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EXECUTIVE SUMMARY OF THE EVALUATION

of

Directive 2013/29/EU of the European Parliament and of the Council of 12 June 2013

on the harmonisation of the laws of the Member States relating to the making available on the market of pyrotechnic articles (recast)

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1. Background

Directive 2013/29/EU on the harmonisation of the laws of the Member States relating to the making available on the market of pyrotechnic articles[1] (hereinafter 'the Pyrotechnics Directive' or 'the Directive') aims to achieve the **free movement of pyrotechnic articles** in the internal market while ensuring a **high level of protection of human health and safety of consumers** and taking into account the relevant aspects related to **environmental protection.** The Pyrotechnics Directive was adopted as a **recast of** Directive 2007/23/EC of the European Parliament and of the Council of 23 May 2007 on the placing on the market of pyrotechnic articles[2] (hereinafter 'the 2007 Directive'), aligning it to the New Legislative Framework (hereinafter 'NLF')[3] but leaving the sector-specific rules introduced in 2007 essentially untouched. Commission Implementing Directive 2014/58/EU complements the Pyrotechnics Directive by setting up a system for the traceability of pyrotechnic articles.[4]

The **environment in which EU pyrotechnics legislation operates has changed** since the introduction of the substantive provisions in 2007 but also since the recast in 2013. Studies have been carried out on certain aspects of the Directive, but no comprehensive evaluation of the Directive and Implementing Directive 2014/58/EU has yet been carried out. Against this background, it was necessary to assess the overall performance of the Directive and whether it is still fit for purpose. In line with the Better Regulation Guidelines and Toolbox[5], the evaluation examined the **relevance, effectiveness, coherence and efficiency** of EU pyrotechnics

[1] Directive 2013/29/EU of the European Parliament and of the Council of 12 June 2013 on the harmonisation of the laws of the Member States relating to the making available on the market of pyrotechnic articles (recast) (OJ L 178, 28.6.2013, p. 27, ELI: http://data.europa.eu/eli/dir/2013/29/oj).

[2] Directive 2007/23/EC of the European Parliament and of the Council of 23 May 2007 on the placing on the market of pyrotechnic articles (OJ L 154, 14.6.2007, p. 1, ELI: http://data.europa.eu/eli/dir/2007/23/oj).

[3] The New Legislative Approach consists of Decision No 768/2008/EC of the European Parliament and of the Council of 9 July 2008 on a common framework for the marketing of products, and repealing Council Decision 93/465/EEC (OJ L 218, 13.8.2008, p. 82, ELI: http://data.europa.eu/eli/dec/2008/768(1)/oj) and Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008, p. 30, ELI: http://data.europa.eu/eli/reg/2008/765/oj).

[4] Commission Implementing Directive 2014/58/EU of 16 April 2014 setting up, pursuant to Directive 2007/23/EC of the European Parliament and of the Council, a system for the traceability of pyrotechnic articles (OJ L 115, 17.4.2014, p. 28, ELI: http://data.europa.eu/eli/dir_impl/2014/58/oj).

[5] European Commission, Better regulation guidelines, 2021; European Commission, Better Regulation Toolbox 2023.

legislation, as well as its **EU added value**, considering the results and impacts of its implementation.

The evaluation was supported by a study carried out for DG GROW by Technopolis Group, supported by Milieu, Wavestone and Intellera, between October 2023 and March 2025[6].

The evaluation mainly used information gathered through various stakeholder consultation activities but also studies, reports, academic and grey literature (e.g. non-papers) and statistical data from different databases, where available. Availability of cost data was very limited, and the market analysis was compromised by a lack of disaggregated data and data missing for some years within the evaluation period. These shortcomings were mitigated through triangulation of information from different sources and validation of findings in the stakeholder validation workshop.

2. Conclusions

Effectiveness

The Directive has to a large extent achieved its objectives. In particular, it contributed to the free movement of pyrotechnic articles in the internal market and the protection of health and safety. However, its positive effects on security and environmental protection have been more limited.

The Directive has led to an **integrated single market for pyrotechnic articles**, although the discretion provided by the Directive with regard to the licensing of persons with specialist knowledge, age limits and the restriction or prohibition of all pyrotechnic articles, except categories F1 and F4, created some fragmentation.

In terms of health and safety, the **essential safety requirements**, especially for categories F1, F4 and P1, do not seem enough to sufficiently protect users, bystanders and, in the event of criminal misuse, society at large. Moreover, **non-compliance rates** are still very high, despite a general perception among stakeholders that the **quality of conformity assessments and market surveillance** has improved. Concerns remain, in particular, with regard to **imported fireworks** and **the accessibility of high-risk pyrotechnics** to consumers.

The Directive has not effectively prevented security threats related to pyrotechnic articles. Pyrotechnic articles are increasingly **used for criminal purposes**, such as to attack first-responders and law enforcement personnel, the cracking of ATMs, but also organised crime. This is possible, on the one hand, because the Directive does not effectively prevent the diversion of legally manufactured pyrotechnic articles, especially when sold via **online shops**. On the other hand, the **lack of a system for item-level tracking** makes it difficult to trace back to which point in the supply chain an article was diverted. At the same time, illegally

[6] Ibid.

manufactured pyrotechnic articles are traded on the black market. **Enforcement and penalties** seem insufficient to effectively deter illegal behaviour.

Finally, the Pyrotechnics Directive does not fully ensure the **protection of the environment** from the negative effects of pyrotechnic articles, such as chemical contamination, plastic pollution and distress for animals.

Efficiency

On the basis of the limited available cost data, it can cautiously be concluded that the Directive is, overall, operating efficiently.

