. Although 21 Member States indicated that they could generate reports and statistics, real-time monitoring is rarely available or used, with 17 Member States reporting that their national systems do not provide real-time data dashboards. 19 Member States lack the ability to forecast trends related to return decisions ([52]). Some Member States report challenges linked to resource-intensive and time-consuming manual collecting of statistical data, which is further exacerbated by the volume of information required for reporting. At the same time, levels of automation remain low and manual corrections are frequently required due to inaccuracies, which undermines the reliability of statistical indicators ([53]).

([46]) For example, it was estimated in one interview that processing each case in the current scenario takes around 30 minutes longer than would actually be necessary in case the process would be more automated.

([47]) Eurostat, [migr_eiord] Third country nationals ordered to leave - annual data (rounded).

([48]) Frontex operational data.

([49]) Eurostat, [migr_eiord1] Third country nationals ordered to leave by citizenship, age and sex - quarterly data (rounded).

([50]) Frontex operational data.

([51]) Digitalisation Study, Figure 53.

([52]) Digitalisation Study, Table 146.

([53]) Digitalisation Study, Section 1.2.2 of Part 2.

Reliable statistics are **crucial to understand migration trends**, identify challenges and evaluate measures to effectively manage migration, as well as to enable targeted interventions and efficient resource allocation ([54]). Limited access to relevant data at various stages of the migration process makes it **difficult to conduct a comprehensive analysis and obstructs effective decision-making** ([55]). The inability to access reliable data results in inaccurate understanding of the number and status of RRR cases, limits in turn the ability to forecast upcoming trends and leaves authorities ill-prepared to address emerging challenges ([56]).

On return, in some Member States, the return decisions that are withdrawn or annulled are not deducted from the total amount of return decisions issued, due to the lack of automation of this task ([57]). In other words, the number of annulled or withdrawn return decisions should be systematically collected to deduct them from the total number of return decisions, so as to obtain a more accurate return rate, based on enforceable return decisions. On readmission, inaccurate statistics hamper the ability of national and EU authorities to swiftly and accurately assess the cooperation of third countries on readmission. For instance, the issuance rate (i.e. the number of requests for confirmation of nationality or issuance of travel documents compared to the number of travel documents issued) does not currently give a sufficiently accurate picture of the cooperation of third countries on readmission due to the **failure to calculate the number of travel documents issued compared to the number of cases in which the nationality was confirmed**. In other words, it would be needed to collect statistics on the number of cases where the nationality was confirmed and the number of cases where travel documents were issued, so as to be able to identify the number of cases where travel documents were not issued while the nationality was confirmed.

On reintegration, RIAT is currently a case-based system (that may include several persons) rather than a person-based system. When a family applies for reintegration support, the case is opened in RIAT using the main applicant data, and the family included in the same case. Consequently, this does **not allow a sufficient level of granularity for statistics**.

([54]) International Organisation for Migration. Global Migration Data Portal (2024). The Essentials of Migration Data - Chapter 1: The relevance of migration data and statistics; accessed 22 October 2025. Available at: https://www.migrationdataportal.org/handbook; European Commission, Joint Research Centre, Belmonte, M., Sermi, F., Tarchi, D., How to measure the effectiveness of return? Problem definition and alternative definitions of the return and readmission rates, EUR 30491 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-27075-1, doi:10.2760/200580, JRC122948, p.5.

([55]) Digitalisation study, Section 1.2.2 of Part 2.

([56]) European Commission, Joint Research Centre, Belmonte M., Pingsdorf J., Cortinovis R., Nédée A., Tintori G., Managing irregular migration and return: A framework for understanding and measuring pathways in and out of irregularity in the EU and in selected Member States. Publications Office of the European Union, Luxembourg, 2025, https://data.europa.eu/doi/10.2760/3751767, JRC142752.

([57]) European Commission, Joint Research Centre, Belmonte, M., Sermi, F., Tarchi, D., How to measure the effectiveness of return? Problem definition and alternative definitions of the return and readmission rates, EUR 30491 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-27075-1, doi:10.2760/200580, JRC122948, page 6.

What are the problem drivers?

Incomplete and siloed digitalisation

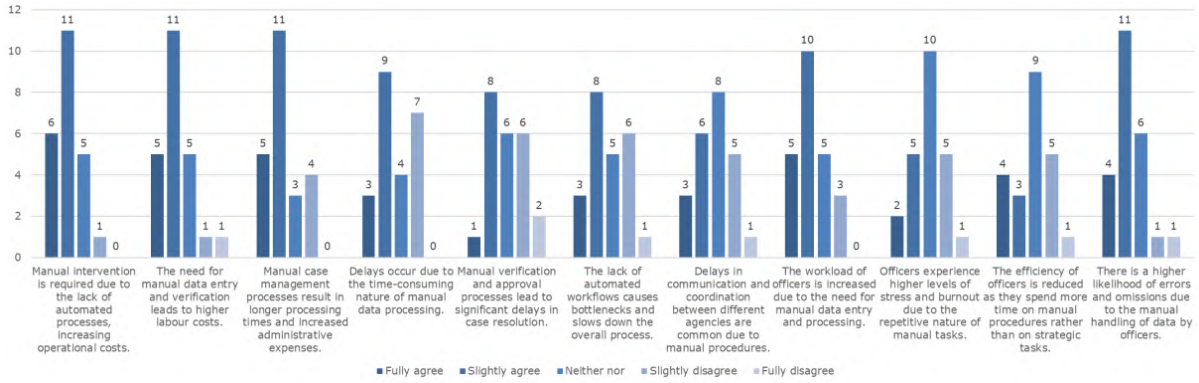
The current landscape of digitalisation in the field of RRR is characterised by varying levels of progress at both national and EU level. In general, the **digitalisation of RRR processes is insufficient and/or fragmented**, with excessive manual processing leading to the problems identified in Section 0. The **lack of integrated systems and the resulting high degree of manual intervention is a direct problem driver of the excessive administrative burden,** due to the need to connect to different systems to process the same RRR case.

Insufficient digitalisation and fragmented digital systems

The **availability and use of IT systems to support RRR processes are often limited and differ between Member States**. In eight Member States, the management of at least one of the RRR processes is not entirely digitalised ([58]). Within a **single Member State**, in particular if it has a federal structure, **several case management systems may be in use to handle RRR cases and may not always be integrated with one another** ([59]), thereby leading to an insufficient sharing of information and increasing the administrative workload of migration authorities due to the need to switch from one system to another and manually copy the information from or into different systems.

Manual processing creates delays in 12 Member States, increases workload in 15 Member States, and increases the risk of errors and omissions in 15 Member States.

Figure 3 Member States' views on the consequences of manual processing (n=22)



Source: Survey conducted as part of the Digitalisation Study

National case management systems are currently not connected to RIAT and RCMS, creating a **digital gap between the management of return and the management of readmission and reintegration**. While all Member States are making use of IRMA, no national return system is directly connected to it (a pilot project is ongoing but with only one Member State). Similarly, while all Member States supported by Frontex have access to FAR, only one Member State has a return national system that is directly connected to this Frontex system. FAR is not connected

([58]) Digitalisation Study, Table 122.

([59]) Integrated systems manage RRR cases within a single national system, while separate systems involve distinct, independent IT systems, requiring switching from one system to another to process a RRR case.

to RCMS and RIAT, despite a clear added value from the point of view of readmission (to organise return operations, including the obtention of landing permits) and reintegration (to identify accurately the starting point of the reintegration programme i.e. the date of effective return, which serves to determine the eligibility of costs).

Return and readmission procedures, except for readmission cases concerning the six third countries with which RCMS are in place, are usually handled through centralised national systems. The provision of reintegration assistance is increasingly managed via an EU-level system (i.e. RIAT).

As explained above under Section 1, Member States use a mix of systems, including (1) national systems based on RECAMAS, (2) EU systems such as RIAT, FAR and IRMA, and (3) RCMS.

Implementation levels and the use of the RECAMAS Model vary significantly across Member States, with 12 Member States using a national case management system built on RECAMAS.

Table 2 – Type of RRR systems in EU Member States (n=27)

Systems	Number of MS
National system based on the RECAMAS Model	12
National system with a certain degree of alignment on the RECAMAS Model	26
RCMS (at least with one third country)	27
RIAT	27
FAR	26
IRMA	27

Source: Commission, Frontex data and Digitalisation Study.

Many Member States use custom-built national systems that lack interconnection with other systems, with 19 of them employing such systems tailored to national needs without ensuring compatibility with EU systems (including Frontex systems) or other Member States' systems ([60]). 19 Member States consider the lack of integration of their systems with other systems to be a major challenge in migration management ([61]). 15 Member States identify the lack of integration as a crucial operational challenge ([62]).

The **absence of a central communication channel or RRR system at EU level** complicates information exchange across Member States ([63]), as national case management systems are not connected with one another.

([60]) Digitalisation Study, Figure 52.

([61]) Digitalisation Study, Table 131.

([62]) Digitalisation Study, Table 133.

([63]) Digitalisation Study, Section 1.2.1 of Part 2.

The **fragmentation of systems used in the case management of RRR is a key reason for the ineffectiveness of the digital management of RRR processes** which require effective coordination and timely information exchange at national and EU levels. The fragmentation of systems creates silos that impede effective collaboration and sharing of data. Limited interconnection, isolated national solutions and inconsistent use of shared tools restrict access to critical data for relevant stakeholders. Key information becomes compartmentalised and inaccessible. This in turn leads to limited access to information, miscommunication and duplication of efforts and data. It ultimately undermines the efficiency and coherence of the process, slows it down unnecessarily and hampers the effective monitoring of individual cases across different stages and different Member States ([64]).

The **insufficient digitalisation** and **lack of interconnection** between relevant systems (i.e. between national return case management systems and other national systems) and between national and EU-level systems (e.g. RIAT and RCMS) increases administrative burdens and prolongs processing times for authorities and TCNs (e.g. need to connect to national RECAMAS to manage return and separately to RCMS to manage readmission).

According to 14 Member States, there is a strong need for the Commission to address inefficiencies in RRR digital management ([65]), as the lack of system integration prevents authorities from accessing relevant data when needed and **exacerbates information gaps** ([66]). Due to the lack of integrated systems (e.g. lack of connection between the national RECAMAS and the SIS), some data is currently not processed by all Member States for RRR purposes ([67]), while such processing would contribute to more efficient processes and better results. This data would in particular help to speed up the identification process (e.g. by making a better use of biometric data).

The lack of integrated digital management systems amplifies the current difficulties to accurately, timely and reliably measure the effectiveness and efficiency of RRR processes and the relevance of their results. For instance, the lack of sufficient granularity of statistics is partially due to the fact that national systems cannot currently benefit from the CRRS, as this EU statistical module can only be connected to EU Information Systems and not to national systems. In addition, the lack of integrated systems causes delays in gathering the relevant data and contributes to the fact that some Member States are often late (compared to the applicable legal deadlines ([68])) in providing EUROSTAT with the relevant statistics on return.

At the same time, Problem 3 on statistics is also caused by problem drivers going beyond the lack of integrated systems. In particular, the lack of clear definitions at EU level on key concepts such as ‘readmission procedure’ or ‘readmission request’ tends to amplify the problems experienced.

([64]) Digitalisation Study, Section 1.1 of Part 2.

([65]) Digitalisation Study, Table 123.

([66]) Digitalisation Study, Table 121.

([67]) See *Figure 2 - Different data used in Member States to manage RRR cases (n=24) ()*.

([68]) Regulation (EC) No 862/2007 of the European Parliament and of the Council of 11 July 2007 on Community statistics on migration and international protection and repealing Council Regulation (EEC) No 311/76 on the compilation of statistics on foreign workers, OJ L 199, 31.7.2007, http://data.europa.eu/eli/reg/2007/862/oj.

These inefficiencies and ineffectiveness, in particular linked to the lack of integration between systems, contribute to the gap between the number of return decisions and the number of actual returns ('return rate'). In 2024, in the EU, the return rate was of 24% (464 985 TCNs ordered to leave ([69]) and 112 040 effectively returned ([70])). In 2025, in the EU, the return rate was of 27% (487 285 TCNs ordered to leave ([71]) and 136 665 effectively returned ([72])). The SIS return alert has improved communication between Member States, enabling better identification and monitoring of TCNs to be returned. However, a limited number of Member States has a return case management system directly connected to SIS, which complicates the retrieval of necessary data as Member States need to switch from and manually copy data to one system to another. As evidenced in the 2024 thematic Schengen evaluation report 'Bridging national gaps: towards an effective EU return system through common solutions and innovative practices' ([73]), 11 Member States do not have any connection between SIS and RECAMAS, of which five do not foresee it in the near future.

As regards readmission, existing RCMS are used with only six third countries (Armenia, Bangladesh, Georgia, Pakistan, Sri Lanka, and Ukraine). As a result, with many relevant third countries, it is not possible to manage readmission cases digitally. Moreover, they are all independent, requiring a separate log-in, and not connected to EU and Member States systems. This again requires additional time and manual work.

Fragmented governance of IT systems

The **involvement of multiple stakeholders** in developing and maintaining RRR systems often results in **inconsistent practices**, **standards**, and **technologies**. The fragmented approach complicates collaboration and hinders the efficiency of digital migration management in the field of RRR. The **lack of a coherent governance framework** further hampers the smooth maintenance and upgrade of IT systems ([74]). Responsibilities are often fragmented across institutions, leading to overlapping roles, inconsistent practices, and inefficiencies ([75]). In some cases, **national authorities** share responsibilities with **private contractors** in charge of maintaining and developing the systems, while at EU level, **Frontex** manages systems like FAR and IRMA and the **Commission** manages RIAT. As a result, the **allocation of roles and responsibilities under data protection rules** (i.e. who acts as controller and as processor) **is**

([69]) Eurostat, [migr_eiord] Third country nationals ordered to leave - annual data (rounded).

([70]) Eurostat, [migr_eirtn] Third country nationals returned following an order to leave - annual data (rounded).

([71]) Eurostat, [migr_eiord1] Third country nationals ordered to leave by citizenship, age and sex - quarterly data (rounded).

([72]) Eurostat, [migr_eirtn1] Third-country nationals returned following an order to leave, by type of return, citizenship, country of destination, age and sex - quarterly data.

([73]) Commission Implementing Decision establishing the 2024 thematic Schengen evaluation report 'Bridging national gaps: towards an effective EU return system through common solutions and innovative practices', C(2024) 9171 final.

([74]) Digitalisation Study, Section 1.2.1 of Part 2.

([75]) Digitalisation Study, Section 1.2.1 of Part 2.

complex and **depends on the specificities of each system**. While most Member States report satisfaction with specific system updates ([76]), systemic challenges persist.

On **RIAT**, decisions on functional changes are currently made through the **RIAT Taskforce**, in which **DG HOME, DG JUST and Frontex** participate. Member States and reintegration service providers' needs are collected through the Frontex Post Return and Reintegration Network and RIAT development meetings organised by the Return and Reintegration Facility ('RRF'), with participation of Member States.

The existing **RCMS**, have been developed by partner organisations such as IOM and ICMPD. RCMS are located in third countries, owned by them and heavily depend on them for their proper functioning. Some Member States have security and data protection concerns about connecting to RCMS, while third countries have expectations regarding financial contributions from the EU. The ongoing functioning of the RCMS - including system maintenance, development and integration of newly agreed functionalities, and providing user support on both sides - depends entirely on the capabilities and willingness of third countries, thereby constituting a serious governance issue. In the current setup, there is a significant dependence on continued EU funding to maintain and further improve the systems with technological updates and additional functionalities, such as prioritisation of cases or the possibility to search in national identity databases.

Inadequate system functionalities

Even when RRR case management systems are in place and integrated (i.e. the problem driver described in Section 0 does not occur), the **functionalities of these systems** are often **inadequate** and **technical functionalities to effectively manage and monitor RRR cases vary across Member States**, leading to the problems described in Section 0.

As regards national return case management systems, some features, such as transferring return cases between procedures ([77]) (available in 19 Member States) or processing additional data sources for identification (available in 20 Member States), are more common. Other, such as adjusting deadlines (available in three Member States), automatic follow-up of return decisions (available in two Member States), and evaluating returnee cooperation (available in four Member States) are rarely implemented ([78]).

Technical challenges in the follow-up of individual return cases across Member States (e.g. due to the lack of single EU identifier or the lack of connection of the national return system to SIS) can lead to multiple cases for the same person due to secondary movements, with 13 Member States reporting this as an issue ([79]). 14 Member States highlight the lack of systematic follow-up to return decisions by readmission requests as a major challenge ([80]). Unlike other EU Information Systems relevant for migration purposes, the information available in the SIS cannot be copied into the national systems, leaving national authorities with no possibility to

([76]) Digitalisation Study, Annex V, Figure 59.

([77]) For instance, between the standard return procedure and the return border procedure.

([78]) Digitalisation Study, Table 147.

([79]) Digitalisation Study, Table 148.

([80]) Digitalisation Study, Table 149.

import the data into their national return case management systems ([81]). This technical limitation is the result of a legal limitation. Consequently, once the alert is deleted, no data on the third-country national remains in the system. This limits the follow-up on processes that extend beyond the moment of effective return and for which certain data categories previously stored in the alert—such as aliases or previously used names—may be useful, including for reintegration purposes. According to the supporting study to the evaluation of Regulation (EU) 2018/1860, only 52% of the Member States have implemented an automatic SIS alert creation functionality in their national case management systems. These limitations also contribute to insufficiently reliable statistics, which do not allow to assess sufficiently satisfactorily the effectiveness of returns.

As regards RCMS, the functionalities differ depending on the third country concerned. In general, RCMS serve as communication tools and repository for evidence. RCMS might also support consular identification interviews through videoconference feature to be embedded in the systems, although this feature is not yet available. Among the most advanced features that an RCMS can provide are the possibilities to (i) upload biometrics through the system to facilitate the identification of the TCN to be returned and (ii) print out the travel documents directly from the system, once readmission requests are accepted by the third country. However, these essential advanced features are not available in all the existing RCMS.

As regards RIAT, which provides a basic infrastructure for managing reintegration cases, the technical functionalities are limited to case management, financial management and monitoring. Users have expressed interest in improvements and enhancements of the system. In particular, the system is now case- rather than person-based, complicating the management of cases, especially when additional support is provided. Furthermore, the system lacks an overview of reintegration programmes available, and information provided to the users of the system is either limited or difficult to find – impairing the user-friendliness of the system. Communication between users with different user roles can be improved. Furthermore, Member States have expressed the desire to link RIAT to FAR and their national return case management systems.

Structural challenges such as insufficient funding (reported by 15 Member States) and insufficient training and support (reported by six Member States) exacerbate these technical inefficiencies ([82]).

Lack of sufficiently clear legal bases for the sharing of data and development of IT systems

In accordance with the GDPR and the EUDPR, the processing of personal data may be lawful if necessary for a task carried out in the public interest. This merely indicates that such processing is not prohibited, but subject to the fact that this processing, in the first place, has a legal basis in national or EU law explicitly enabling the authorities to process the data.

Member States can already access the data recorded in EU Information Systems as legal bases are in place in the respective founding regulations of these systems. However, the sharing

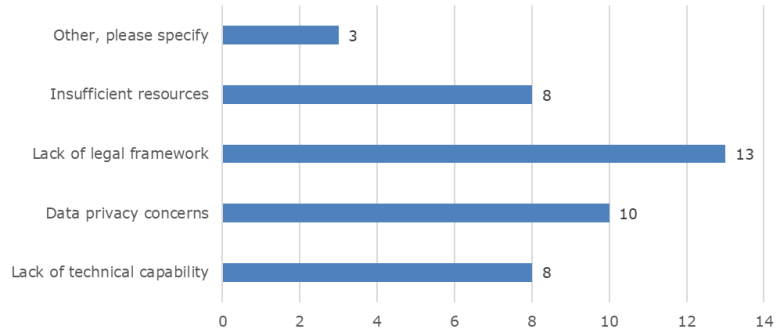
([81]) Article 41(2) of Regulation (EU) 2018/1861 and Article 56(2) of Regulation (EU) 2018/1862 provide that 'a Member State shall not copy alert data or additional data entered by another Member State from its N.SIS or from the CS-SIS into other national data files'.

([82]) Digitalisation Study, Table 145.

between Member States of data recorded at national level but not recorded in EU Information Systems often lacks sufficiently clear legal bases. Similarly, the transfer of personal data with third countries for RRR purposes requires a lawful ground for processing, which is often lacking at national and EU level, in particular concerning sensitive personal data.

This leads Member States to refrain from such sharing of information. 13 Member States surveyed refer to a lack of legal framework for the sharing of data as an obstacle for the data sharing ([83]) while 10 raise data privacy concerns as another reason for refraining to share the data.

Figure 4 – Member States' views on reasons why the relevant data is not used for RRR (n=20)



Source: Digitalisation Study

This problem driver is already partially addressed by the Return Regulation, which lays down some clear legal bases for the sharing and transfer of data ([84]). However, the Return Regulation does not detail the technical means that may be used to share and transfer such data. In addition, such sharing is currently limited by the legal framework that applies to Frontex ([85]).

The lack of sufficiently clear legal framework concerning the technical means and IT systems through which the data could be shared and transferred leads some Member States to refrain from using these systems, and eventually to share the necessary data. This finding applies in particular in the field of readmission where some Member States refrain from using existing RCMS due to data protection concerns stemming from the lack of clear legal framework applicable to these IT systems ([86]).

In addition, the development of additional RCMS with new third countries would be facilitated by a clear legal basis, which is currently lacking at EU level.

The lack of clear legal framework on the use of RCMS is also slowing down improvements of the current system, in particular the rationalisation of access, connection with national and EU

([83]) Digitalisation Study, Table 129.

([84]) Return Regulation, Articles 36-39.

([85]) For instance, Article 87(1)(b) of the EBCG Regulation, which frames the purposes for which Frontex may process personal data, does not refer expressly to reintegration.

([86]) As confirmed by the information collected in preparation of joint committees of readmission agreements and arrangements as well as in relevant Council Working Groups and Commission Expert Groups.

systems and data storage on the EU side as no relevant EU entity has a clear mandate to store and process such data.

How likely are the problems to persist?

The problems described in Section 0 are expected to persist unless further action is taken at national, European, and international levels.

Problem 1 - The information needed to carry out efficiently RRR is not easily accessible to all relevant authorities

To comply with data protection rules, legal bases are needed to enhance interconnection, data sharing and establish new systems. The Pact on Migration and Asylum and the upgraded Eurodac and VIS will contribute to improving data availability, access, exchange and standardisation. The EES will enhance the possibilities to identify overstayers. However, without improved interconnection of digital RRR case management with EU Information Systems (e.g. Eurodac, SIS, EES), the effectiveness of the digital management of RRR processes will remain limited, hindering the EU's overall migration management efforts. As stated above, the Return Regulation lays down clear legal bases for the sharing and transfer of data, which will contribute to improve the situation. However, the Return Regulation does not detail the technical means that may be used to share and transfer such data, to enhance the interconnection of existing systems, and to develop new systems. The problem identified is therefore expected to persist without intervention.

Problem 2 – Excessive administrative burden, delays and inefficient monitoring of cases

Without a clear and mandatory legal framework, the involved actors would not have sufficient capabilities nor any incentive to develop their system in a manner likely to address the problem identified in Section 0. irregular arrivals at Union level are expected to decrease across all the main migratory routes in 2026 compared to 2024, in line with the downward trend already observed in the first half of 2025 ([87]). At the same time, it is reasonable to assume that, at least for the foreseeable future, the number of return decisions to be handled by RRR case management systems will remain high in absolute terms. In 2025, 487 285 TCNs were ordered to leave ([88]) and 56 304 readmission requests were submitted to third countries ([89]). As a result, without intervention, the corresponding administrative burden incurred by national authorities will remain excessive.

Problem 3 - More granular and swiftly statistics are needed

Shortcomings in data collection are expected to persist without intervention as siloed digitalisation and inadequate system functionalities will continue to prevent the automated creation of sufficiently granular statistics. The Pact on Migration and Asylum, the upgraded Eurodac and VIS, and the adoption and implementation of the Return Regulation will

([87]) Communication from the Commission to the European Parliament and the Council, The European Annual Asylum and Migration Report (2025), Brussels, 11.11.2025 COM(2025) 795 final, page 18.

([88]) Eurostat, [migr_eiord1] Third country nationals ordered to leave by citizenship, age and sex - quarterly data (rounded).

([89]) Frontex operational data.

contribute to improving data availability, access, exchange and standardisation. The EES will enhance the possibilities to identify overstayers. However, without improved interconnection of digital RRR case management with EU Information Systems (e.g. Eurodac, SIS, EES), the effectiveness of the digital management of RRR processes will remain limited, hindering the EU's overall migration management efforts

WHY SHOULD THE EU ACT?

Legal basis

The EU's legal basis to act is established under 79(2)(c) of the Treaty on the Functioning of the European Union ('TFEU'). Article 79(2)(c) mandates the European Parliament and the Council to adopt measures in the area of illegal immigration and unauthorised residence, including removal and repatriation of persons residing without authorisation. The development and implementation of efficient digital case management systems in the area of RRR is a means to this end.

Subsidiarity: Necessity of EU action

The identified problems cannot be effectively resolved at national level. Given the magnitude of the fragmentation of the current digital landscape, without EU coordination and an appropriate EU legal framework, Member States will continue developing siloed systems, leading to inefficiencies, uneven digitalisation, and higher costs ([90]). Inefficient digital management of RRR processes will hinder the future implementation of common rules on return, resulting in suboptimal levels of returns. This would also affect the proper functioning of the rules of the Pact on Migration and Asylum and have an impact on the Schengen area.

An EU-level intervention is essential to ensure interconnection of relevant IT systems across Member States (including by leveraging EU Information Systems), consistent data exchange, and operational efficiency across Member States. Only a coordinated approach at EU level can address in a coherent manner the cross-border complexities that Member States are currently facing e.g. as regards the insufficient sharing of data between Member States.

Subsidiarity: Added value of EU action

The initiative will generate EU added value because an EU initiative can bring about a **common framework at EU level** that is expected to enhance data sharing, speed up procedures, reduce administrative burden and enable the creation of more granular statistics. This cannot be achieved in the same way by **Member States acting individually**. A harmonised digitalised approach to RRR processes at EU level will improve the overall effectiveness of the return system and align with the broader objectives of the Pact on Migration and Asylum. Eventually, coherent digitalisation efforts will support the proper functioning of the Schengen area and the sustainability of the Common European Asylum System.

A unified digital framework will strengthen the EU's position in negotiations and interactions with third countries and improve the implementation of the 24 EU readmission instruments

([90]) Digitalisation Study, Section 2.2 of Part 2.

which provide for uniform procedures. It would contribute to a streamlined approach and coherent expectations in third countries and benefit all Member States.

EU-level efforts will create **economies of scale** by reducing average costs, as well as **avoiding duplication of efforts** through system development in silos, and support evidence-based policymaking, including by increasing the reliability of data and statistics. By pooling resources and expertise, the EU can deliver **more robust and scalable solutions than Member States acting individually**.

OBJECTIVES: WHAT IS TO BE ACHIEVED?

General objectives

The general objectives are to **support the implementation of the rules on RRR** laid down in the Return Regulation, and contribute to the implementation of the **Pact on Migration and Asylum**. Achieving these two objectives will contribute to the **proper functioning of the Schengen Area** and to the **sustainability of the Common European Asylum System**.

Working towards a comprehensive and integrated digital case management system at EU and national level to manage RRR processes efficiently, despite the diversity of authorities involved at local, national and EU level, will contribute to these general objectives. Such system would be a **first step towards a comprehensive, integrated and digitalised EU migration management system**, that would go beyond RRR processes and encompass other migration processes such as asylum. To do so, the initiative pursues several specific objectives.

Specific objectives

Specific Objective 1: enhancing data sharing

The initiative aims to **increase data sharing** within the same Member State, between Member States and between Member States and Frontex, and between Member States or Frontex and third countries. The objective is to reduce information gaps by ensuring that relevant authorities have access, through appropriate technical means and in compliance with applicable data protection rules, to the information necessary to carry out and monitor RRR processes more efficiently. In particular, all return alerts in SIS should contain the required biometric data.

Specific Objective 2: digitalising, automating and simplifying RRR processes

The initiative aims to **foster the digitalisation of RRR** processes and **remedy the limited functionalities of existing IT systems** to ensure that processes and reporting requirements are more digitalised, user-friendly and automated (where relevant through the use of AI, e.g. predictive analytics). National RECAMAS, a future EU Integrated Readmission Case Management System ('iRCMS') and RIAT should feature functionalities such as: issuance of a single identifier allocated to each third-country national for whom a case is opened, the automation of case creation upon the ending of a legal stay of a third-country national, a search functionality to identify and detect multiple cases, possibility to monitor deadlines and prioritise cases, possibility for competent authorities and third-country nationals to securely communicate and exchange documents via digital means or possibility to securely exchange information via the Communication Portal. The initiative will support the automated creation of European Return Orders provided for by the Return Regulation and will thereby contribute to the establishment of a mandatory mutual recognition of return decisions.

The initiative will **speed up, simplify and streamline processes**, increase their transparency and **decrease the workload for competent authorities**. By doing so, the initiative aims to **improve the governance** of existing and future IT systems. This streamlined governance will ensure a smooth maintenance and upgrade of the systems, mitigate the risk of developing such systems in silos, ensure **data protection compliance** by laying down a clear allocation of roles and responsibilities, and provide relevant staff with appropriate and sufficient training.

Specific Objective 3: enabling the creation of accurate statistics

The initiative aims to improve data collection to **enable the automated compilation of more accurate and reliable statistics and shorten the timeframe for data collection** to better support evidence-based policy and decision-making. In particular, the initiative will enable or simplify the creation of statistics on (i) the number of return decisions issued, (ii) the number of annulled or withdrawn return decisions, (iii) the number of effective returns, (iv) the number of voluntary and forced returns, (v) the readmission statistics on whether the nationality was confirmed, (vi) the number of travel documents issued, and (vii) the number of persons subject to reintegration support per Member State and per third-country of return

WHAT ARE THE AVAILABLE POLICY OPTIONS?

Five policy options were considered, with four retained for in-depth assessment, including the baseline scenario. Two options were discarded early (see Section 0). All options aim to achieve the same objectives (see Section 0) and address the same problem drivers (see Section 0) but differ in approach.

Annex 8 provides a comparative overview of the baseline scenario and Policy options 1-3, covering rationale, architecture, technical features, and proposed way forward.

What is the baseline from which options are assessed?

In the baseline scenario, case management systems for RRR are fragmented, operating in silos rather than as an integrated framework. Within the EU, around 40 systems are being used to process RRR cases ([91]). Return case management systems exist at national level, but only 12 of them are aligned with the RECAMAS Model. National return case management systems are not connected to one another and RIAT and RCMS are not connected to national return case management systems. In addition, national return systems, RCMS and RIAT are not yet connected to the ESP, IRMA and FAR (apart from one Member State) and cannot be connected to the CRRS. The governance of the IT systems is fragmented.

Competent authorities insufficiently leverage the existing EU Information Systems (e.g. by not making an efficient use of the SIS, as explained under Section 0). Technical limitations with regard to the EU information systems will persist. For instance, concerning availability of biometric data stored in the SIS, despite the legal obligation to add biometric data to alerts on return, when this data is available at national level, according to eu-LISA statistics on 1 December 2025, only 60.24% of the alerts on return contained biometric data. In 10 Member States the percentage of alerts with biometrics was below 10%. This is explained by the lack

([91]) 27 return case management systems, six RCMS, RIAT, at least 4 EU Information Systems (SIS, VIS, Eurodac, EES), FAR, IRMA.

of automation in some Member States, a problem which is expected to persist in the baseline scenario.

At the same time, improvements in the field of EU Information Systems are ongoing. Eurodac is undergoing a major upgrade in 2026 and will contain more relevant information for RRR purposes. The EES is fully operational since 10 April 2026 and ETIAS is expected to start operations in the fourth quarter of 2026. Interoperability components are progressively entering into operation (sBMS in 2025) and the ESP is expected to be operational in 2026. The entry into operation of the ESP (and of the MID) will improve Member States' access to information stored in EU Information Systems and enhance their identity management capabilities.

As detailed in Annex 9, yearly national maintenance costs for case management system are estimated at EUR 3.32 million per Member state.

Example of the standard digital processing by Member State A of a RRR case concerning TCN X, on which Member State B possesses some information

- Step 1: Member State A creates and processes the case of TCN X in its national RECAMAS. The information from the EU Information Systems can be accessed but is not queried and retrieved directly into the national RECAMAS and it has to be inserted manually.

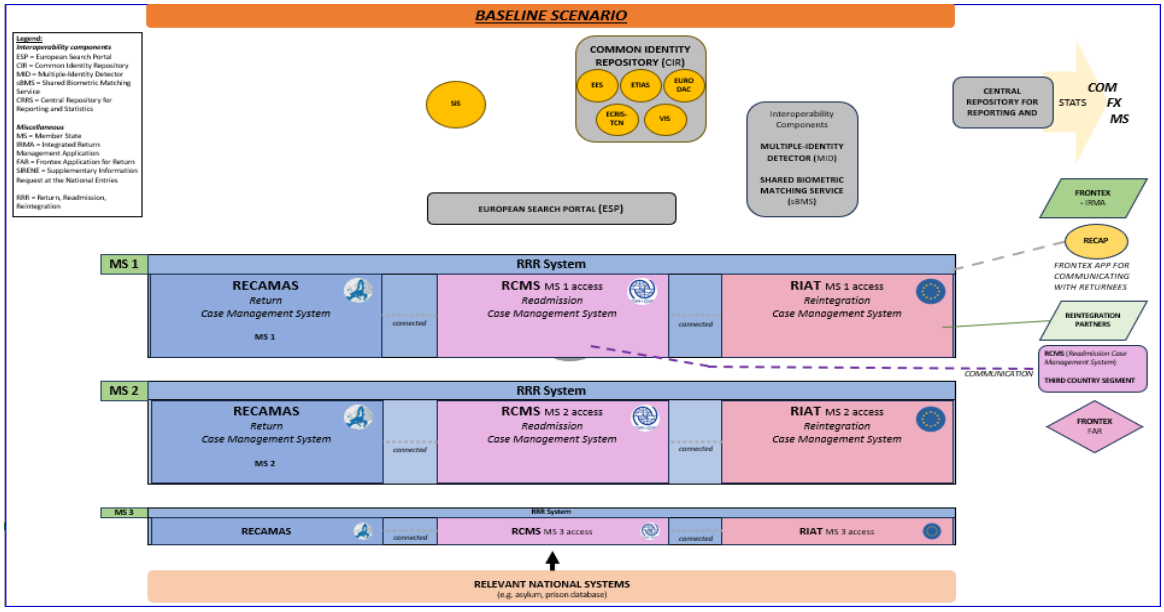
- Step 2: Member State A may need additional information from Member State B (e.g. for identification purposes), which is not available in EU Information Systems. The information is often not exchanged.

- Step 3: the readmission process, and where applicable, reintegration process are managed through iRCMS (which only exists with six third countries) and RIAT. The case handler has to log off from national RECAMAS and log on to iRCMS and RIAT and copy manually the data to these systems.

Option 1 can be visualised as follows ([92]):

Figure 5 – Baseline scenario

([92]) The figure depicts the current baseline scenario, where each Member State [MS1. MS2 and MS3] operates their own case management system on return (not based on the RECAMAS model in all cases, and with differing level of automation). The national case management systems are not connected, and therefore Member States cannot share information directly, but need to do it through the EU Information Systems, for example the SIS and the SIRENE Channel. In addition, the readmission (RCMS) and reintegration (RIAT) IT systems are not connected to the national case management, which causes gaps in information sharing at national level. Certain IT systems, including ETIAS and RECAP, are not operational as of today but will be a near future.



Source: Commission

Description of the other policy options

The following sections outline three policy options, which address the problems and objectives identified. All three options would achieve **full digitalisation of case management in the area of RRR**, by providing the following common features:

- **All Member States will need to use a digitalised case management system** on RRR.
- **Integrated access** to one single case management system covering all RRR processes (no need for the user of the system to log off from one system and log on to a different system).
- **Interaction and connection** with existing and future EU Information Systems, resulting in an enhanced sharing of information between Member States.
- Building case management systems for **readmission (iRCMS) and reintegration (RIAT) at EU level**.
- **Automation** of several processes currently carried out manually, where relevant by leveraging Artificial Intelligence (AI) functionalities, resulting in a substantial **simplification and decrease of administrative burden** for competent authorities.
- **Opening the way for a comprehensive, integrated and digitalised EU migration management system** to which additional migration processes could later be added (e.g. screening, asylum), in line with the Pact on Migration and Asylum, and the long-term European Asylum and Migration Management Strategy

Policy option 1 'Partially decentralised option without central EU database'

Key features

Under Option 1, the case management system **for return** will be at **national level ('national RECAMAS')**. To ensure consistency and interoperability and with the support of Frontex, national RECAMAS will be based on either (i) the RECAMAS Model developed by Frontex or (ii) an off-the-shelf RECAMAS-based IT system developed by Frontex, in cooperation with eu-LISA, that may be adopted and customised by willing Member States ('Frontex RECAMAS'), or (iii) based partially on the RECAMAS Model and partially on parts of the Frontex RECAMAS

New integrated case management systems **for readmission (iRCMS) and reintegration (RIAT)** are developed at **EU level** (by Frontex, with the support of eu-LISA) and integrated in the national RECAMAS. They will allow to store data from all Member States on readmission and reintegration cases in a centralised manner.

Case management systems **query and retrieve information from existing and future EU Information Systems**, thanks to functionalities of the European Search Portal. **No new EU central database on return is created**.

Instead, a **Communication Portal** developed by eu-LISA (building on existing digital infrastructure e.g. SIRENE, DublinNet, VIS Mail) is used for the communication of additional information that cannot be shared through EU Information Systems (as explained under Section 0).In those cases, the Communication Portal will allow the exchange of this information between Member States. The Communication Portal is connected to each national RECAMAS and the information is directly retrieved from the system and exchanged between national Single Point of Contact ('SPOC'). The Communication Portal will be a communication channel allowing for structured and non-structured exchanges and running on a secure network.
It will not store data. The system will be owned by eu-LISA and will be connected to all national RECAMAS.

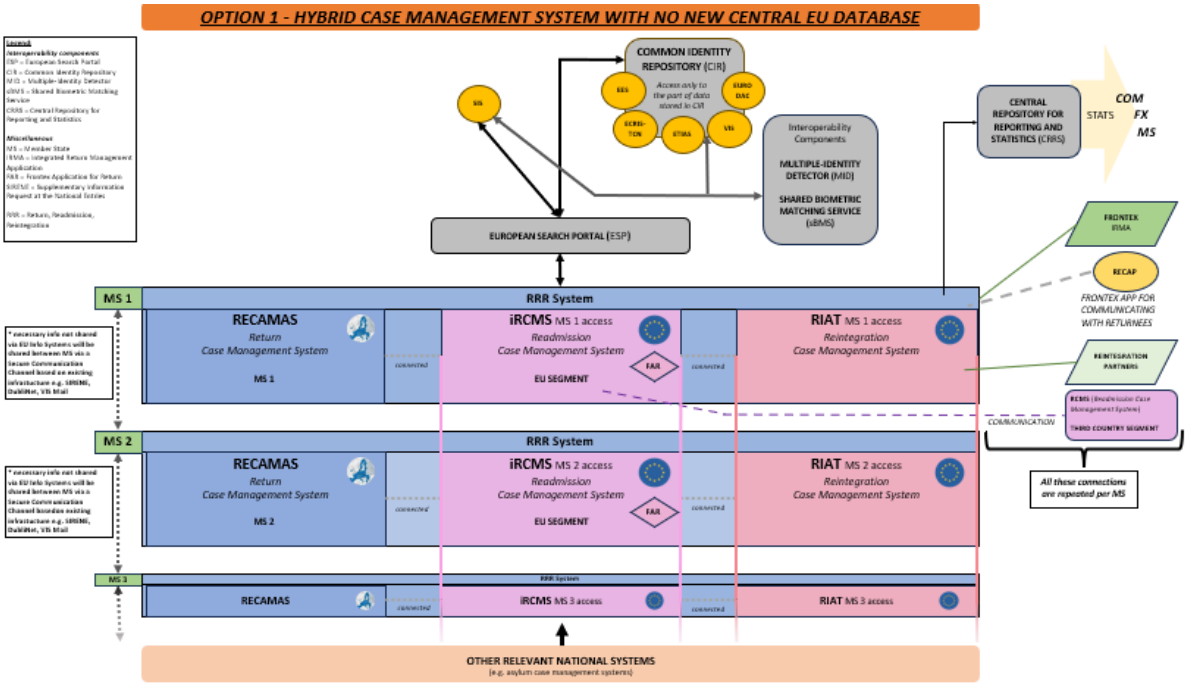
Technical modules for flight booking (via FAR) may be integrated in iRCMS. National RECAMAS, iRCMS and RIAT will be connected to the CRRS to generate more granular statistics. The communication with returnees may occur through 'RECAP'.

Example of the standard digital processing by Member State A of a RRR case concerning TCN X, on which Member State B possesses some information

- Step 1: Member State A creates and processes the case of TCN X in its national RECAMAS. Thanks to the ESP, the information on TCN X is queried and retrieved from the EU Information Systems directly into the national RECAMAS.
- Step 2: Member State A may need additional information from Member State B (e.g. for identification purposes), which is not available in EU Information Systems. Member State A requests Member State B to share this additional information. The request and the exchange of information is done through the Communication Portal.
- Step 3: the readmission process and, where applicable, the reintegration process are managed through iRCMS and RIAT without the need to log off and log on or to manually copy data as these systems will be integrated into national RECAMAS.

Option 1 can be visualised as follows ([93]):

Figure 6 – Infographic for Option 1: 'Partially decentralised option without central EU database'



Source: Commission

Governance

Member States will develop, maintain and operate their national case management systems on return (national RECAMAS).

Frontex will maintain and update the RECAMAS Model and will develop, in cooperation with eu-LISA, the Frontex RECAMAS that may be adopted and customised by willing Member States. Frontex will also develop ad-hoc off-the-shelf IT solutions (e.g. RECAP) that should be integrated into national RECAMAS.

Frontex will develop and maintain a new EU integrated case management system on readmission (iRCMS) and on reintegration (RIAT), in cooperation with eu-LISA, to be integrated in national RECAMAS. In other words, Frontex will be in charge of the IT management of these systems.

([93]) The figure depicts Policy option 1, in which each Member State [MS1. MS2 and MS3] would operate a 'national RECAMAS' with a minimum set of functional requirements. The systems for readmission (iRCMS) and reintegration (RIAT) will be integrated in the 'national RECAMAS' allowing for a seamless case management of the RRR process. The 'national RECAMAS' will be connected to the ESP, allowing it to search and retrieve information from all relevant EU Information Systems. The Communication Portal will allow Member States to exchange relevant information.

eu-LISA's support to Frontex will include providing technical advice and expertise on the development and management of the Frontex RECAMAS, iRCMS and RIAT (e.g. during the designing phase or during the procurement phase).

eu-LISA will develop a Communication Portal to allow return authorities to share information that cannot be shared through existing or future EU Information Systems, building on existing infrastructure (e.g. SIRENE, DublinNet, VIS Mail).

Overall, while Member States will still be in charge of their national RECAMAS, Frontex will take a leading role under Option 1 by developing and maintaining the RECAMAS Model, the Frontex RECAMAS, iRCMS and RIAT. As this option does not imply the creation of a new central database, the role of eu-LISA will be more limited. The impact of this governance model on data protection (including the identification of controllers and processors) is described in Section 0 (fundamental rights).

