

EUROPEAN TRADE IN PHARMACEUTICAL GOODS

The contribution of the EU pharmaceutical industry

Novo Nordisk
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Novo Nordisk is a global healthcare company headquartered in Denmark. Novo Nordisk's key contribution is to discover and develop innovative biological medicines and make them accessible to patients throughout the world.



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Executive summary

Economic competitiveness is currently high on the EU political agenda and EU leaders will soon be defining the priorities for the 2024-2029 policy cycle. Meanwhile, the EU's pharmaceutical legislation is undergoing its most comprehensive review in a generation. In this context, it is important to understand the pharmaceutical sector's economic contribution in the EU. This note analyses the size and importance of trade in pharmaceutical goods in the EU based on data from Eurostat.

In 2022, the pharmaceutical industry was **the industry with the largest extra-EU trade surplus in the EU, amounting to 171 billion EUR**. Overall, the EU had a negative trade balance in 2022, but to a large degree this was created by the high costs of importing petroleum and natural gas in the wake of the war in Ukraine. Looking at 2020 and 2021, the pharmaceutical industry also had the largest contribution to the EU trade balance, which was positive overall.

Additionally, in 2022 the EU pharmaceutical industry was the 5th largest exporting industry. **Total EU pharmaceutical exports have grown by 143% since 2012, reaching a value of 538 billion EUR in 2022**. This export growth was larger than any other R&D-intensive industry in the EU.

The growth in total pharmaceutical exports was primarily driven by increasing exports from the EU to countries outside of the EU. Specifically, exports to these countries grew by 157% between 2012 and 2022. This trend underscores the industry's global reach and ability to compete and thrive in international markets. Moreover, exports to countries within the EU also grew significantly (by 130%) in the same period. The growth in both export measures is a testament to the overall growth of the EU pharmaceutical industry.

Taking a detailed look at which non-EU countries the EU exported to in 2022, almost a third of all extra-EU exports reached the US market. Hence, trade in pharmaceutical goods with the US is important for the EU economy. Other important markets for the EU are its close neighbours Switzerland (13.1%) and the UK (7.2%), as well as China (5.9%) and Japan (5.5%).

In total, the EU pharmaceutical industry's robust performance in international trade underscores its significance as a key economic driver within the region and beyond.

Glossary of key terms and data

Key economic terminology used

| Economic term | Description | Source |
|---|--|---------------------------------------|
| Extra-EU exports/imports in pharmaceuticals | Exports/imports of pharmaceuticals between EU member states and non-EU countries | EUROSTAT international trade in goods |
| Intra-EU exports/imports in pharmaceuticals | Exports/imports of pharmaceuticals between EU member states | EUROSTAT international trade in goods |
| Total EU exports/imports in pharmaceuticals | The sum of extra- and intra-EU exports/imports of pharmaceuticals | EUROSTAT international trade in goods |
| Trade balance | Difference between exports and imports of goods | EUROSTAT international trade in goods |

Economic sectors considered

| | |
|-------------------------------------|--|
| Pharmaceutical manufacturing sector | Corresponds to NACE industry code 21. We download data on a product level (using HS4 product codes) and convert those to NACE industry codes (end-use) ¹ and thereby reporting trade by industry instead of product groups. |
|-------------------------------------|--|

Data in this note explained: exports, imports, and trade balance

This note analyses three key data points in EU trade in pharmaceuticals.

Extra-EU trade

Extra-EU trade describes trade in goods¹ with countries located outside of the EU, i.e. goods either exported by an EU member state to a non-EU country or goods imported from a country outside of the EU by an EU member state. In this note, we focus on the EU as a whole and do not focus on which exact member state was importing or exporting.

