Market evolution: Explosives and pyrotechnics (CN 36) — 2015–2025

Introduction

This report examines the evolution of the European Union’s extra-EU trade in chapter 36 of the Combined Nomenclature, which covers explosives, pyrotechnic products, matches, pyrophoric alloys and certain combustible preparations. The analysis spans the full available annual data from 2015 to 2025 and is based exclusively on the figures provided by the EU trade dashboard. It highlights the remarkable value expansion of both exports and imports, the profound shift in trading partners, the acceleration of domestic production and the improvement of the EU’s strategic autonomy in this sensitive product group.

Surging trade values underpinned by steep price increases

Export value more than doubles as average unit prices climb 114 %

Extra-EU exports of CN 36 goods experienced a powerful value surge over the decade, while the shipped tonnage barely changed. Export value rose from €571 million in 2015 to €1 248 million in 2025, a gain of 118.7 %. Export volume, however, moved from only 69.9 thousand tonnes to 71.4 thousand tonnes. The entire expansion was driven by a sharp rise of the average export unit price, which climbed from €8 161 per tonne to €17 468 per tonne. Detailed trade figures confirm this pattern: every major 6-digit segment recorded much stronger value growth than volume growth, with propellent powders (3601) and prepared explosives (3602) leading the price escalation.

Trade overview

Indicator	2015	2025	Change (%)
Exports (million EUR)	570.6	1 248.1	+118.7
Export volume (thousand t)	69.9	71.4	+2.2
Export unit price (EUR / kg)	8.16	17.47	+114.0
Imports (million EUR)	508.1	1 196.5	+135.5
Import volume (thousand t)	144.7	182.3	+26.0
Import unit price (EUR / kg)	3.51	6.56	+87.0

Import bill accelerates after 2021, driven by higher-cost goods

Imports followed an even stronger trajectory. After a temporary drop in 2020-2021, import value shot up from €349 million in 2021 to €1 197 million in 2025. Over the full period, import value grew by 135.5 %, while import volume expanded by only 26.0 %. Consequently, the average import unit price rose from €3 510 to €6 562 per tonne. The acceleration after 2021 was concentrated in high-value products, notably propellent powders (3601) whose import value jumped from €58 million in 2021 to €286 million in 2025, and prepared explosives (3602) that grew from €40 million to €157 million. The import bill for detonators and similar articles (3603) also more than doubled.

The trade surplus narrows as import growth outpaces exports

The EU maintained a trade surplus throughout the decade, but it contracted from €63 million in 2015 to €52 million in 2025. The surplus reached a record €378 million in 2019 before narrowing markedly, as the post-2021 import surge closed the gap. The balance remained positive because the EU’s high-value export basket, dominated by detonators and propellent powders, still outperformed the import mix in unit price terms.

Geopolitical reconfiguration and the re-routing of supply chains

Russia’s role collapses while China consolidates its leading supplier position

The partner structure of imports was reshaped by sanctions and the war in Ukraine. Imports from Russia, worth €3.0 million in 2015, peaked at €10.7 million in 2021 and then collapsed to a mere €21 thousand in 2025. China, the largest supplier, saw its share moderate temporarily but remained dominant, with imports growing from €258 million to €403 million over the period. Other suppliers expanded rapidly: imports from India rose from €4.5 million to €35.4 million, those from Serbia from €7.6 million to €51.1 million, and imports from Türkiye jumped from €8.2 million to €20.7 million, with a temporary spike to €40.1 million in 2024. The United States and the United Kingdom continued to supply sizeable amounts, reaching €130 million and €66 million respectively in 2025.

Top partners

Import partner	2015 (M EUR)	2025 (M EUR)	Change (%)
China	258.2	403.0	+56.1
United States	94.7	130.2	+37.5
United Kingdom	39.4	65.8	+66.9
Serbia	7.6	51.1	+576.0
India	4.5	35.4	+693.1
Russia	3.0	0.02	–99.3

Ukraine emerges as a top export destination amid the conflict

On the export side, the most striking development was the emergence of Ukraine as a major destination. While not present among the seven largest partners in the standard overview, the detailed concentration data show that EU exports to Ukraine skyrocketed from €2.4 million in 2015 to €159.7 million in 2025. This reflects the massive demand for military-grade explosives and propellants linked to the war. Traditional partners also grew strongly: exports to the United States rose from €112 million to €194 million, to the United Kingdom from €55 million to €114 million, and to Switzerland from €25 million to €41 million.