Implementation

Option 1 can be implemented by a self-standing EU legislative regulation (i.e. a separate regulation and not only a regulation amending other pieces of EU legislation) containing provisions on the digitalisation of case management of RRR processes and some targeted amendments to existing EU law. The EBCG Regulation will need to be amended. The Interoperability Regulations will have to be amended to ensure that national RECAMAS can make use of the CRRS for statistical purposes. The eu-LISA Regulation ([94]) would have to be amended to expand eu-LISA's mandate to entrust the Agency with the development of the Communication Portal. A targeted amendment to the SIS Regulation ([95]) will be needed to create the legal base to ensure that the data contained in alerts on return entered under Article 3 of Regulation (EU) 2018/1860 can be kept in national RECAMAS. There is no need to amend the founding regulations of other EU Information Systems.

Policy option 2 'Partially decentralised option with central EU database'

Key features

This option has some elements in common with Option 1. The case management system **for return** is developed at **national level (national RECAMAS).** As in Option 1, to ensure harmonisation and with the support of Frontex, national RECAMAS will be based on either (i) the RECAMAS Model developed by Frontex or (ii) an off-the-shelf RECAMAS-based IT system, that may be adopted and customised by willing Member States. The case management systems **for readmission (iRCMS) and reintegration (RIAT)** are developed at **EU level** (by eu-LISA, with the support of Frontex) and integrated in the national RECAMAS.

([94]) Regulation (EU) 2018/1726 of the European Parliament and of the Council of 14 November 2018 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA), and amending Regulation (EC) No 1987/2006 and Council Decision 2007/533/JHA and repealing Regulation (EU) No 1077/2011; OJ L 295, 21.11.2018, p. 99; https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R1726.

([95]) Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the use of the Schengen Information System for the return of illegally staying third-country nationals; OJ L 312/1, 7.12.2018; https://eur-lex.europa.eu/eli/reg/2018/1860/oj/eng.

Contrary to Option 1, an **EU central database dedicated to RRR is created** to facilitate the storing and sharing of the relevant data between Member States stored in national RECAMAS, iRCMS and RIAT. For this reason, there is no need for a Communication Portal (as in Option 1). The connection between the EU central database and national RECAMAS is made through a uniform interface. This system would ensure interoperability with existing and future EU Information Systems, leveraging tools like the CRRS, ESP, and other interoperability components (CIR, MID, and sBMS). Unlike Option 1, it allows for the automatic exchange of all data processed in national RECAMAS through the EU central database.

In terms of technical and functional features, the central database enables the introduction of a unique EU case identifier, allowing to identify cases being managed for the same person in different Member States.

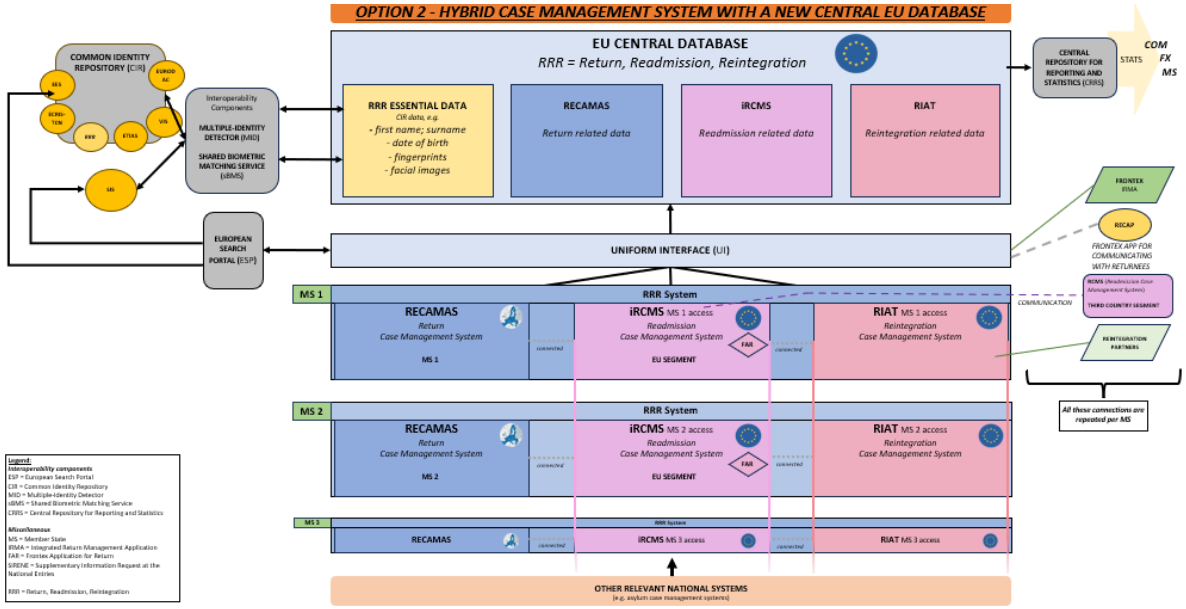
Example of the standard digital processing by Member State A of a RRR case concerning TCN X, on which Member State B possesses some information

- Step 1: As under Option 1, Member State A creates and processes the case of TCN X in its national RECAMAS. Thanks to the ESP, the information on TCN X is queried and retrieved from the EU Information Systems directly into the national RECAMAS.
- Step 2: Member State A may need additional information from Member State B (e.g. for identification purposes), which is not available in EU Information Systems. Member State A requests Member State B to share this additional information which becomes accessible to Member State A in its national RECAMAS thanks to the new EU central database (and not thanks to the Communication portal as under Option 1).
- Step 3: As under Option 1, the readmission process and, where applicable, the reintegration process are managed through iRCMS and RIAT without the need to log off and log on or to manually copy data as these systems will be integrated into national RECAMAS

Option 2 can be visualised as follows ([96]):

([96]) The figure depicts Policy option 2, in which each Member State [MS1. MS2 and MS3] would operate a 'national RECAMAS' with a minimum set of functional requirements. The systems for readmission (iRCMS) and reintegration (RIAT) will be integrated in the 'national RECAMAS' allowing for a seamless case management of the RRR process. A new database would be created containing all relevant RRR information, inserted through the 'national RECAMAS'. Member States' competent authorities would have direct access to the RRR database and would exchange information directly through it. The RRR database would become part of the Interoperability framework, leveraging the interoperability components MID, CIR, sBMS, ESP and the CRRS.

Figure 7 – Infographic for Option 2: 'Partially decentralised option with central EU database'



Source: Commission

Governance

Just as under Option 1, Member States will develop, maintain and operate their national case management systems on return (national RECAMAS). Frontex will maintain and update the RECAMAS Model.

Unlike in Option 1, eu-LISA will develop and maintain the off-the-shelf RECAMAS-based IT system, as well as a new EU integrated case management systems on readmission (iRCMS) and reintegration (RIAT), in cooperation with Frontex, to be integrated in national RECAMAS. eu-LISA will also develop the new EU central database. In other words, eu-LISA will be in charge of the IT management of these systems.

Overall, eu-LISA will take the leading role as the off-the-shelf RECAMAS-based IT system, iRCMS and RIAT will be connected to the EU central database (i.e. a new large-scale IT system) that eu-LISA will develop. The impact of this governance model on data protection (including the identification of controllers and processors) is described in Section 0 (fundamental rights).

Implementation

Implementing Option 2 will require a regulation and amendments to the Interoperability Regulation, the founding regulations of all six EU Information Systems (SIS, EES, Eurodac, VIS, ETIAS, ECRIS-TCN), the EBCG Regulation and the eu-LISA Regulation to expand the agencies' respective mandates, to entrust them with the development of the respective systems.

Policy option 3 'Centralised solution'

Key features

Unlike Option 1 and 2, **a single case management system is developed at EU level** (by eu-LISA) **for RRR**. This single case management system replaces all national case management systems and integrates the functionalities of RCMS and RIAT. Member States log in to a single EU case management system, which contains all the data relating to RRR. The automatic sharing of relevant data is enabled through the creation of a **dedicated EU central database on RRR**.

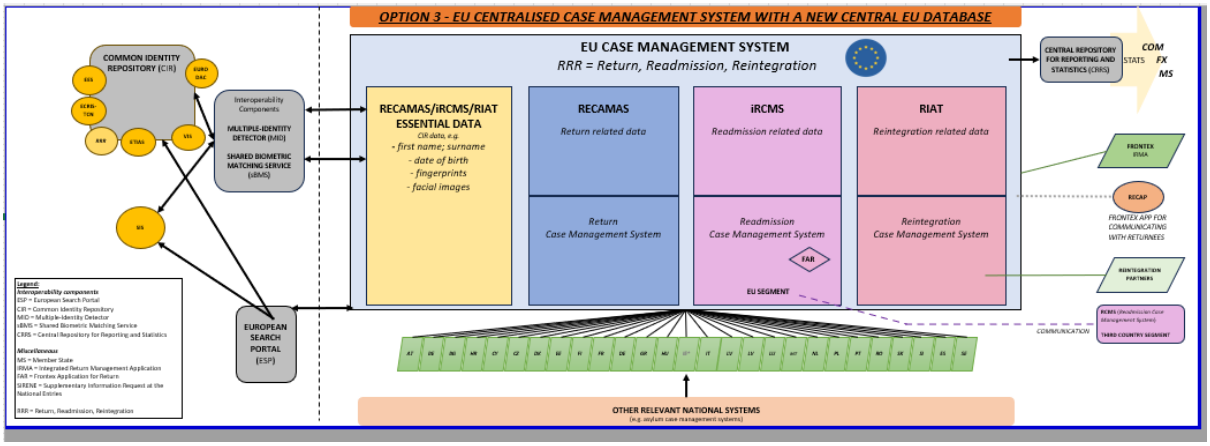
This option replaces national systems with a unified EU case management system, making it mandatory for Member States to use a centralised database for seamless data sharing, removing the need for a dedicated Communication Portal. Accessible via a web platform, the system will leverage the ESP and all other interoperability components (CIR, MID, and sBMS).

Example of the standard digital processing by Member State A of a RRR case concerning TCN X, on which Member State B possesses some information

- Step 1: Member State A creates and processes the case of TCN X directly in the EU centralised case management system. Thanks to the ESP, the information on TCN X is queried and retrieved from other EU Information Systems.
- Step 2: Member State A may need additional information from Member State B (e.g. for identification purposes), which is not available in EU Information Systems. Member State A requests Member State B to share this additional information which becomes accessible to Member State A through the new EU central database.
- Step 3: the readmission process and, where applicable, the reintegration process are managed directly in the EU centralised case management system.

Option 3 can be visualised as follows ([97]):

Figure 8 – Infographic for Option 3: 'Centralised system'



Source: Commission

([97]) The figure depicts Policy option 3, in which a single common case-management system would be developed at EU level, to which all Member States are connected through a uniform national interface. The single common case-management system would also include an RRR database.

Governance

eu-LISA will develop the new centralised EU case management system and the EU central database, in cooperation with Frontex, which will still be in charge of maintaining and updating the RECAMAS Model. eu-LISA will take the leading role in the development and operational management as the case management system will be inherently linked to the EU central database (i.e. a new large-scale IT system) that eu-LISA will have to develop. The impact of this governance model on data protection (including the identification of controllers and processors) is described in Section 0 (fundamental rights).

Implementation

Implementing Option 3 will require a new regulation as well as amendments to the Interoperability Regulations, the founding regulations of all six EU Information Systems, the EBCG Regulation and the eu-LISA Regulation to expand the agencies' respective mandates and to entrust them with the task to establish the new centralised EU case management system.

Options discarded at an early stage

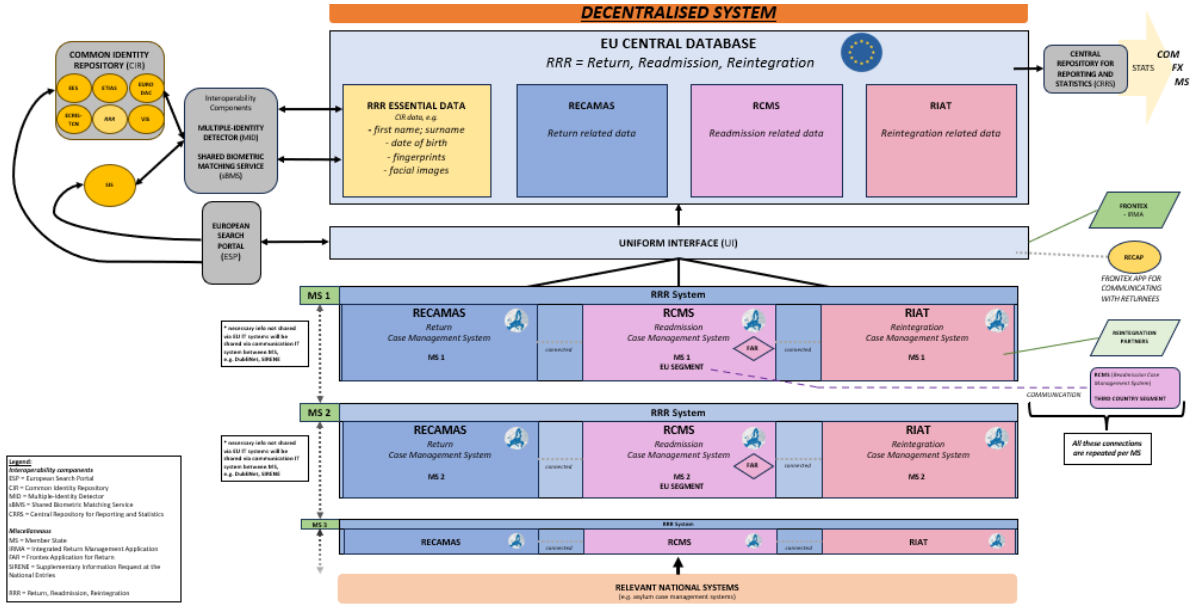
'Decentralised option'

During the preparatory process, the option of a decentralised system was considered. This option would involve an EU legislative framework establishing a decentralised national case management system for RRR. Unlike Options 1, 2 and 3, readmission case management systems (RCMS) and reintegration case management systems (RIAT) would also be developed at national level and not at EU level.

The decentralised option can be visualised as follows ([98]):

([98]) The figure depicts the discarded policy option for a decentralised system, in which each Member State [MS1. MS2 and MS3] would operate a 'national RECAMAS' with a minimum set of functional requirements. The systems for readmission (iRCMS) and reintegration (RIAT) would also be developed at national level, with no EU component. A dedicated RRR database will be established storing all data recorded in national RECAMAS, iRCMS and RIAT.

Figure 9 – Infographic for the discarded policy option 'Decentralised system'



Source: Commission

As in Option 2 and 3, a central database would connect the national case management systems. Member States would continue using their own systems, while the framework would harmonise technical requirements to ensure efficiency, automation, and reliable statistics. This option would also enhance data sharing, particularly with existing EU Information Systems.

Frontex would support this transition by providing guidance, standardised IT solutions, and tools like return applications and identification modules to ensure consistency across Member States. A self-standing Regulation and amendments to existing EU Regulations would be required to establish the legal framework for this decentralised system.

This policy option was discarded based on its lack of coherence, proportionality, effectiveness, and efficiency. This policy option is not coherent with the problems experienced, given their cross-border nature which requires action at EU level, while this option would regress by shifting responsibility for RCMS and RIAT to Member States. This policy option would be disproportionate as it would contradict existing and well-functioning practices whereby RCMS and RIAT are managed at EU level, in line with the principle of subsidiarity.

This policy option is not effective as the time horizon for an EU central database could extend up to seven years due to legal, and technical challenges, making this option ineffective in addressing current problems ([99]). This policy option is not efficient as each Member State will have to develop its own RCMS and RIAT, in addition to their national RECAMAS, which will imply some high sunk costs concerning the existing RCMS and RIAT, as these systems will have to remain in place at EU level in the meantime.

These elements make this option inadequate in addressing the current problems, even if this option might imply some progresses compared to the baseline.

([99]) Digitalisation Study, Section 4.3 of Part 2.

Soft law alternatives

Soft law alternatives were considered but discarded at an early stage, given that the problems identified in Section 0 can only be addressed by the establishment of one or several new IT systems, by an improved governance, by an increased interconnection between the different IT systems and by ensuring a minimum level of efficiency of the case management systems.

For instance, the current RECAMAS Model, developed by Frontex, is a non-mandatory blueprint that Member States may decide to implement or not. This is one of the issues explaining the existing fragmentation in case management and information sharing between Member States. EU Information Systems, such as the SIS, while constituting important tools for information sharing in the return area, present technical limitations which do not allow for case management of all RRR processes.

The nature of the existing systems, and the required interconnection between different IT systems to ensure a minimum level of efficiency of the case management systems, would by nature necessitate the adoption of a legal act due to (i) the need for a clear legal basis for processing, under data protection rules, and (ii) the need to amend and broaden the mandate of Frontex and eu-LISA to entrust them with the tasks to develop the new IT systems.

WHAT ARE THE IMPACTS OF THE POLICY OPTIONS?

Annex 7 provides a more detailed presentation of the impacts of the policy options.

The rating of the impact ranges **from -5** (very negative in comparison to baseline scenario) **to 5** (very positive in comparison to baseline scenario). The baseline scenario is by convention rated as 0.

Policy option 0 'Baseline scenario'

Under this option, the Commission would not take any additional action beyond what is already planned or ongoing.

Assessment of impacts		
Economic	0	Option 0 has no significant economic impact. This is based on the assessment that the various effects are all rather limited in scale. The impact on public budgets under the baseline scenario is limited, as existing infrastructures are already in place. However, the maintenance costs are estimated at EUR 3.32 million per Member State per year (EUR 24 million in total) ([100]). At the same time, the management of return has by its nature no relevance for the activity of Small- and Medium-sized Enterprises ('SMEs'), competitiveness or property rights. The very limited digitalisation in this field also offers no stimulus for innovation or growth, as it is not related to new technological developments or investments in IT systems.

([100]) Please refer to Table 37 - Overview of costs per stakeholder and policy option for more details.

Societal	0	The baseline scenario has a negative societal impact, primarily due to the fact that insufficient digital management of RRR processes leads to the problems identified in Section 0, which may continue to fuel public discontent, widen social divides, and erode trust in institutions, ultimately weakening the EU's ability to tackle a politically sensitive issue. Looking forward, the numbers of irregular TCNs is expected to continue to place pressure on social welfare systems and public services, diverting resources from other critical areas such as healthcare, education, and housing. At the same time, a negative societal impact is due to the exploitation of irregular TCNs, who will continue to support sectors such as agriculture, care work, and construction.
Environmental.	0	Option 0 has a negligible negative environmental impact. The energy consumption of the necessary IT systems may vary with the level of modernity and manual processes and represent missed opportunities to implement more sustainable digital solutions but is overall too limited under the baseline scenario to have any environmental impact.
Security	0	The baseline scenario has a negative impact on security across the EU. The lack of sufficiently effective return procedures weakens the EU's ability to manage RRR processes, leading to concrete security risks within the Member States due to delays in return procedures and insufficient monitoring of individuals posing security threats. Due to the current shortcomings in terms of data-sharing, the EU's ability to carry out effective risk assessments is diminished, impairing efforts to identify high-risk individuals, reducing the overall effectiveness of security measures. The security of RRR processes is undermined by structural and operational challenges, increasing the risk of errors, misuse of information, and personal data breaches.
Fundamental rights	0	Option 0 generally adheres with fundamental rights. However, concerns have been raised regarding the protection of personal data, particularly for TCNs. The fragmented digital landscape may lead to difficulties to identify the roles and responsibilities of different actors (i.e. controllers and processors). The insufficient digitalisation may hinder the ability of TCNs to make use of their data subjects rights (e.g. right of access), and the limited functionalities of existing IT systems may prevent controllers from swiftly addressing data subjects' requests. Moreover, the absence of a harmonised approach at EU level complicates monitoring efforts and heightens the risk of violations going undetected, thereby undermining the consistent protection of TCNs' rights across Member States.
Feasibility		
Feasibility	0	N/A

Further details on the assessment of the baseline scenario can be found in Section 0 of Annex 7.

Policy option 1 'Partially decentralised option without central EU database'

Assessment of impacts

Economic	0	Option 1 has no significant, direct or indirect, economic impact because the various effects of return policies on macro-economic parameters are rather limited in scale. That being said, Option 1 provides Member States with flexibility to either continue developing their existing national systems in line with the RECAMAS Model developed by Frontex or to adopt the off-the-shelf RECAMAS-based IT solution developed by Frontex. This dual approach allows Member States to build on prior investments while ensuring convergence towards a common framework. At the same time, it offers a cost-efficient alternative for those Member States with less mature case management systems, which would benefit from the off-the-shelf RECAMAS-based IT solution, reducing spending only to the customisation of the model. Over time, the one-off and recurrent costs may be offset by efficiency gains thanks to the improved digital migration management. A minor economic stimulus may benefit larger IT companies but is unlikely to benefit SMEs, with no significant impact on competition, technological developments, consumers, innovation, or education. In this regard, it can also be referred to the competitiveness check undertaken (see Section 0 of Annex 5).
Societal	1	Option 1 is expected to contribute to strengthening public trust in EU and Member States' migration management, by improving the management of RRR processes. Labour market effects are limited, with marginal impacts on employers relying on irregular TCNs but greater and swifter certainty for legal recruitment, partially due to greater legal certainty regarding the status of TCNs.
Environmental	0	For the reasons explained under the baseline, Option 1 is expected to have a negligible negative environmental impact. Although the reuse of existing systems and the Communication Portal under this option contribute to resource efficiency and reduce the need for new infrastructure, the restructuring process itself will require additional energy and resources, particularly in Member States undertaking significant system upgrades. Overall, as the EU intervention is not significantly disruptive, the negative environmental impacts are expected to be negligible.
Security	4	Option 1 is expected to have a positive impact on security for citizens, businesses, and public administration across the EU, addressing the main shortcomings identified in the baseline scenario. The case-management would allow Member States to carry out RRR processes in a faster and more efficient manner, enabling better identification of irregular TCNs, including those individuals posing security threats. Option 1 is expected to improve data-sharing between Member States, increasing the EU's ability to carry out effective risk assessment, improving the capacity to identify high-risk individuals, and improving the overall effectiveness of security measures. However, reliance on a partially decentralised structure (i.e. national RECAMAS) may lead to inconsistencies in information exchange if the Communication Portal is not properly used. Risk of errors, misuse of information, and personal data breaches is expected to reduce with Option 1 by establishing standardising readmission and reintegration case management systems across Member States, managed centrally by Frontex. Harmonised processes and security standards would reduce inconsistencies in data handling, strengthen compliance with EU data protection rules, and enhance accountability, thereby improving the secure and reliable management of sensitive personal data. Specific measures must be implemented to ensure IT security and address the following issues: equipment, access control and checks at entrance to the installation, data media control, storage control, user control, control of data entry, data access control, personnel profiles, communication control, control of data recording, transport control, recovery, integrity, self-auditing.

Fundamental rights	0	Option 1 adheres overall to fundamental rights, despite some potential risks related to data protection, due to the integration of iRCMS, RIAT, and the connection of national RECAMAS to the Communication Portal. In particular, risks may arise in case the governance of the different IT systems is not defined sufficiently clearly, thereby leading to difficulties to identify the roles and responsibilities of the different data processors and controllers, as well as the applicable data protection rules. These risks can be mitigated by laying down clear provisions on the governance of the systems and on the corresponding applicable rules. Roles and responsibilities under data protection rules will be clearly allocated (i.e. 'who is controller, who is processor) ([101]). More specifically, the following data protection governance could be established: • Each Member State may act as data controller for the personal data it records in its national RECAMAS, in iRCMS, and in RIAT, and for the operational management of its national RECAMAS. • Frontex may act as processor in relation to the data it records in national RECAMAS, in iRCMS, and on cases from national reintegration assistance programmes managed in RIAT. • Member States and Frontex may be considered as joint controllers in relation to the processing of personal data recorded in RIAT for cases managed under an EU reintegration assistance programme. • Frontex may act as processor for the operational management of iRCMS and RIAT. • Member States and Frontex may be considered as joint controllers in relation to the processing of personal data exchanged through the Communication Portal. • eu-LISA may act as processor in relation to the operational management of the Communication Portal. This option may enable faster, more transparent RRR processing, with better-protected data sharing, particularly in sensitive areas, thanks to the Communication Portal. Under Option 1, data protection rules applicable to transfers (Chapter V GDPR/EUDPR) will fully apply. Compliance with the GDPR (General Data Protection Regulation) and the EUDPR (Data Protection Regulation for EU institutions, bodies, offices and agencies) requires implementing several safeguards, including encryption, access controls, and audit logging. Specific measures must be implemented to ensure that no unauthorised access takes place. The Communication Portal will ensure traceable data exchanges, and Member States will uphold data subject rights, such as access and erasure, even in cross-border cases. Pseudonymisation or anonymisation will be mandated for non-operational uses to reduce risks. Data protection principles such as accountability and data minimisation apply. Data retention will align with the purpose of the processing, with mechanisms for automated deletion, logging, and alerts to prevent over-retention or premature deletion. Cross-border data sharing (i.e. of data that cannot be exchanged through EU Information Systems) relies on secure, case-by-case communication channels through the Communication Portal based on the existing infrastructure (SIRENE, DublinNet, VIS Mail). Oversight within Member States is essential. National data protection supervisory authorities and the European Data Protection Supervisor ('EDPS') will effectively monitor the new systems, together with a close monitoring of data protection officers within the authorities concerned.

		This option will not derogate from the GDPR/EUDPR or the AI Act. This means that, where applicable and relevant, additional and more specific data protection impact assessments may be conducted before the designing phase of the IT systems, in compliance with the principle of privacy by design and by default. Similarly, in case high-risks AI systems are considered to be embedded in some of the digital systems, the corresponding obligations of providers and deployers of high-risk AI systems will be complied with and fundamental rights impact assessment for high-risks AI systems may be conducted, as needed, in compliance with Regulation (EU) 2024/1689 ([102]) ('AI Act').
Feasibility		
Feasibility	4	As confirmed by the majority of Member States during the consultation process ([103]), Option 1 is highly feasible. It builds on existing EU systems and national structures, aligning with Member States' preference for less intrusive approaches (politically feasible). It provides Member States with a broad room for manoeuvre by offering them to choose between (i) adjusting their existing systems to the RECAMAS Model or (ii) adoption and customising the Frontex RECAMAS. Technically, the feasibility is high as it leverages existing solutions, while operational feasibility benefits from established workflows, minimising disruption. Financially, it is moderately feasible due to significant costs, potentially partially covered by the EU budget. Legally, the need for a new regulation and amendments to several existing EU regulations adds a degree of complexity.

([101]) Please also refer to the Data Protection Impact Assessment in **STEP 1: IDENTIFICATION OF THE NEED FOR A DPIA**.

([102]) Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act); OJ L 1689, 12.7.2024; https://eur-lex.europa.eu/eli/reg/2024/1689/oj/eng.

([103]) Please refer to Annex 2 on the stakeholder consultation.

Further information concerning the assessment of the effects of Option 1, as well as its likely impacts are provided in Section 0 of Annex 7.

Policy option 2 'Partially decentralised option with central EU database'

Assessment of impacts		
Economic	0	Under Option 2, economic impacts are expected to be equivalent as those identified under Option 1, even though, this option places a slightly greater burden on the EU budget.
Societal	1	Option 2 is expected to have the same moderate positive societal impacts as Option 1. Any impact resulting from the establishment of the EU central database and improved digital management of RRR processes are likely to materialise comparatively later, due to the time needed for full implementation and start of operation of the new systems.
Environmental	0	Option 2 is expected to have a limited negative environmental impact. Developing and maintaining a new central database, without reducing existing infrastructure, will increase energy consumption, resource use, and electronic waste. However, the magnitude of this impact is considered negligible compared with the baseline scenario.
Security	3	Option 2 is expected to have a positive impact on security for citizens, businesses, and public administration across the EU for the reasons explained under Option 1. However, security improvements would only materialise once the system becomes operational in the medium to long term. Specific measures must be implemented to ensure IT security and address the following issues: equipment, access control and checks at entrance to the installation, data media control, storage control, user control, control of data entry, data access control, personnel profiles, communication control, control of data recording, transport control, recovery, integrity, self-auditing.

Fundamental rights	-1	Option 2 is expected to align with fundamental rights, with no significant impact compared to the baseline scenario. However, the creation of a central database accessible by all competent authorities of Member States introduces challenges, particularly regarding large-scale processing of sensitive personal data. This option could improve transparency, efficiency, and harmonised application of data protection rules and data subjects' rights, offering TCNs more consistent rights and clarity on data handling. The following data protection governance could be established: • Each Member State may act as data controller for the personal data it records in its national RECAMAS, in iRCMS, and in RIAT, and for the operational management of its national RECAMAS. • Member States may act as joint controllers as regards the central database. • Frontex may act as processor in relation to the data it records in national RECAMAS, in iRCMS, and on cases from national reintegration assistance programmes managed in RIAT. • Member States and Frontex may be considered as joint controllers in relation to the processing of personal data recorded in RIAT for cases managed under an EU reintegration assistance programme. • eu-LISA may act as processor for the operational management of iRCMS, RIAT and the central database. Concerns may arise over data security, data minimisation, purpose limitation, necessity and proportionality due to the broad data categories that may be processed in the central database, which will mainly replicate data already stored in other EU Information Systems. Technically, the system must ensure data protection by design and default, with encryption, role-based access, secure logging, and interoperability with EU Information Systems. Specific measures must be implemented to ensure that no unauthorised access takes place. The interface must enable seamless exercise of data subject rights under Chapter III GDPR and Chapter III EUDPR, with clear procedures for handling requests. Under Option 2, data protection rules applicable to transfers (Chapter V GDPR/EUDPR) will fully apply. Independent oversight by the EDPS and national data protection supervisory authorities is crucial, together with a close monitoring of data protection officers within the authorities concerned. Pseudonymisation or anonymisation should be applied for non-operational use cases (e.g. creation of statistics) to minimise risks. Member States' varying technical readiness and lack of appropriate monitoring mechanisms may lead to uneven safeguards, necessitating capacity-building, technical assistance, and common compliance benchmarks to meet GDPR and EUDPR standards. This option will not derogate from the GDPR/EUDPR or the AI Act. This means that, where applicable and relevant, additional and more specific data protection impact assessments may be conducted before the designing phase of the IT system, in compliance with the principle of privacy by design and by default. Similarly, in case high-risks AI systems are considered to be embedded in the digital system, the corresponding obligations of providers and deployers of high-risk AI systems will be complied with and fundamental rights impact assessment for high-risks AI systems may be conducted, as needed, in compliance with Regulation the AI Act.

Feasibility		
Feasibility	2	As confirmed by a majority of Member States during the consultation process ([104]), Option 2 is moderately feasible. Retaining national systems may facilitate the implementation of the option but the establishment of a new central database, without a clear added value would add considerable complexity. Technically, integrating the database with national systems would pose numerous challenges. Operational success depends on exogenous factors like stakeholder collaboration, but differing priorities may hinder progress.

Further information concerning the assessment of the effects of Option 2, as well as its likely impacts are provided in Section 0 of Annex 7.

Policy option 3 'Centralised solution'

Assessment of impacts		
Economic	0	Under Option 3, potential positive and negative economic impacts are also expected to balance each other out. The same line of argumentation as for Option 1 and 2 applies. Given the long term of implementation for the project, economic effects would only likely materialise in the long term under this policy option.
Societal	1	Option 3 is expected to have the same moderate positive societal impacts as under Option 1 and 2.
Environmental	0	Option 3 is expected to have a limited negative environmental impact compared to the baseline scenario. Developing and maintaining a central database will require significant energy, materials, and generate electronic waste, though this may be partially offset by abolishing national systems.
Security	3	Option 3 is expected to have a positive impact on security for citizens, businesses, and public administration across the EU, for the reasons explained under Option 1 and Option 2. However, security improvements would only materialise once the system becomes operational in the medium to long term. Specific measures must be implemented to ensure IT security and address the following issues: equipment, access control and checks at entrance to the installation, data media control, storage control, user control, control of data entry, data access control, personnel profiles, communication control, control of data recording, transport control, recovery, integrity, self-auditing.

([104]) Please refer to Annex 2 on the stakeholder consultation.

Fundamental rights	-1	Option 3 is expected to have a small negative impact on fundamental rights. Establishing a centralised system to replace national systems may create challenges due to legal and procedural differences across Member States. Standardised data processing and automation could struggle to reflect these divergences, complicating adaptation. Under this centralised solution, Member States could act as joint controllers, while eu-LISA could act as processor. Centralising sensitive personal data raises data protection concerns, including risks of misuse or unauthorised access if safeguards are not uniformly applied. The system will comply with GDPR and EUDPR requirements, incorporating strong safeguards such as encryption, and role-based access controls, while supporting data subject rights like access, rectification, and erasure. Specific measures must be implemented to ensure that no unauthorised access takes place. Under Option 3, data protection rules applicable to transfers (Chapter V GDPR/EUDPR) will fully apply. Independent oversight by the EDPS, in cooperation with national data protection supervisory authorities, is essential to ensure accountability, together with a close monitoring of data protection officers within the authorities concerned. Pseudonymisation or anonymisation techniques should be applied for non-operational purposes, such as statistical analysis. Positively, the system could enhance transparency and efficiency in RRR processes, improving access to consistent information and ensuring more uniform protection of TCN rights across Member States. This option will not derogate from the GDPR/EUDPR or the AI Act. This means that, where applicable and relevant, additional and more specific data protection impact assessments may be conducted before the designing phase of the IT system, in compliance with the principle of privacy by design and by default. Similarly, in case high-risks AI systems are considered to be embedded in the digital system, the corresponding obligations of providers and deployers of high-risk AI systems will be complied with and fundamental rights impact assessment for high-risks AI systems may be conducted, as needed, in compliance with Regulation the AI Act.
Feasibility		
Feasibility	-2	As confirmed by stakeholders during the consultation process ([105]), Option 3 is expected to be feasible only to a very limited extent, likely facing strong resistance from Member States. This option would require replacing national systems, which may encounter significant opposition and delays in the transition period, because national systems are embedded in domestic legal and technical frameworks. Although most costs would be incurred at EU level, financial feasibility is low as Member States must continue investing in existing systems until the central system becomes operational. This delay would result in substantial 'sunk costs'. Legally, the need for a new regulation and amendments to many other legal instruments adds complexity, increasing the risk of stakeholder's resistance. Technically, the feasibility is moderate but depends partially on Member States' ability to transition effectively to the central system. Operational feasibility is similarly constrained by a slow development of the central database and limited stakeholder acceptance.

Further details on the assessment of Option 3, as well as its likely impacts are provided in Section 0 of Annex 7.

([105]) Please refer to Annex 2 on the stakeholder consultation.

HOW DO THE OPTIONS COMPARE?

Effectiveness

Option	Rating	Summary of assessment
Option 0	0	The unresolved issues identified in Section 0 will continue to hinder the effectiveness of RRR processes, making it unlikely that objectives will be achieved. Challenges in data sharing will persist, limiting the availability and quality of information for RRR processes. Low levels of digitalisation and automation, due to reliance on manual data entry, will prevent the implementation of streamlined systems. Fragmented systems and lack of interoperability will continue to cause administrative burden, straining authorities and slowing procedures. Isolated national systems and inconsistent data sharing will undermine a coherent governance, hindering coordination and collaboration in digital management of RRR processes. Key challenges that hamper data sharing and generation of reliable statistics, such as the lack of automated mechanisms to feed information into EU Information Systems and the absence of harmonised tools for generating reliable statistics at national level, will continue to limit the effectiveness of RRR processes. While EU initiatives like upgrades to Eurodac and VIS, and new systems such as EES and ETIAS, may improve RRR processes, the baseline scenario will remain ineffective. Existing inefficiencies will persist and worsen, making it harder for Member States to enforce the new proposed rules on return and the Pact on Migration and Asylum. Eventually, this will negatively impact the proper functioning of the Schengen area, the sustainability of the CEAS, and create undue costs.
Option 1	4	Option 1 is expected to achieve the objectives pursued effectively in the short term to medium term (i.e. six years to become operational from the adoption of the Commission proposal until the go-live) ([106]), assuming that the entry into force of the future legislative act will take place two years after the adoption of the Commission proposal. Consequently, all systems are expected to be operational by Q3 2032. This means that Option 1 will be faster to implement than Option 2 and 3. It builds on existing Member State systems for return and leverages existing systems at EU level on readmission and reintegration. This approach enhances information sharing enabling faster procedures, reduced workload, and better coordination between authorities. Limitations include restricted searchability for specific individuals, limited visibility on secondary movements, and case-by-case information sharing through the Communication Portal, where only the sender and receiver are aware of the data exchanged. The policy has a minimal IT impact as it leverages existing EU databases (e.g. SIS, Eurodac) and systems (e.g. RIAT, iRCMS), allowing for rapid operationalisation. Frontex is also well positioned to deliver on the Frontex RECAMAS (as it already developed the RECAMAS Model), on iRCMS (as a frequent user of the existing iRCMS) and on RIAT (as the main user of the existing RIAT through the EU Reintegration Programme). Consequently, this option does not overburden eu-LISA. Option 1 has an overall smaller disruptive impact than Option 2 and 3.

([106]) Digitalisation Study, Figure 17.

Option	Rating	Summary of assessment
Option 2	2	Option 2 is expected to achieve the objectives pursued but only in the medium to long term (i.e. eight years to become operational from the adoption of the Commission proposal until the go-live) ([107]), assuming that the entry into force of the future legislative act will take place two years after the adoption of the Commission proposal. Consequently, the new system is expected to be operational by Q4 2034. This means that Option 2 will be longer to implement than Option 1 and 3. Option 2 aims to enhance data sharing and reduce silos thanks to the establishment of a new central database. All Member States would have equal access to relevant data as all relevant data would be stored in this central database. However, as the database would take approximately eight years to become operational, existing problems will persist, delaying progress. Additionally, much of the data can already be shared via existing or future systems (e.g. SIS, VIS, Eurodac, EES), making the added value of the central database unclear, especially given the urgency of addressing current issues. Option 2 has an overall bigger disruptive impact than Option 1 but smaller than 3.
Option 3	2	Option 3 is expected to achieve the objectives pursued but only in the medium to long term (i.e. seven years to become operational from adoption of the Commission proposal until the go-live) ([108]), assuming that the entry into force of the future legislative act will take place two years after the adoption of the Commission proposal. Consequently, the new system is expected to be operational by Q3 2033. This means that Option 2 will be longer to implement than Option 1 but faster than Option 2. Unlike Option 1 and 2, the establishment of an EU case management system will not leverage the investments done by Member States at national level and will not build on previously established systems. It will improve data sharing and reduce silos by creating a unified case management system for RRR processes (and underlying central database) at EU level. This is likely to improve access to and quality of information, ensuring consistent availability across Member States, in line with the enhanced sharing proposed under the Return Regulation. However, as under Option 2, the added value of the central database remains unclear, as it may only provide limited additional data compared to existing EU Information Systems. The creation of the database will duplicate data stored in already existing or future EU information systems. Establishing a single EU case management system that manages to accommodate the multiple differences in national return procedures will be challenging due to diverse practices and legal frameworks. Existing national return case management systems currently connected to other national systems (e.g. asylum case management systems) will lose this connection. Re-establishing it will require establishing multiple connections between the central database and the other relevant national systems, which will be technically challenging and time-consuming. Migrating data to the central system and training the staff on how to use the new system is expected to be time-consuming and complex, delaying the system's launch and diverting resources needed elsewhere. Option 3 has an overall bigger disruptive impact than Option 1 and 2.

([107]) Digitalisation Study, Figure 17.

([108]) Digitalisation Study, Figure 17.

Efficiency and administrative burden

Option	Rating	Summary of assessment
Option 0	0	In terms of efficiency, the baseline scenario has negligible direct costs but on balance, is not efficient since it does not allow to achieve the objectives to reduce indirect costs of manual processing. As explained under Section 0, the yearly cost of manual creation of return alerts is for instance estimated at EUR 7 788 499 and the lack of connection between national RECAMAS and FAR and RIAT at EUR 1 876 670. The overall costs are low because the existing infrastructures in several Member States are already in place and operational. Thus, under this Option 0 there are no or only minor development, implementation and maintenance costs to consider, unless the Member States trigger (larger) changes themselves. Competent staff is already familiar with the systems, significantly reducing any need for training – other than for new hires - and allowing them to use the systems efficiently. While the costs for digitalisation are not expected to increase substantially in the future under the baseline scenario, the overall efficiency of digital migration management is also not expected to increase either, as the desired effects and benefits would not materialise. The ongoing reliance on manual processes, undue workload and lengthy exchanges will contribute to moderate / high operational costs and a high administrative burden will continue to be incurred by migration authorities. TCNs with no right to stay in the EU will not be returned more efficiently.
Option 1	3	*Overall assessment of efficiency* Option 1 is efficient, and is expected to have effects in the short term. Despite relatively high costs for Member States, it is rated the most efficient due to limited sunk costs (see below). Moderate investments are needed to adapt national systems based on the RECAMAS Model or Frontex RECAMAS, set up shared infrastructure, integrate iRCMS and RIAT with national RECAMAS and connect them to the newly established Communication Portal. These changes build on existing systems, requiring minor adaptations and aiming at administrative simplification. Data availability will improve through the use of ESP.

Option	Rating	Summary of assessment
		Assessment of costs (please see Annex 9 for context, methodology, assumptions, detailed estimates) Total costs across Member States, Frontex, eu-LISA and the Commission are estimated to range between EUR 582 and 753 million (considering two years of one-off development and six years of ongoing maintenance and support) ([109]). This estimation includes hardware, software, development, maintenance, and support. The development and/or improvement of national RECAMAS will come at a cost for Member States, especially for those which are less advanced. The working assumption is that 10 Member States will decide to retain their own national RECAMAS while having to expand their infrastructure capacity and develop an integration with other systems ([110]). The other Member States would make us of the Frontex RECAMAS. National RECAMAS would be funded by Member States (where applicable supported by EU funds). Frontex RECAMAS, iRCMS, RIAT and the Communication Portal would be funded by the EU budget ([111]). Sunk costs are negligible under Option 1, as Member States will build upon existing systems at national level and the short-term operational nature of this option ([112]). Costs would vary if more or fewer Member States retain their systems. While higher than in Option 3, costs are lower than in Option 2. Limited sunk costs are expected due to the short-term operational nature of this option. Administrative burden incurred by migration authorities is expected to decrease thanks to enhanced digitalisation and automation of processes as well as reliance on existing IT systems and models. As explained under Section 0, EUR 7 788 499 could be saved each year by automating the creation of return alerts and EUR 1 876 670 by integrating FAR and RIAT into national RECAMAS.
Option 2	2	*Overall assessment of efficiency* The efficiency of Option 2 is expected to be moderate, with effects materialising comparatively later than the other policy options. Implementation is complex and expensive in the short term. Once fully implemented, the central data pool is expected to ease operational work, reduce lengthy processes, and lower operational costs compared to the baseline, improving cost-efficiency in the long term.

([109]) Cost estimates are based on the current level of information on the architectural set-up and should be considered as preliminary.

([110]) Please refer to Annex 9 for more details on the costs.

([111]) The legislative initiative is accompanied by a Legislative, Financial and Digital Statement, detailing the means of fundings.

([112]) Please refer to *Table 37 - Overview of costs per stakeholder and policy option* for more details. Sunk costs are not taken into account for the rating of efficiency.