Intra-EU trade

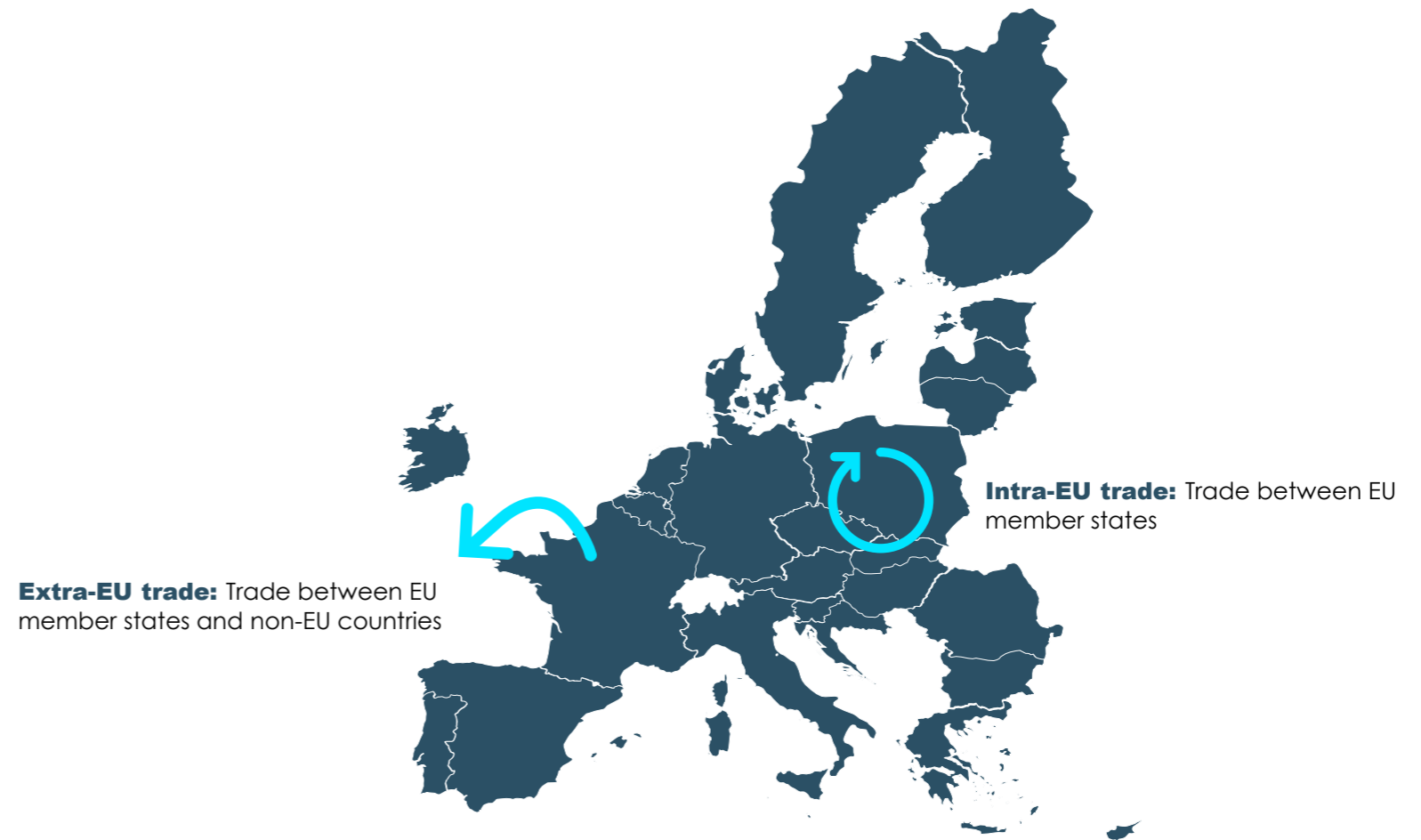
Intra-EU trade describes trade in goods within the EU, i.e. between EU member states. An example of intra-EU trade is when France imports goods from Poland. Again, we only focus on the EU as a whole for intra-EU trade and not the individual member states in this note.

Trade balance

The trade balance is a measure of exports minus imports. The trade balance indicates whether a country's exports are larger than imports or vice versa. The trade balance is positive and shows a surplus if exports are larger than imports. A trade surplus can be seen as a sign of economic strength; however, this depends on how the country with a trade surplus spends its money.²

We present key metrics based on these three key data points on the following pages.

Figure 1. Illustration of extra- and intra-EU trade



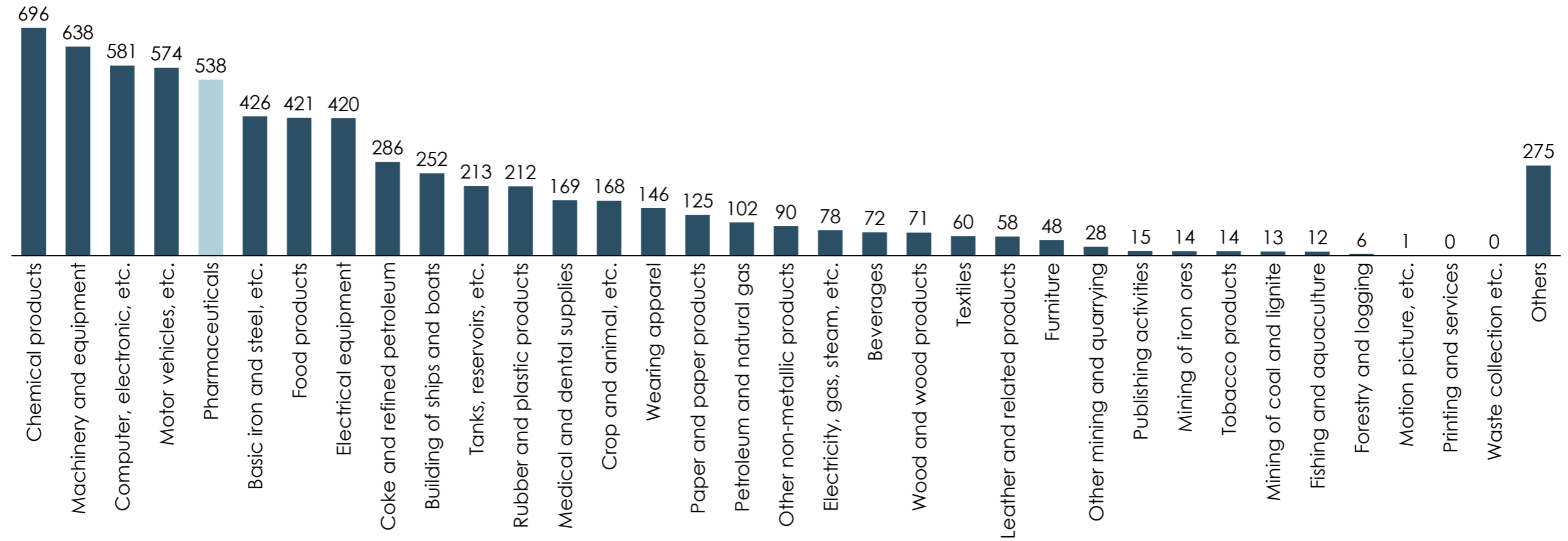
Source: Illustration by Copenhagen Economics.