Costs have increased for most stakeholders, but, overall, still seem to be proportionate – they are equivalent to a **proportionate share of companies' turnover**, although the burden for SMEs seem to be bigger than for large companies. Most stakeholders have also experienced **improved efficiency of processes and tasks** thanks to the Directive. Harmonised rules have **reduced costs for familiarisation** with legal requirements and for **conformity assessments** and **facilitated market access**. Stakeholders also benefit from **improved coordination and information exchange** and **enhanced traceability** of pyrotechnic articles. Costs due to conformity with the essential safety requirements, including design, manufacturing and assessment, seem proportionate, in particular in light of the safety benefit they bring.

The Directive has led to a certain burden reduction, as tasks and procedures can be carried out more efficiently. Most obligations are perceived by stakeholders to be proportionate and seem essential for achieving the Directive's objectives. **Some potential for further burden reduction** could be identified in relation to the labelling of pyrotechnic articles and record-keeping obligations which create significant costs for stakeholders and are by some considered disproportionate. In the same vein, the mandatory accident reporting by authorities, in its current form, is tying up authorities' resources, while not bringing the expected benefits.

Coherence

The Directive is coherent with **other relevant EU legislation**, but with its limited focus on security, the Directive does not seem to fully support **broader EU policies**, in particular the EU Counter-Terrorism Agenda. **Internationally**, the Directive is complemented by international agreements and recommendations on the transport of dangerous goods. As regards coherence with **national laws and policies**, it must be noted that the Directive does not allow Member States to further restrict F4 fireworks, which is not in line with some Member States' security priorities.

In terms of **internal coherence**, only a minor inconsistency between labelling provisions has been identified, potentially leading to confusion or misunderstandings as to whether certain information can be provided in a document accompanying the article.

EU added value

The Directive **has had an added value** compared to what could have been achieved by the Member States acting alone. The results from the targeted survey suggest that, while the

Directive seems to be essential for cross-border trade in the internal market, Member States might have achieved better protection of safety and security if allowed to take action at national level on safety and security issues with regard to F4 fireworks. In light of circumvention of national rules via cross-border sales, a harmonised approach seems, however, preferable to individual national measures.

Relevance

The Directive's **objectives** of ensuring the free movement of pyrotechnic articles on the internal market via the harmonisation of laws and the protection of health and safety, security and the environment are **still relevant in light of current needs and problems**. However, some of the objectives have become more relevant in recent years. Given the rise in illegal activities committed with pyrotechnic articles, security seems even more important than ever. Similarly, environmental protection seems to have become more relevant since the Directive was adopted. The technological advancements made since the Directive was adopted are also not sufficiently addressed at present, notably online trade and pyrotechnics containing digital components.

A few **concerns about clarity and scope** have emerged. These relate to the exemption of articles intended for use by the armed forces, the police or fire departments, and the exclusion of articles for use in the aerospace industry. Moreover, in some cases, the delineation between civil explosives and pyrotechnic articles has proven to be challenging or inappropriate. Stakeholders are **missing provisions** on storage, animal welfare, transfer, online sales, professional certifications, emissions and consumer awareness.

3. Lessons learned

The evaluation shed light on those aspects of the Directive that are working well but also revealed problems and gaps. The main achievements of the Directive are:

- The **free movement of pyrotechnic articles** on the internal market through harmonised conformity assessment procedures and the alignment of national laws;
- **Essential safety requirements** for pyrotechnic articles across the EU;
- **Increased cooperation and information sharing** between and among market surveillance authorities, notified bodies and the Commission.

However, there are significant shortcomings which compromise the Directive's contribution to safety, security and environmental protection, as detailed below.

- **Accessibility of dangerous fireworks:** The Directive allows for the production of pyrotechnic articles with a **Net Explosive Content** that exceeds even professional users' needs. At the same time, it does not sufficiently prevent such articles from being **used by unauthorised users, and even by criminals.** Although this is also a question of enforcing existing rules properly, a harmonised system for the **verification of the required specialist knowledge** in the Directive would facilitate more effective checks and help prevent abuse, notably online. Another way of intentionally or unintentionally circumventing the strict rules for F4 fireworks is **miscategorisation** into the less

stringent P1 or P2 categories. In addition to the risk from F4 fireworks, the **broad availability of other dangerous consumer fireworks** results in severe accidents and poses a security threat.

- **National restrictions:** Most Member States have made use of the possibility to introduce **bans or restrictions on F2 and F3 fireworks, theatrical pyrotechnic articles and other pyrotechnic articles**. While it is important to tackle risks that are considered not sufficiently addressed by the Directive, this national discretion **prevents laws from being fully harmonised** and can cause **trade barriers**. At the same time, national restrictions can be easily **circumvented** by buying pyrotechnic articles across the border or online. On the other hand, because **Member States cannot restrict F4 fireworks,** the safety and security risks from such fireworks cannot be adequately addressed.

- **Mail order sales:** The existing framework is not designed to address the risks related to common online sales practices, mostly taking the form of mail order sales. The **lack of physical contact** between the distributor and the buyer means that the rules can be circumvented, particularly the age verification or specialist knowledge requirements, but also national restrictions. Moreover, the illegal **postal shipment** of pyrotechnic articles in regular parcels poses risks to postal services staff and other persons.

- **Traceability:** The lack of **unique identification numbers**, as required for civil explosives, makes it impossible to trace individual pyrotechnic articles throughout the supply chain which could, however, be helpful for law enforcement and market surveillance. Moreover, even high-risk pyrotechnic articles, with risks similar to civil explosives, can be **transferred across the EU** without any procedural requirements, such as approval from the destination and transit states.

- **Pollution and animal welfare:** The essential safety requirements do not sufficiently account for **environmental protection**. Although they will be supported by harmonised standards, a stronger focus especially on pollution and animal welfare seems warranted in light of contemporary concerns and the EU's environmental ambitions.