Option	Rating	Summary of assessment
		Assessment of costs (please see Annex 9 for context, methodology, assumptions, detailed estimates) The total costs for this policy option across Member States, Frontex, eu-LISA and the Commission are estimated to range between EUR 700 and 891 million (considering three years of one-off development and six years of ongoing maintenance and support), covering in total hardware, software, development, maintenance, and support ([113]). These costs are higher than for Option 1 and 3. The development and/or improvement of national RECAMAS will come at a cost for Member States, especially for those which are less advanced. The working assumption is that 10 Member States will decide to retain their own national RECAMAS while having to expand their infrastructure capacity and develop an integration with other systems ([114]). The other Member States would make us of the RECAMAS IT reference implementation developed by eu-LISA. National RECAMAS would be funded by Member States (where applicable supported by EU funds). The RECAMAS IT reference implementation, iRCMS, RIAT and the Communication Portal would be funded by the EU budget ([115]). Sunk costs are considered negligible under Option 2 as Member States will build upon existing systems at national level ([116]). The implementation of this alternative requires eu-LISA to develop a single case management system for RRR. eu-LISA will develop a central database and uniform interface, while Frontex's IRMA and RECAP systems will be integrated through an interface. Once the system will be operational, administrative burden incurred by migration authorities is expected to decrease thanks to enhanced digitalisation and automation of processes. As explained under Section 0, EUR 7 788 499 could be saved each year by automating the creation of return alerts and EUR 1 876 670 by integrating FAR and RIAT into national RECAMAS. However, the creation of a new central database at EU level to which all Member States would need to connect is expected to create, during the development phasis that will last several years, a substantial administrative burden for Member States.

([113]) Cost estimates are based on the current level of information on the architectural set-up and should be considered as preliminary.

([114]) Please refer to Annex 9 for more details on the costs.

([115]) The legislative initiative is accompanied by a Legislative, Financial and Digital Statement, detailing the means of fundings.

([116]) Please refer to *Table 37 - Overview of costs per stakeholder and policy option* for more details. Sunk costs are not taken into account for the rating of efficiency.

Option	Rating	Summary of assessment
Option 3	1	<u>*Overall assessment of efficiency*</u> The efficiency of Option 3 is expected to be moderate, with effects materialising only in the long term. While the cost for the EU budget is higher than for Option 1, total costs are the lowest due to limited Member States' expenses. However, Member States' 'sunk costs', as detailed below, are the highest, justifying the lowest efficiency rating. The system's delayed implementation means elevated administrative and operational costs will persist, with inefficiencies such as fragmented data management and siloed operations continuing to burden Member States. Accommodating divergences in national procedures within a centralised system is likely to worsen these inefficiencies. Member States must migrate data to the central system, adapt processes, establish many bilateral connections between their other national systems (e.g. asylum systems) and the new central system (or renounce to such connections and continue to switch between different systems), and train staff accustomed to national systems, incurring significant organisational and administrative costs. For these reasons, the administrative burden incurred by migration authorities will be very high. In the long term, Option 3 would simplify operations, reduce coordination needs, and enhance efficiency by centralising and automating processes across the EU.
		<u>*Assessment of costs (please see Annex 9 for context, methodology, assumptions, detailed estimates)*</u> The total costs for this policy option across Member States, Frontex, eu-LISA and the Commission are estimated to range between EUR 226 and 288 million (considering two-and-a-half years of one-off development and six years of ongoing maintenance and support), covering in total hardware, software, development, maintenance, and support ([117]). Sunk costs are estimated under Option 3 to range between EUR 689.19 and 877.16 million for seven years for 27 Member States ([118]). While these costs are lower than for Option 1 and 2, Member States would face significant 'sunk costs' from maintaining and upgrading existing systems until the new system becomes operational. This option involves developing a single EU central database and a common case management system, eliminating national systems. Member States would only need access to the central solution, avoiding the need for integrations. As explained under Section 0, EUR 7 788 499 could be saved each year by automating the creation of return alerts and EUR 1 876 670 by integrating FAR and RIAT into national RECAMAS.

Table 3 - Overview of costs per stakeholder and policy option

	Minimum (in million EUR)	Maximum (in million EUR)
Policy option 1		
Member States	422.04	537.14

([117]) Cost estimates are based on the current level of information on the architectural set-up and should be considered as preliminary.

([118]) Please refer to *Table 37 - Overview of costs per stakeholder and policy option* for more details. Sunk costs are not taken into account for the rating of efficiency.

	Minimum (in million EUR)	Maximum (in million EUR)
Sunk Costs ([119])	0.00	0.00
Frontex	127.71	162.54
eu-LISA	30.13	50.30
Commission	2.51	3.19
Total	**582.39**	**753.17**
Policy option 2		
Member States	422.04	537.14
Sunk Costs ([120])	0.00	0.00
Frontex	10.84	13.79
eu-LISA	264.91	337.16
Commission	2.51	3.19
Total	**700.30**	**891.28**
Policy option 3		
Member States	42.41	53.98
Sunk Costs ([121])	689.194	877.156
Frontex	10.84	13.79
eu-LISA	170.57	217.08
Commission	2.51	3.19
Total	**226.33**	**288.04**

Source: Digitalisation Study/eu-LISA

([119]) Sunk costs in Option 1 are considered negligible as the policy option build on the existing case management systems at national level. Not added to the total costs of the option, only included for comparison purposes.

([120]) Sunk costs in Option 2 are considered negligible as the policy option builds on the existing case management systems at national level. Not added to the total costs of the option, only included for comparison purposes.

([121]) Sunk costs in Option 3 are calculated as using the costs of developing the national RECAMAS. Under Option 3, Member States have to maintain and fund existing systems for a period of seven years until the centralised case management system enters into operation. The yearly maintenance costs are estimated at 30% of the total infrastructure costs of national RECAMAS [costs items 2 and 3], as estimated under Option 1 (30% of EUR 11.05 EUR = EUR 3.32 million). The sunk costs are calculated by multiplying the yearly maintenance costs per Member State, by seven years of development and by 27 Member States (3.32x7x27= EUR 626.54 million).

Coherence

Option	Rating	Summary of assessment
Option 0	0	The baseline scenario is not allowing for an internally and externally coherent approach towards RRR in the EU. Internally, there will be no coherence due to the absence of a unified approach. Under the baseline scenario, national approaches remain fragmented, leading to varying practices of digital management of RRR in all Member States. Externally, the baseline scenario is not fully coherent with the broader EU framework although national systems can be connected to the ESP. The existing case management systems will continue to coexist with existing and future EU Information Systems, and other digital systems that are not yet operational such as RECAP. In addition, the increased cooperation and data exchange anticipated under the Pact on Migration and the proposed Return Regulation may be challenging to fully implement.
Option 1	2	Option 1 improves the internal coherence of digital management of RRR processes. It offers moderate harmonisation in return and uniformisation on readmission, and reintegration, reduces system fragmentation, leverages existing and future EU Information Systems, other digital systems that are not yet operational such as RECAP, interoperability components (e.g. ESP, SIS, CRRS), and clarifies responsibilities for Frontex and Member States. In terms of external coherence, Option 1 benefits from interoperability infrastructure via the ESP and aligns with the rules from the Return Regulation on information sharing. Option 1 does not have an impact on the legal basis of the CIR, ESP, MID and sBMS. Option 1, as all policy options, would need to be coherent with and accommodate the procedural novelties introduced by the Return Regulation. Therefore, this constitutes a horizontal requirement and is not a differentiating element between options. The policy option is coherent with data-sharing provisions and statistical reporting under the Return Regulation and the overall objectives of the Pact on Migration and Asylum.
Option 2	3	Option 2 is expected to improve the internal coherence of EU digital migration management and is considered externally coherent. Internal coherence will be strengthened through a central database, enabling consistent and systematic data sharing across Member States as all data from national RECAMAS will be uploaded to the central database. National RECAMAS will be harmonised (either directly via the adoption and customisation of the Frontex RECAMAS or indirectly via the alignment on the RECAMAS Model, just as in Option 1). iRCMS and RIAT will be developed by eu-LISA and integrated into the national RECAMAS. The clear delineation of responsibilities among Member States, Frontex, and eu-LISA further reduces the risk of duplication of tasks. In terms of external coherence, Option 2 will leverage the EU's interoperability framework, connecting the central database to the ESP, CIR, sBMS, MID and CRRS. However, the database will primarily replicate data already stored in existing or future EU Information Systems (e.g. SIS, Eurodac, EES), which lacks coherence. Adapting the Interoperability Regulations and amending regulations governing EU Information Systems, the EBCG Regulation, and the eu-LISA Regulation will be necessary. Option 2, as all policy options, would need to be coherent with and accommodate the procedural novelties introduced by the Return Regulation. Therefore, this constitutes a horizontal requirement and is not a differentiating element between options. The policy option is coherent with data-sharing provisions and statistical reporting under the Return Regulation and the overall objectives of the Pact on Migration and Asylum.

Option	Rating	Summary of assessment
Option 3	3	Option 3 is expected to improve the internal coherence of EU digital migration management by addressing fragmentation through a centralised solution. However, this depends on the ability of the new system to reflect and adjust to the diversity of Member States' frameworks, as unresolved divergences could undermine coherence. Clear delineation of responsibilities among stakeholders, including Member States, Frontex, and eu-LISA, further strengthens coherence and reduces duplication. In terms of external coherence, Option 3 aligns with the EU's interoperability framework but requires adapting the Interoperability Regulations. The new database will primarily replicate data already stored in existing or future EU Information Systems (e.g. SIS, Eurodac, EES), which lacks coherence. Amendments to the EBCG Regulation, EU Information Systems' regulations, and the eu-LISA Regulation will be necessary. Option 3, as all policy options, would need to be coherent with and accommodate the procedural novelties introduced by the Return Regulation. Therefore, this constitutes a horizontal requirement and is not a differentiating element between options. The policy option is coherent with data-sharing provisions and statistical reporting under the Return Regulation and the overall objectives of the Pact on Migration and Asylum.

Multi-Criteria Analysis and comparison of timelines

A Multi-Criteria Analysis ('MCA') was conducted to compare policy options against the baseline scenario, following the Commission's Better Regulation Toolbox (Tool #62). The MCA evaluates the effectiveness, efficiency, coherence, and impacts of each option using qualitative ratings supported by quantitative data. The process involved three steps: (1) setting up criteria and an assessment grid, (2) creating an outranking matrix, and (3) assessing results through a permutation matrix.

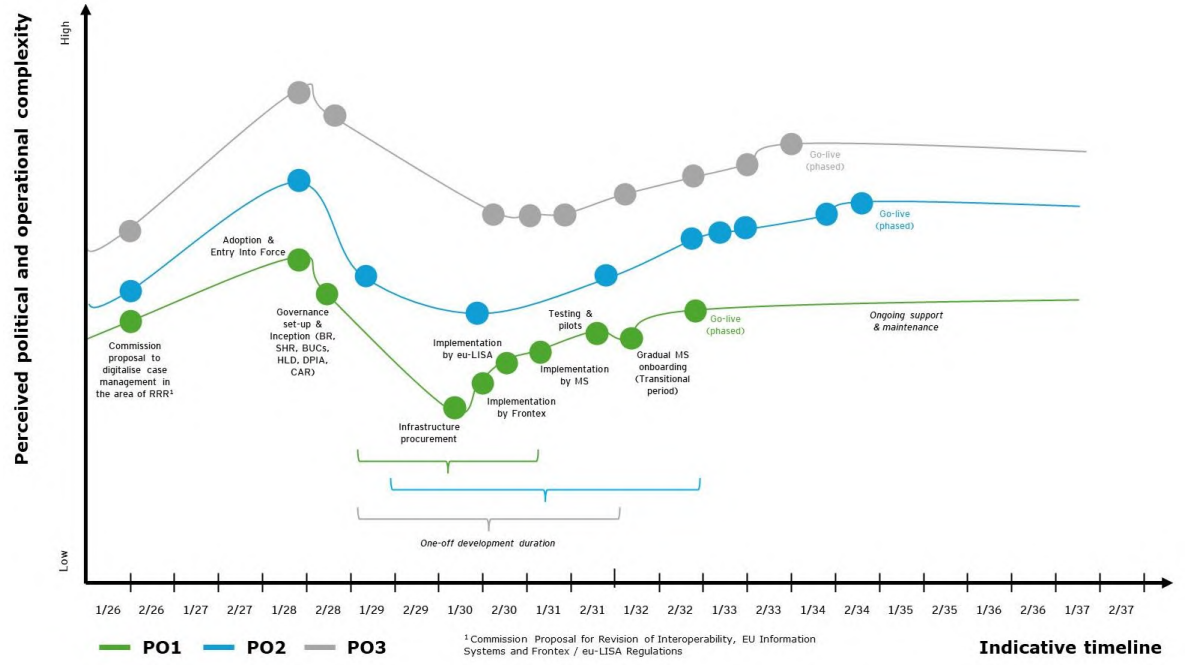
Table 4 - MCA assessment grid

Criteria	Weight	Baseline	PO1	PO2	PO3
Effectiveness	4	0	4	2	2
Efficiency and administrative burden	3	0	3	2	1
Coherence	2	0	2	3	3
Assessment of impacts					
Economy	2	0	0	0	0
Society	2	0	1	1	1
Environment	1	0	0	0	0
Security	5	0	4	3	3
Fundamental rights	3	0	0	-1	-1
Feasibility	4	0	4	2	-2
Total		**0**	***67***	***42***	***23***

Based on the multi-criteria analysis, Option 1 is recommended.

The policy options may also be compared from a temporal perspective (see Figure 10), based on the key phases and milestones of each policy option.

Figure 10 – Comparisons of indicative timelines between policy options



Source: Digitalisation Study

The figure above is based on the assumption that all policy options are decided upon within two years from the adoption of the Commission's proposal (i.e. the entry into force of the legislative act), while the technical development and implementation vary across the options. Overall, the timeframe for the development of Policy Option 1 is expected to be shorter than for Policy Options 2 and 3. By building on existing national solutions and the RECAMAS Model developed by Frontex and already implemented fully or partially by many Member States, Option 1 limits the need for complex large-scale IT development and reduces implementation risks. In contrast, Policy Option 2 and 3 would require the design, deployment, and long-term maintenance of more extensive technical systems, a RRR dedicated central database, at EU level, as well as a complex implementation at national level, resulting in longer delivery timelines and higher administrative burden.

The accelerated implementation under Option 1 brings clear financial advantages, as it avoids substantial upfront investment costs and allows Member States to reuse existing infrastructure or adopt a ready-made solution, generating economies of scale. A shorter delivery timeframe is particularly relevant, as it enables faster operational improvements in RRR management, and strengthens Member States' confidence in the EU's capacity to provide practical and cost-effective common solutions.

PREFERRED OPTION

This section summarises the main advantages, disadvantages, impacts, and costs of the preferred policy option.

Main advantages and disadvantages

Option 1 'Partially decentralised option without central EU database' is the preferred option due to its faster deployment, cost-effectiveness, and flexibility. It leverages existing EU and Member State infrastructures, avoiding delays and duplication of data associated with developing a new central database.

While Option 1 is operationally efficient, it has some limitations, such as lower standardisation and continued reliance on decentralised systems for return, which may perpetuate some fragmentation (national RECAMAS will remain national systems).

Table 5 - Overview of main advantages and disadvantages of PO1

Main advantages of PO1	Main disadvantages of PO1
• **Rapid deployment:** Due to building on existing systems, the case management system will be operational comparatively faster than other options. • **Increased harmonisation:** national RECAMAS will be harmonised based on the RECAMAS Model and iRCMS and RIAT will be uniformised EU systems integrated into national RECAMAS. • **Flexibility:** The option provides substantial flexibility for Member States on return case management, enabling them to make use of existing infrastructures tailored to their needs and national procedures. • **Established infrastructure**: Leveraging existing national return systems, the existing iRCMS and RIAT and EU Information Systems facilitates swifter implementation and reduces the need for extensive training, ensuring a smoother transition. • **Reduced technical complexity**: a partially decentralised system simplifies the technical architecture and allows for an easier integration into existing national infrastructures. By building on existing digital systems, Option 1 will **minimise the number of implementing and delegated acts needed** for the development of the systems. • **Streamlined communication**: The introduction of a secure communication channel (the Communication Portal) is expected to reduce cumbersome and fragmented information exchanges between authorities. • **Timely responses:** The option is expected to enable quicker responses and decisions in urgent RRR cases, thereby improving the overall effectiveness. • **Political feasibility:** Generally, Member States have expressed preference for options that are less disruptive of existing systems. Option 1 offers the least disruptive approach for Member States, likely enhancing stakeholder acceptance.	• **Standardisation:** The overall standardisation is not as high as it could be on return case management systems, allowing Member States significant leeway in designing their own systems. Due to the coexistence of several IT systems, the data protection governance will remain characterised by a certain degree of segmentation. • **Single EU identifier for each returnee not immediately available:** As Option 1 does not establish a single EU case management system, there will not be a single identifier for each returnee upon creation of a new case but only upon the creation of a return alert in SIS. This is because the information on a return case will not be accessible to other Member States before it is uploaded in the SIS as national RECAMAS will not be directly connected to each other. • **Dependency on EU Information Systems:** The effectiveness of Option 1 is contingent upon the completeness of information stored in existing and upcoming EU Information Systems (e.g. SIS, Eurodac). • **Limited scope of information exchange:** Information exchange through the Communication Portal will be provided upon request. Data stored in national RECAMAS of Member State A will not be automatically accessible by Member State B.

Application of the 'one in, one out' approach

The 'one in, one out' approach refers to the principle whereby each legislative proposal creating new burdens should relieve people and businesses of an equivalent existing burden at EU level in the same policy area. The preferred option is not expected to have any new or removed administrative burden on businesses and citizens.

HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

The implementation of the preferred policy option requires close monitoring to ensure that objectives are met. A high-level monitoring framework, summarised in the table below, outlines the objectives, and the corresponding indicators.

Table 6 – Main indicators for the monitoring the implementation of the preferred policy option

Objectives	Indicators
Specific Objective 1: enhancing data sharing.	Number of datasets on RRR cases requested by Member States and made available to other Member States within the applicable time limits laid down by the Return Regulation. Number of readmission requests processed via iRCMS.
Specific Objective 2: digitalising, automating and simplifying RRR processes.	Number of national RECAMAS in place. Number of Member States making use of the Frontex RECAMAS, or parts of it. Number of national RECAMAS having integrated iRCMS and RIAT. Number of national RECAMAS connected to ESP, CRRS and SIS. Number of national RECAMAS connected to the Communication Portal. Number of sub-processes streamlined or automated. Average duration of the processing time per RRR case. Number of staff trained in new procedures and IT systems.
Specific Objective 3: enabling the creation of accurate statistics.	Number of statistical datasets (as per the Return Regulation) created automatically. Number of statistical datasets (as per the Return Regulation) provided within the applicable time limits laid down by the Return Regulation.

Monitoring data and indicators will be collected and should also capture reductions in administrative burden (e.g. time saving in reporting and case transfer process). Data should ideally be collected in real time and in an automated manner. This data will inform the Commission after the start of operations. AI analytics could also contribute to monitoring and evaluation by identifying patterns in RRR processes.

Evaluations will follow the Commission's Better Regulation Guidelines (#47[122]), assessing relevance (e.g. alignment with EU needs), effectiveness (e.g. observed impacts), efficiency (e.g. cost-effectiveness), coherence (e.g. alignment with related interventions), and EU added value (e.g. benefits beyond national efforts). The legal proposal for the preferred policy option must include provisions for monitoring and evaluation to ensure accountability and continuous improvement. The monitoring of the application of the new rules will also be done through the Schengen evaluation and monitoring mechanism.

[122] European Commission (2023). Better Regulation Toolbox – July 2023 edition (complementing the BRG). Available at: https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/better-regulation/better-regulation-guidelines-and-toolbox_en.

ANNEX 1: PROCEDURAL INFORMATION

LEAD DG, DECIDE PLANNING/CWP REFERENCES

The lead Commission service for this file is DG HOME. The Decide reference for this initiative is PLAN/2024/2663.

This initiative complements the Return Regulation and is linked to the reopening of the EBCG Regulation.

This initiative is part of the Commission Work Programme of 2026.

ORGANISATION AND TIMING

Between 2024 and 2025, a consortium led by EY, commissioned by DG HOME, undertook the assignment titled 'Study on the way towards a comprehensive, integrated, and digitalised EU migration management system'. The Digitalisation Study carried out an accurate analysis of existing policy issues and included a detailed cost-benefit & feasibility analysis of the different policy options to support the work on the Impact Assessment Report. The reports issued by the contractor (Inception Report, Interim Report, Final Report) were designed to feed into the impact assessment work of the Commission. Several meetings were organised by the contractor to discuss the problem definition, the objectives to be achieved and to develop and evaluate the policy options.

An Interservice Coordination Group ('ISCG') on the digitalisation of case management in the area of RRR was set up in January 2025. In addition to the EEAS, SG and HOME, the following DGs are part of the ISCG: BUDG, CONNECT, DIGIT, ENEST, INTPA, JUST, JRC, MENA, SJ and RTD. After each meeting, the members of the ISCG were given the opportunity to comment in writing on a draft version of the impact assessment report and its annexes.

The ISCG was consulted throughout the different steps of the impact assessment: notably on the stakeholder consultation questionnaire and deliverables of the external support study.

The ISCG reviewed and approved the following documents: questionnaires for the stakeholders' consultation; inception, interim and final reports of the Digitalisation Study; Call for Evidence; Commission's Impact Assessment Report (i.e. this document).

Throughout the Digitalisation Study, DG HOME engaged directly with stakeholders, organised meetings with experts and other interested parties in order to identify problems and develop options for possible action. The internal and external consultations conducted ensured that the problem definition, baseline scenario, and range of options were grounded in operational realities faced by Member States and EU agencies. The internal and external meetings organised to support the proposal are listed below. For a precise breakdown of and details on the stakeholder consultation, see Annex 2.

The chronology of the main events is as follows:

- 7 November 2024: kick-off meeting of the Digitalisation Study (on the way towards a comprehensive, integrated, and digitalised EU migration management system).
- 18 December 2024: presentation of the draft inception report of the Digitalisation Study.

- 23 January 2025: ISCG meeting to present, discuss and approve the draft Call for Evidence and the draft inception report of the Digitalisation Study.
- 26 June 2025: presentation of the draft interim report of the Digitalisation Study, with the attendance of the ISCG.
- 30 September 2025: validation workshop with Member States to present and discuss the main findings of the Digitalisation Study.
- 7 November 2025 – 5 December 2025: publication of the Call for Evidence.
- 13 November 2025: presentation of the draft final report of the Digitalisation Study, with the attendance of the ISCG.
- 9 December 2025: meeting with Member States to discuss the policy options identified.
- 2 February 2026: ISCG meeting on the draft Impact Assessment Report.
- 27 April 2026: ISCG meeting on the draft Impact Assessment Report and on the draft Regulation.

CONSULTATION OF THE RSB

On 25 February 2026, DG HOME submitted the draft Impact Assessment to the Regulatory Scrutiny Board. The Board issued a positive opinion with reservations on 27 March 2026. The Board's findings have been addressed in the final version of the impact assessment.

EVIDENCE, SOURCES AND QUALITY

In order to gather quantitative and qualitative evidence for the legislative proposal, the Impact Assessment partially relied on the Digitalisation Study conducted by an external contractor (EY) assessing the feasibility and implications of the various options related to the digitalisation of the RRR processes and to support the preparation of the impact assessment report.

The Digitalisation Study assessed the impacts, costs and benefits associated with each policy option, based on a combination of multi-criteria analysis and cost-benefits analysis, in line with the Commission's Better Regulation Guidelines. The contractor carried out the following consultation activities specifically designed for the purposes of the Digitalisation Study: targeted interviews, targeted written survey, validation workshop.

DG HOME consulted with all relevant stakeholders on the objectives of the initiative and on the identified policy choices. In particular, a specific meeting between the DG HOME and Member States took place on 9 December 2025, as well as several meetings with the ISCG, which constituted a very relevant source of expertise for the preparation of the impact assessment.

The specific evidence sources used are referenced throughout the document whenever they are used. The evidence for the impact assessment report was also based on the following relevant EU public documents and sources:

- Better Regulation Guidelines and the Better Regulation Toolbox.
- Regulation of the European Parliament and of the Council of 7 October 2026 establishing a common system for the return of third-country nationals staying illegally in the Union, and repealing Directive 2008/115/EC of the European Parliament and of the Council, Council Directive 2001/40/EC and Council Decision 2004/191/EC.

- Directive 2008/115/EC of the European Parliament and of the Council of 16 December 2008 on common standards and procedures in Member States for returning illegally staying third-country nationals.
- Proposal for a Directive of the European Parliament and of the Council on common standards and procedures in Member States for returning illegally staying third-country nationals (recast) A contribution from the European Commission to the Leaders' meeting in Salzburg on 19-20 September 2018; COM (2018) 634.
- Regulation (EU) 2024/1349 of the European Parliament and of the Council of 14 May 2024 establishing a return border procedure and amending Regulation (EU) 2021/1148.
- Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the use of the Schengen Information System for the return of illegally staying third-country nationals.
- Regulation (EU) 2018/1861 of the European Parliament and of the Council of 28 November 2018 on the establishment, operation and use of the Schengen Information System (SIS) in the field of border checks, and amending the Convention implementing the Schengen Agreement, and amending and repealing Regulation (EC) No 1987/2006.
- Regulation (EU) 2018/1862 of the European Parliament and of the Council of 28 November 2018 on the establishment, operation and use of the Schengen Information System (SIS) in the field of police cooperation and judicial cooperation in criminal matters, amending and repealing Council Decision 2007/533/JHA, and repealing Regulation (EC) No 1986/2006 of the European Parliament and of the Council and Commission Decision 2010/261/EU.
- Regulation (EU) 2018/1726 of the European Parliament and of the Council of 14 November 2018 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA), and amending Regulation (EC) No 1987/2006 and Council Decision 2007/533/JHA and repealing Regulation (EU) No 1077/2011.
- Regulation (EU) 2019/1896 of the European Parliament and of the Council of 13 November 2019 on the European Border and Coast Guard and repealing Regulations (EU) No 1052/2013 and (EU) 2016/1624.
- Regulation (EU) 2024/1358 of the European Parliament and of the Council of 14 May 2024 on the establishment of 'Eurodac' for the comparison of biometric data in order to effectively apply Regulations (EU) 2024/1351 and (EU) 2024/1350 of the European Parliament and of the Council and Council Directive 2001/55/EC and to identify illegally staying third-country nationals and stateless persons and on requests for the comparison with Eurodac data by Member States' law enforcement authorities and Europol for law enforcement purposes, amending Regulations (EU) 2018/1240 and (EU) 2019/818 of the European Parliament and of the Council and repealing Regulation (EU) No 603/2013 of the European Parliament and of the Council.
- Regulation (EU) 2017/2226 of the European Parliament and of the Council of 30 November 2017 establishing an Entry/Exit System (EES) to register entry and exit data and refusal of entry data of third-country nationals crossing the external borders of the Member States and determining the conditions for access to the EES for law enforcement purposes, and amending the Convention implementing the Schengen Agreement and Regulations (EC) No 767/2008 and (EU) No 1077/2011.
- Regulation (EU) 2018/1240 of the European Parliament and of the Council of 12 September 2018 establishing a European Travel Information and Authorisation System

(ETIAS) and amending Regulations (EU) No 1077/2011, (EU) No 515/2014, (EU) 2016/399, (EU) 2016/1624 and (EU) 2017/2226.
- Regulation (EU) 2019/816 of the European Parliament and of the Council of 17 April 2019 establishing a centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons (ECRIS-TCN) to supplement the European Criminal Records Information System and amending Regulation (EU) 2018/1726.
- Regulation (EU) 2019/817 of the European Parliament and of the Council of 20 May 2019 on establishing a framework for interoperability between EU information systems in the field of borders and visa and amending Regulations (EC) No 767/2008, (EU) 2016/399, (EU) 2017/2226, (EU) 2018/1240, (EU) 2018/1726 and (EU) 2018/1861 of the European Parliament and of the Council and Council Decisions 2004/512/EC and 2008/633/JHA.
- Regulation (EU) 2019/818 of the European Parliament and of the Council of 20 May 2019 on establishing a framework for interoperability between EU information systems in the field of police and judicial cooperation, asylum and migration and amending Regulations (EU) 2018/1726, (EU) 2018/1862 and (EU) 2019/816.
- Regulation (EC) No 767/2008 of the European Parliament and of the Council of 9 July 2008 concerning the Visa Information System (VIS) and the exchange of data between Member States on short-stay visas (VIS Regulation).
- Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).
- Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC.
- Regulation (EU) 2016/1953 of the European Parliament and of the Council of 26 October 2016 on the establishment of a European travel document for the return of illegally staying third-country nationals, and repealing the Council Recommendation of 30 November 1994.
- Study on the way towards a comprehensive, integrated and digitalised EU migration management system, HOME-AMIF-TF2-FW-EVA1-4010, ISBN 978-92-68-37351-4; DOI 10.2837/8436041, with Annexes (ISBN 978-92-68-42383-7; DOI 10.2837/0124908).
- European Commission, Joint Research Centre, Belmonte M., Pingsdorf J., Cortinovis R., Nédée A., Tintori G., Managing irregular migration and return: A framework for understanding and measuring pathways in and out of irregularity in the EU and in selected Member States. Publications Office of the European Union, Luxembourg, 2025, https://data.europa.eu/doi/10.2760/3751767, JRC142752.
- European Commission, Joint Research Centre, Belmonte, M., Sermi, F., Tarchi, D., How to measure the effectiveness of return? Problem definition and alternative definitions of the return and readmission rates, EUR 30491 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-27075-1, doi:10.2760/200580, JRC122948.
- European Commission, Joint Research Centre, Rosinska A., Drivers of migration: dimensions and indicators. A policy-oriented literature review. Publications Office of

the European Union, Luxembourg, 2024, https://data.europa.eu/doi/10.2760/5771973, JRC139459.
- Study supporting the evaluation of Regulation (EU) 2018/1860 of the European Parliament and of the Council of 28 November 2018 on the Schengen Information Systems for the return of illegally staying third-country nationals.

ANNEX 2: STAKEHOLDER CONSULTATION (SYNOPSIS REPORT)

No public consultation was organised, as a thorough and broad consultation process was conducted with all relevant stakeholders as part of the '**Study on the way towards a comprehensive, integrated and digitalised EU migration management system**' (the Digitalisation Study). Such consultation process was complemented by a workshop with Member States, which took place in September 2025, an additional meeting with Member States in December 2025 and the publication of a Call for Evidence published in November 2025.

The synopsis report offers an overview of the consultation process, detailing the stakeholders consulted and key topics explored through each consultation method. Furthermore, it provides a concise summary of the main results from each consultation activity.

CONSULTATION METHODS AND STAKEHOLDERS CONSULTED

The consultation activities performed included targeted interviews as well as a targeted written survey, validation workshop, ad hoc stakeholder meeting and the publication of a Call for Evidence. Overall, the consultation activities reached **around an estimated 180 stakeholders**. 11 contributors provided feedback to the Call for Evidence. The objective of the consultations conducted was to better understand the current situation and functioning of migration management, including developments, problems and challenges, as well as to identify the most feasible policy options.

In the following section, information is provided on the type and number of participants in the individual consultation methods.

Targeted interviews

As part of the consultation activities undertaken under the Digitalisation Study, the external contractor conducted a total of 34 targeted interviews with 91 persons. These interviews were designed to gather in-depth qualitative insights from key stakeholders at both EU and national levels, focusing on operational, legal, and policy-related dimensions of EU migration management.

The interviews engaged representatives from four principal stakeholder clusters: the Commission (specifically relevant services of DG HOME, DG JUST and JRC), national authorities from EU Member States and Schengen Associated Countries ('SACs'), relevant EU agencies and institutions (eu-LISA, Frontex, EDPS), as well as Civil Society Organisations ('CSOs'), International Organisations ('IOs'), academia, and reintegration partners. All interviews were conducted virtually between late January and mid-March 2025.

In total, 22 national authorities participated in the targeted interviews, ensuring broad geographic representation across EU Member States and SACs. Additionally, interviews were held with three relevant EU agencies and institutions, four CSOs, IOs and academic institutions and two reintegration partners, alongside three interviews with representatives of the Commission.

The primary aim of the targeted interviews was to elicit stakeholder feedback on the current functioning of the digital management of RRR processes, identify the main challenges encountered, and explore potential avenues for enhancement. Additionally, the interviews sought to better understand which policy options were preferred by stakeholders. Key topics

addressed included the current state of digitalisation, interoperability of systems, data protection and privacy concerns, reintegration processes, and the operational needs of frontline actors. An overview of the targeted interviews conducted is presented in the table below.

Table 7 – Overview of targeted interviews

Type of stakeholder	**# of participants**	**Date of interview**
Commission		
DG HOME B3	4	31 January 2025
DG JUST	1	21 February 2025
JRC	7	17 February, 18 February, 25 June 2025
National authorities ([123])		
Belgium	5	20 February 2025
Bulgaria	2	04 March 2025
Switzerland	2	11 February 2025
Czechia	3	05 February 2025
Germany	3	05 February 2025
Estonia	2	19 February 2025
Finland	1	03 February 2025
France	7	10 February, 11 February 2025
Croatia	5	04 February 2025
Ireland	3	12 February 2025
Iceland	2	17 February 2025
Italy	1	18 February 2025
Lichtenstein	1	30 January 2025
Lithuania	3	24 February 2025
Luxembourg	2	13 February 2025
Latvia	3	12 February 2025
Norway	4	18 February 2025
Poland	1	06 February 2025
Portugal	2	17 February 2025
Romania	3	12 February 2025
Sweden	4	21 February 2025
Slovakia	5	29 January 2025

([123]) National authorities in nine Member States (AT, CY, DK, EL, ES, HU, MT, NL and SI) did not respond to the interview invitations, despite several reminders.

Type of stakeholder	# of participants	Date of interview
Relevant EU agencies		
eu-LISA	4	11 February 2025
Frontex	1	17 February 2025
EDPS	1	19 March 2025
EU Reintegration Partners		
Caritas International	2	29 January 2025
European Technology and Training Centre ('ETTC')	1	14 February 2025
CSOs, IOs, Academia		
PICUM	1	13 February 2025
ECRE	1	07 February 2025
University of Rotterdam	1	31 January 2025
IOM	3	28 October 2025
Total	**91**	

Source: Survey conducted as part of the Study on the way towards a comprehensive, integrated and digitalised EU

Targeted written survey

Three different written surveys targeted at three stakeholder types (i.e. national authorities of EU Member States and SACs, CSOs and IOs) have been conducted in the scope of the Digitalisation Study, involving about 86 respondents.

The survey targeted at national authorities included 107 questions clustered into the following sections: I) the existing situation in Member States and SACs; II) the problem definition; III) why the EU should act; IV) policy objectives; V) policy options; VI) impacts of policy options; and VII) a comparison among policy options.

National respondents include authorities from 27 Member States and SACs (AT, BE, BG, CH, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, NO, PL, RO, SE, SI) ([124]), mainly entailing national ministries in charge of migration management and asylum (i.e. Ministry of Interior, Ministry of Justice), migration authorities (i.e. Immigration Service Agency), border authorities (i.e. Border Guards, National Police) and a Permanent National Representation to the EU.

The survey targeted at CSOs included 14 questions and answers from three stakeholders providing an overview of the perceptions regarding data protection in the digital management of RRR processes. The survey targeted at IOs gathered answers from stakeholders from two international organisations to 25 questions concerning existing problems, challenges, solutions, and best practices in the area of RRR.

([124]) National authorities from four Member States (IS, LI, PT, SK) did not respond to the survey.

Validation workshop

As part of the Digitalisation Study, a validation online workshop took place on 30 September 2025 with representatives from the Member States, SACs and the Commission. The purpose of the workshop was to validate the findings made during the Digitalisation Study with a broad range of stakeholders, ensuring that results are robust and shared with the broader stakeholder community in RRR.

Nearly all Member States and Schengen-Associated Countries in the workshop were represented, ensuring a broad and sufficiently representative range of contributions. In total, 24 Member States and two SACs participated in the meeting

Stakeholder meeting with Member States

On 9 December 2025, the Commission held a virtual two-hour meeting with representatives from EU Member States, SACs and Frontex. The purpose of the meeting was to present the main policy options under consideration and to give national authorities an opportunity to provide feedback. In total, 22 Member States and 2 SACs participated in the meeting, with 87 registered attendees overall. The Commission presented the specific problems, problem drivers and objectives to be achieved.

Call for Evidence

A Call for Evidence was published and open to feedback from 7 November 2025 to 5 December 2025.

11 contributions were received from seven EU citizens, one international organisation, one non-governmental organisation, one professional organisation and one company/business.

RESULTS OF THE CONSULTATION ACTIVITIES

The following section provides a summary of the main results of the consultation activities.

Targeted interviews

The main findings of the targeted interviews are as follows:

Interviews with national authorities

Current case management systems

Diversity of systems: Various countries utilise distinct case management systems, each tailored to their specific needs but often lacking integration with EU-wide systems like SIS and Eurodac and also other national systems.

Integration challenges: Many national systems are outdated and rely heavily on manual data entry, leading to inefficiencies. Numerous countries highlighted the need for improved interoperability and data sharing between existing systems.

Centralised vs. decentralised approaches: Most interviewees expressed a preference for decentralised or hybrid architectures, citing the impracticality and high costs associated with fully centralised EU systems. Certain Member States emphasised the importance of maintaining national systems while enhancing connectivity with EU frameworks.

Data management and sharing

Data quality issues: Several authorities reported challenges with data accuracy and completeness, often due to individuals providing incorrect information or inconsistencies in biometric data. Some countries noted difficulties in distinguishing between executed return decisions and decisions where individuals are resettled (i.e. residing in another EU Member State where they have the right to stay), which leads to confusion and affects the accuracy of data.

Limited data sharing: Data sharing with other Member States and EU systems is often conducted via email or manual processes, which can hinder timely decision-making. Several countries highlighted the need for better integration with EU systems to facilitate more efficient communication.

Unique identifiers: The implementation of unique identifiers for tracking individuals through the return process was noted as a critical improvement needed in several national systems.

Existing challenges in digital migration management

Fragmented IT systems: It was often noted that the fragmented IT systems across EU Member States hinder coherence and efficiency in RRR processes, complicating information sharing and case management. This lack of interoperability leads to delays and difficulties in monitoring returnees across borders.

Communication with third countries: Numerous interviewees highlighted communication difficulties with the embassies of third countries as a major obstacle to effective RRR processes. Some Member States specifically noted the necessity for a centralised communication channel to facilitate smoother interactions.

Resource constraints: Several national authorities reported limited resources, specifically human resources for managing return and reintegration cases, which contributes to delays and inefficiencies in digital processes. The need for enhanced support from organisations such as the IOM was often highlighted to improve the capacity for effective digital management of RRR cases.

Future outlook and recommendations

Need for automation: Interviewees from multiple countries emphasised the importance of automating processes to enhance efficiency and reduce manual data entry. This includes integrating flight booking systems and improving reporting capabilities.

Interoperability with EU systems: There is a strong desire for enhanced interoperability with EU systems, particularly SIS and Eurodac, to facilitate better data sharing and improve the overall effectiveness of return management.

Political and legal considerations: The feasibility of implementing new systems is often hindered by political and legal constraints, including varying national jurisdictions, different agencies involved taking responsibility, and the need for mutual recognition of return decisions among Member States.

Interviews with relevant EU agencies

Roles and responsibilities

Need for clarity: The interviewees underlined the lack of clarity and coherence among various authorities involved in RRR processes. This ambiguity often leads to overlaps in duties and gaps in accountability, resulting in inefficiencies and delays in case management.

Integration and coordination: Desires were expressed for a more integrated approach to defining functions within the system, suggesting that a unified framework could facilitate better coordination and resource allocation. This would not only enhance operational efficiency but also foster a shared understanding of objectives among all stakeholders involved in the return and reintegration processes.

Challenges in current systems

Fragmentation and silos: Existing EU Information Systems operate in silos, leading to inconsistencies in data management and quality. This fragmentation complicates the identification and monitoring of individuals across different systems.

Data quality issues: Varying data quality across systems poses challenges for accurate matching of individuals, impacting the effectiveness of RRR efforts.

Digitalisation efforts

Need for centralised solutions: A centralised approach to identity management and data sharing is recommended by the interviewed agencies to improve efficiency and compliance. While a hybrid model may also be feasible, a unified system is preferred for better coordination.

Interoperability: Enhancing interoperability among existing systems is crucial for effective migration management. The ESP could facilitate this by allowing queries across all systems in line with access rights.

Data protection and rights

Right to information: TCNs often lack sufficient information regarding how their data is handled, which undermines their rights. Some agencies emphasised the importance of timely and clear communication of rights to data subjects.

Legal framework: The existing data protection framework, including the EUDPR, is considered robust but there is a growing gap between legal obligations and technical implementation, necessitating better guidelines and training for staff.

Recommendations for improvement

Enhanced training: There is a need for improved training for staff on data protection rights and the use of digital tools to ensure compliance and effective communication with data subjects.

M&E: Developing a robust Monitoring and Evaluation ('M&E') framework for return practices in the digital context is essential to refine existing programmes and ensure effective implementation across Member States.

Future considerations

Identity management: Addressing identity management within migration systems is critical for data protection and the overall effectiveness of migration management processes.

Capacity for development: Agencies like eu-LISA face challenges in meeting development timelines due to their current workload, highlighting the need for integrated planning and resource allocation. Other such as Frontex noted that the lack of a clear legal basis and established timeframe for digitalisation initiatives makes it difficult to set concrete goals and priorities.

Interviews with reintegration partners

Challenges

Inflexibility of RIAT: Some reintegration partners highlighted the inflexibility of the RIAT system, particularly regarding the inability to update submitted information once it has been approved. This limitation can hinder effective case management and responsiveness to individual needs.

Data quality issues: Challenges related to data quality were noted, including missing or incorrect contact details for returnees, which complicate communication and support efforts. The quality of data varies across Member States, impacting the overall effectiveness of reintegration preparations.

Communication and collaboration

Effective communication: Some interviewees reported excellent communication through the RIAT system, contributing to their good reputation among partnering Member States. Regular training for staff ensures effective service delivery and collaboration.

Bilateral agreements: Reintegration partners collaborate with various Non-Governmental Organisations ('NGOs') and government entities, enhancing the reintegration process through established partnerships and shared resources.

Recommendations for improvement

Enhancements to RIAT:

- Enhanced visibility for post-arrival packages and the introduction of colour coding for case management.
- Mandatory uploads of travel documents and contact details to ensure comprehensive case information.
- Allowing users to edit arrival dates and re-upload documents to maintain accurate records.

Consultation with service providers: It was emphasised that service providers like Caritas and ETTC should be consulted when implementing digital strategies for returnees, given their practical experience and insights into the challenges faced.

Interviews with CSOs, IOs, academia

Fundamental rights and data protection

Emphasis on rights: All organisations highlighted the importance of protecting fundamental rights within migration management, particularly concerning return processes. There is a consensus that migration policies must not compromise the dignity and rights of TCNs.

Data protection concerns: Some CSOs raised significant concerns regarding excessive data collection that often lacks relevance to return decisions. They emphasised the necessity for compliance with the GDPR and the implementation of robust safeguards to protect individuals' data. Other interviewees echoed these concerns, advocating for transparency in data collection practices and the need to inform TCNs about the data being collected and its intended use.

Data sharing and interoperability

Need for improved infrastructure: The importance of strengthening data-sharing infrastructure and improving interoperability between systems was emphasised only by some interviewees, while all interviewees pointed out that common rules on data collection are important. Enhanced data sharing is seen as crucial for effective return processes and better coordination among Member States.

One interviewee outlined that the central solutions of data are easier to implement, as only one authority will be responsible for the management afterwards. In addition, a centralisation of safeguarding rules on data collection and storage was considered an advantage.

In the interviews, the necessity for investment in registration infrastructure to facilitate the identification and documentation of migrants was highlighted.

Outdated technology: Interviewees from an IO pointed out that with regard to the current systems used (e.g. RCMS), the technology provided is somewhat outdated. Often the systems used are still legacy systems. The question of where the data should be stored for RCMS may prevent further developments of the system.

Many of the databases in the Member States do not capture all relevant data or do not allow for sufficient monitoring of cases.

