



Executive Summary for the Study on illegal sales of pyrotechnic articles destined for professional users (category F4) to the general public

EXECUTIVE SUMMARY





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EUROPEAN COMMISSION

Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

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Luxembourg: Publications Office of the European Union, 2019

Catalogue Number: ET-04-19-393-EN-N
ISBN 978-92-76-03195-6
doi: 10.2873/107655

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Background to the study

Following other retail markets, the pyrotechnics sector has established an extensive online retail presence making it possible for EU consumers to purchase pyrotechnic articles from web-shops based physically across the internal market.

This trend has also given rise to an increasing number of reports received by the European Commission indicating that fireworks categorised as F4 pyrotechnic articles were reaching the general public, nonetheless, the Pyrotechnic Articles Directive 2013/29/EU provides that these articles should only be sold to and used by professional users recognised as having specialist knowledge.

Moreover, the non-authorised use of F4 pyrotechnics has caused concern considering the severity of some of the accidents documented and in instances where their misuse has been associated with the criminal intent to harm persons or damage property.

In response to these findings, in 2016, the European Commission launched a study to review the economic production and supply of F4 flash bangers, considered as one of the most problematic articles. Among other things, the study confirmed that these items were entering the hands of the general public by online sales channels, and that their level of production outstripped their known level of professional use.¹

Given that it was confirmed that the requirements of Directive 2013/29/EU were not being applied fully, to investigate this issue further, the European Commission decided to launch this study with the aims of:

1. Providing a qualitative and where possible quantitative assessment of the problem of illegal sales of F4 fireworks in the EU;
2. Establishing if and how sellers control that the purchaser is a person with specialist knowledge in his Member State of residence, with a view to identifying problems in verifying that a person has the necessary credentials;
3. Understanding which elements and problems (be it a national or a European issue) can facilitate incidental or intentional diversion of F4 fireworks to members of the general public;
4. Understanding if there are gaps or weak elements in the current system (and if there are, which ones) that could be solved at either the EU or national levels;

Study methodology

To gather the necessary data to address the questions above, EU Member State interview and online survey programmes were conducted. The participants mainly included competent authorities, market surveillance authorities, law enforcement authorities, Notified Bodies, EU and national industry associations, and postal and courier services companies. This information was then screened and synthesised to produce a series of key messages reflecting the general views of the stakeholder population per question.

¹ DJS Research (2016) F4 Flash Bangers in EU Member States: Study on production, import and use in the EU of high risk pyrotechnic articles categorised F4 according to Directive 2007/23/EC and Directive 2013/29/EU.

Moreover, the study undertook a comprehensive mapping exercise of 310 online pyrotechnics web-shops managed by a pyrotechnics expert to determine if it was possible to purchase F4 pyrotechnics without undergoing specialist knowledge controls.

In addition, to inform an analysis of the negative cost impact of the misuse of pyrotechnics, firework injury data were analysed from two sources.²

The non-compliant sale and use of F4 pyrotechnics are largely hidden from the authorities, making this subject area difficult to research

A study limitation was that it was difficult to determine the overall scale of the problem considering that much of the non-compliant sales activity takes place online, with the parcels sent to the home addresses of consumers in unmarked parcels.

Therefore, while many authorities were aware of the non-compliant activities, the extent of the recognition of the national scale of the problem varied significantly between the Member States.

There were no doubts that some countries have experienced very limited problems in terms of non-authorized usage of F4 pyrotechnics by consumers, however, the extent of the sales activities across the internal market due to a major non-compliant web-shop, as determined by the Polish police during a recent investigation, suggested extensive illegal sales activities across the EU, please see the following section.

Without further detailed information from this investigation, currently, it seemed possible to suggest that many national authorities were not aware of the true extent of this problem.

Cross-border enforcement actions to shut down non-compliant web-shops have commenced

In the early stages of this study, in December 2018, a coordinated investigation effort involving Europol, Eurojust and national authorities resulted in a major police raid of four web-shops managed by an Organised Crime Group (OCG) based in Poland.

The scale of the problem of the non-compliant sale of F4 pyrotechnics is reflected in the amount of materials seized by the Polish police. In a warehouse managed by one of the web-shops, 80 tonnes of F4 pyrotechnics were discovered, enough to fill four large shipping containers. After assessment of the evidence, it was estimated that this OCG shipped 1000 kg of F1 to F3, and 500 kg of F4 pyrotechnics to different Member States per day.

In addition to supplying F4 pyrotechnics to the general public without the necessary specialist knowledge controls, it was found that this OCG did not have the mandated credentials to handle or store F4 pyrotechnics, and was also engaging in money laundering activities.

However, despite this initial success, further cross-border and national actions are needed to stamp-out the remaining (online) sources that facilitate diversion of F4 pyrotechnics to the general public, as determined by this study.