Concentration detail

Export partner	2015 (M EUR)	2025 (M EUR)	Change (%)
United States	112.4	194.0	+72.7
Ukraine	2.4	159.7	+6 560
United Kingdom	55.5	114.2	+105.8
Countries not specified*	41.0	107.4	+161.6
Switzerland	25.0	40.7	+63.2

*Countries and territories not specified for commercial or military reasons.

Unspecified military or commercial shipments surge, reflecting heightened defence trade

Exports to “Countries and territories not specified for commercial or military reasons” rose from €41 million to €107 million, a 161.6 % increase. This category, often used for sensitive defence exports, together with the surge to Ukraine, confirms that the EU’s export growth in CN 36 has been substantially driven by security and defence-related demand since 2022.

Expanding domestic production and improving strategic autonomy

EU production quantity and value jump, especially for high-end items

EU production of chapter 36 goods expanded vigorously. Production quantity rose from 43.0 million kg in 2015 to an estimated 79.7 million kg in 2024, an 85.6 % increase. Production value more than trebled, from €69 million to €209 million, yielding a unit value increase from €1.61 to €2.62 per kg. This suggests a shift towards higher-value output, consistent with the strengthening of propellent powder and detonator manufacturing inside the EU. The most specialised EU exporters in 2025 were Slovenia (RSCA 0.59), Croatia (0.54), Czechia (0.50) and France (0.39), while Germany remained the largest exporter in absolute value despite low specialisation.

Production volumes – Specialisation

Indicator	2015	2024	Change (%)
Production quantity (million kg)	43.0	79.7	+85.6
Production value (million EUR)	69.1	208.8	+202.0
Production unit price (EUR / kg)	1.61	2.62	+62.7

Import concentration falls sharply as sources diversify

The Herfindahl-Hirschman index for imports dropped from 3 210 in 2015 to 1 965 in 2025, a decrease of 38.8 %. This signals a much more diversified import portfolio, as the EU reduced its dependence on a few dominant suppliers. The rise of India, Serbia, Türkiye and other smaller partners contributed to this diversification. Export concentration, by contrast, remained stable and relatively low (HHI moving from 781 to 741), indicating a consistently broad set of export destinations.

Concentration

Net import reliance drops to below 2 %, signalling stronger EU self-sufficiency

The EU's net import reliance – the share of apparent consumption covered by net imports – fell from 6.2 % in 2015 to just 1.8 % in 2024. At the same time, trade intensity declined from 47.8 % to 38.8 %, and export propensity moved from 29.2 % to 23.4 %. The combination of rising domestic production and a mild increase in export orientation (until 2023) progressively reduced the EU's need for imports. Low volatility in the imports of some key partners (e.g., Switzerland CV 0.16, United States CV 0.16) and high volatility elsewhere (Russia CV 0.87, Egypt CV 2.14) did not undermine overall autonomy, as the EU successfully redirected sourcing.

Net import reliance – Volatility

Conclusion

Between 2015 and 2025, the EU’s external trade in explosives and pyrotechnics underwent a profound transformation. Value growth was explosive, driven almost entirely by rising unit prices for high-tech items such as propellent powders and detonators. The geopolitical shock of the war in Ukraine reconfigured the trade landscape: Russia disappeared as a supplier, China strengthened its position, and Ukraine became a leading export destination alongside a surge in unspecified military shipments. Meanwhile, the EU significantly expanded its own production capacity, reduced import concentration and lowered its net import reliance to near zero. The result is a more autonomous and diversified trade profile, albeit one that is now closely intertwined with defence and security dynamics.

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If you need advice on European trade policy, or representation for your interests in Brussels, feel free to contact me at support@tradedashboard.eu. You can find my CV at this address.