Fragmentation

High levels of fragmentation: Some interviewees confirmed the finding that the current infrastructure is highly fragmented, complicating infrastructure between the different Member States.

In this context it was mentioned that also the involved actors are highly fragmented.

Policy recommendations

Long-term development investments: Some interviewees recommended that the EU invest in the long-term digital development of third countries to foster cooperation on return and reintegration.

Basic data principles: Interviewees reiterated that basic principles such as data minimisation and transparency should be respected in order to ensure a lawful collection of data.

Cooperation: Interviewees confirmed that it is needed that Member States start to cooperate more strongly in the field of digital migration management.

Targeted written survey

Existing situation

The survey targeted at national authorities provides information regarding the current system in place to manage RRR, including the type of available data and the extent to which they are shared across countries.

Firstly, the **approach to managing RRR** differs among Member States. Indeed, seven national authorities use an **integrated case management system** (i.e. one single system treating RRR) while seven reported using **separate systems** for RRR and nine national authorities highlighted the use of **methods not standardised across countries**. Only one national authority stated that no specific system is in place.

In addition, the digital management of **RRR cases** varies with regard to the **practical implementation**. Indeed, according to survey results, **return** cases are primarily handled through centralised national systems, with limited reliance on EU-level systems. In a similar manner, **readmission cases** are mainly managed through a centralised system, with only few countries relying on decentralised local systems. Conversely, **reintegration** is mainly managed through EU-level systems, followed by centralised national systems, and with limited use of manual and decentralised local systems.

There are various systems designed to manage RRR, ranging from **custom-built national solutions,** created by individual Member States, to systems, such as **EU-level systems** which operate across multiple countries.

The survey gathered information about **the type of data that are collected by Member States to manage return, reintegration and readmission** and the type of data that is **shared across Member States and through EU systems**. In terms of data collected and used by countries to

manage RRR, the majority of national authorities responding to the survey stated that they collect and use the following data: **legal status and documentation** (24 national authorities), **personal identification data** (23 national authorities), **criminal records** (23 national authorities), **biometric data** (22 national authorities), **health and medical records** (18 national authorities), **travel history and entry/exit record** (18 national authorities). However, evidence collected through the survey presents a **mixed picture regarding the alignment between the data collected at the national level for RRR and the data shared with other countries and with EU systems**. As shown in the table below, **all Member States** that collect and use **personal** and **biometric data** for RRR tend to share it with other Member States and EU systems. Similarly, half, or more than half of national authorities collecting **legal status and travel history data** share it as well. On the other hand, less than half of the Member States collecting and using **information of criminal** and **medical records** tend to share this information with other EU Member States and EU systems, and **only few Member States** gathering data on the social and economic background of TCNs share it.

Table 8 - Type of data collected by Member States and shared among national and EU systems

Type of data	Number of Member States collecting and using data	Number of Member States sharing data
Legal status and documentation (e.g. existence of residence permit, approved asylum application, etc.)	24	17
Personal data (e.g. name, date of birth, nationality)	23	22
Information on criminal records	23	20
Biometric data (e.g. fingerprints, facial recognition)	22	21
Travel history and entry/exit records	18	9
Health and medical records	18	5

Source: Study on the way towards a comprehensive, integrated and digitalised EU

Moreover, the large majority (18 national authorities) of survey respondents considered the **available data sufficient for managing cases**, with six reporting limitations stemming from data protection regulations, lack of access to social and private data, and challenges in verifying nationality when individuals do not cooperate.

Also, the survey results remarked that some data are **available but not yet used** due to the lack of technical capability, data protection and privacy concerns, and insufficient legal frameworks.

Finally, three CSOs out of three warned against the risk of **low data protection** which is undermined by data breaches and limited effectiveness of data protection regulations among CSOs, while the IO stressed **inefficient data sharing mechanisms** with regard to readmission, and a **lack of standardised procedures** for what concerns both data management systems for readmission and reintegration programmes.

In addition, the participant in the **IO survey** highlighted a substantial inconsistency in data formats in the RCMS as well as data entry errors hindering data accuracy.

Problem definition

Survey results provide a picture of the **overarching**, **technical** and **operational challenges** faced by national authorities in the management of their RRR systems.

As concerns **overarching challenges**, most national authorities responding to the survey have highlighted:

- Legal barriers to cross-border data sharing (18 national authorities).

- Complex and fragmented legal frameworks across Member States (18 national authorities).
- Strict data protection regulations limiting data sharing and processing (18 national authorities).
- Delays caused by bureaucratic complexities in implementation (17 national authorities).
- Lack of standardised digital tools across Member States (16 national authorities).
- Difficulties in integrating digital systems with existing administrative frameworks (15 national authorities).
- Challenges in data collection and analysis (15 national authorities).
- Insufficient funding for relevant initiatives aiming at strengthening the digitalisation of processes (15 national authorities).
- Limited availability of skilled talent and expertise (15 national authorities).
- Complexity in complying with national and EU-level regulations (15 national authorities).
- Legal constraints on cross-border data transfers (18 national authorities).
- Data protection and privacy and security concerns (13 national authorities).

The majority of national authorities responding to the survey also remarked some existing **technical challenges**:

- **Lack of interoperability** between different digital systems and platforms (16 national authorities).
- Issues in **ensuring secure communication and data exchange** (14 national authorities).
- **Difficulties in scaling systems** to handle increasing volumes of data and users (13 national authorities).
- **Difficulties in integrating automation and workflow tools** into existing systems (13 national authorities).

Moreover, with respect to challenges connected to interoperability of systems to manage RRR, 19 national authorities further confirmed that **integration with other systems** represents one of the main challenges faced with current systems, along with data completeness (15 national authorities).

Overall, major **operational challenges** seem to be related to manual processes and the limited degree of automatisation. Indeed, among operational challenges faced with the use of existing systems, national authorities responding to the survey underscored **manual processes that could be automated** (17 national authorities). Moreover, while no main operational challenges are identified with regard to returns and reintegration, 1 national authority remarked that the main challenge related to readmission stands in the **limited automatic and systematic follow up of a return decision by a readmission request**.

In addition, the **use of manual processes over automated ones leads to increased costs** according to national authorities responding to the survey. Indeed, 17 national authorities agreed that the **lack of automated processes** requiring manual intervention, **the need for manual data entry** and verification, as well as manual case management processes, lead correspondingly to **higher operational, labour and administrative costs**. In a similar manner, the need for manual data entry and processing **increases the workload of officers** and **enhances the likelihood of errors and omissions** according to 15 national authorities responding to the survey.

Finally, the survey highlighted several **other challenges**, including **insufficient funding for the development and maintenance of digital tools** (with 15 national authorities agreeing or slightly agreeing), **budget constraints** limiting investment in new technologies (with 16 national authorities agreeing or slightly agreeing), securing long-term financial support for digital initiative (with 16 national authorities agreeing or slightly agreeing), and organisational culture and practices differences across different Member States (with 15 national authorities agreeing or slightly agreeing). In addition, three out of three CSOs identified potential violations of privacy and discrimination as another severe challenge.

Two participants in the **IO survey** highlighted some challenges regarding the functioning of the RCMS, including user interface complexities, frequent technical issues and slow system performance, resistance to change, as well as issues with data accuracy and consistency, in terms of data entry errors and data fragmentation.

Why should the EU act

15 responding Member States are convinced that existing challenges can be effectively solved by individual Member States, with only one feeling that national efforts would suffice. However, when asked about the necessity for the Commission to intervene, 18 national authorities indicated a 'large' (14) or 'very large' (4) need for action, highlighting the Commission's critical role in facilitating cooperation and standardisation.

Moreover, when inquired about the need for EU action, respondents showed a strong belief that **coordinated EU-level action would enhance data sharing and improve communication with third countries** (14 national authorities), while they agreed that **a more united and coherent digital approach of the EU in its communications with third countries** for readmission cooperation's purposes is likely to improve the effectiveness of the readmission process as a whole (12 national authorities) and that **digital challenges hinder the overall functioning of the EU system governing RRR** (11 national authorities).

In addition, the participants in the **IO survey** also highlighted the need to **improve communication tools** with a view to use digital systems. The participants stressed the need to perform **comprehensive access control** in order to enhance data security in readmission processes, the need for **standardised guidelines and procedures** for reintegration programmes and, lastly, the need to enhance **interoperability** among various systems.

Policy objectives

The majority of Member States surveyed highlighted that a new EU action on the digitalisation of migration management shall achieve the following policy objectives:

- To speed up procedures and decrease the workload for the competent authorities (indicated by 22 respondents of high or very high importance).
- To increase the data sharing between existing and future IT systems on RRR and other relevant IT systems such as relevant EU Information Systems (indicated by 21 respondents of high or very high importance).
- To conduct RRR processes more efficiently (indicated by 21 respondents of high or very high importance).
- To ensure that processes and reporting requirements are more digitalised, user-friendly, and automated (indicated by 20 national authorities).
- To ensure access to the necessary data (indicated by 20 national authorities).

In addition, three out of three CSOs opposed the idea of having an integrated case management system at EU level, which, on the opposite, is supported by the participants in the **IO survey**

together with the need to introduce standardised reintegration protocols and interoperable systems.

Policy options

Respondents assessed several **procedural features** based on their importance in addressing current and future challenges. Notably, 15 national authorities emphasised the importance of **processing additional data sources for identification and decision-making**, while 13 respondents accounted **automatic and systematic follow up of return decisions** by a readmission request as important or very important. Moreover, the integration of a **flight booking system** was rated as important or very important by 12 respondents, together with the **extraction of departure obligation lists** and the adjustment of deadlines that may differ (e.g. between different types of readmission procedures) deemed important or very important by 10. Lastly, the ability to **start a return case under one procedure and later transfer it to another** was accounted as important or very important by nine respondents.

The survey also assessed the importance of **horizontal features critical for effective management**. Generating **reports and statistics**, as well as **M&E** and user-friendliness of the interface for case handlers was rated as of high or very high importance by 16 and 15 national authorities correspondingly. Furthermore, **varying access rights** (i.e. identity management) for different users depending on the systems or modules was rated as important or very important by 14 respondents, while **monitoring real-time data dashboard** on reintegration statistics and managing multiple cases for the same person in different Member States following secondary movements were rated by 13 authorities as of high or very high importance.

When inquired about the most **crucial improvements for enhancing management**, the introduction of an **integrated case management system** was favoured by 11 national authorities. **Increased funding and resources** were also highlighted by eight, indicating a consensus on the need for better coordination and resource allocation to support return management efforts. Other options, such as **better coordination** between national and EU levels and **enhanced M&E**, received minimal support, with only one each.

In terms of **design features for an integrated case management system**, **interoperability with existing systems emerged as the most critical aspect**, with 18 national authorities emphasising its importance. Additionally, a modular and flexible architecture was favoured by 15 national authorities, suggesting a preference for adaptable systems that can evolve with changing requirements. User-friendly interface was also recognised as important by 14 respondents.

Furthermore, the survey explored the potential of **emerging technologies in enhancing case management systems**. Biometric systems were identified as promising advancements by 17 national authorities, while artificial intelligence and machine learning received support from 14 respondents. These technologies were seen as vital for improving identification and data analysis processes, which are essential for effective return management.

Finally, two participants in the **IO survey** indicated automated workflow management as the most effective digital solution to streamline the readmission process, coupled with the carry out of a comprehensive training for user to enable them to effectively use the systems. With regard to reintegration, case tracking management would benefit the most from an increased digitalisation of the system, including the introduction of a real-time data dashboard, stressing the need to combat resistance to change as the most significant barrier to implementing a digital case management system for reintegration.

Validation workshop

Problem and objectives

Participants were presented the problem definition and objectives pursued. Two participants flagged that the limited data sharing and completeness outlined as problem drivers will be difficult to resolve, as Member States would need to first agree upon a shared definition for the data. This is considered to involve significant workload that requires sufficient resources and time. Overall, feedback on both aspects was rather positive.

Table on the summary of main components of the policy options

An overview on the main components of the policy options was presented. Among the most important points discussed were:

- The **roles of Frontex and eu-LISA** in developing and implementing the technical infrastructure.
- The **intrusiveness of the policy options**: Some respondents enquired whether policy option 1 can be considered the least intrusive among the policy options presented. One stakeholder indicated that policy option 1 was their preferred policy option.
- The **availability of public funding** from the Commission: Multiple participants enquired whether public funding will be made available by the Commission to implement the new system (e.g. under AMIF).
- The **use of Artificial Intelligence (AI)** and other digital, innovative solutions.

SWOT analyses

Policy option 1: Partially decentralised option without central EU database

Among the main **strengths** discussed were in particular:

- The quick implementation time.
- Building upon already existing solutions in the Member States.
- The flexibility to adapt the system to the single needs of individual Member States.
- The cost-effectiveness.
- The low invasiveness.

Among the main **weaknesses** discussed were in particular:

- The higher degree of manual work by Member States without a central database available.
- The differing levels of ability and expertise in implementation of Member States.
- Limited possibilities to exchange data.
- The fact that administrative burden is not necessarily reduced.

Among the main **opportunities** discussed were in particular:

- The opportunity for Member States to exchange data via RIAT and RCMS.

Among the main **threats** discussed were in particular:

- Difficulties in ensuring that all Member States use the system correctly across the Union.
- The use of the communication channel might not be as intended.
- The danger of double registration, which might not be fully mitigated through the policy option.

Policy option 2: Partially decentralised option with central EU database

Among the main **strengths** discussed were in particular:

- The higher data quality (in particular accuracy).
- Faster exchange of relevant information.

Among the main **weaknesses** discussed were in particular:

- The very long implementation time.
- The costs are expected to be quite high.
- Data harmonisation might be difficult and data definitions must be harmonised.

Among the main **opportunities** discussed were in particular:

- A reduction of the risk to handle cases in parallel.
- Frontex could be included under this option with a role related to IT development.

Among the main **threats** discussed were in particular:

- eu-LISA might be one organisation too much in managing return and would lead to additional confusion.
- 'Weaker' national set-ups are not necessarily changed.
- The technical implementation needs to be fully uniform.

Policy option 3: Centralised solution

Among the main **strengths** discussed were in particular:

- Very fast, real-time exchange of data.
- Better time savings for users when they use a single platform.
- A better harmonisation of the European system.
- The existence of a central service provider (e.g. eu-LISA), which could enhance interoperability.

Among the main **weaknesses** discussed were in particular:

- The very long implementation time.
- The high sunk costs related to this option, as national systems would continue to be used until they will be abandoned.
- Data harmonisation might be difficult and data definitions must be harmonised.
- The reduction of flexibility to changes.
- The fact that one system might not fit everyone's interests and needs.

There were no main opportunities mentioned by the participants.

Among the main **threats** discussed were in particular:

- The risk that all Member States would be equally affected by a system downtime.
- The threat that national specifications might not be considered sufficiently in the system.
- The lack of certain elements linked to asylum such as Dublin.
- The loss of very advanced systems in some Member States.

Stakeholder meeting with Member States

Participants were presented the three core problems affecting the current RRR systems, the problem drivers, and the objectives of the digitalisation legislative proposal. No Member State objected to the Commission's understanding of these problems and objectives.

Based on these elements, the Commission recalled the three possible policy options and opened the floor to participants for questions and comments. During the discussion, several representatives posed questions and shared observations. All Member States who took the floor

supported Option 1 and no Member State objected to the presentation of Option 1 as the most beneficial one. More specifically, one participant asked whether, under Policy Option 1, it would be possible to automatically retrieve data from iRCMS and RIAT without having to request it from another Member State. Another representative sought clarification on the legislative proposal's ambition regarding interoperability, in particular whether the future proposal would foresee integration with environments such as FAR and IRMA. A question was raised on the two possible development pathways under Policy Option 1—using a system based on the RECAMAS Model or an off-the-shelf reference implementation.

Furthermore, one Member State referred to the possible relationship between the digitalisation legislative proposal, Article 40 of the Return Regulation, and the forthcoming changes to the Frontex mandate. Questions were also raised regarding integration with the ESP and the usability of the communication channel. Finally, concerns were expressed about the extent of possible changes to SIS and whether the new communication channel would replace the existing consultation requirements under the SIS Regulation.

Call for Evidence

General concerns relating to migration and the role of the EU were raised. Harmonised digitalisation was depicted by some respondents as having the potential to facilitate exchange of information between the EU and third countries and between Member States, as well as to ease the return process and keep the detention period as short as possible. The importance of recording biometric data was underlined by one contributor. The importance to strictly adhere to fundamental rights, including data protection (e.g. storage limitation, purpose limitation, transparency), was underlined by several contributors.

ANNEX 3: WHO IS AFFECTED AND HOW?

The purpose of this section is to support the analysis provided in Section 0 by providing an overview of the costs and benefits (as much as possible in quantitative terms), as well as the application of the 'one in, one out' approach and an overview of relevant Sustainable Development Goals.

Overview of who is affected and how

Table 9 - Overview of benefits (total for all provisions) – Preferred Option

Description	***Amount***	***Comments***
Direct benefits		
Expected improvements in operational efficiency and effectiveness in managing RRR processes		Group affected: Migration authorities
Enhanced data sharing may lead to swifter decision-making and resource allocation		Group affected: Migration authorities
Enhanced digitalisation across Member States may reduce administrative burden		Group affected: Migration authorities

Enhanced ability to monitor and evaluate RRR trends and impacts, including readmission cooperation		Group affected: Commission/Migration authorities/Frontex
Expected expansion of responsibilities in supporting Member States with implementation of the new systems		Group affected: Frontex
Expected role in developing and maintaining the Communication Portal		Group affected: eu-LISA
Indirect benefits		
Anticipated improvements in security and public safety through better digital management of RRR processes		Group affected: EU citizens
Potential for reduced pressure on public services due to more efficient handling of RRR processes		Group affected: EU citizens
Increased trust in institutions as a result of more efficient digital management of RRR processes		Group affected: EU citizens

Summary of costs and benefits

As a tool for assessing the costs and benefits, the Commission used the relevant parts of the Commission's Better Regulation Guidelines' Toolbox. This concerns in particular Chapter 8 'Methodologies for analysing impacts in impact assessments, evaluations and fitness checks', tools #56 ('Typology of costs and benefits'), #57 ('Methods to assess costs and benefits'), #58 ('EU Standard Cost Model') and #59 ('Cost estimates and the One In, One Out approach).

An overview on the costs is given in the following tables. Table 10 provides an overview of the overall costs for the preferred policy option. The estimates include one-off and recurrent costs across the first six years after entry into operation.

Table 10 - Overview on the general costs (in EURm)

	Minimum	**Maximum**
Policy option 1		
Member States	422.04	537.14
Additional 'sunk costs'	Very limited since national systems continue to be in use	
Frontex	127.71	162.54
eu-LISA	30.13	50.30
Commission	2.51	3.19
Total	**582.39**	**753.17**

Source: Digitalisation Study

Table 11- Overview of costs – Preferred option

		Citizens / consumers		Businesses		Administrations	
		One-off	**Recurrent**	**One-off**	**Recurrent**	**One-off**	**Recurrent**
Action (a)	Direct adjustment costs	Not applicable				See table above	
	Direct administrative costs	Not estimated					
	Direct regulatory fees and charges	Not applicable					
	Direct enforcement costs	Not applicable					
	Indirect costs	Not estimated					

Table 12 – Application of the 'one in, one out' approach – Preferred option

[M€]	**One-off** (annualised total net present value over the relevant period)	**Recurrent** (nominal values per year)	**Total**
Businesses			
New administrative burdens (INs)			
Removed administrative burdens (OUTs)			
Net administrative burdens ([125])			
Adjustment costs ([126])			
Citizens			
New administrative burdens (INs)			
Removed administrative burdens (OUTs)			
Net administrative burdens			
Adjustment costs			

([125]) Net administrative burdens = INs – OUTs.

([126]) Adjustment costs falling under the scope of the OIOO approach are the same as reported in Table above. Non-annualised values.

Total administrative burdens ([127])			

No costs stemming from new or removed administrative burdens (i.e. from the application of the 'one in, one out' approach) have been identified.

Relevant sustainable development goals

Table 13 - Overview of relevant Sustainable Development Goals – Preferred Option

Relevant SDG	Expected progress towards the Goal	Comments
No. 3: Good health and well-being	Streamlined digital management of RRR processes are expected to enhance access to healthcare for returnees (thanks to increased sharing of data for the purposes of reintegration). Improved data sharing among Member States may facilitate timely access to medical services.	
No. 10: Reduced inequalities	Harmonisation of case management systems in RRR is expected to promote more equitable treatment of migrants across Member States. Enhanced digitalisation and more harmonised digital processes could empower migrants with better access to information about their rights and available services.	
No. 16: Peace, justice, and strong institutions	The initiative is expected to strengthen the rule of law and enhance security within the EU through harmonised digital management of RRR. Improved coordination among Member States may lead to more effective management of RRR processes, potentially reducing public distrust towards institutions.	

ANNEX 4: ANALYTICAL METHODS

The work focused on assessing the feasibility and impacts of policy options. For this purpose, an external study (the Digitalisation Study) was procured to gather the relevant data and support the impact assessment.

The Commission's impact assessment methodology served to structure and guide the analyses informing policy design. It illustrated the logical reasoning that connected the problem (including subsidiarity issues), its underlying root causes, the objectives of a policy intervention, and a range of policy options to address the problem. It also assessed the likely impacts of the options, who would be affected by them, and how.

The text below highlights how the specific impact assessment questions were addressed (as per the Better Regulation Guidelines) and provides an overview of the key methodologies (highlighted in **blue**).

([127]) Total administrative burdens = Net administrative burdens for businesses + net administrative burdens for citizens.

Table 14 - Overview of the analytical approach

IA questions ([128])	Activity	Methodological approach
What is the problem and why is it a problem?	Step 1	To answer this question, the Commission conducted, notably through the Digitalisation Study, a **comparative analysis** of the data collected at the EU and national levels regarding the existing landscape of IT systems in the area of RRR. The Commission defined the problems affecting the current systems, the related root causes (drivers) and consequences. The analysis involved the following: Formulation of the core problem(s), i.e. the focal problem whose magnitude and relevance from an EU perspective could require intervention. Identification of the main underlying drivers (causes) of the core problem(s), and the relationships between them. Identification of the likely consequences stemming from the core problem. Identification of the relevant stakeholders concerned by the core problem and its drivers, including both those affected by the problem(s) and those whose behaviour caused it. Identification of the contextual factors/developments that had an external influence – positive or negative – on the problem (e.g. trends in the number of return decisions). The problem definition served to describe the nature of the challenges at hand and also assess, to the extent possible, the magnitude of the problem. Evidence was gathered via the stakeholder consultations, stakeholders meetings and desktop research. Based on the definition of the problem, the baseline scenario was defined (see Section 0).
Why should the EU act?	Step 2	After having defined the problem, its drivers and consequences under Step 1, the Commission analysed the need for EU action in accordance with **TOOL #5** ([129]) and the **model grid** developed by the Task Force on Subsidiarity, Proportionality and 'Doing Less More Efficiently' ([130]). To assess the compliance of a possible EU intervention with the principles of subsidiarity and proportionality, the Commission performed: (1) a **legality assessment** (to assess whether an EU intervention was allowed under the Treaties and whether the EU had exclusive competences or not) (2) a **necessity assessment** (to assess whether the objectives of the intervention could be adequately achieved by the Member States alone) (3) an **EU added value assessment** (to assess whether the objectives of the intervention could be better achieved at EU level by reason of the scale/effects of the intervention) (4) a **proportionality assessment** (to assess whether the EU intervention was commensurate with the identified problems)

([128]) Based on the table included in Better Regulation Guidelines, Chapter 3, p. 17.

([129]) Better Regulation Toolbox TOOL #5: Legal basis, subsidiarity and proportionality.

([130]) European Commission, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: The principles of subsidiarity and proportionality: Strengthening their role in the EU's policymaking; COM/2018/703 final, 23 October 2018; EUR-Lex - 52018DC0703 – EN – EUR-Lex (europa.eu).

IA questions ([128])	Activity	Methodological approach
What should be achieved?	Step 3	After having defined the problem and established the need for EU action, the Commission defined the objectives of the EU intervention in accordance with **TOOL #15**. The Commission articulated 'S.M.A.R.T.' (Specific, Measurable, Achievable, Relevant, Time-bound) objectives for the policy intervention, both general and specific. A **consistency analysis** was undertaken to ensure that the identified objectives were consistent with and clearly linked to the problems and their drivers. The link between the problem and the objectives was visualised by means of a correspondence table. Moreover, the Commission conducted a **consistency/complementarity analysis** to ensure that the identified objectives complemented and contributed to other relevant EU policy goals.
What are the various options to achieve the objectives?	Step 4	Following the establishment of the policy objectives and taking into account the findings of previous tasks, the Commission implemented a step-by-step approach in order to define relevant policy options and sub-options ([131]) in line with **TOOL #16 and 17**: (1) Established the **baseline and a long list of policy options**, considering a wide range of measures that could be implemented to address the problems and achieve the objectives; (2) Conducted a **high-level screening** (**TOOL #18**) ([132]) of the policy options in order to identify the most viable options and whether any of the identified measures were not suitable, as they were e.g. not feasible or did not respect the principles of proportionality and subsidiarity and should thus be discarded; and (3) Elaborated a **final list of policy options** to be assessed in detail.
What are their economic, social and environmental impacts and who will be affected?	Step 5	The assessment of the policy options' **main economic, societal, environmental, security, and fundamental rights impacts** was performed in compliance with the Better Regulation Toolbox in a three-step process: (1) Refinement of the impact assessment methodology including the establishment of a long-list of potential impacts of the policy options; (2) Screening and preliminary assessment of the impacts of the policy options and their likely development to identify the most important impacts for a detailed assessment; and (3) In-depth qualitative and quantitative assessment of the impacts, including the application of TOOLS #19, 21–23, 28, 29, 30, and 36.
How do the different options compare (effectiveness, efficiency and coherence)?	Step 6	Starting from the assessment of the impacts and their distribution, the comparison of the different policy options was carried out according to **TOOLS #56–59, 62, and 63**, including the **analysis of costs and benefits**, a **multi-criteria analysis**, as well as the analysis relating to the Commission's **'one in one out' approach**. The Commission performed an **MCA** at the stage of comparing the policy options against the main criteria of necessity, effectiveness, efficiency, coherence with other EU policies, subsidiarity and proportionality.
How will monitoring and subsequent retrospective evaluation be organised?	Step 7	In accordance with **TOOLS #43 and 44**, the Commission defined monitoring and evaluation arrangements for the preferred policy option by setting operational policy objectives and monitoring indicators to monitor its implementation and application by the Member States.

([131]) The step-by-step approach comprises all five steps identified in TOOL#17.

([132]) Better Regulation Toolbox TOOL #19: Identification/ screening of impacts.

ANNEX 5: COMPETITIVENESS CHECK

OVERVIEW OF IMPACTS ON COMPETITIVENESS

Dimensions of Competitiveness	Impact of the initiative (++ / + / 0 / - / -- / n.a.)	References to sub-sections of the main report or annexes
Cost and price competitiveness	Negligible (0)	Short reference made in Section 0
International competitiveness	Negligible (0)	Short reference made in Section 0
Capacity to innovate	Negligible (0)	Short reference made in Section 0
SME competitiveness	Negligible (0)	Short reference made in Section 0

SYNTHETIC ASSESSMENT

Synthetic assessment

The synthetic assessment summarises the expected impacts of the preferred option on competitiveness.

In general, the initiative is expected to have some small to moderate effects on private-sector IT businesses in two ways. First, the Frontex, with the support of eu-LISA, may procure the development of the new systems through a private contractor and, second, Member States may also procure private contractors to implement new systems or new system components.

No significant effects on any of the competitiveness dimensions provided in the Better Regulation Guidelines Toolbox ([133]) were identified. As the target stakeholders of the initiative largely comprise competent national authorities in the Member States, no major impacts are expected on e.g. companies' production or compliance costs, any movements of goods in the Member States, investment flows, business shocks or businesses' capacity to innovate and undertake research and development. The only expectable (very moderate) effects are in the area of outsourcing of tasks to private-sector contractors in the IT area (see above), which is not expected to impact competitiveness in the long-term. There are also no measurable effects that would particularly affect small- and medium-sized enterprises ('SMEs') across the Member States.

([133]) European Commission (2023). Better Regulation Guidelines Toolbox. #Tool 11 Format of the Impact Assessment Report & Appendix – Competitiveness Check. Available at: https://commission.europa.eu/law/law-making-process/better-regulation/better-regulation-guidelines-and-toolbox_en

ANNEX 6: DATA PROTECTION IMPACT ASSESSMENT FOR OPTION 1

STEP 1: IDENTIFICATION OF THE NEED FOR A DPIA

Project purpose

Option 1 aims to enhance the digital management of RRR processes across EU Member States by introducing a harmonised national case management system based on the Frontex-developed RECAMAS Model, maintaining decentralised data storage while improving interoperability and coordination. In addition to national RECAMAS, EU-level tools such as iRCMS and RIAT will be integrated into national systems. Frontex will assume lead responsibility for the development and maintenance of the EU segments of iRCMS and RIAT, while third countries and international organisations will continue to manage the third-country segment of iRCMS. The architectural setup under this option does not include a central EU database or uniform interface. Instead, the ESP will be connected directly into the national RECAMAS, enabling Member States to query relevant EU Information Systems in line with access rights. IRMA and RECAP will be directly connected to the national RECAMAS-based systems, while iRCMS and RIAT will be integrated into national RECAMAS to support readmission and reintegration workflows, including direct communication with local reintegration partners. The Communication Portal will allow return authorities to share information that cannot be exchanged through EU Information Systems. This decentralised yet interconnected architecture aims to improve operational efficiency while providing some flexibility to Member States as regards return case management systems.

The processing activities under this option involve the collection, storage, and exchange of personal data of TCNs, including potentially sensitive categories such as biometric data, criminal records, and information related to health, vulnerability, and reintegration needs. These data are processed for the purposes of case management of RRR processes.

Need for a DPIA

In view of the risk factors set out above and taking into account the nature, scope, context, and purposes of the processing, it follows that the processing activities envisaged under the proposed digitalisation of RRR procedures in the EU require the performance of a DPIA, in accordance with Article 35 GDPR/Article 39 EUDPR and the guidelines of EDPB ('the EDPB Guidelines') ([134]).

The processing associated with this initiative presents the following risk factors that justify the need for a DPIA:

Processing on a large scale of special categories of data, or of personal data relating to criminal convictions and offences.

In order to determine whether the data is processed on a large scale, the following elements must be assessed: (i) the number of data subjects concerned, either as a specific number or as a proportion of the relevant population; (ii) the volume of data and/or the range of different data items being processed; (iii) the duration, or permanence, of the data processing activity; as well as (iv) the geographical extent of the processing activity ([135]).

([134]) EDPB Guidelines on Data Protection Impact Assessment ('DPIA') and determining whether processing is "likely to result in a high risk" for the purposes of Regulation 2016/679, 4 April 2017, WP 248 rev.01, Available at: JUSTICE AND CONSUMERS ARTICLE 29 - Guidelines on Data Protection Impact Assessment (DPIA) (wp248rev.01).

([135]) EDPB Guidelines, p.10.

In view of the above criteria, it can be concluded that this risk factor would be present in this case, taking into account that the processing (i) affects a significant number of TCNs across all EU Member States, (ii) involves the collection and exchange of special categories of data and data relating to criminal convictions and offenses (e.g. biometric data, criminal records, health data), (iii) over extended periods of time, and (iv) across a broad geographical scope. Also, the data is processed by multiple actors (national authorities, Frontex, eu-LISA) and exchanged across borders, further increasing the scale of the processing.

Conclusion

Based on all the above, it can be concluded that the processing activities envisaged under the proposed digital RRR system are subject to the obligation to carry out a DPIA.

STEP 2: DESCRIPTION OF THE PROCESSING

Nature of the processing

The data processed will include all data necessary to complete the RRR processes and in particular:

- Information necessary to establish the identity of the TCN and, where applicable, the identity of his or her family members, relatives and any other family relations.
- Information related to the biometric data taken of the TCN in accordance with Regulation (EU) 2024/1358 ([136]).
- Information related to the nationality and any travel document(s) of the TCN.
- Information related to the TCN's places of residence, routes travelled, languages spoken and contact details (electronic mail address(es) and phone number(s)).
- Information on any residence status or authorisations offering a right to stay, including residence documents or visas as well as any applications or extensions hereof, issued by a Member State or a third country.
- Information related to the return operation of the TCN.
- Information related to the return and reintegration of the TCN.
- The grounds for any return decision taken concerning the TCN.
- Information on the compliance of the TCN with the obligations under the return procedure.
- Information as to whether the TCN was detained or alternatives to detention were applied to the individual.
- Information related to the criminal records or related to the threat to public policy, public security or national security posed by the TCN.
- Information on vulnerability, health and medical needs of the TCN.

The purpose of the processing is to manage digitally RRR processes.

Data will be stored in national RECAMAS (and also at Frontex level as regards iRCMS and RIAT data), with each Member State maintaining control over its own data repositories. There will be no centralised EU database. Data retention periods will be defined at EU level, in

([136]) Regulation (EU) 2024/1358 of the European Parliament and of the Council of 14 May 2024 on the establishment of 'Eurodac' for the comparison of biometric data in order to effectively apply Regulations (EU) 2024/1351 and (EU) 2024/1350 of the European Parliament and of the Council and Council Directive 2001/55/EC and to identify illegally staying third-country nationals and stateless persons and on requests for the comparison with Eurodac data by Member States' law enforcement authorities and Europol for law enforcement purposes, amending Regulations (EU) 2018/1240 and (EU) 2019/818 of the European Parliament and of the Council and repealing Regulation (EU) No 603/2013 of the European Parliament and of the Council, OJ L, 2024/1358, 22.5.2024, ELI: http://data.europa.eu/eli/reg/2024/1358/oj.

accordance with the principles of data minimisation and storage limitation under the GDPR and the EUDPR.

Data sharing will occur in several ways:

- National RECAMAS will be connected to the ESP, which will allow authorities to query and retrieve the necessary information from relevant EU Information Systems such as SIS, Eurodac or EES.
- When the information cannot be retrieved through EU Information Systems, Member States will exchange information with each other through the Communication Portal, based on existing infrastructure (SIRENE, DublinNet, VIS Mail).
- iRCMS will be embedded into national RECAMAS and will allow the exchange of information with third countries.
- RIAT will be embedded into national RECAMAS and will allow the exchange of information with reintegration partners.
- Frontex digital tools such as IRMA, FAR and RECAP will be integrated into national RECAMAS to support exchange of information with Frontex and the communication with returnees.

Scope of the processing

The nature of the data includes both non-sensitive personal data - such as names, dates of birth, nationality, travel history, and contact details - and special categories of personal data as defined under Article 9 GDPR and Article 10 EUDPR, namely biometric data and health-related information. Data relating to criminal convictions and offences, as defined under Article 10 GDPR and Article 11 EUDPR, may be processed too.

The volume of data processed is expected to be substantial, as it will cover all TCNs subject to RRR procedures across the whole Union. Hundreds of thousands of return decisions are issued annually, and the systems will need to manage data for each case, including updates throughout the RRR process.

The processing of personal data will occur on a continuous basis, as the system is designed to support the long-term digital management of RRR procedures across the Union. This is not a one-off or time-limited project but rather a structural and operational framework intended to be embedded in the daily work of national migration authorities. Data will be collected, updated, and processed dynamically throughout the lifecycle of each individual case, from the initiation of return procedures to the completion of reintegration support (where applicable).

Personal data will be stored only for as long as necessary to fulfil the purposes for which it was collected, in accordance with Article 5(1)(e) GDPR and Article 4(1)(e) EUDPR. As underlined by the EDPS in its Opinion 9/2025 on the Commission proposal for the Return Regulation, there is a need to ensure consistent application of the EU data protection in the context of the return procedures as regard, among other things, the storage duration ([137]).

A duration of 10 years from the confirmation of return is considered to be necessary and sufficient for Member States to (i) complete all RRR processes, including reintegration, which may last several years after the effective return in the country of return and (ii) allow migration authorities to identify TCN who would return irregularly to the EU after having been returned. This duration should be longer where the return decision is accompanied by an entry ban. In

([137]) EDPS Opinion 9/2025 on the Proposal for a Regulation establishing a common system for the return of third-country nationals staying illegally in the Union; 23 May 2025; Opinion on the Proposal for a Regulation establishing a common system for the return of third-country nationals staying illegally in the EU | European Data Protection Supervisor.

this case, the retention period should be as long as the entry ban is in force or 10 years, whichever period is longer. When a return decision is withdrawn or annulled, there would be no reason to continue storing the data, which should therefore be deleted immediately.

Frontex does not act as a fully-fledged return authority, personal data processed for the purpose of performing tasks relating to return and readmission should be deleted no later than 30 days following the receipt of confirmation of return. Personal data processed for the purpose of reintegration should be stored for two years following the receipt of the confirmation of return. This longer retention period for data relating to reintegration is justified by the fact that the provision of reintegration assistance, under the EU Reintegration Programme run by Frontex and under several other national reintegration programmes, can extend to up to one year following the effective return. Following this one year, there is a need to continue keeping the data for an additional year for reporting purposes and ensuring that TCNs can be further referred to other reintegration programmes (outward referral) running in the longer term (e.g. implemented by third countries). Just as for Member States, when a return decision is deleted or withdrawn, Frontex should delete the corresponding data immediately. Personal data processed for the purpose of the development and operational management of iRCMS and RIAT (i.e. hosting the data) should be stored in compliance with the rules applicable to Member States.

Upon expiry of the retention period, personal data must be securely and automatically deleted, and appropriate technical and organisational measures must be in place to ensure compliance with these obligations.

The geographical scope of the processing is EU-wide. All EU Member States participating in the system will process and exchange data through their national case management systems.

The processing may extend to third countries in the context of readmission cooperation and reintegration, where data needs to be shared with competent authorities in countries of return and local reintegration partners. Such transfers will be subject to compliance with Chapter V GDPR/Chapter V EUDPR and the additional safeguards laid down by the Return Regulation.

Context of the processing

The processing occurs within national RECAMAS, which integrate EU-level modules (iRCMS and RIAT).

Data subjects are TCNs subject to RRR procedures. The data subjects include vulnerable groups, such as asylum seekers, minors, and individuals with medical or social vulnerabilities, which requires heightened safeguards and attention to data protection principles.

Each Member State will act as data controller for the data it records in its national RECAMAS, in iRCMS, and in RIAT as Member States will determine the purposes and means of processing personal data related to RRR. Each Member State will be considered as controller for the operational management of its national RECAMAS.

Frontex will act as processor in relation to the data it records in national RECAMAS, iRCMS, and on cases from national reintegration assistance programmes managed in RIAT. In this case, the relationship between the parties must be governed by a clear and binding arrangement in line with Article 28 GDPR/Article 29 EUDPR. This arrangement must specify the scope, nature, and purpose of the processing, the types of personal data involved, and the categories of data subjects. It must also define the obligations and rights of the controller, including instructions for processing, the duration of processing, and the measures to ensure data security.

Member States and Frontex will be considered as joint controllers in relation to the processing of personal data recorded in RIAT for cases managed under an EU reintegration assistance

programme. The responsibilities of each joint controller should be limited to the data it records in RIAT.

Frontex will act as processor for the operational management of iRCMS and RIAT.

Member States and Frontex may be considered as joint controllers in relation to the processing of personal data exchanged through the Communication Portal. The responsibilities of each joint controller will be limited to the data it processes in the Communication Portal.

eu-LISA will be considered as processor in relation to the operational management of the Communication Portal.

The systems and tools involved will be partially based on existing systems. There are no known major controversies or security flaws identified, although concerns have been raised in the past about the fragmentation of systems, inconsistent data quality, and the risk of errors due to manual processing.

The processing is not currently covered by any approved code of conduct or certification scheme specific to migration management or public sector IT systems.

Purposes of the processing

The purpose of the processing is to support the digital management of RRR cases, in compliance with the applicable legal framework. The general and specific objectives pursued are those referred to in Section 0 of the Impact Assessment.

STEP 3: CONSULTATION PROCESS

Given the nature and complexity of the processing activities, stakeholder consultation and expert input are essential components of the DPIA process. Member States, relevant IO and CSOs as well as relevant services of the Commission and relevant EU agencies have been consulted in the context of the Digitalisation Study.

Direct consultation with data subjects is not considered appropriate or feasible in this context, as the processing is carried out by public authorities in the exercise of official duties, and the individuals concerned will not have a direct relationship with the system's design or governance. However, their rights and interests have been considered through the application of data protection principles and risk-based safeguards.

To support the assessment and design of the processing activities, the Commission has engaged EY and RAND Europe, who have provided technical, legal, and operational input throughout the development of the policy options. In addition, the EDPS has been consulted at a general level in the context of the Digitalisation Study.

STEP 4: ASSESS NECESSITY AND PROPORTIONALITY

The conditions for the processing of personal data within the digitalisation of RRR procedures are regulated, for Member States, according to Article 6(1)(e) GDPR and, for the EU agencies and institutions, according to Article 6(1)(a) EUDPR, when the processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller. The processing is carried out by national competent authorities and EU agencies in accordance with the future regulation on the digitalisation of case management in the area of RRR and the Return Regulation.

Where special categories of data are involved, such as biometric or health data, the processing is further justified under Article 9(2)(g) GDPR/Article 10(2)(g) EUDPR, which permits processing for reasons of substantial public interest. The processing of data relating to criminal

convictions will be subject to Article 10 GDPR/Article 11 EUDPR and will be carried out under the control of official authority and as authorised by EU law providing for appropriate safeguards for the rights and freedoms of data subjects.

The processing is proportionate to its purpose, which is to address the problems identified in Section 0 of the Impact Assessment. In line with the principle of data minimisation, the processing does not go beyond what is necessary to achieve the objectives pursued. This is notably evidenced by the fact that Option 1 does not imply creating a new central EU database, which would mostly replicate data already stored in other EU Information Systems.

To prevent any function creep, the purposes of the processing will be clearly defined in a legislative framework. Access to personal data will be restricted to authorised personnel based on role and necessity, and any future changes in the scope or purpose of processing would require legal review, legislative changes and, where appropriate, a new DPIA.

Data minimisation and quality are ensured through the design of the systems, which limit the categories of data processed to those necessary for the RRR procedures and leverage EU Information Systems. Member States are responsible for ensuring data quality at the national level and reporting mechanisms at EU and national level will be established.

Although direct communication with data subjects may be limited due to the nature of the processing, individuals will be informed through privacy notices issued by national authorities and EU agencies, in compliance with the GDPR/EUDPR. Mechanisms will be in place to support the exercise of data subject rights, including access, rectification, restriction, and the right to lodge a complaint with a supervisory authority. These rights will be facilitated through national data protection supervisory authorities and the EDPS, depending on the level at which the processing occurs.

Processors will be bound by data processing agreements or the respective regulation in accordance with Article 28 GDPR and Article 29 EUDPR. These agreements will define the scope, purpose, and duration of the processing, as well as the technical and organisational measures required to ensure compliance. Processors will act only on documented instructions from the controller and will be subject to audit and oversight mechanisms to ensure accountability.

Where personal data will be transferred to third countries, for example, in the context of readmission cooperation, the conditions of such transfers will be governed by Chapter V GDPR and Chapter V EUDPR and further applicable safeguards stemming from the Return Regulation as eventually adopted.

