EU TRADE EXPLORER

Market evolution: Rubber and plastics machinery (CN 8477) — 2015–2025

Introduction

Customs code 8477 covers machinery for working rubber or plastics and for the manufacture of products from these materials, together with parts thereof. This report examines the European Union's extra-EU trade in this product group between 2015 and 2025, drawing exclusively on the figures provided by the OEC Trademap-based dashboard. Over the decade, the value of EU exports rose by 19 % while import value increased by 25 %, but the evolution was far from linear. The most striking dynamic is a profound decoupling between value and volume, driven by a structural move towards higher-unit-value machinery, coupled with a re-ordering of trade partnerships after the pandemic and the imposition of sanctions on Russia.

Value surges as volumes shrink: the premiumisation of EU machinery exports

Export revenue grew by nearly one-fifth despite a 17 % drop in shipped units

Headline trade figures reveal a remarkable divergence. Extra-EU exports of CN 8477 expanded from €6.35 bn in 2015 to €7.56 bn in 2025 (+19.0 %), yet the tonnes or number of machines (quantity) fell from 275 450 to 228 457 over the same period (–17.1 %). Imports rose from €1.42 bn to €1.77 bn (+25.0 %) while their quantity grew much more moderately, from 121 506 to 149 829 units (+23.3 %). The trade surplus consequently widened from €4.93 bn to €5.79 bn (+17.3 %). General Overview

Indicator	2015	2025	Change
Exports (€ mn)	6 351	7 557	+19.0 %
Exports (quantity units)	275 450	228 457	–17.1 %
Imports (€ mn)	1 417	1 771	+25.0 %
Imports (quantity units)	121 506	149 829	+23.3 %
Trade balance (€ mn)	4 934	5 786	+17.3 %

Average unit values soared on the export side, signalling a move into high-end equipment

The implied export unit price jumped from €23 056 per unit in 2015 to €33 076 in 2025 (+43.5 %), whereas the import unit price barely changed (€11 662 → €11 822, +1.4 %). This indicates that EU manufacturers are increasingly specialising in technologically sophisticated, higher-priced machinery while sourcing simpler or more commodity-like machines from outside the bloc. General Overview

Flow	2015 unit price (€)	2025 unit price (€)	Change
Exports	23 056	33 076	+43.5 %
Imports	11 662	11 822	+1.4 %

Production data confirm the sector’s pivot to higher value-added segments

EU production of rubber and plastics machinery (quantity) dropped from 1.65 million units (2015) to 182 371 units (2024), a –89 % collapse, whereas the production value more than doubled, from €7.64 bn to €16.41 bn (+114.8 %). The steep rise in the production unit value perfectly mirrors the export trend and underscores a sector-wide shift away from low-cost standard machinery towards customised, high-precision equipment often bundled with digital services. Production volumes

Year	Production quantity	Production value (€ mn)	Implied unit value (€)
2015	1 652 072	7 638	4 623
2024	182 371	16 410	89 979

Geopolitics reshape trade partners: China’s expanding role and the sanction-driven collapse of Russia

China became the top import origin and a major export growth engine

EU imports from China doubled in value, from €328 mn (2015) to €664 mn (2025, +102.3 %), making China the largest extra-EU supplier. Meanwhile, EU exports to China advanced from €1 028 mn to €1 614 mn (+57.1 %), reinforcing a two-way relationship driven by Chinese demand for advanced moulding and extrusion lines and EU sourcing of more price-competitive machines. Top Partners

Partner	Imports 2015 (€ mn)	Imports 2025 (€ mn)	Exports 2015 (€ mn)	Exports 2025 (€ mn)
China	328	664	1 028	1 614
United States	240	221	1 290	1 696
Switzerland	258	288	192	196
India	–	–	250	495
United Kingdom	94	81	323	244

The United States remained the dominant export market, with India surging and the United Kingdom fading

The US absorbed the largest share of EU exports, growing from €1 290 mn to €1 696 mn (+31.5 %). India emerged as the fastest-growing major destination (+98.2 %), nearly doubling to €495 mn. In contrast, exports to the United Kingdom slipped from €323 mn to €244 mn (–24.7 %), likely reflecting post-Brexit trade friction. Mexico and Türkiye also registered solid gains (Mexico +30.2 %, Türkiye +22.1 %). Top Partners

