Market evolution: Plastic pipes and fittings (CN 3917) — 2015–2025

Introduction

Between 2015 and 2025 the EU’s external trade in plastic tubes, pipes, hoses and fittings underwent a deep structural shift. Export value climbed by nearly half even though tonnage barely moved, while imports were propelled by a surge in volumes of standard products. Geopolitical shocks, a reconfiguration of trading partners and a sustained industrial specialisation inside the EU shaped the dynamics described in this report.

1. Export revenue climbs on powerful price gains, while imports explode in tonnage

The unit value of EU exports rose by over 50 %, pushing total export value up by 49 % despite virtually flat volumes.

Export earnings moved from €3 515 million in 2015 to €5 240 million in 2025 (+49.1 %), whereas the shipped quantity edged down from 557.9 thousand tonnes to 550.3 thousand tonnes (-1.4 %). Consequently the average export price jumped from €6 301 to €9 511 per tonne (+50.9 %) General overview – trade. Price improvements were broad-based; fittings (CN 391740) reached €14 864/t and flexible unreinforced tubes (391732) €9 896/t by 2025 Product segment breakdown – exports.

Import quantities surged by 77 %, led by low-cost rigid polyethylene pipes and fittings.

Import value soared from €1 718 million to €3 344 million (+94.6 %), with tonnage expanding from 239.6 kt to 424.7 kt (+77.3 %) General overview – trade. The import unit price rose only modestly (+9.8 %), reflecting the weight of cheaper items. Rigid polyethylene pipes (391721) almost tripled in quantity (from 32.9 kt to 95.9 kt) while remaining priced around €2 730/t, far below the corresponding EU export level Product segment breakdown – imports. Fittings (391740) remained the largest import segment by value (€925 million in 2025) and also recorded strong growth.

The trade surplus widened only modestly (+5.5 %), because rising import volumes partially offset higher export prices.

The EU's surplus moved from €1 797 million to €1 896 million General overview – trade. The net-import reliance ratio became more negative, dropping from -5.6 % to -10.3 %, confirming the EU's strengthening net-exporter position Net-import reliance.

Table 1: EU trade aggregates for CN 3917, 2015 vs. 2025

Indicator	2015	2025	Change (%)
Export value (€ mn)	3 515	5 240	+49.1
Export quantity (kt)	557.9	550.3	–1.4
Export unit value (€ /t)	6 301	9 511	+50.9
Import value (€ mn)	1 718	3 344	+94.6
Import quantity (kt)	239.6	424.7	+77.3
Import unit value (€ /t)	7 171	7 873	+9.8
Trade balance (€ mn)	1 797	1 896	+5.5

2. Geopolitical ruptures and re-orientation of supply chains reshape trade partnerships

Exports to Russia collapsed by 89 %, while the United States and Morocco emerged as dynamic growth markets.

The most dramatic change was the evaporation of the Russian market. EU deliveries to Russia fell from €254 million to €27 million (–89.2 %), with the steepest decline after 2022. Exports to the United States almost doubled (+98.0 %, reaching €700 million) and those to Morocco surged by 174.9 % to €189 million Top partners – exports. Türkiye also sped up (+136 % to €280 million), underlining the vitality of emerging and near-shore destinations.

Imports from China, Türkiye and Serbia expanded rapidly, while the United Kingdom and Switzerland remained stable large suppliers.

On the import side China (+169 %, to €502 million), Türkiye (+145 %, to €255 million) and Serbia (+219 %, to €246 million) recorded the fastest growth, while the United Kingdom (+46.5 %) and Switzerland (+40.7 %) maintained their roles as high-value sources Top partners – imports. The Herfindahl-Hirschman index for imports declined from 1 239 to 1 073, signalling a more diversified supplier base Concentration HHI – imports.

Table 2: Selected extra-EU trade partners – value changes 2015 → 2025

Partner	Flow	2015 (€ mn)	2025 (€ mn)	Change (%)
Russia	Export	254	27	–89.2
United States	Export	354	700	+98.0
Morocco	Export	69	189	+174.9
China	Import	187	502	+169.0
Serbia	Import	77	246	+219.2
Türkiye	Import	104	255	+145.3

Price-shock events in 2022 and 2023 injected volatility into several critical flows.

The data detect multiple price-shock events. Imports from Türkiye experienced a 28.5 % price jump centred on 2022 (abnormality 53.7), while Chinese imports showed a 30.2 % price surge in the same year. On the export side, the United States recorded a 25.2 % price spike in 2019, and Ukraine suffered a 47.4 % price jump in 2022 as volumes collapsed Price-shock events. These episodes underscore the sector's exposure to logistical and raw-material cost shocks.

3. Specialisation and climbing export propensity lock in the EU's competitive advantage

Production value rose by 68 % on a mere 2.5 % volume gain, mirroring the export price trajectory.

EU production value grew from €5 349 million (2015) to €9 006 million (2024), while output quantity edged up from 2.90 million tonnes to 2.97 million tonnes (+2.5 %) Production volumes. The implied domestic unit price rose from €1.84/kg to €3.03/kg, confirming that the shift towards higher-value products was economy-wide.

A group of small and mid-sized member states shows strong revealed comparative advantage, while large economies dominate overall trade.

In 2025 the most specialised reporters were Cyprus (RSCA 0.63), Estonia (0.31), Latvia (0.25) and Italy (0.20). Germany, despite a lower specialisation index (0.16), remained the largest exporter (€1 759 million) and importer (€841 million). France, Czechia, Poland and Spain all recorded export growth between 34 % and 103 % over the decade Top reporters – exports. The specialisation map therefore reveals a core of highly focused producers inside a broader industrial base.

The EU’s export propensity rose from 10.3 % to 18.0 %, reinforcing the sector’s external orientation.

The share of production sold outside the EU climbed from 10.3 % (2015) to 18.0 % (2024) Export propensity. Trade intensity (exports plus imports relative to production) increased from 14.6 % to 24.6 %, indicating deeper global integration without eroding the structural trade surplus.

Conclusion

The EU’s plastic pipe and fitting sector has successfully moved up the value chain, translating stable production volumes into sharply higher export values. Import growth was absorbed without weakening the trade surplus, thanks to a diversified sourcing base and robust domestic manufacturing. Geopolitical disruptions redirected flows—away from Russia and towards the Americas, Africa and near-shore partners—while brief price spikes revealed supply-side sensitivities. With rising export propensity and a core of highly specialised producers, the sector is well placed to maintain its net-exporter status for high-value plastic piping solutions.

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