STEP 5: IDENTIFICATION AND ASSESSMENT OF RISKS

Source of risk and nature of potential impact on individuals	Likelihood of harm [Remote, possible or probable]	Severity of harm [minimal, significant or severe]	Overall [Low, medium or high risk]
Processing of special categories of data or data relating to criminal convictions or offences and processing of data of vulnerable data subjects.	Possible	Significant	Medium
Large-scale processing of personal data.	Probable	Minimal	Medium
Data processing that prevents data subjects from exercising their rights.	Remote	Significant	Low

Source of risk and nature of potential impact on individuals	Likelihood of harm [Remote, possible or probable]	Severity of harm [minimal, significant or severe]	Overall [Low, medium or high risk]
Hybrid IT architecture and data governance that deters data subjects from exercising their rights.	Possible	Significant	Medium
Loss of control over the use of personal data.	Probable	Significant	Medium
Re-identification of personal data anonymised for statistical purposes.	Possible	Minimal	Medium

STEP 6: IDENTIFY MEASURES TO REDUCE RISK

Risk	Options to reduce or eliminate risk	Effect on risk	Residual risk
Processing of special categories of data or data relating to criminal convictions or offences and processing of data of vulnerable data subjects.	-Apply the specific safeguards provided under the Return Regulation. -Restrict access and log access events. -Monitor access and usage regularly. -Train staff to handle sensitive data. -Draft internal policies for handling such data.	Reduced	Low
Large-scale processing of personal data.	- Purpose of the processing embedded in a legislative act. -Harmonised retention period at EU level and automated deletion upon expiry. -Restrict access and log access events. -Monitor access and usage regularly. -Coordinated supervision between the EDPS and national data protection supervisory authorities.	Reduced	Low
Hybrid IT architecture and data governance that deters data subjects from exercising their rights.	-Provide clear information to data subjects, in compliance with the GPDR/EUDPR. -Establish a single access point (i.e. Frontex) where data subjects may submit their request that will then be redirected to the competent controller.	Reduced	Low
Loss of control over the use of personal data.	-Enforce role-based access controls. -Ensure that logs are in place and monitored.	Reduced	Low
Re-identification of personal data anonymised for statistical purposes.	-Use CRRS and robust anonymisation techniques (prior to their processing in the CRRS).	Reduced	Low

POTENTIAL OF ARTIFICIAL INTELLIGENCE FOR DIGITAL MIGRATION MANAGEMENT

The potential of artificial intelligence for digital migration management

Potential of artificial intelligence for digital migration management

AI holds significant potential for enhancing digital management of RRR through various applications, including risk assessment and predictive analytics. By analysing historical data, AI can forecast migratory trends and identify potential risks or delays in RRR processes. This capability enables authorities to engage in proactive planning, thereby improving the efficiency of migration management strategies. Furthermore, AI-powered analytics can predict migratory patterns, compliance trends, and political stability in third countries, facilitating targeted actions that align with current conditions. Additionally, AI can evaluate personal profiles, migration histories, and socio-economic factors, providing authorities with data-driven insights and recommendations tailored to specific cases. This analysis can also extend to migration trends, offering suggestions that may enhance cooperation between countries.

In terms of case management optimisation, AI-driven platforms have the potential to automate and streamline processes, prioritising urgent cases, reducing human errors, and expediting processing times. These systems can assist authorities in managing RRR cases more effectively by analysing legal documents, identifying patterns, and ensuring compliance with EU regulations. AI can also be used to support the identification process of TCNs as part of the readmission procedure. For instance, AI can be of some use to verify travel documents or to recognise foreign languages and dialects. AI may also be used to support the management of the risk of absconding and the detention and alternatives to detention processes. Moreover, AI can support the development of personalised reintegration plans by assessing individual needs and recommending tailored programs, such as vocational training or financial assistance. Continuous monitoring and evaluation of RRR program data through AI can identify factors contributing to successful or unsuccessful outcomes, thereby informing policy adjustments and improvements in the RRR process. Additionally, AI algorithms can be employed to monitor RRR processes for potential human rights issues, bias, or discrimination, thereby enhancing transparency, accountability, and adherence to European standards.

Key considerations for AI implementation

While the potential benefits of AI in migration management are substantial, several key considerations must be addressed to ensure responsible implementation. First and foremost, any AI deployment must adhere to data protection rules (such as the GDPR) and the AI Act. According to the AI Act, several AI systems used in the area of migration are considered as high-risk.

Migration, asylum and border control management, in so far as their use is permitted under relevant Union or national law:

- AI systems intended to be used by or on behalf of competent public authorities or by Union institutions, bodies, offices or agencies as polygraphs or similar tools.

- AI systems intended to be used by or on behalf of competent public authorities or by Union institutions, bodies, offices or agencies to assess a risk, including a security risk, a risk of irregular migration, or a health risk, posed by a natural person who intends to enter or who has entered into the territory of a Member State.

- AI systems intended to be used by or on behalf of competent public authorities or by Union institutions, bodies, offices or agencies to assist competent public authorities for the examination of applications for asylum, visa or residence permits and for associated complaints with regard to the eligibility of the natural persons applying for a status, including related assessments of the reliability of evidence.

- AI systems intended to be used by or on behalf of competent public authorities, or by Union institutions, bodies, offices or agencies, in the context of migration, asylum or border control management, for the purpose of detecting, recognising or identifying natural persons, with the exception of the verification of travel documents.

Except when performing profiling of natural persons, these AI systems should not be considered to be high-risk where they do not pose a significant risk of harm to the health, safety or fundamental rights of natural persons, including by not materially influencing the outcome of decision making. The situation should apply where any of the following conditions is fulfilled:

- The AI system is intended to perform a narrow procedural task.

- The AI system is intended to improve the result of a previously completed human activity.

- The AI system is intended to detect decision-making patterns or deviations from prior decision-making patterns and is not meant to replace or influence the previously completed human assessment, without proper human review.

- The AI system is intended to perform a preparatory task to an assessment relevant for the purposes of the use cases listed above.

Compliance with the AI Act implies to avoid biases in AI algorithms and ensure transparency and accountability in decision-making processes. Furthermore, investments in AI should encompass training for case workers, immigration authorities, and other relevant stakeholders to ensure they can effectively leverage AI tools in their operations. By addressing these considerations, migration authorities can harness the potential of AI to enhance digital migration management while upholding fundamental rights and promoting ethical practices.

AI in the context of case management of RRR

During the development phase of the RRR case management system, AI functionalities could be embedded to support essential technical requirements. A case-by-case assessment, in line with the AI Act and the data protection rules, will have to be carried out for each AI systems that is considered to be integrated in the RRR.

ANNEX 7: DETAILED IMPACTS OF THE OPTIONS

'BASELINE SCENARIO'

Assessment of effects

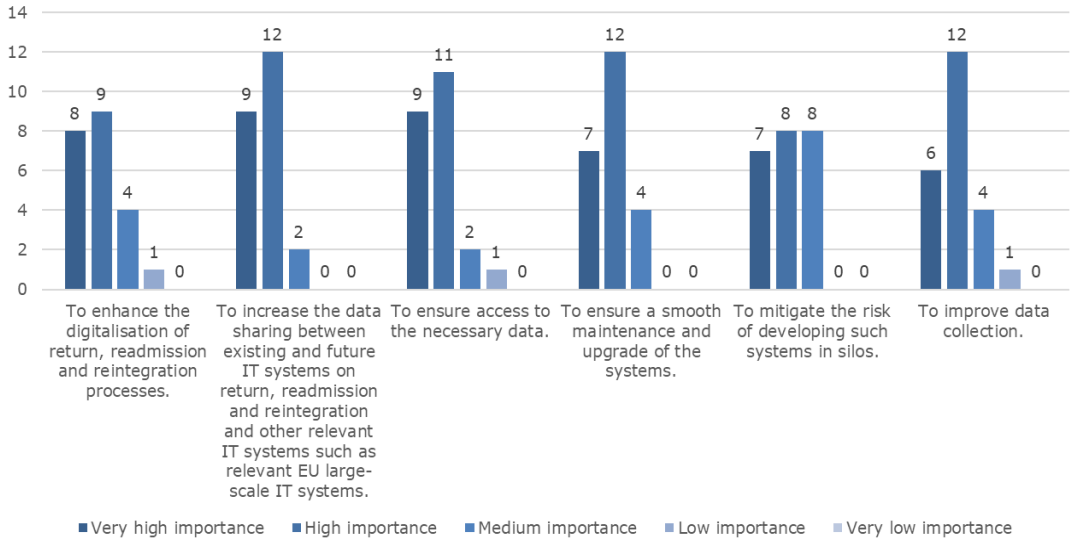
Effectiveness

Under the baseline scenario, the problems identified in Section 0 will remain unresolved, **negatively** impacting the effectiveness of RRR processes. The general and specific objectives will not be achieved.

The figure below illustrates that in all areas critical to achieving the objectives, Member States have indicated a pressing need to address the problems – otherwise facing the risk to continue encountering these issues in the future ([138]). For example, 21 Member States stated that the problem of data sharing would remain if no change was made (see Table 152 of the Digitalisation Study for a more detailed breakdown of Member States' views on this regard).

([138]) Survey conducted as part of the Digitalisation Study.

Figure 11 - Member States' assessment of the importance of the current problems that are likely to arise in the future if no action is taken (n=21)



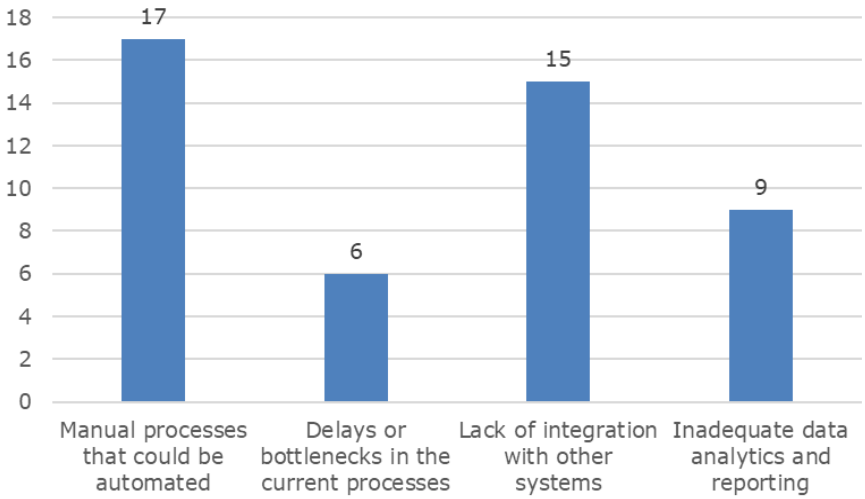
Source: Survey conducted as part of the Digitalisation Study

This finding is supported by the interviews conducted as part of the Digitalisation Study, which revealed that the RRR processes are not handled as effectively as they could be. One of the most frequent points mentioned was the lack of interoperability between national and EU systems, complicating effective case management.

The **availability and quality of information and statistics** are not expected to improve, as the Member States will continue to grapple with problems related to data sharing and non-standardised information. This lack of consistency and reliability in data directly impacts the usability of information in RRR processes, potentially leading to misinformed decisions and inefficient case management.

Moreover, if the current high level of **manual intervention** remains unchanged, it may lead to continued lengthier procedures, risk of errors as well as limited automation. The reliance on human input for data entry and processing obstructs the implementation of automated systems that could enhance effectiveness and streamline RRR processes.

Figure 12 - Most crucial operational challenges stemming from the existing systems (n=22)



Source: Survey conducted as part of the Digitalisation Study

In terms of **speeding up procedures while simultaneously reducing workloads**, the fragmentation of systems and the absence of interoperability are expected to perpetuate delays and continue to create undue workloads for authorities. This fragmentation not only complicates communication among stakeholders but also prevents the effective sharing of critical information, further straining competent authorities and hindering efforts to streamline RRR processes.

Additionally, the continued existence of **silos**, stemming from custom-built national systems and inconsistent data sharing practices, is expected to undermine broader European governance in RRR. This prevents effective coordination and collaboration among the various stakeholders involved in digital migration management, leading to a disjointed approach that fails to address the complexities of the migration landscape.

Under the baseline scenario, it is expected that the situation will remain sub-optimal for Member States with regard to managing RRR processes migration effectively on their own. The current system is characterised by significant divergence in effectiveness across Member States. While some interviewees reported that their national systems perform sufficiently well, others pointed to major inefficiencies. These disparities are also reflected in the survey results, revealing a fragmented landscape with varying levels of capability. The lack of consistency in systems, standards, processes, and communication already hampers national efforts and undermines collective EU action. Without a coordinated approach, this fragmentation is expected to persist, preventing meaningful improvements and weakening the EU's overall migration strategy.

Assessment of governance structure

Under the baseline scenario, the governance of digital migration management, particularly concerning RRR processes, is expected to remain largely decentralised.

Member States will continue assuming the most significant roles and responsibilities, including in relation to developing, implementing, using and maintaining their national return case management systems.

The **Commission** is anticipated to play a limited role, primarily focused on strategic policy development, as well as funding and oversight (monitoring, evaluation, reporting). The Commission will continue supporting the development of RIAT.

Frontex will continue its current operational role in relation to the return of TCNs. With regard to case management systems, Frontex will continue to develop and maintain IRMA, RECAP, and FAR as well as further develop the RECAMAS reference model. The fragmented nature of governance and the lack of interoperable systems may hinder its ability to support Member States with the integration of Frontex digital tools into national systems.

eu-LISA will maintain responsibility for the operational management of EU Information Systems and the interoperability components. Its role in the digital management of RRR processes is expected to remain limited.

Data protection supervision would be split between the EDPS, which would oversee Frontex and eu-LISA, and national data protection supervisory authorities, which would supervise Member States. National data protection authorities and the EDPS would cooperate for the coordinated supervision of the Communication Portal, in accordance with Article 62 EUDPR.

The table below provides a brief overview of main (dis-)advantages of the baseline scenario in terms of governance.

Advantages	Disadvantages
National ownership: Member States retain control over their systems, allowing for tailored approaches that reflect national specificities.	**Fragmentation**: Decentralised responsibilities may lead to inconsistent implementation and hinder cross-border cooperation.
Policy consistency: The Commission's oversight ensures alignment with EU-wide standards and legal frameworks.	**Limited interoperability**: Non-integrated systems reduce the effectiveness of EU Information Systems and Frontex digital tools.
Operational continuity: Frontex and eu-LISA continue in familiar roles, avoiding disruption from structural changes.	**Reduced efficiency**: The lack of central coordination may slow down limit the development of efficient digital solutions.

Efficiency and administrative burden

In terms of efficiency, the baseline scenario demonstrates a low level of costs but is overall **not expected to be efficient** as it fails to achieve the intended objectives and benefits.

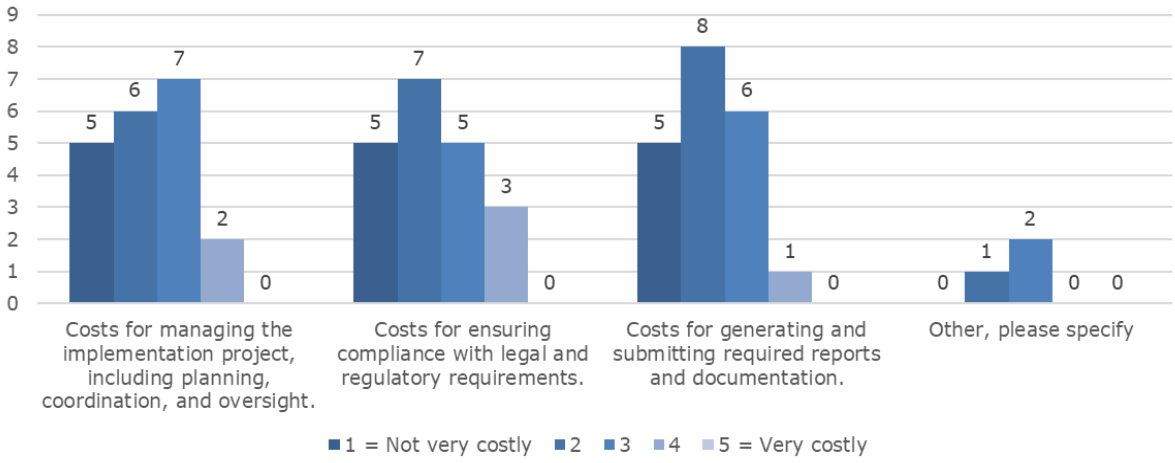
The established infrastructures will continue to be operational and existing systems are fully integrated into the daily operations of various authorities, meaning that there are minimal development and implementation costs associated with their continued use. Since the systems are already in place, Member States can avoid the significant financial outlay that would be required for new system development or extensive upgrades, unless they decide to do so on

their own initiative. This would allow to allocate resources to other pressing needs within the digital migration management framework.

Moreover, the familiarity of officers with the current systems is a crucial benefit. With personnel already trained and experienced in using these systems, there is a reduced need for additional training sessions, except for new hires, which can be both time-consuming and costly. This familiarity allows officers to navigate the systems efficiently in terms of cost. However, under the baseline scenario, other aspects of the process - such as speed and accuracy - would continue to be inconsistent or suboptimal.

As the figure below shows, costs such as management costs, compliance costs and documentation costs are not considered particularly high by the Member States but rather moderate. For example, 60% (N=12) of the Member States responding to the survey rated the current compliance costs as low whereas 25% (N=5) classified the costs as moderate and only 15% (N=3) as high. The assessment of other costs, such as costs for hiring staff or storing data, is similar to this example.

Figure 13 - Member States' ratings of the magnitude of current costs (n=20)



Source: Survey conducted as part of the Digitalisation Study

However, despite these factors, the overall efficiency of digital migration management does **not improve under the baseline scenario,** primarily due to the continued use of fragmented, custom-built systems that lack sufficient automation, interoperability and ways to cooperate and coordinate with other Member States. 10 Member States highlighted ongoing fragmentation, limited data exchange, and a lack of innovation as critical drawbacks. Five of these specifically pointed to the continued lack of harmonisation and integration as a major concern, particularly regarding cooperation and data sharing between the Member States ([139]).

Thus, despite the cost advantages in the short term, the cumulative effect of fragmented systems and manual workloads diverts resources away from more strategic, long-term investments. This could, potentially, contribute to staff fatigue and turnover, as experienced personnel face high workloads and limited system support. Replacing them with less experienced staff further strains efficiency, as new personnel require time and training to adapt to existing systems. These dynamics perpetuate a cycle of inefficiency that affects the overall capacity and responsiveness of RRR.

([139]) Digitalisation Study, Section 4.5.1 of Annex 4.

Coherence

The baseline scenario is considered to be **neither internally nor externally coherent** due to several interrelated factors, notably the (i) lack of unified approaches in digital migration management and (ii) clear responsibilities in managing RRR processes.

As concerns the **internal coherence** of the policy option: as outlined in detail in Section 0, the digital management of RRR is fragmented and operates in silos, rather than as a cohesive and integrated system. This is exemplified by the fact that 19 Member States indicated in the Digitalisation Study's survey that they have developed customised national systems ([140]). The fragmentation leads to diverse governance structures, with various stakeholders responsible for IT system development and maintenance, resulting in inconsistent practices across the Member States. Moreover, the lack of standardised protocols for integrating national systems with EU-level interoperability components further deepens the incoherence. Without a unified strategy, the Member States are likely to pursue divergent paths in their digital migration management efforts, creating a disjointed approach overall. Interviews also revealed significant disparities in the levels of digitalisation and technological capabilities among the Member States, which further complicate RRR process management. These variations hinder the development of a cohesive management for RRR cases and processes as well as impede the effective sharing of critical data, especially for return procedures. Lastly, the responsibilities of stakeholders involved in the process are not always clear, making it hard for practitioners to identify the right points of contact.

As concerns the **external coherence** of the policy option: this option lacks full coherence with the broader EU framework, primarily due to the limitations imposed by the current implementation of national systems, although these systems could be connected in a near future to the ESP. Under the baseline scenario, the intended improvements in cooperation and data exchange outlined in the Pact on Migration and Asylum and in the Return Regulation may prove more difficult to achieve. The lack of a unified approach to data sharing means that the collaborative efforts envisioned in these new policies cannot be realised, resulting in missed opportunities for enhanced coordination among the Member States.

Assessment of impacts

Economic

The baseline scenario is expected to have **no impact** on the EU economy. This is primarily due to the fact that the impacts in this regard are expected to be limited in scope.

The impact on public budgets will be minimal in terms of increased costs, as the existing infrastructure in Member States is already in place and operational. However, public budgets will continue to absorb the costs of inefficient processes, such as manual workflows and prolonged case handling, which do not deliver proportional benefits. The maintenance costs are estimated at EUR 3.32 million per Member State per year (EUR 24 million in total) ([141]).

In terms of other economic aspects, such as the effects on SMEs, competitiveness, or property rights, no notable changes are anticipated. The baseline scenario does not offer any substantial stimulus for innovation or growth, as it does not involve new technological developments or investments in migration-related IT systems.

([140]) Digitalisation Study, Table 135.

([141]) Please refer to *Table 37 - Overview of costs per stakeholder and policy option* for more details.

Societal

The societal impact of the baseline scenario is assessed as **negative**.

The continuing insufficient digitalisation does not lead to sufficient improvement in the coordination of RRR processes and is thus expected to further fuel public discontent, deepen social divides, and erode trust in institutions, ultimately weakening the EU's ability to tackle a politically sensitive issue.

Moreover, the baseline scenario is likely to continue reinforcing the public perception that returns are not managed sufficiently effectively or fairly, strengthening the narrative of institutional failure in migration governance. The lack of integration between systems, and inconsistent practices may undermine the EU's credibility and control in an area of significant public concern. This fragmentation, compounded by insufficient monitoring and accountability, will likely persist.

Furthermore, the inadequate management of returns and the continued presence of high numbers of irregular staying TCNs already places a significant strain on social systems, diverting resources and limiting the overall capacity to address other pressing societal needs, a trend expected to persist.

However, it should be noted that while TCNs may contribute to the economy, particularly in sectors such as agriculture, construction, and caregiving, these same sectors – often reliant on low-skilled labour – are also among the most common employers of irregular staying TCNs. Small to medium-sized enterprises, in particular, are considered high-risk for illegal employment ([142]). Under the baseline scenario, this continued reliance on irregular labour risks sustaining exploitative practices and undermining fair labour standards, representing a negative societal impact of irregular migration that would remain unaddressed.

Environmental

The baseline scenario is expected to have a **negligible negative** impact on the environment.

The continued reliance on existing IT systems with varying levels of modernity and manual processes may lead to higher resource consumption and waste generation, contributing to a larger environmental footprint. The persistence of such inefficient methods reflects missed opportunities to adopt more sustainable approaches in the management of RRR processes.

The absence of new infrastructure or technology deployment in this scenario will help to mitigate environmental impacts by avoiding additional consumption of raw materials, such as plastics.

Security

The security impact of the baseline scenario is expected to be **negative**, both in terms of the internal security of the systems themselves and their ability to contribute to greater security within the EU.

Regarding the system level, the interviews revealed that security is currently undermined by the lack of interoperability, reliance on manual processes, and fragmented data handling. The absence of integrated systems leads to manual updates across systems, significantly increasing the risk of errors and compromising the integrity of sensitive information. These vulnerabilities are compounded by limited safeguards for secure communication and data exchange, an issue noted by 14 of the Member States. Concerns about data privacy were also raised by 13 Member

([142]) EMN (2025). Study on Illegal Employment of Third-Country Nationals, p.5. Available at: https://www.emnnetherlands.nl/sites/default/files/2025-02/EMN_Study_Illegal-employment.pdf

States, indicating that the current framework does not adequately meet security and privacy standards ([143]).

The disjointed systems may create conditions that could be exploited by individuals posing potential security threats. From a broader EU security perspective, the baseline scenario will continue to hinder authorities' ability to conduct comprehensive risk assessments. Interviewees highlighted that the inability to access key databases – such as criminal records, tax, or social security information - already hampers the ability to fully evaluate the potential risks posed by individuals.

While the introduction of systems, such as the EES, and ETIAS in the future, as well as upgrades of existing systems, such as Eurodac and VIS, may positively impact security, the structural and operational weaknesses within the baseline scenario will still persist, limiting their effectiveness. While systems like SIS do enable a degree of monitoring, the absence of more comprehensive sharing mechanisms will continue to leave gaps in the enforcement of return decisions. Interviews carried out as part of the Digitalisation Study confirmed that challenges related to data availability and cross-border information exchange will remain unresolved.

The persistent fragmentation and lack of interoperability among EU digital migration management systems not only impede operational efficiency but also elevate the risk of data misuse, breaches, and cybersecurity failures.

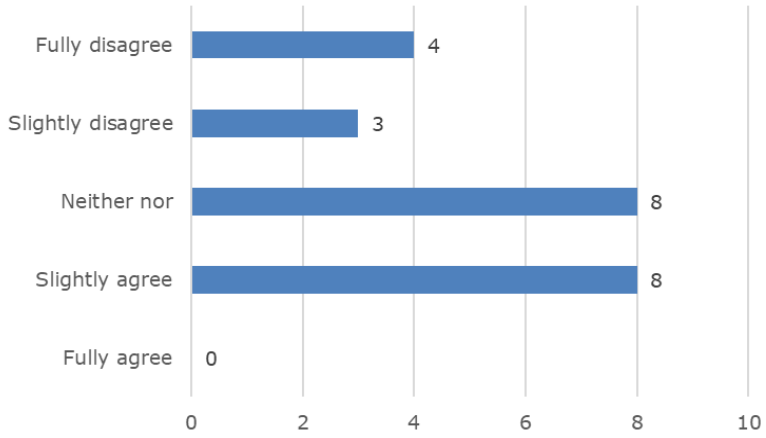
Fundamental rights

The baseline scenario is assessed to be **in line** with fundamental rights at present.

However, looking ahead, concerns may emerge regarding the protection of personal data, particularly for TCNs. These concerns are not based on confirmed violations but rather stem from assumptions linked to systemic limitations, such as the fragmented nature of the policy option.

As can be seen in the figure below, there is some disagreement among the Member States about compliance with fundamental rights with regard to the use of digital tools in the baseline scenario. Eight Member States responding to the Digitalisation Study's survey stated that they have some concerns regarding compliance with fundamental rights, while seven disagreed. The remaining eight Member States surveyed were indifferent to the statement.

Figure 14 - Member States' indication of whether there are concerns regarding the protection of fundamental rights when using digital tools (n=23)



([143]) Digitalisation Study, Table 155.

Source: Survey conducted as part of the Digitalisation Study

Interview feedback reinforces this picture, pointing to risks associated with the gap between the technical implementation of digital tools and the legal provisions intended to safeguard data protection. In particular, the lack of a centralised or harmonised approach makes it difficult to monitor compliance across Member States, increasing the risk that potential issues go undetected.

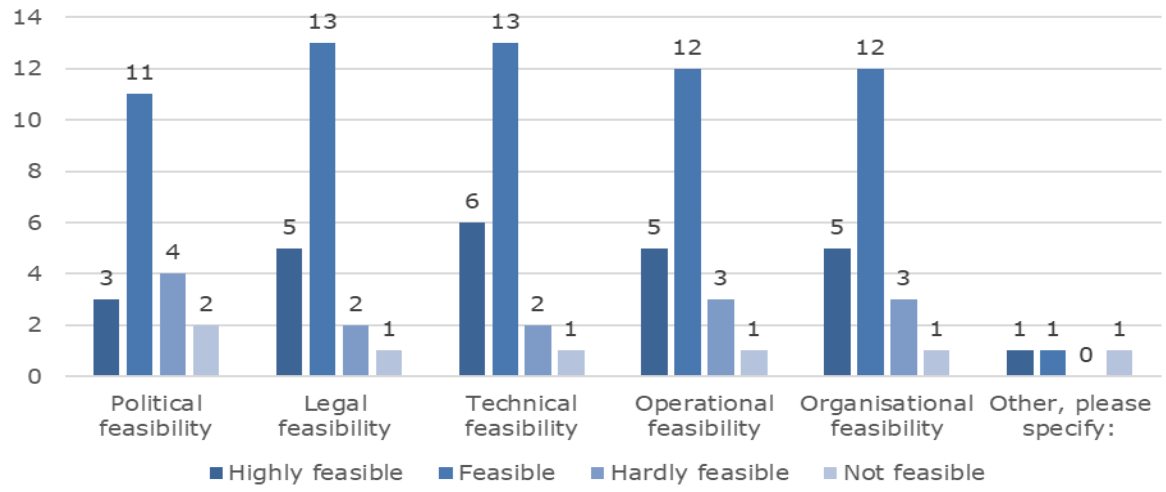
In this context, while there is no evidence of systemic breaches of fundamental rights today, the baseline scenario may not offer sufficient guarantees to ensure that these rights can be consistently upheld in the future. The ability to monitor, manage, and ensure rights protections across Member States may become increasingly difficult if current conditions remain unchanged.

Feasibility

Overall, the baseline scenario is considered **feasible** in the short term but not sustainable in the long-term.

As shown in the figure below, the survey results show that Member States consider the baseline scenario as generally (highly) feasible in all respects, which is particularly due to the fact that the systems are already up and running. In addition, and as confirmed by the interviews, most Member States feel comfortable with their existing national systems and specifications as well as with the established legal basis in place.

Figure 15 - Member States' ratings of the feasibility of Option 0 (n=22)



Source: Survey conducted as part of the Digitalisation Study

Although the baseline scenario is overall currently considered feasible, the interviews showed that stakeholders do not consider this policy option to be durable and sustainable in the long term. As already outlined in the problem assessment (Section 0), there are too many problems and drivers present that will continue to limit the effectiveness and efficiency of case management of RRR. The prevailing views are that the baseline scenario lacks the necessary changes to effectively manage RRR processes in the long term.

OPTION 1 'PARTIALLY DECENTRALISED OPTION WITHOUT CENTRAL EU DATABASE'

Assessment of effects

Effectiveness

Option 1 is expected to achieve the specific and general objectives to a high extent in the short-term.

By leveraging existing EU Information Systems (e.g. by connecting national RECAMAS to the ESP) and introducing a new Communication Portal, cumbersome and fragmented information exchanges between authorities are expected to be reduced. This structural improvement will likely enhance both the quality and availability of information by ensuring more consistent, timely, and accessible data sharing. As a result, RRR processes can be carried out more efficiently, easing the workload on authorities and enabling quicker responses and decisions which is critical to manage urgent RRR cases.

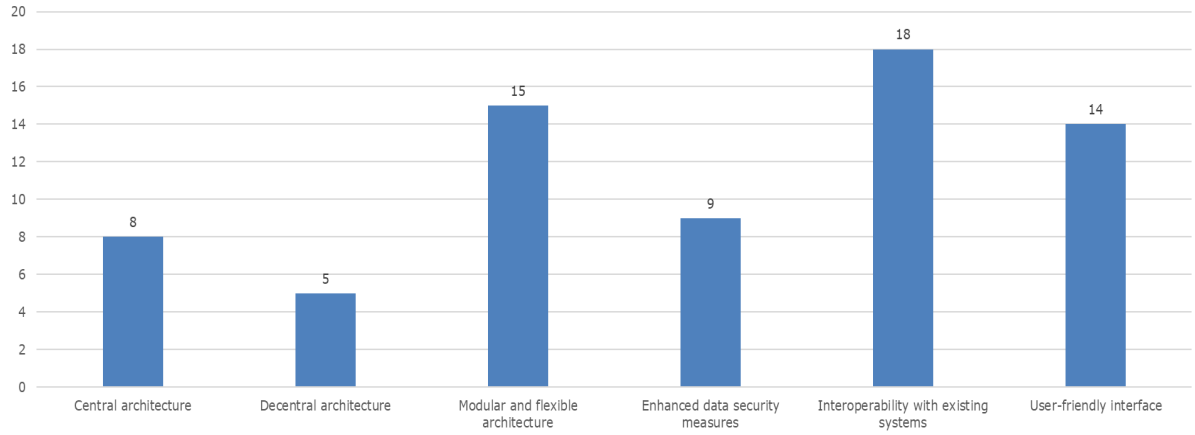
The **degree of manual intervention** is expected to decrease significantly, as standardised EU systems on readmission (iRCMS) and reintegration (RIAT) as well as the widespread use of RECAMAS-based solutions will reduce the need for manual data reformatting, speeding up procedures and minimising human error.

The establishment of a Communication Portal is moreover expected to foster more direct coordination between authorities, which is expected to **diminish the current tendency to work in silos**.

In addition, under this policy option, the system established for digital migration management would largely build upon already existing system and models. Whereas the national systems would build upon the already well-established RECAMAS Model, or its reference implementation developed by Frontex, the communication infrastructure will build upon existing infrastructure (e.g. SIRENE, DublinNet, VIS Mail).

Reliance on existing infrastructure preserves operational continuity and is expected to enhance stakeholder acceptance, as the targeted interviews conducted in the context of the Digitalisation Study have indicated. Stakeholders expressed a wish for continuing to use the already well-established systems, underlining that an approach which could be considered too disruptive would likely reduce stakeholder acceptance. This is also confirmed in the survey conducted in the context of the Digitalisation Study, with Member States indicating that interoperability with existing systems and a modular as well as flexible infrastructure are more important to them, whereas the adoption of a central infrastructure is less favoured.

Figure 16 - Member States' perception of the most crucial design features for an integrated case management system (see Table 157 of the Digitalisation Study) n=24



Source: Survey conducted as part of the Digitalisation Study

The benefits associated with Option 1 should be understood in the light of the fact that a fast and effective short-term solution is needed at the moment, in order to quickly mitigate the effects stemming from the problems outlined in Section 0. Option 1 can be implemented comparatively fast, given that there would be no need to develop an additional EU central database. The comparatively swift implementation timeline thus enables an early delivery of benefits and transition towards the objectives, reducing the time that is continuously spent in status quo.

The reliance on 'only' a communication tool for the exchange of ad-hoc information (i.e. information that cannot be exchanged through existing EU information systems) and the absence of a shared database used by all Member States may create risks for incorrect data being transmitted or miscommunication occurring, in case working instructions concerning the Communication Portal are understood and applied differently depending on the users. Without clearly defined instructions and agreed-upon standards for use, Member States may adopt differing practices, which could lead to inconsistencies in data exchange and potential delays in processing.

In addition, there are limitations and caveats to the effectiveness of Option 1:

- The effectiveness and efficiency of this policy option will partially depend on the extent to which in the future (1) the completeness of the information stored in EU Information Systems will improve and (2) the information contained in the return decisions stored already in the SIS are used in practice to manage returns.

- The effectiveness and efficiency of this policy option will depend on the extent to which Frontex will be capable to deliver its tasks in the required quality and time. It will be essential that Frontex closely work with eu-LISA, Member States and the Commission to deliver. For this purpose, specific governance's arrangements should be established (e.g. similar to what is in place with eu-LISA to develop EU Information Systems through advisory groups and project management boards or through a different approach).

- The exchange of information between Member States will be limited to case-by-case needs. While SIS return alerts and the bilateral or multilateral information exchange between SIRENE Bureaux enable Member States to

monitor secondary movements or identify persons who should be subject to return processes, it only facilitates data exchange on a case-by-case basis and only the sender and receiver are aware of the information shared. Similarly, the ESP will not function as a tool for information exchange under Option 1. The ESP will merely provide access to the data from all existing and future EU Information Systems, such as SIS, VIS, Eurodac and EES in line with access rights, as in the baseline scenario. Consequently, Member States will remain unaware of what other Member States are processing regarding a specific TCN until a return alert is shared via SIS or the data is uploaded in another EU Information system e.g. Eurodac.

Assessment of governance structure and data protection

Under Option 1, the governance structure would shift significantly compared to the baseline scenario.

Member States will still be responsible for the operational case management (i.e. processing the cases in national RECAMAS, iRCMS and RIAT) and the development and maintenance of national RECAMAS. Frontex will support Member States to integrate iRCMS and RIAT into national RECAMAS as well as to adjust their national RECAMAS based on the RECAMAS Model or the Frontex RECAMAS.

The Commission's role is not expected to change compared to the baseline scenario with the exception that the development and maintenance of RIAT and iRCMS will fall under the responsibility of Frontex in collaboration with Member States.

Frontex's role will be more prominent under Option 1 than under the baseline scenario, assuming lead responsibility for developing the Frontex RECAMAS, including ready-to-use IT modules to support less digitised Member States. It will also assume responsibility for iRCMS and RIAT. It will continue to develop and maintain IRMA, RECAP, FAR and provide training to national officers. This enhanced role is coherent with the active role that Frontex already plays as regards iRCMS (as a frequent user) and RIAT (as a frequent user and key stakeholder).

eu-LISA will continue to be in charge of EU Information Systems and the respective interoperability components. In addition, eu-LISA will be tasked with developing and maintaining the Communication Portal for the exchange of supplementary information not covered by existing EU Information Systems. Additionally, eu-LISA will support Member States to ensure that national RECAMAS are effectively connected to the ESP enabling seamless data access to the relevant data stored in EU Information Systems in line with access rights. eu-LISA will also support Frontex in establishing the Frontex RECAMAS, iRCMS and RIAT.

Third countries and/or international organisations will be dealing with the segment of iRCMS related to third countries.

From a **data protection** perspective, under Option 1, national case management systems remain in place but are harmonised through the RECAMAS Model or the Frontex RECAMAS. These systems integrate EU-level modules such as iRCMS (readmission), RIAT (reintegration), and the Communication Portal for supplementary data exchange. The governance structure is decentralised but with increased EU-level coordination and technical

support. Depending on the allocation of responsibilities and the degree of control over purposes and means of processing, several data protection models may apply.

One possibility would be that each Member State would act as the data controller for the data it records in its national RECAMAS, in iRCMS, and in RIAT as Member States will determine the purposes and means of processing personal data related to RRR. Each Member State will be considered as controller for the operational management of its national RECAMAS. Frontex could act as processor in relation to the data it records in national RECAMAS, iRCMS, and on cases from national reintegration assistance programmes managed in RIAT. In this case, the relationship between the parties must be governed by a clear and binding arrangement in line with Article 28 GDPR/Article 29 EUDPR. This arrangement will specify the scope, nature, and purpose of the processing, the types of personal data involved, and the categories of data subjects. It will also define the obligations and rights of the controller, including instructions for processing, the duration of processing, and the measures to ensure data security.

Member States and Frontex would be considered as joint controllers in relation to the processing of personal data recorded in RIAT for cases managed under an EU reintegration assistance programme. The responsibilities of each joint controller should be limited to the data it records in RIAT.

Frontex would act as processor for the operational management of iRCMS and RIAT.

Member States and Frontex may be considered as joint controllers in relation to the processing of personal data exchanged through the Communication Portal. The responsibilities of each joint controller will be limited to the data it processes in the Communication Portal. eu-LISA would be considered as processor in relation to the operational management of the Communication Portal.

Data protection supervision would be split between the EDPS, which would oversee eu-LISA and Frontex, and national data protection supervisory authorities, which would supervise Member States. National data protection authorities and the EDPS would cooperate for the coordinated supervision of the central database, in accordance with Article 62 EUDPR.

The table below provides a brief overview of main (dis-) advantages of Option 1 in terms of governance.

Advantages	Disadvantages
Balanced responsibility sharing: Governance is distributed across EU and national levels, promoting cooperation.	**Coordination complexity**: Multiple actors with overlapping roles may complicate governance.
Targeted support: Frontex provides technical tools to support less digitalised and willing Member States.	**Reliance on Frontex**: Centralised technical development could create bottlenecks.
Improved interoperability: National systems are better integrated with EU-wide IT infrastructure.	**Regulatory burden**: Requires legislative and technical changes of several legal acts.
Flexible implementation: Member States can adapt the Frontex RECAMAS or integrate modules as needed.	

Efficiency and administrative burden

The efficiency of Option 1 is expected to be moderate. However, its effects are expected to materialise rather short-term. Despite relatively high costs for Member States, the option is still rated the most efficient given the very limited 'sunk costs' of Member States. The automation of multiple processes will significantly reduce the administrative burden for migration authorities. In the short-term, the financial investment required is expected to be relatively moderate, focusing on four key areas: (i) adapting national RECAMAS that are not yet aligned with the RECAMAS Model, establishing iRCMS and RIAT and integrating those in national RECAMAS, (iii) setting up the Communication Portal, (iv) connecting national RECAMAS to the ESP for performing queries as well as (v) to SIS for the creation of return alerts. According to Article 66(2) of the Interoperability Regulation, costs that incur due to integrating the interoperability components, such as the ESP, with existing national infrastructures will be borne by the general budget of the Union. Once these adaptations are made in a relatively short term, the Option 1 is expected to become fully operational. This can be expected to significantly limit the costs that Member States would otherwise have to spend if the time horizon until the operation of the system would be long-term. Therefore, Member States are not expected to incur a significant amount of 'sunk costs' under Option 1.

The introduction of the Communication Portal will facilitate more efficient and timely exchanges of information between Member States, ultimately improving the identification of individuals and the completion of RRR processes. Option 1 is expected to promote the harmonisation of national RECAMAS, in part thanks to the additional EU-developed components on readmission (iRCMS) and reintegration (RIAT), which will be integrated into national RECAMAS.

In the long term, Option 1 is not expected to maintain the same level of cost-efficiency as is expected in the short-term. While it is comparatively straightforward to implement and incurs low initial costs, its reliance on the Communication Portal for the ad-hoc exchange of information may introduce potential inefficiencies. If no standardised data format for communication is agreed upon, there is an increased risk of transmitting incorrect or incomplete data, which could disrupt RRR processes and require additional time and resources to resolve inconsistencies. However, should standardised formats for communication be established, these risks would be largely minimised, leading to a more efficient and streamlined process overall.

Based on the methodology, as well as the overarching and policy option-specific assumptions provided in section 0 in Annex 9, costs for the Member States, Frontex, eu-LISA and the Commission are expected to range between EUR 582.39 and 753.17 million. Sunk costs are negligible under Option 1, as Member States will build upon existing systems at national level and the short-term operational nature of this option. This includes hardware and software investments, development, as well as maintenance and support across six years. A more detailed breakdown, as well as the methodology and underlying assumptions, are provided in Annex 9.

Coherence

Option 1 is expected to improve the internal coherence of EU digital migration management. Option 1 is considered to be externally coherent.

In terms of **internal coherence**, this option is expected to facilitate a minimum level of harmonisation in the areas of RRR by leveraging the RECAMAS Model and Frontex RECAMAS. The integration of iRCMS and RIAT into national RECAMAS is likely to reduce the current fragmentation, promoting a more unified approach across Member States. Additionally, leveraging existing data from systems such as SIS and Eurodac enhances

coherence by minimising the duplication of structures and building upon pre-existing systems. This policy option further clarifies institutional responsibilities, with Frontex taking the leading role in the development and maintenance of iRCMS and RIAT and supporting Member States to adjust their national RECAMAS. The use of the existing infrastructure (e.g. SIRENE, DublinNet, VIS Mail) for the Communication Portal will help to avoid duplication of structures and contributes to coherence by building upon established frameworks, supporting the standardisation of procedures and reducing fragmentation. eu-LISA will be responsible for the development of the Communication Portal, which is coherent with its current responsibilities on existing communication infrastructure (e.g. SIRENE, DublinNet, VIS Mail).

Regarding **external coherence**, Option 1 is expected to make use of the interoperability infrastructure by connecting national RECAMAS, iRCMS and RIAT to the ESP.

Option 1, as all policy options, would need to be coherent with and accommodate the procedural novelties introduced by the Return Regulation. Therefore, this constitutes a horizontal requirement and is not a differentiating element between options. Option 1 is expected to enhance coherence with the Return Regulation, as it facilitates adequate information sharing between the Member States and the automation of the creation of statistical data, thanks to the connection of the CRRS to national RECAMAS, iRCMS and RIAT.

Assessment of impacts

Economic

Under Option 1, potential positive and negative economic impacts are expected to balance each other out.

That being said, Option 1 provides Member States with flexibility to either continue developing their existing national systems in line with the RECAMAS model developed by Frontex or to adopt the off-the-shelf RECAMAS-based IT solution developed by Frontex. This dual approach allows Member States to build on prior investments while ensuring convergence towards a common framework. At the same time, it offers a cost-efficient alternative for those Member States with less mature case management systems, which would benefit from the off-the-shelf RECAMAS-based IT solution, reducing spending only to the customisation of the model.