About 73% of companies that supply F4 pyrotechnics online do so seemingly without implementing specialist knowledge controls

² The data sources included: national data provided to the Commission since 2013 and the European Injury Database funded by the Commission. As explained in more detail in Chapter 5, both data-sets include some shortcomings e.g. data are available for some EU countries only, and annual data were not reported for some of the years by some countries etc.

A key activity performed by the study was to review 310 pyrotechnics companies with an online presence across the Member States. Overall, the results suggested that 90% of the websites reviewed were compliant with the legal requirement of not making available F4 pyrotechnics to the general public.

However, based on the sample reviewed, about 73% of companies that supply F4 pyrotechnics online likely do so without implementing specialist knowledge controls, representing 32 companies (this does not include the Polish web-shops that were closed down by the police in December 2018). These companies were identified in Bulgaria (4 companies), Czechia (11), Greece (3), Italy (1), Lithuania (4), Luxembourg (1), the Netherlands (1), Poland (2), Romania (1) and Slovakia (4).

Notably, authorities and other stakeholders have underestimated the proportion of online retailers that sell F4 pyrotechnics online without specialist knowledge controls; the average online survey response suggested a figure of 16%, whereas, as mentioned, the figure derived from the analysis of the sample of companies was in the region of 73%.

In addition, some of these likely non-compliant web-shops offered features and services to facilitate sales of pyrotechnics across the internal market, including international shipment services and multiple website language versions. Further analysis revealed that the F4 pyrotechnics product ranges available to consumers online were highly extensive, suggesting high levels of black-market activity.

While online sources represent the main route for F4 pyrotechnics to enter consumer markets, other avenues were also identified often involving Organised Crime Groups

In-depth feedback received from interviewees confirmed that the supply of F4 pyrotechnics to the general public is largely driven by internet sales, where typically the web-shops were noted as being based in other Member States. However, other avenues for F4 pyrotechnics to reach the general public were highlighted, as follows:

- The authorities in Italy and elsewhere acknowledged that some of the F4 flash bangers manufactured by a licensed Italian producer(s) end-up in the hands of consumers illegally;
- Illegal manufacturing sites producing unlicensed pyrotechnics that have qualities similar to those certified as F4 pyrotechnics have also been detected occasionally in Austria, Denmark and Italy;
- OCGs have been noted to physically transport F4 pyrotechnics from Czechia and Poland to the Netherlands which have been subject to criminal investigations;
- Street market sales persons with links to OCGs were noted as key retailers of F4 pyrotechnics to the general public in Czechia;
- Small-scale criminal intermediaries and private persons undertaking cross-border shopping were highlighted as involved in distributing and using F4 pyrotechnics illegally;

According to (official) feedback, the non-authorised use of F4 pyrotechnics seems to be distributed unevenly across of the Member States, although many "high use" countries were identified

The responses suggested an uneven distribution of non-authorised usage across the Member States, with Austria, Czechia, Denmark, Germany, the Netherlands and Sweden appearing to suffer the most severe problems. This judgement was reached considering information received from interviewees, newspaper reports documenting police seizures and non-authorised use by the general public, and YouTube videos of dangerous usage of (F3/F4) pyrotechnics by the general public.

Unsurprisingly, in many cases, it seems that non-authorised use of F4 pyrotechnics (and in some cases F3 pyrotechnics where national law prohibits use of such articles by the public) is linked to the New Year's Eve celebrations. Moreover, in many cases, the (F4)

pyrotechnics are set-off using unorthodox methods and unsafe distances. In addition, it was mentioned that non-authorized usage is occasionally linked to criminal activities where the intention is damage property and harm persons.

Postal and EU-wide courier companies are worried that a serious accident could result from the mishandling of an unlabelled parcel containing (F4) pyrotechnics

Feedback received from postal and major EU-wide courier companies indicated that they are unable to prevent the anonymous use of their services by non-compliant web-shops. It was noted that the web-shops use several tactics to prevent themselves from being detected such as dropping-off their parcels for shipment at multiple sites, and using storage facilities in other countries as intermediary distribution points.

Moreover, this trend poses serious risks to postal workers and company property; in response, the companies interviewed have introduced measures to support the detection of the parcels and have been subject to official inspections.

In addition, the distribution of pyrotechnics contained in unmarked parcels is in clear breach of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), which mandates that appropriate labelling and packaging must be used, with the transportation of such goods managed by certified couriers etc.

There was general agreement that the requirements of the Directive relating to the sale and handling of F4 pyrotechnics were challenging to enforce, and that cross-border, and in some cases national, enforcement mechanisms were not operating optimally

It was highlighted that the main purpose of the Directive is to enable the free movement of pyrotechnic articles in the internal market, based on mandatory product essential safety requirements and a harmonised system of controlling that such requirements are met as a pre-condition for making them available on the EU market.

However, while the Directive does not permit the (cross-border) sale and use of F4 pyrotechnics to the general public, it has not been designed in a way to restrict cross-border crime.

For example, although the Directive mandates that users of F4 pyrotechnics must have the necessary specialist knowledge, the different national requirements and documentary evidence related to these qualifications makes it difficult for economic operators and authorities to conduct checks of professionals that have obtained their specialist knowledge from another Member State.