Russia’s share evaporated after 2022 sanctions, while Mexico and Türkiye gained ground

The Russian Federation, an export destination worth €416 mn in 2015, had virtually disappeared by 2025 (€2.5 mn) following the EU’s post-invasion sanctions. This collapse is part of the shock events analysed later. Its former volumes were partly absorbed by other developing markets, notably Mexico and India. Volatility bars

Heightened exposure and shock absorption: the 2022 price spike and its aftermath

A synchronised price shock hit both imports and exports in 2022, driven by global supply disruptions

The volatility analysis detects sharp price shocks centred on 2022 for several key partners. On the import side, the China price jumped 478 % relative to the 2020-2021 baseline, while US, Türkiye and Japan import prices also recorded abnormal increases. Export prices to India, the UK, Egypt, Norway, Canada, South Korea, the US and Russia experienced similar spikes, with quantity collapses mirroring a temporary supply crunch. These effects align with global logistics bottlenecks, semiconductor shortages and the energy price surge that affected machinery production and shipping. Shocks

Concentration increased on both sides, with the EU's net exporter position strengthening

The Herfindahl-Hirschman Index (HHI) for imports rose from 1 370 to 1 976 (+44.3 %), indicating a greater reliance on a handful of suppliers, principally China, Switzerland and the US. Export concentration also grew (HHI from 860 to 1 116, +29.8 %), reflecting the increasing weight of the US and Chinese markets. Despite these concentration risks, the EU's net import reliance became even more negative (–43.3 % → –63.8 %), meaning the bloc has deepened its position as a net exporter of these machines relative to domestic consumption. Concentration HHI | Net import reliance

Indicator	2015	2025	Change
Import HHI	1 370	1 976	+44.3 %
Export HHI	860	1 116	+29.8 %
Net import reliance (%)	–43.3	–63.8	–47.3 %

Trade intensity and export propensity rose, underlining the sector's reliance on foreign markets and the centrality of a few specialised Member States

Trade intensity (exports plus imports relative to production plus imports) increased from 43.8 % to 54.1 %, and export propensity (exports/production) climbed from 38.9 % to 49.3 %. This shows that the EU rubber and plastics machinery industry has become more globally integrated. A handful of Member States drive the export performance: Germany alone accounted for 52 % of extra-EU exports in 2025 (€3.96 bn), followed by Italy (€1.53 bn) and Austria (€504 mn). Specialisation analysis confirms that Luxembourg, Slovakia, Italy and Germany possess the highest revealed comparative advantage (RCA) in this product group, while countries such as Ireland, Estonia and Bulgaria are net importers with low specialisation. Trade intensity | Export propensity | Specialisation

Member State	Export value 2025 (€ mn)	Share of extra-EU exports	RSCA (2025)
Germany	3 960	52.4 %	0.234
Italy	1 526	20.2 %	0.451
Austria	504	6.7 %	0.404
France	590	7.8 %	–0.251

Conclusion

Between 2015 and 2025, EU trade in rubber and plastics machinery (CN 8477) underwent a qualitative transformation. Export revenue grew despite shrinking volumes, propelled by a sustained upgrade to higher-priced, technologically advanced machines and parts – a premiumisation trend confirmed by both trade unit values and domestic production data. Simultaneously, the geographic map was redrawn: China strengthened its dual role as top supplier and second-largest customer, the United States widened its lead as the premier export market, India and Mexico gained prominence, while Russia vanished as a destination after sanctions. The sharp 2022 price shock exposed the sector's sensitivity to global supply disruptions but did not reverse its long-term trajectory. Concentration has risen on both the import and export sides, yet the EU's net exporter position has deepened, backed by a handful of highly specialised Member States. Looking ahead, the key challenges will be managing dependency on a few large partners while sustaining the innovation-driven value growth that has defined the past decade.

Generated on 2026-07-28 based on data from tradedashboard.eu

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.