Over time, the one-off and recurrent costs may be offset by efficiency gains thanks to the improved digital migration management.

Since Member States still need to invest in IT infrastructure and development, this policy option might result in a minor economic stimulus for Member States' local IT industry and market. However, it is expected that this would affect larger established IT companies rather than SMEs and start-ups. Thus, there is next to no impact on competition expected.

No impacts are expected on issues such as technological developments, consumers and households, innovation, or education and training systems.

Societal

Option 1 is expected to have minor positive societal impacts compared to the baseline scenario.

The improvement of digital migration management is expected to positively contribute to supporting the social inclusion of TCNs and their smooth integration into the regular labour market, by accelerating procedures for those who have no right to stay.

While the impact on employers in sectors relying on TCNs may be marginal, it will offer more certainty regarding the recruitment of legal workers.

Overall, this option is also expected to contribute to strengthening public trust in the EU's and Member States' capacity to manage migration effectively.

Environmental

Option 1 is expected to have a negligible negative impact on the environment compared to the baseline scenario.

Although the reuse of existing systems and the Communication Portal under this option contribute to resource efficiency and reduce the need for new infrastructure, the restructuring process itself will require additional energy and resources, particularly in Member States undertaking significant system upgrades.

As outlined in *Table 2*, only 12 Member States have national systems based on RECAMAS in place, meaning that the majority of Member States would need to adjust their systems to reach alignment with the RECAMAS Model.

Overall, as the EU intervention is not significantly disruptive, the negative environmental impacts are expected to be negligible.

Security

Option 1 is expected to significantly contribute to increase the security of citizens, businesses, and public administration in the EU, most importantly because certain existing problems in digital migration management with regard to RRR could be addressed in the medium to short-term.

The close relationship between system effectiveness and security outcomes means that improvements in identification, data exchange, and coordination directly contribute to greater public safety.

One of the key advantages of Option 1 lies in its rapid adaptability as it can be implemented relatively quickly by Member States, allowing relevant authorities to better identify and address high-risk individuals shortly after the implementation.

Cross-border cooperation is supported through the Communication Portal, enabling more seamless and protected data exchange between Member States. While this represents a step forward in strengthening cybersecurity and reducing fragmentation, the continued reliance on a decentralised structure presents limitations. In particular, the absence of standardised data formats or automated validation checks can lead to inconsistencies and errors in information exchange. Moreover, the effectiveness of the system depends heavily on Member States using the Communication Portal as well as existing digital migration management systems consistently and correctly.

Fundamental rights

Option 1 is expected to adhere with fundamental rights and thus not expected to have any further positive nor negative impact compared to the baseline scenario. As Member States will continue to be responsible for the national systems they operate (even though they will now be based on the RECAMAS Model, either indirectly or directly by customising the newly developed Frontex RECAMAS), the fundamental rights situation is expected to stay the same as in the baseline scenario (see Section 5.1 of Part 2 of the Digitalisation Study).

As this policy option introduces a new approach to managing RRR processes, certain fundamental rights-related challenges may emerge. These could include risks to data protection, inconsistencies in the implementation of safeguards, or varying levels of system readiness across Member States. While the exact implications remain difficult to predict at this stage, the shift from the baseline introduces a degree of uncertainty, and some risk – albeit expected to be limited – cannot be ruled out.

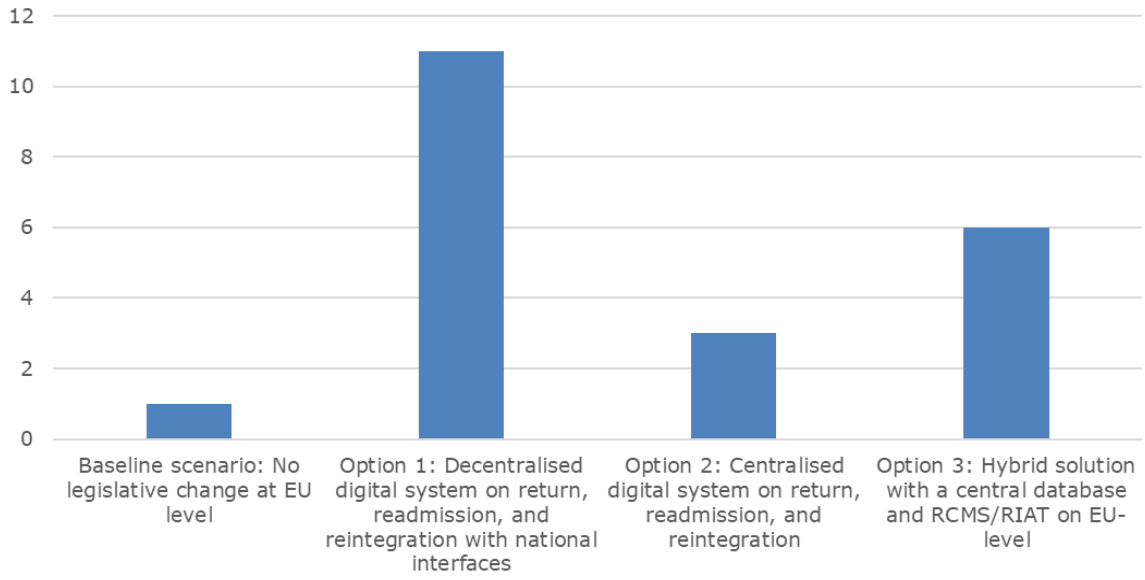
Option 1 could offer tangible improvements in terms of transparency and efficiency. The secure exchange of information may not only speed up case handling but also make it easier for authorities to follow the progress of individual RRR cases. For TCNs, this could translate into clearer procedures and potentially greater access to the information held about them – a step toward strengthening data subject rights and building trust in the system. By embedding more structured and protected channels for communication, this option may offer a more rights-compliant and user-aware framework for managing sensitive migration-related data ([144]).

Feasibility

Option 1 is expected to be highly feasible.

From a perspective of political feasibility, stakeholder consultations have shown that most Member States prefer policy options that are the less disruptive when it comes to improving RRR. When asking stakeholders which policy options they prefer, a majority of stakeholders (81%, N=17) indicated that they prefer decentralised and/or hybrid solutions, as is indicated in the figure below (see also Table 158 of the Digitalisation Study) ([145]):

Figure 17 - Member States' preference with regard to a new RRR system's architecture (n=20)



Source: Survey conducted as part of the Digitalisation Study

The results clearly indicate that most Member States prefer a solution that retains at least a certain degree of national autonomy. Consequently, and given that Option 1 is relatively less disruptive, it is reasonable to anticipate broad acceptance among stakeholders, enhancing its political feasibility. In addition, although this policy option may not be the most cost-effective in comparison, it is still more affordable than Option 3, which could further bolster its political feasibility. Moreover, it can be deduced from the stakeholder consultations that the preference for less fragmentation while maintaining flexibility is appealing which is what Option 1 stands for. Additionally, Option 1 allows for Member States to choose their preferred approach (i.e. either to adopt and customise the Frontex RECAMAS or to keep their existing RECAMAS

([144]) Please also refer to the Data Protection Impact Assessment in **STEP 1: IDENTIFICATION OF THE NEED FOR A DPIA**.

([145]) As already noted above, none of the options assessed in the survey does fully correspond to Option 1 assessed in this section. However, it is still possible to deduce some findings.

while aligning it on the RECAMAS Model). This flexibility is likely to garner some support, contributing to the overall political feasibility of this option.

In terms of technical feasibility, Option 1 is expected to entail only minor to moderate technical adaptions to be undertaken by the Member States to their national systems. Tasks can be expected for the re-modelling of the national RECAMAS (either by adopting and customising the Frontex RECAMAS, or parts of it, and/or by aligning the national RECAMAS on the RECAMAS Model), integrating iRCMS and RIAT in national RECAMAS, connecting national RECAMAS to the ESP and to SIS, and ensuring that Member States are connected to the Communication Portal. As Frontex will provide support to Member States, the technical feasibility is expected to be high. The development of Frontex RECAMAS by Frontex as well as the integration of iRCMS and RIAT into the national RECAMAS will require substantial resources and expertise, which raises the technical feasibility to a moderate level, even if eu-LISA will also support Frontex in this task.

Lastly, in terms of organisational and operational feasibility, Option 1 is expected to be highly feasible, given the relatively low complexity of the policy option and the opportunity for stakeholders to work with well-known systems.

OPTION 2: 'PARTIALLY DECENTRALISED OPTION WITH CENTRAL EU DATABASE'

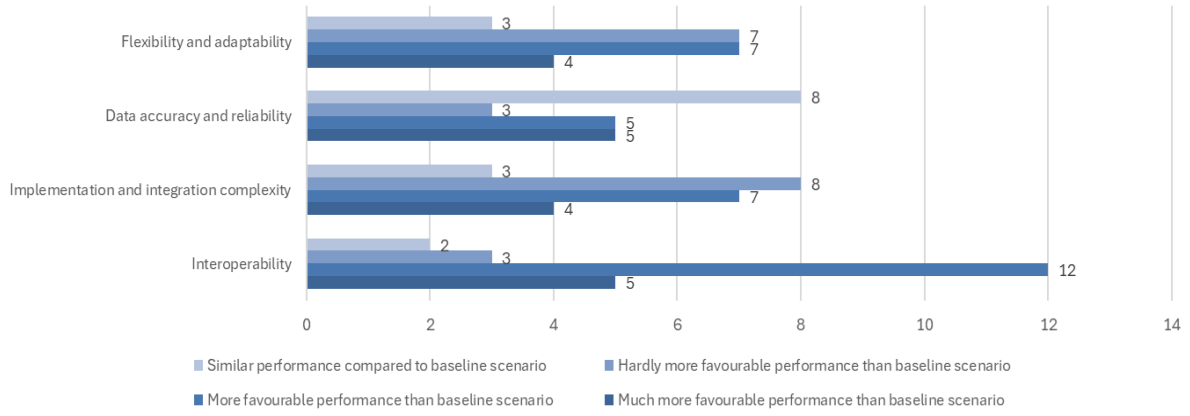
Assessment of effects

Effectiveness

Option 2 is expected to achieve the specific and general objectives to a moderate extent, albeit only in the medium to long-term.

Evidence gathered from interviews with national authorities in the context of the Digitalisation Study indicates a general optimism about the option's ability to streamline processes by leveraging existing national systems while integrating them into EU-wide frameworks. As can be seen in the figure below, this finding is supported by the survey results, according to which 17 Member States consider Option 2 to perform better in regard to interoperability than the baseline scenario ([146]).

Figure 18 - Member States' ratings of the partially decentralised option's performance compared to the baseline scenario (n=21)



Source: Survey conducted as part of the Digitalisation Study

([146]) Digitalisation Study, Figure 77.

Interviewees further highlighted that Option 2 is likely to enhance cooperation among stakeholders involved in RRR processes, thereby improving the monitoring of individuals throughout the whole process. This is particularly due to the enhanced data sharing of this option, with 14 Member States considering it to be significantly better than the baseline scenario.

The more centralised approach is generally expected to **lead to improved availability and quality of information**, particularly in alignment with the increased data sharing anticipated under the Return Regulation. By providing all Member States with equal access to necessary data, the central database aims to mitigate the current issue of data fragmentation, which has been a significant barrier to effective digital migration management.

However, as a major restriction, stakeholders noted during the interviews that the effectiveness of the tools within the architecture of this policy option is contingent upon the quality and availability of the data inputted by the Member States. Consistent updates to the national systems and accurate provision of information are essential to maximise the utility of this option. In this respect, the survey results show that the Member States do not consider the accuracy and reliability of the data to become better on the whole. While 10 Member States consider data accuracy and reliability to be better under Option 2, two consider it hardly better and eight see it as equally good as in the baseline scenario (see Figure above).

If Option 2 is implemented as intended, the improved access to necessary data, opportunities to implement automated tools and the opportunities for information exchange are likely to speed up the processing of cases, as the need for **manual processes is reduced**. 12 Member States have backed this finding, by pointing out that Option 2 is 'much more' or 'more' favourable than the baseline scenario when it comes to automation. With a centralised database, the need for making bilateral requests for critical information is expected to be diminished, allowing authorities to more swiftly access all necessary data needed for their operations.

Lastly, the adoption of the central database is expected to **reduce siloed working**, as it would enable streamlined, role-based access to relevant information held by other national authorities, ensuring that only those with a legitimate operational need can retrieve the data.

However, the overall effectiveness of Option 2 is expected to be moderate, primarily because it is not likely to be operational in the short term. The complex technical implementation required to establish the central database may take several years, during which time existing problems in digital migration management will remain unresolved. This delay could hinder the timely achievement of both specific and general objectives, pushing them further into the future.

Assessment of governance structure and data protection

Under Option 2, the governance structure will evolve further compared to both the baseline scenario and Option 1 with a strong EU-level layer led by eu-LISA and supported by the Commission and Frontex. Member States will remain key operational actors but are expected to be more tightly integrated into a unified EU-wide digital infrastructure for managing RRR processes.

Member States are expected to maintain a high level of responsibility, particularly in operating and adapting their national RECAMAS. They will also be responsible for ensuring that these systems are connected to the newly established EU central database and the corresponding uniform interface, enabling seamless data exchange across the Union.

Similarly to Option 1, the **Commission** will have a medium level of responsibility, primarily focused on regulatory oversight and policy coordination. It would be responsible for proposing

and facilitating the necessary legislative measures to support the establishment and functioning of the EU central database and related systems.

Frontex will take on a more limited, supportive role compared to Option 1. It will continue to assist Member States in developing IT components related to return and support eu-LISA in developing the RECAMAS reference implementation, iRCMS and RIAT. Frontex's tools, such as IRMA and RECAP, will be connected to the uniform interface but the agency will no longer lead the development of EU-level systems for readmission and reintegration.

eu-LISA will assume a leading role under this policy option. It will be tasked with developing and maintaining the new EU central database and the uniform interface that connects national systems to the EU-level infrastructure. In addition, eu-LISA will lead the development of the RECAMAS reference implementation and the EU-level case management systems for readmission (iRCMS) and reintegration (RIAT). This centralised role positions eu-LISA as the key technical authority responsible for the coherence, security, and interoperability of the overall system.

In this option, a central EU database is introduced, managed by eu-LISA and connected to national systems via a uniform interface. From a **data protection** perspective, the governance structure must reflect the layered architecture of the system. While Member States retain their national case management systems for return (RECAMAS), the readmission (iRCMS) and reintegration (RIAT) systems are developed and maintained at EU level. The governance structure reflects a layered and partially centralised architecture, with shared responsibilities across Member States, eu-LISA, Frontex, and the Commission. Depending on the allocation of decision-making power and operational control, several models of data controllership may apply.

One possibility would be for Member States to act as joint controllers as regards the central database (as Member States will be jointly determining the purposes of the processing of personal data within the central database). The responsibilities of each joint controller will be limited to the data it processes in the central database.

Each Member State would remain separate controller as regards the processing of data it records in national RECAMAS, in iRCMS and in RIAT, and for the operational management of its national RECAMAS

Frontex may act as processor in relation to the data it records in national RECAMAS, in iRCMS, and on cases from national reintegration assistance programmes managed in RIAT.

Member States and Frontex may be considered as joint controllers in relation to the processing of personal data recorded in RIAT for cases managed under an EU reintegration assistance programme.

eu-LISA, as the technical operator of the central database, iRCMS and RIAT, would act as a data processor. In this case, the relationship between the parties must be governed by a clear and binding arrangement in line with Article 28 GDPR/Article 29 EUDPR. This arrangement will specify the scope, nature, and purpose of the processing, the types of personal data involved, and the categories of data subjects. It will also define the obligations and rights of the controller, including instructions for processing, the duration of processing, and the measures to ensure data security.

Data protection supervision would be split between the EDPS, which would oversee eu-LISA, and national data protection supervisory authorities, which would supervise Member States. National data protection authorities and the EDPS would cooperate for the coordinated supervision of the Communication Portal, in accordance with Article 62 EUDPR.

The table below provides a brief overview of main (dis-) advantages of Option 2 in terms of governance.

Advantages	Disadvantages
Clear role allocation: Responsibilities are well defined across national and EU actors.	**Increased dependency**: Centralising key technical functions on one agency may create bottlenecks or over-reliance.
Improved case monitoring: A unique EU case ID reduces duplication and enhances consistency.	**Legislative complexity**: Requires multiple EU-level legal amendments to enable full functionality.
Enhanced interoperability: Full use of all interoperability components supports efficient operations.	

Efficiency and administrative burden

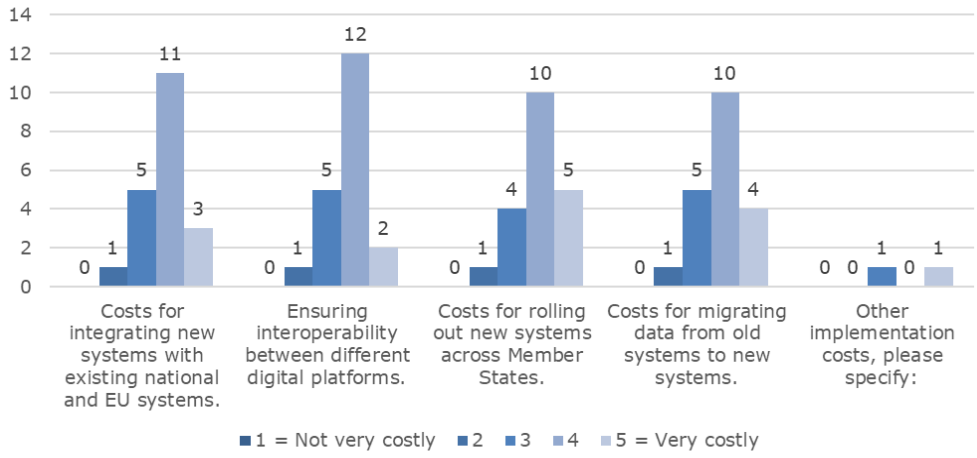
The efficiency of Option 2 is expected to be moderate. Its effects are expected to materialise only in the medium- to long-term. The costs are expected to be the highest among all policy options with 'sunk costs' of Member States also expected to be higher than in Option 1 (but lower than in Option 3).

Several interviewed Member States emphasised that the shared EU and national systems option would be more efficient than the baseline scenario. This is primarily due to more automated processes leading to faster procedures, which are expected to lead to time savings and a reduction in administrative workload. In this context, the newly established central database is a key component, as it would enhance data-sharing capabilities and significantly expand the potential for generating relevant statistics.

Moreover, Option 2 can be regarded as efficient as it builds upon existing systems and structures (national RECAMAS, iRCMS, RIAT). By retaining and upgrading current systems, rather than replacing them entirely, the option leverages existing infrastructure to improve overall efficiency. However, the benefits noted are rather expected in the long-term, once it is implemented. In addition, the above-mentioned efficiency is accompanied by the creation of a new central database, the necessity of which may be questioned as most data stored in this new database will already be stored in other EU Information Systems (e.g. SIS, Eurodac).

In the short-term, efficiency of this option is expected to be limited. As illustrated in the figure below, Member States anticipate substantial costs across all dimensions. For instance, 14 Member States classify the integration and interoperability costs as (very) high, while the remaining six expect these costs to be moderate.

Figure 19 - Member States' ratings of the magnitude of costs (n=20)



Source: Survey conducted as part of the Digitalisation Study

Stakeholder consultations further indicate that Option 2 would involve significant development and implementation expenditures, alongside sunk costs. Implementation is expected to be particularly resource-intensive, requiring adaptations to national systems as well as the creation of a new central database. This dual effort will result in considerable additional workload for both EU and national authorities. In particular, eu-LISA would face a substantial and heavy workload, as it would be responsible for developing the central database from the start.

In addition, the full implementation of this policy option is projected to take several years with a gradual go-live, which would further delay the full realisation of its efficiency. Furthermore, the expected gains do not appear to be proportionate to the anticipated costs. Much of the data intended to be shared via the new central database is already accessible through existing systems such as SIS, EES and VIS as well as will be available through upgraded and future systems such as Eurodac.

Based on the methodology, as well as the overarching and policy option-specific assumptions provided in Section 0 in Annex 9, costs for the Member States, Frontex, eu-LISA and the Commission are expected to range between EUR 700.30and 891.28million. This includes hardware and software investments, development, as well as maintenance and support across six years. Sunk costs are negligible under Option 2, as Member States will build upon existing systems at national level and the short-term operational nature of this option_

A more detailed breakdown, as well as the methodology and underlying assumptions are provided in Annex 9.

Coherence

Option 2 is expected to improve the internal coherence of EU digital migration management to a moderate extent. Option 2 is also considered to be externally coherent.

Internal coherence is expected to be enhanced through the creation of a central database, which will facilitate data sharing among the Member States by systematising it and ensure that Member States have access to the same data. The implementation of national RECAMAS as well as integration of iRCMS and RIAT, supported by eu-LISA and Frontex, is expected to promote a more harmonised approach to managing return cases across Member States as it not only harmonises and standardises RRR management practices but also promotes enhanced cooperation among stakeholders. The clear delineation of responsibilities among stakeholders, including the Member States, eu-LISA, and Frontex further bolsters the coherence of this approach and mitigates the risk of duplicative efforts.

However, the coherence of Option 2 is highly dependent on the Member States' implementation of the system. Variations in national implementation, as well as differences in data sharing and operational working practices, could negatively impact coherence.

In terms of **external coherence**, Option 2 is set to fully leverage the EU's interoperability framework. By connecting the central database to the CIR, sBMS, MID and ESP, the option will enable quick identification of duplicate entries. In addition, this policy option would expand the scope of data currently exchanged via EU Information Systems.

An adaptation of the Interoperability Regulation and of all founding Regulations of existing EU Information Systems is necessary in order to make use of all interoperability components and to allow the direct exchange of data between the new central database and EU Information Systems. As eu-LISA and Frontex will take on new responsibilities under Option 2, an amendment to the EBCG Regulation and to the eu-LISA Regulation will be required.

Option 2, as all policy options, would need to be coherent with and accommodate the procedural novelties introduced by Return Regulation. Therefore, this constitutes a horizontal requirement and is not a differentiating element between options.

The policy option is coherent with data-sharing provisions and statistical reporting under the Return Regulation and the overall objectives of the Pact on Migration and Asylum.

Assessment of impacts

Economic

Under Option 2, potential positive and negative economic impacts are also expected to balance each other out. The line of argumentation developed for Option 1 also applies to Option 2.

However, there are some notable differences: first and foremost, Option 2 does not only strain Member States' budgets but also the EU's budget to a slightly greater extent than Option 1, due to the creation of a central database.

Moreover, Option 2 could in addition to the economic stimulus in the Member States also provide a minor stimulus to larger IT companies that are serving EU bodies such as eu-LISA.

Societal

Option 2 is expected to have moderate positive societal impacts compared to the baseline scenario.

The same types of societal impacts can be expected to materialise as under Option 1. However, the magnitude of the impacts might be somewhat more pronounced through the establishment of the EU central database and the improvements of the effectiveness and efficiency of digital management of RRR over time.

Environmental

Option 2 is expected to have a limited negative environmental impact compared to the baseline scenario.

The development and maintenance of a new central database is likely to intensify energy consumption due to the operation of large-scale data servers and associated digital infrastructure. Additionally, over time, the continuous upgrading and replacement of hardware will contribute to a rise in electronic waste. However, the magnitude of this negative impact is considered negligible compared with the baseline scenario.

Security

Option 2 is expected to contribute to increase the security of citizens, businesses, and public administration in the EU only to a moderate extent, most importantly because existing problems in digital management of RRR processes could only be addressed in the medium to long-term.

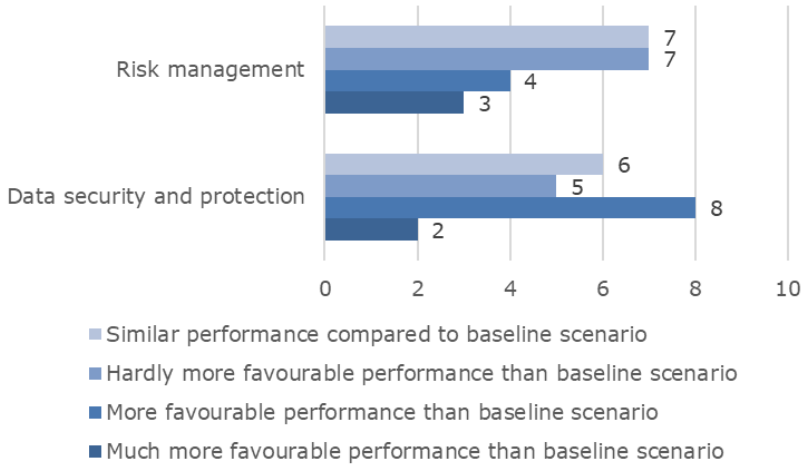
Option 2 is expected to address the main shortcomings identified in the baseline scenario. The case-management would allow Member States to carry out the return process in a faster and more efficient manner, enabling better identification of irregular TCNs, including those individuals posing security threats.

Option 2 is also expected to improve data-sharing between Member States, increasing the EU's ability to carry out effective risk assessment, improving the capacity to identify high-risk individuals, and improving the overall effectiveness of security measures. The exchange of information directly through the RRR databases reduces the risks of inconsistencies in information exchange associated to the creation of a separate communication portal.

Risk of errors, **misuse of information**, and **personal data breaches** is expected to reduce with Option 2 by establishing standardising readmission and reintegration case management systems across Member States, managed centrally by eu-LISA, which has extensive experience in managing large-scale IT systems. Harmonised processes and security standards would reduce inconsistencies in data handling, strengthen compliance with EU data protection rules, and enhance accountability, thereby improving the secure and reliable management of sensitive personal data.

As can be seen in the figure below, survey data underscores the divided perception among the Member States regarding the option's added security value. While 10 Member States consider data security to be improved under the shared EU and national systems option with central database, a similar number (11 Member States) perceive only partial, or no improvement compared to the baseline scenario (see Figure 20 - Member States' ratings of the partially decentralised option's impact on security (n=21)). These mixed views reflect both optimism about centralised safeguards and concerns over potential cybersecurity risks and reduced national control.

Figure 20 - Member States' ratings of the partially decentralised option's impact on security (n=21)



Source: Survey conducted as part of the Digitalisation Study

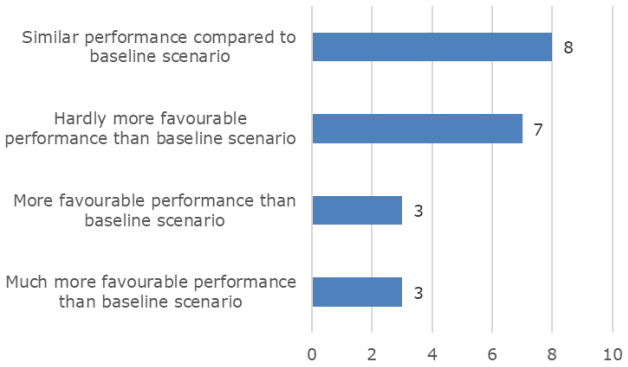
Similarly, in terms of risk management, only seven Member States consider the partially decentralised option with central database to perform better, while 14 Member States see little or no added benefit.

Fundamental rights

Option 2 is expected to adhere with fundamental rights and thus not expected to have any further positive nor negative impact compared to the baseline scenario.

As illustrated in the figure below, this assessment is confirmed by the survey in which most Member States indicated that Option 2 is likely to have a similar impact on fundamental rights as the baseline scenario (see Figure 21 - Member States' ratings of the partially decentralised option's impact on fundamental rights compared to the baseline scenario (n=21))).

Figure 21 - Member States' ratings of the partially decentralised option's impact on fundamental rights compared to the baseline scenario (n=21)



Source: Survey conducted as part of the Digitalisation Study

However, new challenges might occur due to the implementation of a new central database, the adjustment of national RECAMAS across all Member States and the integration thereto of iRCMS and RIAT. While this will improve data availability and coordination, the large-scale processing and centralisation of sensitive personal data may raise concerns around data protection, including the potential for misuse, unauthorised access, or insufficient oversight.

At the same time, this policy option has the potential to foster greater procedural clarity and accountability. By enabling authorities across the EU to access up-to-date and coherent information, it may reduce administrative fragmentation and help ensure that RRR cases are processed more consistently and transparently. For the data subjects (i.e. TCNs), this could translate into more equal treatment across Member States as well as better monitoring and access to the information shared and processed about them. To fully realise these benefits while avoiding unintended consequences, robust technical and legal safeguards will be essential to uphold fundamental rights throughout implementation and use.

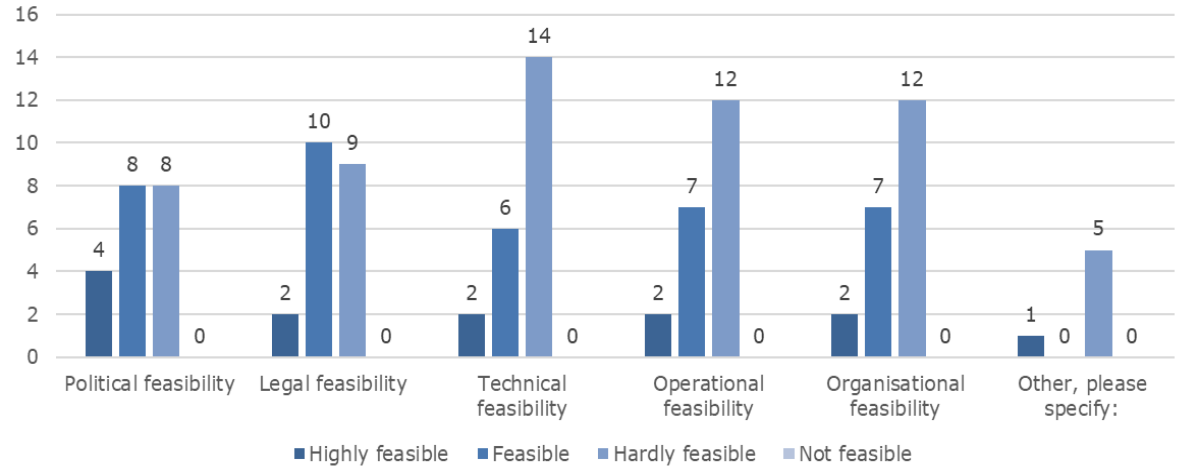
Feasibility

Option 2 is expected to be feasible to a moderate extent.

This is primarily because integrating a new central database with existing national systems presents significant challenges in practice, as ensuring technical compatibility and data standardisation may lead to complications that affect technical and operational feasibility.

12 Member States consider the partially decentralised option with central database as politically and legally feasible. This is mainly due to the fact that Member States can continue working in a decentralised manner and in a system preserving their national specificities (i.e. national RECAMAS). Legally, the need for a self-standing Regulation and multiple legislative amendments (such as to all regulations establishing EU Information Systems) diminish the overall feasibility of this option.

Figure 22 - Member States' ratings of the feasibility of Option 2 (n=22)



Source: Survey conducted as part of the Digitalisation Study

The results also demonstrate that the majority of Member States do not regard the technical, operational and organisational feasibility favourably but rather question it. 14 Member States consider the technical viability as hardly feasible, while 12 Member States regard operational and organisational feasibility as similarly lacking in viability. This scepticism is closely tied to the understanding that the successful implementation of this option hinges on collaboration among different stakeholders. While such collaboration can be beneficial, it also risks misalignment of priorities that could hinder progress.

This assessment by the Member States is closely related to the fact that it is seen as a technical challenge to connect national systems to the central database, as foreseen under Option 2. Furthermore, several Member States repeatedly mentioned that it would require a significant amount of organisational effort to create real consistency between all the national systems and the EU systems.

OPTION 3: 'CENTRALISED SYSTEM'

Assessment of effects

Effectiveness

Option 3 is expected to achieve the specific and general objectives to a moderate extent, albeit only in the medium to long-term.

The overall effects are equal to those for Option 2, with Member States expecting similar benefits in the area of data accuracy, completeness and interoperability as well as in the field of coordination and cooperation but also significant shortcomings in terms of time needed to implement the policy option.

Overall, participants in the survey conducted as part of the Digitalisation Study explained that the introduction of Option 3 would indeed bring positive effects in comparison to the baseline scenario, which involved in particular the following aspects (clustered):

- Increased standardisation and accuracy of data and less fragmentation.

  The follow-up of cases and exchange of information would be easier and faster.

  Costs for Member States would decrease in the long-term.

Thus, the policy option is expected to **enhance data sharing and reduce silos** by establishing a central database, which is expected to significantly improve access to and the quality of information. In conjunction with the enhanced data sharing anticipated under the Return Regulation, this initiative will enable all Member States to access necessary data in a consistent manner, thereby fostering a more integrated approach to digital migration management. This is also underlined by the comparison of policy options undertaken by the Member States in the Digitalisation Study's survey, with effectiveness-related factors scoring overall well: data sharing is expected by 15 Member States responding to that item being 'much more' or 'more' favourable than in the baseline scenario under Option 3. 14 Member States made the same assessment as regards interoperability. For automation, 12 Member States also confirmed an increased effectiveness.

The creation of a centralised system is also expected to **address many of the issues associated with the current operation in silos**, which primarily arise from the use of disparate national systems. By consolidating data into a single database and system, the option is expected to substantially reduce the fragmentation that hampers effective coordination and collaboration among the Member States. Furthermore, this centralised approach presents significant opportunities for the automation of processes, which can be implemented uniformly across all EU Member States, leading to greater effectiveness and consistency.

However, the effectiveness of this policy option is expected to be moderate in the short term, largely due to the time required to establish the necessary infrastructure and connect it to relevant national systems. A centralised EU case management system would face considerable difficulties in accommodating the diverse legal and procedural frameworks of Member States. Differences in national administrative structures, legal standards, and operational practices would complicate the integration of data and processes (15 Member States fully or slightly agree that difficulties will arise by integrating digital systems in existing administrative frameworks). These divergences could lead to inconsistencies, institutional resistance, and delays, as Member States may be unwilling to fully align their systems with EU-wide procedures.

The timeline for the go-live of the centralised system is likely to extend into the long term, meaning that existing problems related to data sharing and siloed operations will remain unresolved during this interim period. This delay will hinder the timely achievement of both specific and general objectives, as authorities will continue to struggle with the inefficiencies of the current systems. Member States confirmed this assumption in the Digitalisation Study's survey by outlining that the policy option would be complex and time-intensive to develop. 11 Member States indicated that the implementation and integration complexity is 'hardly more favourable' or 'similar' to the baseline.

Moreover, Member States have criticised that national specifications cannot be taken into consideration sufficiently, significantly reducing the Member States' leeway in adapting the system towards country-specific needs. In this regard, 15 Member States indicated in the survey that the flexibility and adaptability is 'hardly more feasible' or 'similar' to the baseline scenario. If country-specific factors, such as national legislation and operational practices, are not considered sufficiently, the system may fail to align with unique legal frameworks and operational needs, leading to challenges in compliance that hinder effective digital migration management.

Assessment of governance structure and data protection

Under Option 3, the governance structure would be fundamentally transformed compared to the baseline by introducing a fully centralised EU case management system for RRR, replacing all national systems.

Member States would still be expected to be responsible for the operational case management as such and the integration of any national database/system that is relevant for handling RRR processes.

The **Commission and Frontex** would assume the same roles and responsibilities as under Option 2.

eu-LISA, however, would take an even more enhanced role under this policy option, acting as the central technical authority. It would be fully responsible for developing, maintaining, and operating the new EU case management system and the associated central database. eu-LISA would ensure full interoperability with EU Information Systems and manage the system's architecture, security, and performance.

From a **data protection** perspective, a fully centralised EU case management system would be established, replacing national systems. In this model, several options could be considered depending on the different obligations and responsibilities of each party.

One possibility would be for the Member States to assume the role of joint controllers while eu-LISA would act as data processor in its capacity of technical operation of the central system. In this case, the relationship between the parties must be governed by a clear and binding arrangement in compliance with Article 28 GDPR and Article 29 EUDPR. The arrangement will specify the scope, nature, and purpose of the processing, the types of personal data involved, and the categories of data subjects. It will also define the obligations and rights of the controller, including instructions for processing, the duration of processing, and the measures to ensure data security.

In this model, each Member State would remain responsible for determining the purposes and means of processing the data it records - such as initiating return procedures, updating case files, or managing reintegration support. eu-LISA, in turn, would provide and maintain the centralised infrastructure, ensuring secure data storage, access management, and system interoperability, without independently determining the purposes of processing. The responsibilities of each joint controller will be limited to the data it processes in the central database.

Data protection supervision would be split between the EDPS, which would oversee eu-LISA, and national data protection supervisory authorities, which would supervise Member States. National data protection authorities and the EDPS would cooperate for the coordinated supervision of the central case management system and database, in accordance with Article 62 EUDPR.

The table below provides a brief overview of main (dis-) advantages of Option 3 in terms of governance.

Advantages	Disadvantages
Streamlined operations: Member States no longer need to maintain separate national systems.	**Reduced national autonomy**: Member States have limited flexibility to tailor the system to their national needs.
Faster policy implementation: Updates or changes to the system can be rolled out uniformly across all Member States without requiring national-level adaptations.	**High dependency on eu-LISA**: Centralised control may create bottlenecks or single points of failure.
	Complex transition: Replacing national systems requires significant legal, technical, and

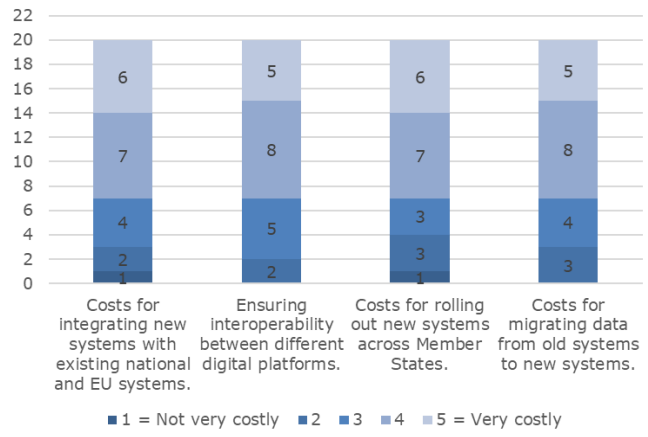
Unified accountability: A single system managed by eu-LISA simplifies oversight and clarifies who is responsible for system performance.	operational adjustments. Such significant efforts will also be needed to connect the central system to other relevant national systems that will remain in place at national level that may be currently connected to national return case management systems (e.g. asylum systems,).
	Implementation burden: Requires extensive training and capacity building for national authorities.

Efficiency and administrative burden

The efficiency of Option 3 is expected to be moderate. Its effects are expected to materialise only in the long-term. The costs are expected to be the lowest among all policy options due to the limited costs for Member States. However, due to the long-term nature of this policy option, Member States' 'sunk costs' are expected to be highest among all policy options, therefore justifying the lowest efficiency rating.

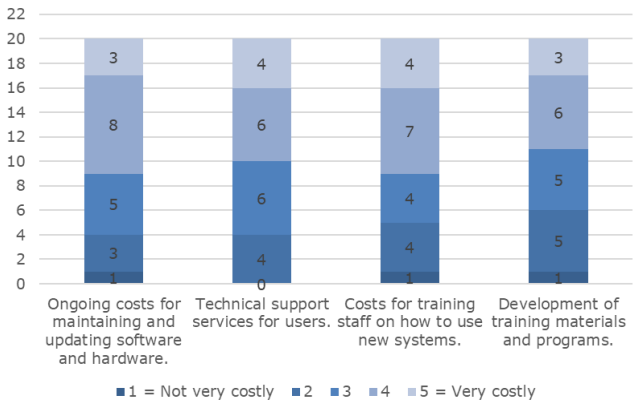
In the short-term, in particular the **implementation** of Option 3 is expected to be highly resource-intensive, as was confirmed by multiple Member States in the Digitalisation Study's survey. The Member States pointed out that the benefits and practicality of the policy option do not outweigh the costs that are created during the overall implementation, given that the national systems in place would need to be fully discarded and already existing data migrated to the central system. As pointed out by one interviewee, the policy option would overall be less of a burden for the Member States but would place a high burden on eu-LISA. This is due to its leading role in the development of the central database, whose added value is questionable given that most of the relevant data is already stored in other EU Information Systems (a point already discussed for policy option 2 and still relevant here). Additionally, eu-LISA's resources are already constrained: the current workload, workspace limitations, data capacity and recruitment issues constrains the agency's capacity to swiftly develop the system. The time and complexity required for implementation also imply that existing inefficiencies—such as insufficient sharing of information and lack of automation—will persist during the transition period, continuing to burden Member States. After being implemented, the system is expected to create additional costs (such as e.g. for training of officers and maintenance, need to connect other national relevant systems to the central system such as asylum systems), therefore not balancing out the implementation costs with what could have been expected as lower operational costs.

Figure 23 - Costs expected for the implementation of the new system under Option 3 (n=20)



Source: Survey conducted as part of the Digitalisation Study

Figure 24 - Costs expected for the operation of the new system under Option 3 (n=20)



Source: Survey conducted as part of the Digitalisation Study

In the long-term it can be expected that, under a central system cooperation, data exchange between Member States would be more efficient, thus reducing the need to engage in lengthy coordination processes. In addition, a major benefit would be the central go-live and maintenance of the system, reducing the need for responsible staff in the Member States and bundling costs in one central authority at the EU-level. By centralising processes and automating functions uniformly across all EU Member States, the option holds considerable potential to enhance overall efficiency. However, this potential is conditional upon the system's capacity to reconcile national procedural differences effectively. Without sufficient flexibility and adaptability to accommodate the specific operational and legal requirements of each Member State, the centralised system risks exacerbating inefficiencies rather than resolving them. Given the significant costs expected during development and implementation, the long-term benefits do not fully outweigh the short-term costs associated with the policy option, making this option rather inefficient.

Based on the methodology, as well as the overarching and policy option-specific assumptions provided in Section 0 in Annex 9, costs for the Member States, Frontex, eu-LISA and the Commission are expected to range between EUR 226.83 and 288.04 million. This includes hardware and software investments, development, as well as maintenance and support across six years. Sunk costs are estimated under Option 3 to range between EUR 689.19 and 877.16 million for seven years for 27 Member States.

A more detailed breakdown, as well as the methodology and underlying assumptions are provided in Annex 9.

Coherence

Option 3 is expected to improve the internal coherence of EU digital migration management to a moderate extent. Option 3 is also considered to be externally coherent.

In terms of **internal coherence**, this policy option is expected to go beyond merely establishing minimum standards for national systems but rather to overcome national fragmentation entirely through the implementation of a centralised solution. This approach is thus expected to ensure a high level of coherence among Member States, facilitating very consistent practices and procedures across the board. The use of a single system as well as the streamlining of maintenance and support services with one agency (eu-LISA with partial support of Frontex) would reduce the need for complex coordination processes, which in turn reduces the risk for incoherencies in development, implementation and running of the system. Moreover, a central

go-live could be ensured in order for all Member States to start using the system at the same time, reducing the risk for delays. However, this level of coherence can only be achieved if the system is designed to effectively accommodate the significant procedural and legal differences among Member States. Without adequate flexibility and alignment mechanisms, these divergences risk reintroducing fragmentation through uneven application, resistance, or delayed integration.

Regarding **external coherence**, the same effects are expected for Option 3 as those described under Option 2.

Assessment of impacts

Economic

Under Option 3, potential positive and negative economic impacts are also expected to balance each other out. The same line of argumentation as for Option 1 and 2 applies.

However, given the long term of implementation for the project, economic effects would only likely materialise in the long term under this policy option.

Societal

Option 3 is expected to have moderate positive societal impacts compared to the baseline scenario.