Moreover, while some countries do not seem to have non-compliant traders on their home market, others were recognised as being home to companies that were active in selling F4 pyrotechnics online from one Member State to another.

At the same time, cross-border cooperation to tackle the problem was said to be difficult although improving. Obstacles identified included:

- difficulties identifying the relevant counterparts in police authorities in other Member States that are open to following-up on case investigations;
- in some cases, the limited extent to which enforcement authorities consider the illicit sale and use of F4 pyrotechnics as a problem to address;
- and the absence of national legislation that makes the non-compliant sale of F4 pyrotechnics a criminal act.

Therefore, the enforcement of the Directive in a cross-border context was noted as facing significant obstacles.

The negative cost impact of the non-compliant sale and use of F4 pyrotechnics affects multiple stakeholders, including injured citizens, the legitimate pyrotechnics sector, market surveillance, police and health authorities, the postal and courier services industry, insurance companies and owners of private property

It was not the role of the study to quantify all negative cost impacts caused by the non-compliant sale and use of F4 pyrotechnics. However, the negative costs impacts were examined qualitatively and conceptualised as part of a causal chain, considering the negative effects that occur at the point of sale of the products, during their transportation, and when they are used by non-authorized members of the general public.

Multiple negative cost impacts due to the non-compliant sale and use of F4 pyrotechnics were identified, including the negative effects experienced by injured parties, unfair competition with the legitimate pyrotechnics sector, additional duties to be performed by market surveillance, police and health authorities, payments to be distributed by insurance companies etc.

To get an idea of the number of pyrotechnics accidents that have occurred, although the data is incomplete and not comparable between countries, 18 Member States have reported 6566 pyrotechnics accidents to the Commission over last five years. Moreover, some of the accidents have been reported in countries where it is recognised that there are problems with the non-compliant use of F4 fireworks (e.g. DK, NL, IT, SE). Although it is very difficult to estimate the costs of the health care provided to these individuals, the study suggested a possible figure of 23 million EUR.

Going forward, to address the problem, it is recommended that the Commission and Member States develop and implement a combination of policy measures focusing on the better enforcement of the existing rules both nationally and via cross-border mechanisms, and consider introducing new legal reforms to the Directive that help to limit the unlawful supply of F4 pyrotechnics and where needed making national penalties for such crimes more stringent

Using a multicriteria analysis, 4 Policy Options and sub-measures were examined to assess their potential performance in addressing the problem. Ultimately, it was determined that the optimum route forward would be to introduce a combination of complementary Policy Options.

Thus, to provide a meaningful response to the problem identified, it was suggested that the Commission and Member States should coordinate efforts to implement Policy Option 1 (better enforcement of the existing rules). This action should include:

- scaling-up cross-border and national market surveillance and law enforcement activities;
- strengthening the role of the AdCo group on Pyrotechnics, for example, by sharing information on enforcement actions that have collected evidence from retailers on whether the sales of F4 pyrotechnics have been conducted with persons with specialist knowledge, and launching a task force and inspection programme investigating online web-shop activities;
- Making use of existing Commission systems and market surveillance programmes to help facilitate and provide additional resources to support the market surveillance and law enforcement processes, namely the Information and Communication System on Market Surveillance (ICSMS) subject to reforms to permit sharing of information on non-compliant web-shops and the European Coordinated Activities on the Safety of Products Programme;
- Introduction of measures to ease ongoing cooperation and actions e.g. guidance that is updated periodically indicating the relevant EU authorities and

counterparts, enforcement standards and practices, evidence development methods, suggestions for the sharing of information; and the establishment of a specific EU Member States network to support ongoing coordination;

While the implementation of Policy Option 1 would create the enforcement conditions necessary to pose a significant problem to those that intend to break the law, these activities would be strengthened through the implementation of Policy Options 2 and 4. Therefore it is recommended that:

- Policy Option 2 (sub-option 1) is implemented to first introduce a template that can be used on a voluntarily basis of a harmonised form indicating that an individual with specialist knowledge has met the necessary standards to handle and use pyrotechnics in the country where the harmonised form was issued. If the use of such a harmonised form is well-received by a vast majority of Member States, the Commission could consider launching a legislative proposal to introduce the proposed harmonised form by amending the Directive. If it were decided to open the Directive, the requirement to retain a copy of the harmonised form by economic operators could be introduced in the legal text (although the use of this specific measure could also be encouraged through relevant guidance).
- Policy Option 2 (sub-option 2) is implemented to revise the Directive to enable Member States to prohibit or restrict the possession, use and/or the sale to the general public of category F4 pyrotechnics fireworks, which are justified on grounds of public order, security, health and safety, or environmental protection;
- Policy Option 4 is considered strongly by the Member States to encourage the introduction of stringent penalties for both prison sentences and fines using criminal law; in doing so, consideration should be given to the stiff penalties set.

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doi: 10.2873/107655