The same types of societal impacts can be expected to materialise as under Option 1 and 2. However, the magnitude of the impacts might be somewhat more pronounced through the establishment of the EU central database and the improvements of the effectiveness and efficiency of digital migration management over time.

Environmental

Option 3 is expected to have a limited negative environmental impact compared to the baseline scenario.

The development and maintenance of a new central database will substantially increase energy as well as material consumption and generate electronic waste. However, this is at least partially offset by the abolition of the systems at national level. However, the magnitude of this impact is considered negligible compared with the baseline scenario.

Security

Option 3 is expected to contribute to increase the security of citizens, businesses, and public administration in the EU only to a limited extent, most importantly because existing problems in digital migration management could only be addressed in the medium to long-term. However, the rating foreseen is equal to the one under Option 2 as Option 3 could potentially provide even more positive security impacts through overcoming the fragmentation of national systems.

As for Option 2, the implementation of a new central database is expected to significantly enhance the ability to monitor RRR processes, ensuring that relevant authorities have access up-to-date information. By providing up-to-date, consistent data access, this option would improve information exchange and support earlier detection of high-risk individuals.

In addition, the harmonisation of case management and standardised procedures would reduce system vulnerabilities by ensuring consistency across Member States, leading to fewer discrepancies in data handling and processing. Moreover, standardisation offers the possibility to implement robust security measures uniformly across all Member States.

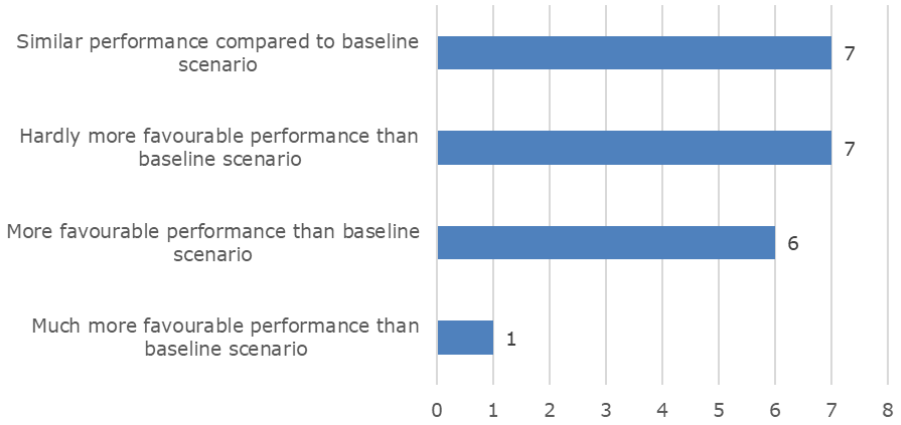
Additionally, the lengthy implementation timeline means that current security gaps would persist for several years, limiting the short-term impact on EU security of this option.

Fundamental rights

Option 3 is expected to have a small negative impact on fundamental rights compared to the baseline scenario. However, no infringements of fundamental rights are overall anticipated.

This is confirmed by the survey results which indicate that a majority of the Member States envisage either no improvement or a deterioration in the fundamental rights situation under the centralised option. While a centralised system could promote consistency in applying RRR processes, potentially reducing arbitrary practices across the Member States, it may face practical limitations in accommodating the legal and procedural divergences that exist among national systems. These challenges may arise from the central database's reliance on standardised data processing and automation, which, while promoting efficiency and alignment, may not fully reflect the varying administrative practices, legal requirements, or institutional capacities across Member States. This could make it difficult to adapt the system to existing national procedures or to take into account specific legal and procedural safeguards in national frameworks.

Figure 25 - Member States' ratings of the centralised option's impact on fundamental rights compared to the baseline scenario (n=21)



Source: Survey conducted as part of the Digitalisation Study.

In addition, and as outlined under Option 2, the shift to a fully centralised system and the replacement of national systems may introduce further challenges. While intended to enhance consistency and coordination, the large-scale processing and centralisation of personal data, including sensitive personal data, may raise concerns related to data protection, including risks of misuse, unauthorised access, or insufficient oversight.

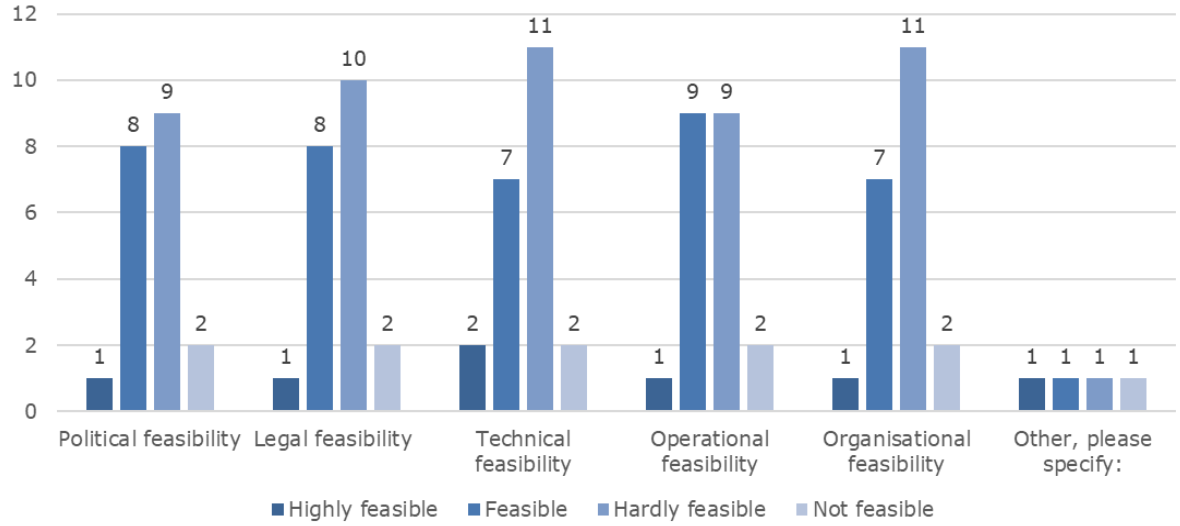
This policy option may contribute to more transparent and efficient RRR processes by improving access to up-to-date and consistent information. It is also expected to support a more uniform application of data subject (i.e. TCN) rights across Member States by facilitating clearer communication, enhancing access to the data processed about them, and promoting more transparent treatment throughout RRR processes.

Feasibility

Option 3 is expected to be feasible only to a very limited extent, potentially triggering strong resistance from Member States. This is in particular due to the Member States not being able to build upon and use the developed and adapted system many of them have used over several years.

This aligns with the findings of the survey conducted in the context of the Digitalisation Study, with a majority of Member States indicating that the central option is hardly feasible or unfeasible across all dimensions, as can be seen in the figure below.

Figure 26 - Member States' rating of the feasibility of Option 3 (n=22)



Source: Survey conducted as part of the Digitalisation Study

As the figure shows, the technical and organisational feasibility are particularly questioned by Member States. Member States' views do not reveal a consensus among the Member States but rather highlight the fact that the centralised option has a lot of potential for discussion and opposition. Overall, it is to be assumed that the policy option in its current form will probably not be fully accepted by the Member States.

Member States have in particular expressed shortcomings with regard to the (i) lack of flexibility for Member States to adapt the system based to national needs, (ii) high costs for data migration / loss of historical data and (iii) slow development and evolution of the system as major factors impacting the feasibility to implement such a system.

In addition, some stakeholders during the targeted interviews conducted as part of the Digitalisation Study (in particular from Member States with highly developed national systems) expressed that they are not willing to give up their national systems for RRR, given that they have made positive experiences with these systems, are well-trained in using them and do not consider the EU system to be of sufficiently added value to fully replace the national systems. 15 Member States also indicated in the Digitalisation Study's survey that stakeholder acceptance and cooperation with regard to this policy option is 'hardly more favourable' or 'similar' to the baseline scenario, indicating lacking support in implementing this option.

CHOICE OF POLICY INSTRUMENT

Choice of policy instrument: A Regulation is the most suitable tool to achieve desired policy objectives

Within the context of digital management of RRR processes, a regulation appears to be the most suitable legal instrument in all three policy options given the objective to establish a new integrated digital case management system both at national and EU level, mirroring thereby the choice made for all founding regulations of EU Information Systems.

By definition, regulations are binding and directly applicable in all Member States and ensure uniform rules across the Union. The existing problems with regard to digital migration management are to a very large degree caused by diverging national approaches. Therefore, a regulation best corrects the fragmentation. A directive is not expected to solve the issue of fragmentation because it would leave too much room for manoeuvre to Member States, and would not allow to solve the problems described in Section 0.

ANNEX 8: OVERVIEW OF POLICY OPTIONS

Aspect	PO0	PO1	PO2	PO3
	Baseline Scenario	**Partially decentralised option without central database**	**Partially decentralised option with central database**	**Centralised system**
Rationale				
Integration of case management system	Fragmented	One single case management system infrastructure covering RRR ([147])		
Design of case management system	National systems	EU systems (iRCMS/RIAT) integrated into a national system (RECAMAS), itself based on an EU model or an EU reference implementation		Centralised EU case management system
Builds on existing national and EU systems	Yes	Yes	Yes	No
Interaction and connection with EU Information Systems	Limited	Connection to SIS	Full interoperability	Full interoperability
Integration with interoperability components	Access to and retrieval of data from EU Information Systems via ESP	Access to and retrieval of data from EU Information Systems via ESP	Full interoperability	Full interoperability
Responsibility for the development of new systems	None	National and EU	National and EU	EU
Data exchanged through /	Data exchanged through EU Information Systems	Data exchanged through EU Information Systems and additional	All data recorded in case management systems are exchanged through an EU central database	

([147]) No need for the user of the system to log off from one system and log on to a different system.

Aspect	PO0	PO1	PO2	PO3
	Baseline Scenario	**Partially decentralised option without central database**	**Partially decentralised option with central database**	**Centralised system**
provided in database		data through the Communication Portal		
Architectural set-up and responsibilities				
Roles & responsibilities				
Member States	Operational case management National system development, implementation, maintenance National infrastructure and systems integration	Operational case management National infrastructure and systems integration Establishment of national RECAMAS based on Frontex model or Frontex reference implementation iRCMS integration within the national RECAMAS (together with Frontex) RIAT integration within the national RECAMAS (together with Frontex)	Operational case management National infrastructure and systems integration Establishment of national RECAMAS based on Frontex model or Frontex reference implementation iRCMS integration within the national RECAMAS (together with eu-LISA) RIAT integration within the national RECAMAS (together with eu-LISA)	Operational case management National systems integration
Commission	RIAT Supporting RCMS through IOM and third countries Regulatory instruments Funding Monitoring, evaluation, reporting	Regulatory instruments Funding Monitoring, evaluation, reporting	Regulatory instruments Funding Monitoring, evaluation, reporting	Regulatory instruments Funding Monitoring, evaluation, reporting
Frontex	IRMA RECAP FAR	RECAMAS Model and RECAMAS reference implementation	IRMA RECAP FAR	IRMA RECAP FAR

Aspect	PO0	PO1	PO2	PO3
	Baseline Scenario	**Partially decentralised option without central database**	**Partially decentralised option with central database**	**Centralised system**
	RECAMAS Model	iRCMS and integration within the national RECAMAS (together with MS) RIAT and integration within the national RECAMAS (together with MS) IRMA RECAP FAR Provision of training	RECAMAS Model	RECAMAS Model
eu-LISA	EU Information Systems Interoperability components	EU Information Systems Interoperability components Dedicated communication channel (the Communication Portal)	EU Information Systems Interoperability components iRCMS and integration within the national RECAMAS (together with MS) RIAT and integration within the national RECAMAS (together with MS) EU central database (including interface) Provision of training	EU Information Systems Interoperability components EU central case management system on RRR (incl. database and interface) Provision of training
Third country and/or international organisation	RCMS (together with the Commission	iRCMS third country segment only	iRCMS third country segment only	iRCMS third country segment only
Technical means to browse, retrieve, exchange and create information and statistics at EU level				
EU Central database	No	No	Yes	Yes

Aspect	PO0	PO1	PO2	PO3
	Baseline Scenario	**Partially decentralised option without central database**	**Partially decentralised option with central database**	**Centralised system**
ESP, CIR, MID, sBMS	ESP only	ESP only	Connected	Connected
CRRS	No	Connected	Connected	Connected
Communication of ad hoc data not recorded in existing EU Information Systems				
Use of communication channel based on existing infrastructure (e.g. SIRENE, DublinNet, VIS Mail) for sharing information that cannot be exchanged through EU Information Systems	No	Yes	No (information is shared via the EU central database)	No (information is shared via the EU central database)
Return				
Lead responsibility for development of RECAMAS	MS	MS, Frontex ([148])	MS, eu-LISA ([149])	eu-LISA
Use of IRMA	Connected to Member States		Connected to Member States and to the EU central database	Connected to the central EU case management system
Use of RECAP	Connected to Member States		Connected to Member States and to the EU central database	Connected to the central EU case management system
Readmission				
Lead responsibil	IOM	Frontex	eu-LISA	eu-LISA

([148]) Frontex when RECAMAS is based on the reference implementation and Member States when RECAMAS is based on the Frontex Model.

([149]) eu-LISA when RECAMAS is based on the reference implementation and Member States when RECAMAS is based on the Frontex Model.

Aspect	PO0	PO1	PO2	PO3
	Baseline Scenario	**Partially decentralised option without central database**	**Partially decentralised option with central database**	**Centralised system**
ity for developme nt of RCMS/iR CMS				
Integration of iRCMS into RECAMA S to avoid having to log on and off	No	Yes	Yes	Yes
Integration of FAR	External	Integrated	Integrated	Integrated
Availabilit y of third country segment in RCMS/iR CMS	No segment logic at the moment	Yes	Yes	Yes
Availabilit y of a single EU segment in RCMS/iR CMS	No	Yes	Yes	Yes
Reintegration				
Lead responsibil ity for developme nt of RIAT	Commission	Frontex	eu-LISA	eu-LISA
Integration of RIAT into RECAMA S to avoid having to log on and off	No but potentially possible	Yes	Yes	Yes
Technical and functional features				
Unique case number/id entifier	No	Yes, through the identifier in the return decision	Yes	Yes

Aspect	PO0	PO1	PO2	PO3
	Baseline Scenario	**Partially decentralised option without central database**	**Partially decentralised option with central database**	**Centralised system**
Managing multiple cases for the same person in different Member States	Yes	Yes	No ([150])	No
Integration of flight booking system	No	Yes	Yes	Yes
Generation of reports and statistics	No	Yes	Yes	Yes
Real-time data dashboard on RRR statistics	No	Yes	Yes	Yes
Communicating with third parties	No	Yes	Yes	Yes
Training feature in the case management	Yes, depending on national approach	Yes	Yes	Yes
Way forward				
Self-standing Regulation	-	Yes	Yes	Yes
Amendments of the eu-LISA Regulation	-	Yes	Yes	Yes
Amendments of the Interoperability Regulations	-	Yes	Yes	Yes
Amendments to EU	-	No	Yes	Yes

([150]) The introduction of an EU central database could, technically, make it impossible for different Member States to open separate national files for the same person in parallel. This could be considered an asset for the cooperation of Member States and the digital management of migration overall.

Aspect	PO0	PO1	PO2	PO3
	Baseline Scenario	Partially decentralised option without central database	Partially decentralised option with central database	Centralised system
IT systems' Regulations				
Amendments to the EBCG Regulation	-	Yes	Yes	Yes
Amendments to Asylum and Migration Management Regulation ('AMMR')	-	No	No	No
Consequential technical Amendment to the SIS Regulation		Yes	No	No

ANNEX 9: ASSESSMENT OF FINANCIAL COSTS OF RETAINED POLICY OPTIONS

The estimated costs of retained policy options are based on the available information on the architectural setup of the policy options. The estimation has been prepared based on the Digitalisation Study.

The methodology is based on horizontal assumptions concerning labour costs, duration of development and maintenance, contingency factors, maintenance effort factors, and hardware factors, as well as specific assumptions concerning business aspects, infrastructure, and development. The cost estimation includes cost items such as technical building blocks that would need to be developed/purchased under each policy option, as well as an overview of the operational tasks to be delivered in relation to each of the cost items. The following section provides a more granular cost estimate for each policy option, including information on the total costs per type of stakeholder (Member State, eu-LISA, Frontex, and the Commission) per policy option, as well as a breakdown of one-off costs and recurrent costs per policy option.

FORMULAS USED TO ESTIMATE THE TOTAL COSTS PER POLICY OPTION

Policy option 1

Under Option 1, iRCMS and RIAT are developed and hosted by Frontex; they are adopted by all Member States and integrated in RECAMAS. RECAMAS is hosted by Member States;

Member States can keep their existing implementations, or develop their own systems based on the RECAMAS Model or based on a reference implementation. The communication channel is developed by eu-LISA, based on existing infrastructure (e.g. SIRENE, DublinNet, VIS Mail).

The calculation assumes that 17 EU Member States develop their systems based on the RECAMAS Model or by adopting the RECAMAS reference implementation (on average, 50% less development effort than creating a new system from scratch). The remaining 10 EU Member States retain their existing national RECAMAS but must invest in additional infrastructure costs (75% less infrastructure cost) to expand capacity and develop an integration with the Frontex-provided modules (75% less development cost than creating a new system). This assumption is, however, hypothetical. The actual future decision of Member States cannot be ascertained at this stage.

The abovementioned assumption and the cost items ('CI') ([151]) to be delivered translate into the following formulas to estimate the total cost:

Member State Cost = (17 * CI2) + (10 * CI3) + (27 * CI4);

– Frontex Cost = CI1 + CI5 + CI6 + CI7;

eu-LISA Cost = CI8 + CI9 + CI10 + CI11 + CI12 + CI14 + CI15;

Commission Total Cost = CI16; and

Total Costs: Member State Cost + Frontex Cost + eu-LISA Cost + Commission Cost.

To account for potential problems and delays in the actual future delivery of the system, estimated costs were inflated by a certain margin (minimum: +10%; maximum: +40%), based on industry-standard contingency factors.

Policy option 2

Under Option 2, iRCMS and RIAT are developed and hosted by eu-LISA; they are adopted by all Member States and integrated in RECAMAS. RECAMAS is hosted by Member States; Member States can keep their existing implementations, or develop their own systems based on the RECAMAS Model or based on a reference implementation.

The calculation assumes that 17 Member States develop their systems based on the RECAMAS Model or by adopting the RECAMAS reference implementation (on average, 50% less development effort than creating a new system from scratch). The remaining 10 Member States retain their existing national RECAMAS but must invest in additional infrastructure costs (75% less infrastructure cost) to expand capacity and develop an integration with the eu-LISA-provided modules (75% less development cost than creating a new system). However, since the cost items differ between policy options 1 and 2, the formulas are also slightly different:

Member State Total Cost = (17 * CI2) + (10 * CI3) + (27 * CI4);

– Frontex Total Cost = CI5 + CI6 + CI7;

eu-LISA Total Cost = CI1 +CI8 + CI9 + CI10 + CI11 + CI12 + CI13;

([151]) Please refer to Annex 9, Section 0 for more details on the cost items.

Commission Total Cost = CI14; and

Total Costs: Member State Cost + Frontex Cost + eu-LISA Cost + Commission Cost.

The same contingency factors and formulas were applied as in policy option 1.

Policy option 3

Under Option 3, eu-LISA develops and hosts a centralised case management system and database, accessible via a web platform; there is no need for Member States to host RECAMAS.

Similar to the methodological approach described above concerning Option 1, the total cost is estimated as the sum of the costs for the concerned stakeholders. Under this policy option, however, all 27 Member States would need to integrate their systems into the central system, and eu-LISA would be in charge of the majority of the operational work. Therefore, the formulas are the following:

Member State Total Cost = 27 * CI1;

– Frontex Total Cost = CI2 + CI3 + CI4;

eu-LISA Total Cost = CI5 + CI6 + CI7 + CI8 + CI9 + CI10 + CI11;

Commission Total Cost = CI12; and

Total Costs: Member State Cost + Frontex Cost + eu-LISA Cost + Commission Cost.

The same formulas as under Option 1 has been applied to the contingency factor.

METHODOLOGICAL APPROACH USED TO ESTIMATE INFRASTRUCTURE COSTS

The infrastructure costs consist of one-off and recurrent costs, including:

One-off costs:

– Costs for acquisition of hardware for primary and secondary sites in Member States, incl. e.g. application servers, database servers, storage solution, backup infrastructure, network equipment, and security appliances;

Software and licensing acquisition costs, incl. e.g. OpenShift platform, database licenses, backup software, monitoring tools, security software;

Installation labour costs; and

Data Centre Cost.

Recurrent costs:

– Hardware maintenance;

Software support and licensing renewal;

Maintenance labour; and

Data centre maintenance.

Recurrent costs related to application layer maintenance activities, which increase the costs an additional 5%, include:

- Proactive operations, such as continuous performance tuning, application-level monitoring and application health checks.

- Reactive on-call and incident management, such as rapid response support for application specific bugs or critical downtime that occurs at software level[; and

- Operational overheard, such as managing the functional 'logic' of the systems, including user-access management, workflow optimisation for return decisions, synchronisation and troubleshooting.

METHODOLOGICAL APPROACH USED TO ESTIMATE DEVELOPMENT COSTS

The development costs have been estimated based on one-off and recurrent costs.

The one-off costs concern the technical development of the different cost items per policy option and are estimated - using standardised day rates for developers and experience - based on the forecasted number of person and days needed for the technical development.

In addition, the actors of the system are categorised as simple, average or complex depending on the assumed complexity of the task. A weight is assigned to each actor category:

– **Simple**– another system with a defined Application Programming Interface ('API'): weight = 1

Average– another system interacting through a protocol: weight = 2

Complex– a person interacting through a graphical user interface or webpage: weight = 3

The total unadjusted actor weight ('UAW') is calculated by counting the number of actors in each category, multiplying each total by its specified weight, and then adding the products.

The use cases or user stories are categorised as simple, average or complex, depending on the number of transactions. A weight factor is assigned to each use case / user story category:

– **Simple** use case / user story – 3 or fewer transactions: weight = 5

Average use case / user story – 4 to 7 transactions: weight 10

Complex use case / user story – more than 7 transactions: weight 15

The unadjusted use case/user stories weights ('UUCW') are calculated by counting the number of use cases/user stories in each category, multiplying each category of use case/user story with its weight and adding the products. The UAW is added to the UUCW to get the unadjusted use case points ('UUPC').

The use case points are adjusted based on the values assigned to a number of **technical factors** (*Table 15*) and **environmental factors** (*Table 16*). These factors are meant to account for effort that is not related to the size of the task. Each factor is assigned a value between 0 and 5 depending on its assumed influence on the project. A rating of 0 means that the factor is irrelevant for this project; 5 means that it is essential.

The technical complexity factor ('TCF') is calculated by multiplying the value of each factor in *Table 15* by its weight and then adding all these numbers to get the sum called the **TFactor**. Finally, the following formula is applied: **TCF = 0.6 + (0.01*TFactor)**

The environmental factor ('EF') is calculated accordingly by multiplying the value of each factor in *Table 16* by its weight and adding all the products to get the sum called the **Efactor**. The following formula is applied: **EF = 1.4 + (-0.03*EFactor)**

The adjusted use case points ('UCP') are calculated as follows: **UCP = UUCP * *TCF* * EF**

The **Hours of Effort per Use Case Point** for a project estimate is determined. The number ranges from 15 to 30. The average is 22 for change management, 15 if the project is run for more than four years, 30 for new projects.

Total Implementation Effort in man-hours = Hours of Effort per Use Case Point * UCP

Table 15 – Technical factors

Factor	Description	Multiplier	Weight
T1	Distributed system required	2	0-5
T2	Response time is important	1	0-5
T3	End user efficiency	1	0-5
T4	Complex internal processing required	1	0-5
T5	Reusable code must be a focus	1	0-5
T6	Installation ease	0.5	0-5
T7	Usability	0.5	0-5
T8	Cross-Platform support	2	0-5
T9	Easy to change	1	0-5
T10	Highly concurrent	1	0-5
T11	Custom security	1	0-5
T12	Dependence on third-party code	1	0-5
T13	User training	1	0-5

Source: Digitalisation Study

Table 16 - Environmental factors

Factor	Description	Multiplier	Weight
F1	Familiarity with the project	1.5	0-5
F2	Application experience	0.5	0-5
F3	Relative tools programming experience	1	0-5
F4	Lead analyst capability	0.5	0-5
F5	Motivation	1	0-5
F6	Stable requirements	2	0-5
F7	Part time staff	-1	0-5
F8	Difficult programming language / technologies	-1	0-5

Source: Digitalisation Study/eu-LISA

In addition, the following minimum deliverables are assumed as part of the development process.

Table 17 - Assumptions on minimum deliverables

Area	Minimum Deliverables
Architecture & design	High-Level design Detailed technical specifications Persistence storage design Technology infrastructure documentation Interface control documents Development environment documentation Security architecture Low level design Integration architecture and data exchange formats
Business analysis	Business requirements Stakeholder requirements Functional requirements Non-functional requirements Business use cases User interface specifications
Security	Security risk assessment and implementation plan Business continuity and disaster recovery plan Data retention policy Data protection impact assessment Information security management system policy sets System security plans
Testing	Specific test plan (including security testing) Test design document Test summary report
Project Management	Project management plan Project plan

Area	Minimum Deliverables
	Project log Project charter Quality management plan Service improvement plan

Source: Digitalisation Study/eu-LISA

The ongoing development costs are calculated as a percentage of the one-off development cost per cost item.

HORIZONTAL ASSUMPTIONS ACROSS ALL POLICY OPTIONS

Labour costs

The costs collected in person days are converted into costs (monetary figures) using the labour daily rates to convert person days into Euro.

Cost items incurred by Member States are computed using the daily labour rates provided by Eurostat's hourly labour costs to convert person days into euro. Eurostat estimates an average hourly labour cost of €37,3 in the euro area, which is rounded up to €300 for a working day ([152]).

Cost items incurred by eu-LISA and Frontex are computed using contractor rates to monetise the effort, assuming a mix of off-site and on-site work with different rates.

Cost items incurred by the Commission are computed using the Commission average costs to be used for estimates of 'Human Resources' in the legislative financial sheets from January 2026 ([153]).

The following table presents the Full-Time Equivalent ('FTE') values used to calculate the development, maintenance, support, and coordination effort.

Table 18 - Full-Time Equivalent values

Daily rate category	Off-site rate (in EUR)	Off-site percentage	On-site rate (in EUR)	On-site percentage	Rate (in EUR)
Member State daily rate	300	80%	500	20%	**340**
Frontex daily rate	600	80%	800	20%	**640**
eu-LISA daily rate	750	80%	1,000	20%	**800**

Source: Digitalisation Study/eu-LISA

([152]) Eurostat (2025). EU hourly labour costs ranged from €11 to €55 in 2024. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Hourly_labour_costs.

([153]) The total annual average cost of an EU official is estimated at EUR 194 000.

Project duration

Table 19 - Project duration

Category	Duration (years)
One-off Costs Duration	2 (Option 1), 3 (Option 2) and 2.5 (Option 3)
Recurrent Costs Duration	6

Source: Digitalisation Study/eu-LISA

Contingency factors

Costs are expressed as a range computed by multiplying the base cost by a contingency factor using the following values:

Table 20 - Contingency factors

Factor	Value
Contingency minimum factor	1.10
Contingency maximum factor	1.40

Source: Digitalisation Study/eu-LISA

Maintenance effort factors

Yearly maintenance effort is computed as a percentage of the development effort, using the following values for Member States, Frontex and eu-LISA:

Table 21 - Maintenance effort factors

Factor	Value
MS maintenance effort percentage	30%
Frontex maintenance effort percentage	30%
eu-LISA maintenance effort percentage	30%
Commission maintenance effort percentage	100% ([154])

Source: Digitalisation Study/eu-LISA

Table 22 - Hardware factors

Factor	Value
Hardware procurement grace period (years) *Number of years after the project starts when hardware procurement occurs.	1
Hardware maintenance factor	22%
Software license annual support factor	30%

Source: Digitalisation Study/ eu-LISA

([154]) The administrative tasks related to the implementation of the system will remain even after the entry into operations.

ASSUMPTIONS SPECIFIC TO EACH POLICY SECTION

Option 1: 'Partially decentralised option without central EU database'

Business assumptions

The pan-European backbone network provided by the TESTA platform connects the RRR system securely with the following systems.

Secure communication channel between Member States.

ESP (hosted at eu-LISA to perform queries against eu-LISA central systems).

SIS (hosted at eu-LISA to create alerts).

CRRS (hosted at eu-LISA to collect RRR data and generate RRR reports and statistics).

iRCMS and RIAT (hosted at Frontex).

The internet connects the National RECAMAS with the following systems:

– IRMA (hosted at Frontex).

RECAP.

iRCMS Segment (hosted in Third Countries).

eu-LISA provides the Secure Communication Channel (technology based on existing infrastructure (e.g. SIRENE, DublinNet, VIS Mail) and the following specific Interface Control Documents ('ICD') defining the technical specifications of integrating with ESP, SIS, Eurodac and CRRS (via TESTA):

ESP External ICD.

SIS External ICD.

CRRS External ICD.

The CRRS currently does not consume data directly from national systems since it integrates only with eu-LISA central systems by design. Integrating the national systems with CRRS would require legal changes and implementation effort incurred by eu-LISA.

Infrastructure assumptions

Table 23 - Hardware assumptions (Policy option 1)

Resource	Value
MS primary site	
Number of Environments Test, Pre-production, Production	3
Total nodes	19
Storage (TB) Includes the primary, backup, and snapshot/retention storage	30

Resource	Value
MS secondary site	
Number of Environments Production	1
Size of the secondary site Based on the industry's best practices for hot disaster recovery, the secondary site is sized as a percentage of the primary one.	40%
Personnel for hardware installation & maintenance	
Number of FTEs per MS	3

Source: Digitalisation Study/ eu-LISA

Table 24 - Frontex Hardware assumptions (Option 1)

Resource	Value
Frontex primary site	
Number of Environments Test, Pre-production, Production	3
Total nodes	21
Storage (TB) Includes the primary, backup, and snapshot/retention storage	130
Frontex secondary site	
Number of Environments Production	1
Size of the secondary site Based on the industry's best practices for hot disaster recovery, the secondary site is sized as a percentage of the primary one.	100%
Personnel for hardware installation & maintenance	
Number of FTEs	5

Source: Digitalisation Study/ eu-LISA

Development assumptions

Table 25 - Development assumptions (Option 1)

Resource	Value
RRR case management system with three separate modules for return, readmission and reintegration	
Actors Human and machine actors interacting directly or indirectly with the system via a well-defined API, a user interface or a business process.	62
Classification of actors (complex, average, simple)	70%, 27%, 3%
User Stories	545
Classification of user stories (complex, average, simple)	21%, 44%, 35%
Environmental Factor	1.1
Technical Complexity Factor	1.145
Ratio Hours of effort per Use Case Point	30
IRMA integration with the RRR system	
Actors	10
Classification of actors	60%, 20%, 20%
User Stories	50
Classification of user stories	20%, 50%, 30%

Resource	Value
Environmental Factor	
Technical Complexity Factor	
Ratio	20
RECAP integration with the RRR system	
Actors	6
Classification of actors	33%, 50%, 17%
User Stories	35
Classification of user stories	14%, 57%, 29%
Environmental Factor	1.1
Technical Complexity Factor	1.145
Ratio	25
iRCMS Segment integration with the RRR system	
Actors	4
Classification of actors	25%, 50%, 25%
User Stories	25
Classification of user stories	20%, 40%, 40%
Environmental Factor	1.16
Technical Complexity Factor	1.175
Ratio	25

Source: Digitalisation Study/ eu-LISA

Option 2: 'Partially decentralised option with central EU database'

Business assumptions

The National Case Management Systems are securely connected via the pan-European backbone network provided by the TESTA platform with the following systems:

– ESP (queries).

EU Central database.

Multiple Identity Director (MID).

The National Case Management Systems are connected via the internet with the following Frontex systems:

– IRMA.

RECAP.

iRCMS Segment (hosted in Third Countries).

eu-LISA provides the EU Central database and its connections with:

– The ESP, CIR, CRRS and SIS via the internal secure eu-LISA network.

The iRCMS Segment (hosted in Third Countries) via the eu-LISA Internet Zone.

eu-LISA provides the following specific ICD defining the technical specifications of integrating RRR with key central systems:

– ESP External ICD.

CRRS External ICD.

EU Central database External ICD (for commands towards the EU Central database).

Assumptions concerning the storage of data:

– CIR stores the RRR identity data, consisting of personal alphanumeric data & the binary biometric data.

The new Central database stores the rest of the RRR data.

sBMS stores the biometric templates of the RRR biometric data to facilitate searching and verification.

MID stores links between the identity data of RRR and other eu-LISA core business systems.

CRRS stores anonymised data from RRR and produces statistical reports based on these data.

Infrastructure assumptions

Table 26 - eu-LISA infrastructure assumptions (Policy option 2)

Resource	Value
eu-LISA Central Unit (primary site)	
Number of Environments (OpenShift clusters) Test, Pre-production, Production	3
Total nodes	19
Storage (TB) Includes the primary, backup, and snapshot/retention storage	130
eu-LISA Backup Central Unit (secondary site)	
Number of Environments (OpenShift clusters) Production	1
Size of the secondary site Based on the industry's best practices for hot disaster recovery, the secondary site is sized as a percentage of the primary one.	100%
Personnel for hardware installation & maintenance	
Number of FTEs	5

Source: Digitalisation Study/eu-LISA

Table 27 - Member States' infrastructure assumptions (Option 2)

Resource	Value

MS primary site	
Number of Environments Test, Pre-production, Production	3
Total nodes	8
Storage (TB) Includes the primary, backup, and snapshot/retention storage	30
MS secondary site	
Number of Environments Production	1
Size of the secondary site Based on the industry's best practices for hot disaster recovery, the secondary site is sized as a percentage of the primary one.	40%
Personnel for hardware installation & maintenance	
Number of FTEs per MS	3

Source: Digitalisation Study/eu-LISA

Development assumptions

Table 28 - Development assumptions (Policy option 2)

Resource	Value
RRR case management system with three separate modules for return, readmission and reintegration	
Actors Human and machine actors interacting directly or indirectly with the system via a well-defined API, a user interface or a business process.	62
Classification of actors (complex, average, simple)	70%, 27%, 3%
User Stories	545
Classification of user stories (complex, average, simple)	21%, 44%, 35%
Environmental Factor	1.1
Technical Complexity Factor	1.145
Ratio Hours of effort per Use Case Point	30
EU central database	
Actors	44
Classification of actors	68%, 27%, 5%
User Stories	445
Classification of user stories	21%, 44%, 35%
Environmental Factor	1.1
Technical Complexity Factor	1.145
Ratio	30
IRMA integration with the RRR system	
Actors	10
Classification of actors	60%, 20%, 20%
User Stories	50
Classification of user stories	20%, 50%, 30%
Environmental Factor	0.965

Resource	Value
Technical Complexity Factor	1.065
Ratio	20
RECAP integration with the RRR system	
Actors	6
Classification of actors	33%, 50%, 17%
User Stories	35
Classification of user stories	14%, 57%, 29%
Environmental Factor	1.1
Technical Complexity Factor	1.145
Ratio	25
iRCMS Segment integration with the RRR system	
Actors	4
Classification of actors	25%, 50%, 25%
User Stories	25
Classification of user stories	20%, 40%, 40%
Environmental Factor	1.16
Technical Complexity Factor	1.175
Ratio	25

Source: Digitalisation Study/eu-LISA

Option 3: 'Centralised system'

Business assumptions

The pan-European backbone network provided by the TESTA platform connects the EU central system securely with the following systems.

– Web browsers of the RRR-related national human actors.

IRMA.

RECAP (back-end server).

Any other relevant national system.

The internet connects the eu-LISA central system with the following systems hosted in third countries: iRCMS Segment.

The EU central system provides only a web interface to its end users via the secure TESTA network. Therefore, all ESP queries are issued from the central system; the end users cannot issue ESP queries from their web browser.

eu-LISA provides specific ICD defining the technical specifications of integrating with the central system for the following systems:

– IRMA.

iRCMS Segment.

RECAP (back-end server).

Any other relevant national system.

Concerning the storage of data, the following is assumed:

– CIR stores the RRR identity data, consisting of personal alphanumeric data & the binary biometric data.

The new Central database stores the rest of the RRR data.

sBMS stores the biometric templates of the RRR biometric data to facilitate searching and verification.

MID stores links between the identity data of RRR and other eu-LISA core business systems.

CRRS stores the RRR reporting and statistics data.

Infrastructure assumptions

Table 29 - Hardware assumptions (Policy option 3)

Resource	Value
eu-LISA Central Unit (primary site)	
Number of Environments (OpenShift clusters) Test, Pre-production, Production	3
Total nodes	19
Storage (TB) Includes the primary, backup, and snapshot/retention storage	130
eu-LISA Backup Central Unit (secondary site)	
Number of Environments (OpenShift clusters) Production	1
Size of the secondary site Based on the industry's best practices for hot disaster recovery, the secondary site is sized as a percentage of the primary one.	100%
Personnel for hardware installation & maintenance	
Number of FTEs for eu-LISA	5

Source: Digitalisation Study/eu-LISA

Development assumptions

Table 30 - Development assumptions (Policy option 3)

Resource	Value
EU central system with three separate modules for RRR	
Actors: Human and machine actors interact directly or indirectly with the system via a well-defined API, a user interface or a business process.	62

Resource	Value
Classification of actors (complex, average, simple)	70%, 27%, 3%
User Stories	545
Classification of user stories (complex, average, simple)	21%, 44%, 35%
Environmental Factor	1.1
Technical Complexity Factor	1.145
Ratio Hours of effort per Use Case Point	30
IRMA integration with the EU central system	
Actors	10
Classification of actors	60%, 20%, 20%
User Stories	50
Classification of user stories	20%, 50%, 30%
Environmental Factor	0.965
Technical Complexity Factor	1.065
Ratio	20
RECAP integration with the EU central system	
Actors	6
Classification of actors	33%, 50%, 17%
User Stories	35
Classification of user stories	14%, 57%, 29%
Environmental Factor	1.1
Technical Complexity Factor	1.145
Ratio	25
iRCMS Segment integration with the EU central system	
Actors	4
Classification of actors	25%, 50%, 25%
User Stories	25
Classification of user stories	20%, 40%, 40%
Environmental Factor	1.16
Technical Complexity Factor	1.175
Ratio	25

Source: Digitalisation Study/eu-LISA

COST ITEMS PER POLICY OPTION

Option 1: Partially decentralised option without central EU database

Table 31 - Types of costs to be incurred per cost item (Policy option 1)

CI	Name	Stakeholder	Infrastructure	Development
1	Development of RECAMAS Model and reference implementation; development and hosting of iRCMS and RIAT modules	Frontex	X	X
2	Development of new National RECAMAS	Member State	X	X
3	Integration of existing National RECAMAS	Member State	X	X
4	Integration of other relevant national systems with the RRR system	Member State		X
5	IRMA integration with the RRR system	Frontex		X
6	RECAP integration with the RRR system	Frontex		X
7	iRCMS Segment integration with the RRR system	Frontex		X
8	ESP updates to support RRR Queries	eu-LISA	X	X
9	CIR/MID capacity upgrade to support RRR Queries	eu-LISA	X	X
10	sBMS capacity upgrade to support RRR Queries	eu-LISA	X	X
11	SIS updates to support RRR Queries and automate the creation of return alerts	eu-LISA	X	X
12	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade to support RRR Queries	eu-LISA	X	X
13	CRRS integration with RECAMAS/iRCMS/RIAT	eu-LISA	X	X
14	Secure Communication Channel	eu-LISA	X	X
15	Advisory and technical support	eu-LISA		X
16	Administrative and governance related costs	Commission		X

Source: Digitalisation Study/eu-LISA

Table 32 - Overview of operational tasks to be delivered per cost item (Option 1)

CI	Operational tasks to be delivered
1	iRCMS and RIAT modules – RECAMAS reference implementation • Development of fully operable modules for readmission and reintegration. • Development of the return reference implementation. • Development of the web interface for national end-users. • Development of the APIs for external system-to-system communication. • Development of the integration with ESP.

CI	Operational tasks to be delivered
	• Development of the integration with the asynchronous secure communication channel with other Member States. • Migration from the pre-existing national systems. • Infrastructure provisioning for hosting readmission and reintegration.
2	Development of new National RECAMAS • Development of a fully operable RECAMAS by adapting the RECAMAS reference implementation or using the RECAMAS Model as a basis. • Infrastructure provisioning for hosting the national return system.
3	Integration of existing National RECAMAS • Development of the integration with the EU modules for readmission and reintegration. • Infrastructure upgrade for the existing national return system.
4	Integration of other relevant national systems with the RRR system • Development of the integration based on the API provided by the RRR system.
5	IRMA integration with the RRR system • Development of the IRMA integration with the RRR system.
6	RECAP integration with the RRR system • Development of the RECAP integration with the RRR system.
7	iRCMS Segment integration with the RRR system • Development of the integration with the RRR system.
8	ESP updates to support RRR, including possible CIR/MID updates: • Updates on ESP for RRR integration (queries), including possible ESP ICD updates. • Infrastructure capacity upgrade to accommodate the increased integration traffic.
9	CIR/MID capacity upgrade to support RRR • Infrastructure and network capacity upgrade to accommodate for the increased query load.
10	sBMS capacity upgrade to support RRR • Infrastructure capacity upgrade to accommodate for the increased query load.
11	SIS updates to support RRR • Development of the integration with RRR, including possible SIS ICD updates. • Infrastructure capacity upgrade to accommodate for the increased query load.
12	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade to support RRR

CI	Operational tasks to be delivered
	• Infrastructure capacity upgrade to accommodate for the increased query load.
13	CRRS updates to support RRR reports and statistics • Updates on the CRRS schema to support the RRR data structures. • Development of a new CRRS modules for consuming RRR data from Member States and Frontex. • KPI generation, Business intelligence setup, dashboards, EU reporting (COM/FX/MS), visualisation. • Infrastructure capacity upgrade to accommodate for the increased integration load. • Updates to the Interoperability Regulation to allow the integration of CRRS and RRR.
14	Creation of a secure communication channel for sharing additional information between Member States • A secure communication channel will be set up by eu-LISA, based on existing technologies (e.g. SIRENE, DublinNet, VIS Mail). • Security monitoring, management and maintenance of the applications and infrastructure
15	Advisory and technical support: • Provide expertise on the development and management of IT systems. • Provide expertise on contract management.
16	Administrative and operational support • Coordination, monitoring and reporting on the project development. • Preparation of the necessary secondary legislation.

Source: Digitalisation Study/eu-LISA

Option 2: Partially decentralised option with central EU database

Table 33 - Types of costs to be incurred per cost item (Option 2)

CI	Name	Stakeholder	Infrastructure	Development
1	iRCMS and RIAT modules – RECAMAS reference implementation – EU Central database	eu-LISA	X	X
2	Development of new National RECAMAS	Member State	X	X
3	Integration of existing National RECAMAS	Member State	X	X
4	Integration of other relevant national systems with the RRR system	Member State		X
5	IRMA integration with the RRR system	Frontex		X
6	RECAP integration with the RRR system	Frontex		X
7	iRCMS Segment integration with the RRR system	eu-LISA		X
8	ESP updates to support RRR	eu-LISA	X	X
9	CIR/MID updates to support RRR identity data	eu-LISA	X	X

CI	Name	Stakeholder	Infrastructure	Development
10	CRRS updates to support RRR reports and statistics	eu-LISA	X	X
11	sBMS updates to support RRR biometrics	eu-LISA	X	X
12	SIS updates to support RRR	eu-LISA	X	X
13	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade to support RRR	eu-LISA	X	
14	Administrative costs	Commission		X

Source: Digitalisation Study/eu-LISA

Table 34 - Overview of operational tasks to be delivered per cost item (Policy option 2)

CI	Operational tasks to be delivered
1	iRCMS and RIAT modules – RECAMAS reference implementation – EU Central database • Development of fully operable modules for readmission and reintegration. • Development of the RECAMAS reference implementation. • Development of the APIs for external system-to-system communication. • Development of the integration with ESP (for queries and notifications). • Development of the integration with the Central database (for commands). • Migration from the pre-existing national systems. • Development of the EU central database to maintain the RRR data. • Development of the APIs for integration with the ESP, CIR, MID, CRRS and any other required eu-LISA core business system. • Infrastructure and network provisioning.
2	Development of new National RECAMAS • Development of a fully operable RECAMAS by adapting the RECAMAS reference implementation or using the RECAMAS Model as a basis. • Infrastructure provisioning for hosting the national return system.
3	Integration of existing National RECAMAS • Development of the integration with the EU modules for readmission and reintegration. • Infrastructure upgrade for the existing national return system.
4	Integration of other relevant national systems with the RRR system • Development of the integration based on the API provided by the RRR system.
5	IRMA integration with the RRR system • Development of the IRMA integration with the RRR system.

CI	Operational tasks to be delivered
6	RECAP integration with the RRR system • Development of the RECAP integration with the RRR system.
7	iRCMS Segment integration with the RRR system • Development of the integration with the RRR system.
8	ESP updates to support RRR • Updates on ESP for RRR integration (queries). • Infrastructure and network capacity upgrade to accommodate the increased integration traffic.
9	CIR/MID capacity upgrade to support RRR • Updates on CIR to support the new RRR data structures. • Updates on CIR to support the new RRR queries, CUD commands, and notifications. • Updates on MID to incorporate RRR into its matching algorithms. • Infrastructure and network capacity upgrade to accommodate for the increased query load.
10	CRRS updates to support RRR reports and statistics • Updates on the CRRS schema to support the RRR data structures. • Development of a new CRRS Connector for the EU central database. KPI generation, Business intelligence setup, dashboards, EU reporting (COM/FX/MS), visualisation. • Infrastructure capacity upgrade to accommodate for the increased integration load. • Updates to the Interoperability Regulation to allow the integration of CRRS and RRR.
11	sBMS capacity upgrade to support RRR • Updates on sBMS to support the RRR biometrics. • Infrastructure capacity upgrade to accommodate for the increased query load.
12	SIS updates to support RRR • Development of the integration with RRR, including possible SIS ICD updates. • Infrastructure capacity upgrade to accommodate for the increased query load.
13	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade to support RRR • Infrastructure capacity upgrade to accommodate for the increased query load.

CI	Operational tasks to be delivered
14	Administrative and operational support • Coordination, monitoring and reporting on the project development. • Preparation of the necessary secondary legislation.

Source: Digitalisation Study/eu-LISA

Option 3: Centralised system

Table 35 - Types of costs to be incurred per cost item (Policy option 3)

CI	Name	Stakeholder	Infrastructure	Development
1	Integration of other relevant national systems with the EU central system	Member State	X	X
2	IRMA integration with the EU central system	Frontex		X
3	RECAP integration with the EU central system	Frontex		X
4	iRCMS Segment integration with the EU central system	eu-LISA		X
5	EU central system with three separate modules for RRR	eu-LISA	X	X
6	ESP updates to support RRR	eu-LISA	X	
7	CIR-MID updates to support RRR identity data	eu-LISA	X	X
8	CRRS updates to support RRR reports and statistics	eu-LISA	X	X
9	sBMS updates to support RRR biometrics	eu-LISA	X	X
10	SIS updates to automate the issuance of return alerts	eu-LISA	X	X
11	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade	eu-LISA	X	
12	Administrative costs	Commission		X

Source: Digitalisation Study/eu-LISA

Table 36 - Overview of operational tasks to be delivered per cost item (Policy option 3)

CI	Operational tasks to be delivered
1	Integration of other relevant national systems with the EU central system • Development (design/implementation/testing) of the integration with the central system. • Provision of the network infrastructure from the national system to the national access point. • Configuration of the national access point to support traffic from the national system in terms of security, routing and switching.

CI	Operational tasks to be delivered
	• Verification of the interconnection between the national access point and the backbone network (TESTA). • Ensure the high availability of the primary and secondary national interfaces after the traffic increase due to the national system integration with eu-LISA.
2	IRMA integration with the EU central system • Development (design/implementation/testing) of the IRMA integration with the central system. • All network-related tasks previously defined for Cost Item #1 apply.
3	RECAP integration with the EU central system • Development (design/implementation/testing) of the RECAP integration with the central system.
4	iRCMS Segment integration with the EU central system • Development (design/implementation/testing) of integrating third-country systems with the central system.
5	EU central system with three separate modules for RRR • Design and development of a new Central System according to the established eu-LISA engineering framework. • Design and development of the EU central database to maintain the RRR data and support the activities of the three modules. • Migration from the national systems. • Development of the Central System web interface. • Development of the APIs for external system-to-system communication via TESTA. • Development of the APIs for external system-to-system communication via the Internet Zone. • Development of the APIs for integration with the ESP, CIR, MID, CRRS and any other required eu-LISA core business system. • Infrastructure and network provisioning: backup and disaster recovery, observability and monitoring, security infrastructure (VPN, firewalls, encryption, etc.).
6	ESP updates to support RRR • Updates on ESP for RRR integration (queries, notifications to and from RRR Central System, etc.) • Infrastructure and network capacity upgrade to accommodate the increased integration traffic. • Updates to the Interoperability Regulation to allow the integration of ESP and RRR.

CI	Operational tasks to be delivered
7	CIR-MID updates to support RRR identity data • Updates on CIR to support the new RRR data structures. • Updates on CIR to support the new RRR queries, CUD commands, and notifications. • Updates on MID to incorporate RRR into its matching algorithms. • Infrastructure and network capacity upgrade to accommodate for the integration increased load. • Updates to the Interoperability Regulation to allow the integration of CIR and RRR.
8	CRRS updates to support RRR reports and statistics • Updates on the CRRS DB schema to support the data structures of the new RRR data. • Development of a new CRRS Connector for the RRR Central System. • KPI generation, Business intelligence setup, dashboards, EU reporting (COM/FX/MS), visualisation. • Infrastructure capacity upgrade to accommodate for the increased integration load. • Updates to the Interoperability Regulation to allow the integration of CRRS and RRR.
9	sBMS updates to support RRR biometrics • Updates on sBMS to support the RRR biometrics. • Infrastructure capacity upgrade to accommodate for the increased integration load.
10	SIS updates to automate the issuance of return alerts • Development of the integration with RRR. • Infrastructure capacity upgrade to accommodate for the increased integration load.
11	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade • Infrastructure capacity upgrade to accommodate for the increased queries load.
12	Administrative and operational support • Coordination, monitoring and reporting on the project development. • Preparation of the necessary secondary legislation.

Source: Digitalisation Study/eu-LISA

COST ESTIMATION PER OPTION

Overview of costs per stakeholder and policy option

Table 37 - Overview of costs per stakeholder and policy option

	Minimum (in million EUR)	Maximum (in million EUR)
Policy option 1		
Member States	422.04	537.14
Sunk Costs ([155])	0.00	0.00
Frontex	127.71	162.54
eu-LISA	30.13	50.30
Commission	2.51	3.19
Total	**582.39**	**753.17**
Policy option 2		
Member States	422.04	537.14
Sunk Costs ([156])	0.00	0.00
Frontex	10.84	13.79
eu-LISA	264.91	337.16
Commission	2.51	3.19
Total	**700.30**	**891.28**
Policy option 3		
Member States	42.41	53.98
Sunk Costs ([157])	689.194	877.156
Frontex	10.84	13.79
eu-LISA	170.57	217.08
Commission	2.51	3.19
Total	**226.33**	**288.04**

Source: Digitalisation Study/eu-LISA

([155]) Sunk costs in Option 1 are considered negligible as the policy option build on the existing case management systems at national level. Not added to the total costs of the option, only included for comparison purposes.

([156]) Sunk costs in Option 2 are considered negligible as the policy option builds on the existing case management systems at national level. Not added to the total costs of the option, only included for comparison purposes.

([157]) Sunk costs in Option 3 are calculated as using the costs of developing the national RECAMAS. Under Option 3, Member States have to maintain and fund existing systems for a period of seven years until the centralised case management system enters into operation. The yearly maintenance costs are estimated at 30% of the total infrastructure costs of national RECAMAS [costs items 2 and 3], as estimated under Option 1 (30% of EUR 11.05 EUR = EUR 3.32 million). The sunk costs are calculated by multiplying the yearly maintenance costs per Member State, by seven years of development and by 27 Member States (3.32x7x27= EUR 626.54 million).

Option 1: Partially decentralised option with central EU database

Total costs per stakeholder and per cost item

The following table provides the estimated minimum and maximum total costs, i.e. the total infrastructure and development costs inflated with contingency factors (i.e. 110% for the minimum and 140% for the maximum scenario).

Table 38 – Total minimum and maximum costs of Policy option 1 per type of stakeholder

Type of stakeholder	Minimum (in million EUR)	Maximum (in million EUR)
27 Member States ([158])	422.04	537.14
Sunk Costs ([159])	0.00	0.00
Frontex	127.71	162.54
eu-LISA	30.13	50.30
Commission	2.51	3.19
Total	**582.39**	**753.17**

Source: Digitalisation Study ([160])/eu-LISA

Table 39 – Total infrastructure and development costs of Policy option 1 per type of stakeholder

Type of stakeholder	Infrastructure (in million EUR)	Development (in million EUR)	Total (in million EUR)
1 Member State	11.05	13.21	24.26
Frontex	9.49	106.61	116.1
eu-LISA	8.54	27.39	35.93
Commission	0	2.28	2.28
Total	**29.08**	**149.49**	**178.57**

Source: Digitalisation Study ([161])/eu-LISA

([158]) Assuming that 10 Member States decide to retain their own RECAMAS but must expand their infrastructure capacity and develop an integration with the Frontex-provided modules.

([159]) Sunk costs in Option 1 are considered negligible as the policy option build on the existing case management systems at national level. Not added to the total costs of the option, only included for comparison purposes.

([160]) Digitalisation Study, Table 77.

([161]) Digitalisation Study, Table 78.

Breakdown of total costs

Table 40 - Breakdown of total costs of Policy option 1

#	Description	Incurred By	Cost Type	One-off (2 years) (in million EUR)	Ongoing (6 years) (in million EUR)	Total (in million EUR)
1	Development of RECAMAS Model and reference implementation; development and hosting of iRCMS and RIAT modules	Frontex	Infrastructure	3.32	6.17	102.67
			Development	33.28	59.90	
2	Development of new National RECAMAS	Member State	Infrastructure	3.10	5.74	16.69
			Development	2.81	5.05	
3	Integration of existing National RECAMAS	Member State	Infrastructure	0.78	1.43	6.14
			Development	1.40	2.52	
4	Integration of other relevant national systems with the RRR system	Member State	Infrastructure	0.00	0.00	1.43
			Development	0.51	0.92	
5	IRMA integration with the RRR system	Frontex	Infrastructure	0.00	0.00	5.01
			Development	1.79	3.22	
6	RECAP integration with the RRR system	Frontex	Infrastructure	0.00	0.00	4.84
			Development	1.73	3.11	
7	iRCMS Segment integration with the RRR system	Frontex	Infrastructure	0.00	0.00	3.58
			Development	1.28	2.304	
8	ESP updates to support RRR Queries	eu-LISA	Infrastructure	0.50	0.92	1.87
			Development	0.18	0.27	
9	CIR/MID capacity upgrade to support RRR Queries	eu-LISA	Infrastructure	0.50	0.92	1.87
			Development	0.18	0.27	
10	sBMS capacity upgrade to support RRR Queries	eu-LISA	Infrastructure	0.50	0.92	1.87
			Development	0.18	0.27	

#	Description	Incurred By	Cost Type	One-off (2 years) (in million EUR)	Ongoing (6 years) (in million EUR)	Total (in million EUR)
11	SIS updates to support RRR Queries and automate the creation of return alerts	eu-LISA	Infrastructure	0.17	0.31	4.68
			Development	1.5	2.70	
12	EES. Eurodac. VIS. ETIAS. ECRIS-TCN capacity upgrade to support RRR Queries	eu-LISA	Infrastructure	0.83	1.54	6.57
			Development	1.5	2.70	
13	CRRS integration with RECAMAS/iRCMS/RIAT ([162])	eu-LISA	Infrastructure	0.50	0.92	2.30
			Development	0.35	0.53	
14	Secure Communication Channel ([163])	eu-LISA	Infrastructure ([164])	0.00	0.00	14.56
			Development	5.20	9.36	
15	Advisory and technical support	eu-LISA	Infrastructure	0.00	0.00	
			Development	0.00	2.20	2.20
16	Administrative costs	Commission	Infrastructure	0.00	0.00	2.28
			Development	0.00	2.28	

Source: Digitalisation Study ([165])/eu-LISA

Infrastructure costs

Table 41 - Total infrastructure one-off costs for Member States (Policy option 1)

Component	Cost (in million EUR)
Member State Hardware Acquisition Cost	0.61

([162]) To minimise the costs relating to ICD, the CRRS could be connected to the uniformised iRCMS and RIAT (which will be embedded in national RECAMAS). For this reason, this cost item is identical to that under Option 2 and 3 (where the CRRS would be connected to the new EU central database).

([163]) The costs estimate for the development of the secure communication channel are based on 'Policy Option 2: Strategic Revitalisation', described in the Feasibility study on options to innovate the exchange of supplementary information on alerts processed in the Schengen Information System (SIS), dated 22 March 2024.

([164]) Infrastructure costs are estimated at zero under the assumption that a preexisting channel (e.g. SIRENE, DublinNet, VIS Mail) is used as the basis for the development.

([165]) Digitalisation Study, Table 79.

Component	Cost (in million EUR)
Member State Software and Licensing Acquisition Cost	0.17
Member State Installation Labour Cost	0.22
Member State Data Centre Cost	2.10
Total	3.10

Source: Digitalisation Study/eu-LISA

Each Member State infrastructure recurrent costs are calculated as a fraction of the one-off costs, as follows:

Table 42 - Total infrastructure ongoing costs for Member States (Policy option 1)

Component	Number of years	Factor	Base Cost (in million EUR)	Total Cost (in million EUR)
Member State hardware maintenance	6	10%	0.61	0.37
Member State software support and licensing renewal	6	30%	0.17	0.30
Member State maintenance labour	6	100%	0.22	1.35
Member State data centre maintenance	6	20%	3.10	3.72
Total				5.74

Source: Digitalisation Study ([166])/eu-LISA

Development costs

Table 43 - Development one-off costs (Policy option 1)

CI	Description	Incurred by	Rate (in EUR)	Man days	Total (in million EUR)
1	iRCMS and RIAT modules – RECAMAS reference implementation	Frontex	640	52 000	33.28
2	Development of new National RECAMAS	Member State	340	8 250	2.81
3	Integration of existing National RECAMAS	Member State	340	4 125	1.40
4	Integration of other relevant national systems with the RRR system	Member State	340	1 500	0.51
5	IRMA integration with the RRR system	Frontex	640	2 800	1.79
6	RECAP integration with the RRR system	Frontex	640	2 700	1.73
7	iRCMS Segment integration with the RRR system	Frontex	640	2 000	1.28
8	ESP updates to support RRR	eu-LISA	800	220	0.18

([166]) Digitalisation Study, Table 87.

CI	Description	Incurred by	Rate (in EUR)	Man days	Total (in million EUR)
9	CIR/MID capacity upgrade to support RRR	eu-LISA	800	220	0.18
10	sBMS capacity upgrade to support RRR	eu-LISA	800	220	0.18
11	SIS updates to support RRR	eu-LISA	800	1 875	1.50
12	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade to support RRR	eu-LISA	800	1 875	1.50
13	CRRS integration with RECAMAS/iRCMS/RIAT	eu-LISA	800	440	0.35
14	Secure Communication Channel	eu-LISA	800	6 500	5.2

Source: Digitalisation Study ([167])/eu-LISA

The ongoing development costs are calculated as a percentage of the one-off development cost per cost item.

Table 44 - Development recurrent costs (Policy option 1)

CI	Description	Incurred By	Maintenance effort (%)	Man days/per year	Total per Year (in million EUR)	Total for 6 years (in million EUR)
1	iRCMS and RIAT modules – RECAMAS reference implementation	Frontex	30%	15 600	9.98	59.90
2	National RECAMAS	Member State	30%	2 475	0.84	5.05
3	Integration of existing National RECAMAS	Member State	30%	1 237.5	0.42	2.52
4	Integration of other relevant national systems with the RRR system	Member State	30%	450	0.14	0.92
5	IRMA integration with the RRR system	Frontex	30%	500	0.54	3.22
6	RECAP integration with the RRR system	Frontex	305%	840	0.52	3.11
7	iRCMS Segment integration with the RRR system	Frontex	30%	810	0.38	2.30
8	ESP updates to support RRR	eu-LISA	30%	66	0.04	0.27
9	CIR/MID capacity upgrade to support RRR	eu-LISA	30%	66	0.04	0.27

([167]) Digitalisation Study, Table 88.

CI	Description	Incurred By	Maintenance effort (%)	Man days/per year	Total per Year (in million EUR)	Total for 6 years (in million EUR)
10	sBMS capacity upgrade to support RRR	eu-LISA	30%	66	0.04	0.27
11	SIS updates to support RRR	eu-LISA	30%	562.50	0.45	2.70
12	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade to support RRR	eu-LISA	30%	562.50	0.45	2.70
13	CRRS integration with RECAMAS/iRCMS/RIAT	eu-LISA	30%	132	0.09	0.53
14	Secure communication channel ([168])	eu-LISA	30%	1 950	1.56	9.36
15	Advisory and technical support	eu-LISA	100%	562	0.36	2.20
16	Administrative Costs	European Commission	100%	n.a. ([169])	0.38 ([170])	2.28

Source: Digitalisation Study ([171])/eu-LISA

EU and Member States staff costs

Table 45 – Staff costs (Policy option 1)

Staff costs	Member State	Frontex	eu-LISA	Commission
Infrastructure one-off and recurrent costs	3 FTEs (per MS) ([172])	5 FTEs ([173])	3 FTEs	n/a
Development one-off costs	Outsourced ([175])	Outsourced ([176])	7.74 ([177])	n/a

([168]) Estimation based on the Feasibility study on options to innovate the exchange of supplementary information on alerts processed in the Schengen Information System.

([169]) The total annual average cost of an official is estimated at €194 000. The administrative costs for the European Commission are based on the Impact Assessment Report Accompanying the document proposal for a Regulation of the European Parliament and the Council establishing an EU Talent Pool (SWD/2023/717 final) and estimated at 2 FTE.

([170]) The cost is estimated as the annual average costs of an official multiplied by 2 FTEs.

([171]) Digitalisation Study, Table 89.

([172]) Please refer to Table 23.

([173]) Please refer to Table 24.

([175]) Please refer to Table 43.

([176]) Please refer to Table 43.

([177]) Please refer to Table 43.

Staff costs	Member State	Frontex	eu-LISA	Commission
(per year) ([174])				
Development recurrent costs (per year), assuming 70% of the development recurrent costs are outsourced and 30% are managed internally.	5.67 FTE ([178])	24.20 FTEs ([179])	5.41 FTE ([180])	n/a
Transition to operations and automation needs	2 FTE	2 FTE	1 FTE	n/a
Operational needs	3 FTE	3 FTE	1 FTE	n/a
Corporate needs (10% of the total staffing needs)	1.76 FTE	3.82 FTE	2.01 FTE	n/a
Security related activities	2 FTE	2 FTE	1 FTE	n/a
Governance and business analysis	2 FTE	2 FTE	1 FTE	2 FTE ([181])
Total ([182])	20 (19.43) FTEs	43 (42.02) FTEs	23 (22.16) FTE	2 FTE

Source: Own elaboration/eu-LISA

Option 2: Partially decentralised option with central EU database

Total costs per stakeholder and per cost item

The following table provides the estimated minimum and maximum total costs, i.e. the total infrastructure and development costs inflated with contingency factors (i.e. 110% for the minimum and 140% for the maximum scenario).

([174]) eu-LISA implemented a SoFa (Software Factory) model, requiring at least a 30% of the estimated FTEs to be considered as staff. Member States and Frontex do not follow the same strategy.

([178]) Please refer to Table 44. Calculations based on 10% of the man/days i.e. 416.25 man/days. Standard man/days per FTE = 220 days. Number of FTEs obtained by dividing total man/days (416.25) by man/days per FTE (220).

([179]) Please refer to Table 44. Calculations based on 10% of the man/days i.e. 1 487.5 man/days. Standard man/days per FTE = 220 days. Number of FTEs obtained by dividing total man/days (1 487.5) by man/days per FTE (220).

([180]) Please refer to Table 44. Calculations based on 10% of the man/days i.e. 316.4 man/days. Standard man/days per FTE = 220 days. Number of FTEs obtained by dividing total man/days (316.4) by man/days per FTE (220).

([181]) The administrative costs for the European Commission are based on the Impact Assessment Report Accompanying the document proposal for a Regulation of the European Parliament and the Council establishing an EU Talent Pool (SWD/2023/717 final).

([182]) In the total section, the number of FTE has been rounded to the next whole number.

Table 46 – Total minimum and maximum costs of Policy option 2 per type of stakeholder

Type of stakeholder	Minimum (in million EUR)	Maximum (in million EUR)
27 Member States ([183])	422.04	537.14
Sunk Costs ([184])	0.00	0.00
Frontex	10.84	13.79
eu-LISA	264.91	337.16
Commission	2.51	3.19
Total	**700.30**	**891.28**

Source: Digitalisation Study ([185])/eu-LISA

Table 47 - Total infrastructure and development costs of Policy option 2 per type of stakeholder

Type of stakeholder	Infrastructure (in million EUR)	Development (in million EUR)	Total (in million EUR)
1 Member State	11.05	13.21	24.26
Frontex	0	9.85	9.85
eu-LISA	26.28	214.55	240.83
Commission	0	2.28	2.28
Total	**37.33**	**239.89**	**274.94**

Source: Digitalisation Study ([186])/eu-LISA

Breakdown of total costs

Table 48 - Breakdown of total costs of Policy option 2

CI	Description	Incurred By	Cost Type	One-off (3 years) (in million EUR)	Ongoing (6 years) (in million EUR)	Total (in million EUR)
1	iRCMS and RIAT modules – RECAMAS reference implementation	eu-LISA	Infrastructure	3.32	6.17	125.97
			Development	41.60	74.88	
2			Infrastructure	3.10	5.74	16.69

([183]) Assuming that 10 Member States decide to retain their own RECAMAS but must expand their infrastructure capacity and develop an integration with the eu-LISA-provided modules.

([184]) Sunk costs in Option 2 are considered negligible as the policy option build on the existing case management systems at national level. Not added to the total costs of the option, only included for comparison purposes.

([185]) Digitalisation Study, Table 90.

([186]) Digitalisation Study, Table 91.

CI	Description	Incurred By	Cost Type	One-off (3 years) (in million EUR)	Ongoing (6 years) (in million EUR)	Total (in million EUR)
	Development of new National RECAMAS	Member State	Development	2.81	5.05	
3	Integration of existing National RECAMAS	Member State	Infrastructure	0.78	1.43	6.14
			Development	1.40	2.52	
4	Integration of other relevant national systems with the RRR system	Member State	Infrastructure	0.00	0.00	1.43
			Development	0.51	0.92	
5	IRMA integration with the RRR system	Frontex	Infrastructure	0.00	0.00	5.01
			Development	1.79	3.22	
6	RECAP integration with the RRR system	Frontex	Infrastructure	0.00	0.00	4.84
			Development	1.73	3.11	
7	iRCMS Segment integration with the RRR system	eu-LISA	Infrastructure	0.00	0.00	4.48
			Development	1.60	2.88	
8	Central EU database	eu-LISA	Infrastructure	3.32	6.17	92.37
			Development	29.60	53.28	
9	ESP updates to support RRR	eu-LISA	Infrastructure	0.50	0.92	1.90
			Development	0.18	0.30	
10	CIR/MID updates to support RRR identity data	eu-LISA	Infrastructure	0.50	0.92	2.40
			Development	0.35	0.63	
11	CRRS updates to support RRR reports and statistics	eu-LISA	Infrastructure	0.50	0.92	2.40
			Development	0.35	0.63	
12	sBMS updates to support RRR biometrics	eu-LISA	Infrastructure	0.50	0.92	1.92
			Development	0.18	0.32	
13		eu-LISA	Infrastructure	0.17	0.31	4.68

CI	Description	Incurred By	Cost Type	One-off (3 years) (in million EUR)	Ongoing (6 years) (in million EUR)	Total (in million EUR)
	SIS updates to support RRR		Development	1.50	2.70	
14	EES. Eurodac. VIS. ETIAS. ECRIS-TCN capacity upgrade to support RRR	eu-LISA	Infrastructure	0.83	0.31	5.34
			Development	1.50	2.70	
15	Administrative costs	Commission	Infrastructure	0.00	0.00	2.28
			Development	0.00	2.28	

Source: Digitalisation Study ([187])/eu-LISA

Infrastructure costs

Table 49 - Total infrastructure one-off costs (Policy option 2, MS)

Component	Cost (in million EUR)
Member State hardware acquisition cost	0.61
Member State software and licensing acquisition cost	0.17
Member State installation labour cost	0.22
Member State data centre cost	2.10
Total	**3.10**

Source: Digitalisation Study ([188])/eu-LISA

Table 50 - Total infrastructure one-off costs (Policy option 2, eu-LISA)

Component	Cost (in million EUR)
eu-LISA hardware acquisition	1.69
eu-LISA software and licensing acquisition	1.10
eu-LISA installation labour	0.53
Total	**3.32**

([187]) Digitalisation Study, Table 92.

([188]) Digitalisation Study, Table 93.

Source: Digitalisation Study ([189])/eu-LISA

Table 51 - Total infrastructure ongoing costs (Policy option 2, MS)

Component	Number of years	Factor	Base Cost (in million EUR)	Total Cost (in million EUR)
Member State hardware maintenance	6	10%	0.61	0.37
Member State software support and licensing renewal	6	30%	0.17	0.30
Member State maintenance labour	6	100%	0.22	1.35
Member State data centre maintenance	6	20%	3.10	3.72
			Total	**5.74**

Source: Digitalisation Study ([190])/eu-LISA

Table 52 - Total infrastructure ongoing costs (Policy option 2, eu-LISA)

Component	Number of years	Factor	Base Cost (in million EUR)	Total Cost (in million EUR)
eu-LISA hardware maintenance	6	10%	1.69	1.02
eu-LISA software support and licensing renewal	6	30%	1.10	1.98
eu-LISA maintenance labour	6	100%	0.53	3.17
			Total	**6.17**

Source: Digitalisation Study ([191])/eu-LISA

Development costs

Table 53 - Development one-off costs (Policy option 2)

CI	Description	Incurred By	Rate	Man days	Total (In million EUR)
1	iRCMS and RIAT modules – RECAMAS reference implementation (development)	eu-LISA	800	52 000	41.60
2	Development of new National RECAMAS	Member State	340	8 250	2.81
3	Integration of existing National RECAMAS	Member State	340	4 125	1.40

([189]) Digitalisation Study, Table 101.

([190]) Digitalisation Study, Table 100.

([191]) Digitalisation Study, Table 106.

CI	Description	Incurred By	Rate	Man days	Total (In million EUR)
4	Integration of other relevant national systems with the RRR system	Member State	340	1 500	0.51
5	IRMA integration with the RRR system	Frontex	640	2 800	1.79
6	RECAP integration with the RRR system	Frontex	640	2 700	1.73
7	iRCMS Segment integration with the RRR system	eu-LISA	800	2 000	1.60
8	Central EU database	eu-LISA	800	37 000	29.60
9	ESP updates to support RRR	eu-LISA	800	220	0.18
10	CIR/MID updates to support RRR identity data	eu-LISA	800	440	0.35
11	CRRS updates to support RRR reports and statistics	eu-LISA	800	440	0.35
12	sBMS updates to support RRR biometrics	eu-LISA	800	220	0.18
13	SIS updates to support RRR	eu-LISA	800	1875	1.50
14	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade to support RRR	eu-LISA	800	1875	1.50

Source: Digitalisation Study ([192])/eu-LISA

Recurrent costs

The ongoing development costs are calculated as a percentage of the one-off development cost per cost item.

Table 54 - Development recurrent costs (Policy option 2)

CI	Description	Incurred By	Maintenance effort	Man days/per year	Total per Year (In million EUR)	Total for 6 years (In million EUR)
1	RRR system with three separate modules for return, readmission and reintegration (development)	eu-LISA	30%	13 000	12.48	74.88
2	RRR system with three separate modules for return, readmission and reintegration (infrastructure)	Member State	30%	2 475	0.84	5.05
3	Integration of existing National RECAMAS with iRCMS/RIAT	Member State	30%	1 237.50	0.42	2.52
4	Integration of other relevant national systems with the RRR system	Member State	30%	450	0.14	0.92

([192]) Digitalisation Study, Table 107.

CI	Description	Incurred By	Maintenance effort	Man days/per year	Total per Year (In million EUR)	Total for 6 years (In million EUR)
5	IRMA integration with the RRR system	Frontex	30%	840	0.54	3.22
6	RECAP integration with the RRR system	Frontex	30%	810	0.52	3.11
7	iRCMS Segment integration with the RRR system	eu-LISA	30%	600	0.48	2.88
8	Central EU database	eu-LISA	30%	11 100	8.88	53.28
9	ESP updates to support RRR	eu-LISA	30%	66	0.05	0.30
10	CIR/MID updates to support RRR identity data	eu-LISA	30%	132	0.10	0.63
11	CRRS updates to support RRR reports and statistics	eu-LISA	30%	132	0.10	0.63
12	sBMS updates to support RRR biometrics	eu-LISA	30%	66	0.05	0.32
13	SIS updates to support RRR	eu-LISA	30%	562.5	0.45	2.70
14	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade to support RRR	eu-LISA	30%	562.5	0.45	2.70
15	Administrative costs	Commission	100%	n.a. ([193])	0.38 ([194])	2.28

Source: Digitalisation Study ([195])/eu-LISA

EU and Member States' staff costs

Table 55 – Staff costs (Policy option 2)

Staff costs	Member State	Frontex	eu-LISA	Commission
Infrastructure one-off and recurrent costs	3 FTEs (per MS) ([196])	1 FTE	5 FTEs ([197])	n/a

([193]) The total annual average cost of an official is estimated at EUR 194 000. The administrative costs for the European Commission are based on the Impact Assessment Report Accompanying the document proposal for a Regulation of the European Parliament and the Council establishing an EU Talent Pool (SWD(2023) 717 final) and estimated at 2 FTE.

([194]) The cost is estimated as the annual average costs of an official multiplied by 2 FTEs.

([195]) Digitalisation Study, Table 108.

([196]) Please refer to Table 27**Error! Main Document Only.**.

([197]) Please refer to Table 26**Error! Main Document Only.**.

Staff costs	Member State	Frontex	eu-LISA	Commission
Development one-off costs (per year) ([198])	Outsourced ([199])	Outsourced ([200])	65.50 FTE ([201])	n/a
Development recurrent costs (per year), assuming 70% of the development recurrent costs are outsourced and 30% are managed internally.	5.68 FTE ([202])	2.25FTEs ([203])	35.75 FTEs ([204])	n/a
Transition to operations and automation needs	2 FTE	1 FTE	2 FTE	n/a
Operational needs	3 FTE	1 FTE	3 FTE	n/a
Corporate needs (10% of the total staffing needs)	1.76 FTE	0.73 FTE	11.52 FTE	n/a
Security related activities	2 FTE	1 FTE	2 FTE	n/a
Governance and business analysis	2 FTE	1 FTE	2 FTE	2 FTE ([205])
Total ([206])	20 (19.44) FTEs	8 (7.98) FTEs	127 (126.77) FTE	2 FTE

Source: Own elaboration/eu-LISA

([198]) eu-LISA implemented a SoFa (Software Factory) model, requiring at least a 30% of the estimated FTEs to be considered as staff. Member States and Frontex do not follow the same strategy.

([199]) Please refer to Table 53.

([200]) Please refer to Table 53**Error! Main Document Only.**.

([201]) Please refer to Table 53**Error! Main Document Only.**.

([202]) Please refer to Table 54**Error! Main Document Only.**.Calculations based on 10% of the man/days i.e. 416.25 man/days. Standard man/days per FTE = 220 days. Number of FTEs obtained by dividing total man/days (416.25) by man/days per FTE (220).

([203]) Please refer to Table 54**Error! Main Document Only.**.Calculations based on 10% of the man/days i.e. 137.5 man/days. Standard man/days per FTE = 220 days. Number of FTEs obtained by dividing total man/days (137.5) by man/days per FTE (220).

([204]) Please refer to Table 54**Error! Main Document Only.**.Calculations based on 10% of the man/days i.e. 2 315.5 man/days. Standard man/days per FTE = 220 days. Number of FTEs obtained by dividing total man/days (2 315.5) by man/days per FTE (220).

([205]) The administrative costs for the European Commission are based on the Impact Assessment Report Accompanying the document proposal for a Regulation of the European Parliament and the Council establishing an EU Talent Pool (SWD/2023/717 final).

([206]) In the total section, the number of FTE has been rounded to the next whole number.

Option 3: Centralised system

Total costs per stakeholder and per cost item

The following table provides the estimated minimum and maximum total costs, i.e. the total infrastructure and development costs inflated with contingency factors (i.e. 110% for the minimum and 140% for the maximum scenario).

Table 56 - Total minimum and maximum costs of Policy option 3 per type of stakeholder

Type of stakeholder	Minimum (in million EUR)	Maximum (in million EUR)
27 Member States (aggregated)	42.41	53.98
Sunk Costs ([207])	689.194	877.156
Frontex	10.84	13.79
eu-LISA	170.57	217.08
Commission	2.51	3.19
Total	**226.33**	**288.04**

Source: Digitalisation Study ([208])/eu-LISA

Table 57 – Total infrastructure and development costs of Policy option 3 per type of stakeholder

Type of stakeholder	Infrastructure (in million EUR)	Development (in million EUR)	Total (in million EUR)
1 Member State	0	1.43	1.43
Frontex	0	9.85	9.85
eu-LISA	18.03	137.03	155.06
Commission	0	2.28	2.28
Total	**18.03**	**150.59**	**168.62**

Source: Digitalisation Study ([209])/eu-LISA

([207]) Sunk costs in Option 3 are calculated as using the costs of developing the national RECAMAS. Under Option 3, Member States have to maintain and fund existing systems for a period of 7 years until the centralised case management system enters into operations. The yearly maintenance costs are estimated at a 30% of the total infrastructure costs of national RECAMAS [costs items 2 and 3], as estimated under Option 1 (30% of EUR 11.05 million = EUR 3.32 million). The sunken costs are calculated by using the yearly maintenance cost per member states, by 7 years of development and by 27 Member States (3.32x7x27=626.54 million EUR).

([208]) Digitalisation Study, Table 109.

([209]) Digitalisation Study, Table 110.

Breakdown of total costs

Table 58 - Breakdown of total costs of Policy option 3

CI	Cost item	Incurred by	Cost type	One-off (2.5 years) (in million EUR)	Ongoing (6 years) (in million EUR)	Total (in million EUR)
1	Integration of other relevant national systems with the EU central system	Member State ([210])	Infrastructure	0.00	0.00	1.43
			Development	0.51	0.92	
2	IRMA integration with the EU central system	Frontex	Infrastructure	0.00	0.00	5.01
			Development	1.79	3.22	
3	RECAP integration with the EU central system	Frontex	Infrastructure	0.00	0.00	4.84
			Development	1.73	3.11	
4	iRCMS Segment integration with the EU central system	eu-LISA	Infrastructure	0.00	0.00	4.48
			Development	1.60	2.88	
5	EU central system with three separate modules for RRR	eu-LISA	Infrastructure	3.32	6.17	125.97
			Development	41.60	74.88	
6	ESP updates to support RRR	eu-LISA	Infrastructure	0.50	0.92	1.92
			Development	0.18	0.32	
7	CIR/MID updates to support RRR identity data	eu-LISA	Infrastructure	0.50	0.92	2.40
			Development	0.35	0.63	
8	CRRS updates to support RRR reports and statistics	eu-LISA	Infrastructure	0.50	0.92	2.40
			Development	0.35	0.63	
9	sBMS updates to	eu-LISA	Infrastructure	0.50	0.92	1.92
			Development	0.18	0.32	

([210]) Refers to the costs incurred by one single Member States.

CI	Cost item	Incurred by	Cost type	One-off (2.5 years) (in million EUR)	Ongoing (6 years) (in million EUR)	Total (in million EUR)
	support RRR biometrics					
10	SIS updates to automate the issuance of return alerts	eu-LISA	Infrastructure	0.17	0.31	4.68
			Development	1.50	2.70	
11	EES. Eurodac. VIS. ETIAS. ECRIS-TCN capacity upgrade	eu-LISA	Infrastructure	0.83	1.54	6.57
			Development	1.50	2.70	
12	Administrative costs	Commission	Infrastructure	0.00	0.00	2.28
			Development	0.00	2.28	

Source: Digitalisation Study ([211])/eu-LISA

Infrastructure costs

Table 59 - Total infrastructure one-off cost (Policy option 3)

Component	Cost (in million EUR)
eu-LISA hardware acquisition	1.69
eu-LISA software and licensing acquisition	1.10
eu-LISA installation labour	0.53
Total	**3.32**

Source: Digitalisation Study ([212])/eu-LISA

Table 60 - Total infrastructure ongoing costs (Policy option 3)

Component	Number of years	Factor	Base Cost (in million EUR)	Total Cost (in million EUR)
eu-LISA hardware maintenance	6	10%	1.69	1.02
eu-LISA software support and licensing renewal	6	30%	1.10	1.98
eu-LISA maintenance labour	6	100%	0.53	3.17
			Total	**6.17**

Source: Digitalisation Study ([213])/eu-LISA

([211]) Digitalisation Study, Table 111.

([212]) Digitalisation Study, Table 112.

([213]) Digitalisation Study, Table 118.

Development costs

Table 61 - Development one-off costs (Policy option 3)

CI	Description	Incurred By	Rate (in EUR)	Man days	Total (in million EUR)
1	Integration of other relevant national systems with the EU central system	Member State	340	1 500	0.51
2	IRMA integration with the EU central system	Frontex	640	2 800	1.79
3	RECAP integration with the EU central system	Frontex	640	2 700	1.73
4	iRCMS Segment integration with the EU central system	eu-LISA	800	2 000	1.60
5	EU central system with three separate modules for RRR	eu-LISA	800	52 000	41.60
6	ESP updates to support RRR	eu-LISA	800	220	0.18
7	CIR/MID updates to support RRR identity data	eu-LISA	800	440	0.35
8	CRRS updates to support RRR reports and statistics	eu-LISA	800	440	0.35
9	sBMS updates to support RRR biometrics	eu-LISA	800	220	0.18
10	SIS updates to automate the issuance of return alerts	eu-LISA	800	1875	1.50
11	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade	eu-LISA	800	1875	1.50

Source: Digitalisation Study ([214])/eu-LISA

The ongoing development costs are calculated as a percentage of the one-off development cost per cost item.

Table 62 - Development recurrent costs (Policy option 3)

CI	Description	Incurred By	Maintenance effort (%)	Man days/per year	Total per Year (in million EUR)	Total for 6 years (in million EUR)
1	Integration of other relevant national systems with the EU central system	Member State	30%	450	0.15	0.92
2	IRMA integration with the EU central system	Frontex	30%	840	0.54	3.22
3	RECAP integration with the EU central system	Frontex	30%	810	0.52	3.11

([214]) Digitalisation Study, Table 119.

CI	Description	Incurred By	Maintenance effort (%)	Man days/per year	Total per Year (in million EUR)	Total for 6 years (in million EUR)
4	iRCMS Segment integration with the EU central system	eu-LISA	30%	600	0.48	2.88
5	EU central system with three separate modules for RRR	eu-LISA	30%	15 600	12.48	74.88
6	ESP updates to support RRR	eu-LISA	30%	66	0.05	0.32
7	CIR/MID updates to support RRR identity data	eu-LISA	30%	132	0.11	0.63
8	CRRS updates to support RRR reports and statistics	eu-LISA	30%	132	0.11	0.63
9	sBMS updates to support RRR biometrics	eu-LISA	30%	66	0.05	0.32
10	SIS updates to automate the issuance of return alerts	eu-LISA	30%	562.5	0.45	2.70
11	EES, Eurodac, VIS, ETIAS, ECRIS-TCN capacity upgrade	eu-LISA	30%	562.5	0.45	2.70
12	Administrative Costs	European Commission	100%	n.a. ([215])	0.38 ([216])	2.28

Source: Digitalisation Study ([217])/eu-LISA

EU and Member States staff costs

Table 63 – Staff costs (Policy option 3)

Staff costs	Member State	Frontex	eu-LISA	Commission
Infrastructure one-off and recurrent costs	1 FTE	1 FTE	5 FTEs ([218])	n/a
Development one-off costs (per year) ([219])	Outsourced ([220])	Outsourced ([221])	32.22 FTE ([222])	n/a

([215]) The total annual average cost of an official is estimated at €194 000. The administrative costs for the European Commission are based on the Impact Assessment Report Accompanying the document proposal for a Regulation of the European Parliament and the Council establishing an EU Talent Pool (SWD/2023/717 final) and estimated at 2 FTE.

([216]) The cost is estimated as the annual average costs of an official multiplied by 2 FTEs.

([217]) Digitalisation Study, Table 120.

([218]) Please refer to Table 29.

([219]) eu-LISA implemented a SoFa (Software Factory) model, requiring at least a 30% of the estimated FTEs to be considered as staff. Member States and Frontex do not follow the same strategy.

([220]) Please refer to Table 61.

([221]) Please refer to Table 61.

([222]) Please refer to Table 61.

Staff costs	Member State	Frontex	eu-LISA	Commission
Development recurrent costs (per year), assuming 70% of the development recurrent costs are outsourced and 30% are managed internally.	2.05 FTE ([223])	2.25 FTEs ([224])	24.17 FTEs ([225])	n/a
Transition to operations and automation needs	1 FTE	1 FTE	2 FTE	n/a
Operational needs	1 FTE	1 FTE	3 FTE	n/a
Corporate needs (10% of the total staffing needs)	0.70 FTE	0.73 FTE	7.14 FTE	n/a
Security related activities	1 FTE	1 FTE	3 FTE	n/a
Governance and business analysis	1 FTE	1 FTE	2 FTE	2 FTE ([226])
Total ([227])	8 (7.75) FTEs	8 (7.98) FTEs	79 (78.51) FTEs	2 FTE

Source: Own elaboration/eu-LISA

([223]) Please refer to Table 62.Calculations based on 10% of the man/days i.e. 45 man/days. Standard man/days per FTE = 220 days. Number of FTEs obtained by dividing total man/days (360) by man/days per FTE (220).

([224]) Please refer to Table 62.Calculations based on 10% of the man/days i.e. 187.5 man/days. Standard man/days per FTE = 220 days. Number of FTEs obtained by dividing total man/days (187.5) by man/days per FTE (220).

([225]) Please refer to Table 62. Calculations based on 10% of the man/days i.e. 1 340.5 man/days. Standard man/days per FTE = 220 days. Number of FTEs obtained by dividing total man/days (1340.5) by man/days per FTE (220).

([226]) The administrative costs for the European Commission are based on the Impact Assessment Report Accompanying the document proposal for a Regulation of the European Parliament and the Council establishing an EU Talent Pool (SWD/2023/717 final).

([227]) In the total section, the number of FTE has been rounded to the next whole number.