Notes: 1) EU trade databases also includes information on services, however, the focus of this note is trade in goods. / 2) European Parliament (2019), *Understanding trade balances*, see [link](#).

The pharmaceutical industry is the 5th largest exporting industry in the EU

Figure 2. Total EU exports by exporting industry, 2022

Billion EUR

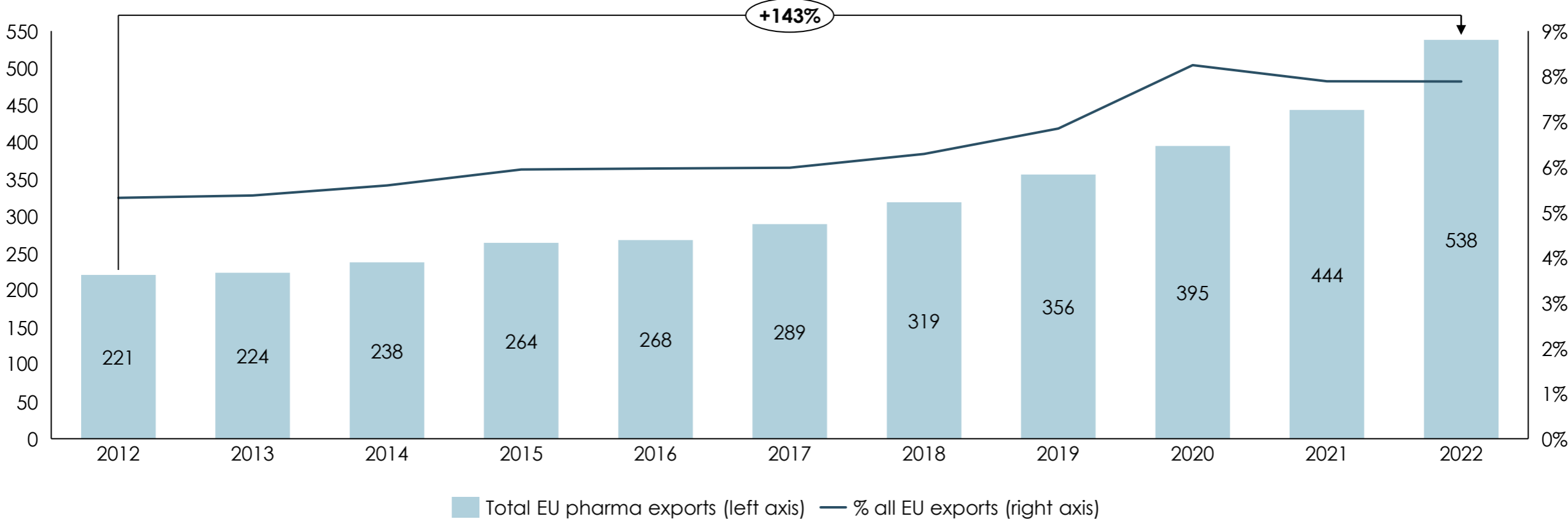


Note: Includes extra- and intra-EU exports from all EU27 countries. The names of the industries have been shortened to fit on this page. See page 14 for a full list of NACE codes and full names. Others include unallocated and blank products. Source: EUROSTAT international trade in goods data.

Total EU pharmaceutical exports have grown by 143 per cent since 2012 and reach 538 billion EUR in 2022

Figure 3. Total EU pharmaceutical exports

Billion EUR and per cent of all EU goods trade

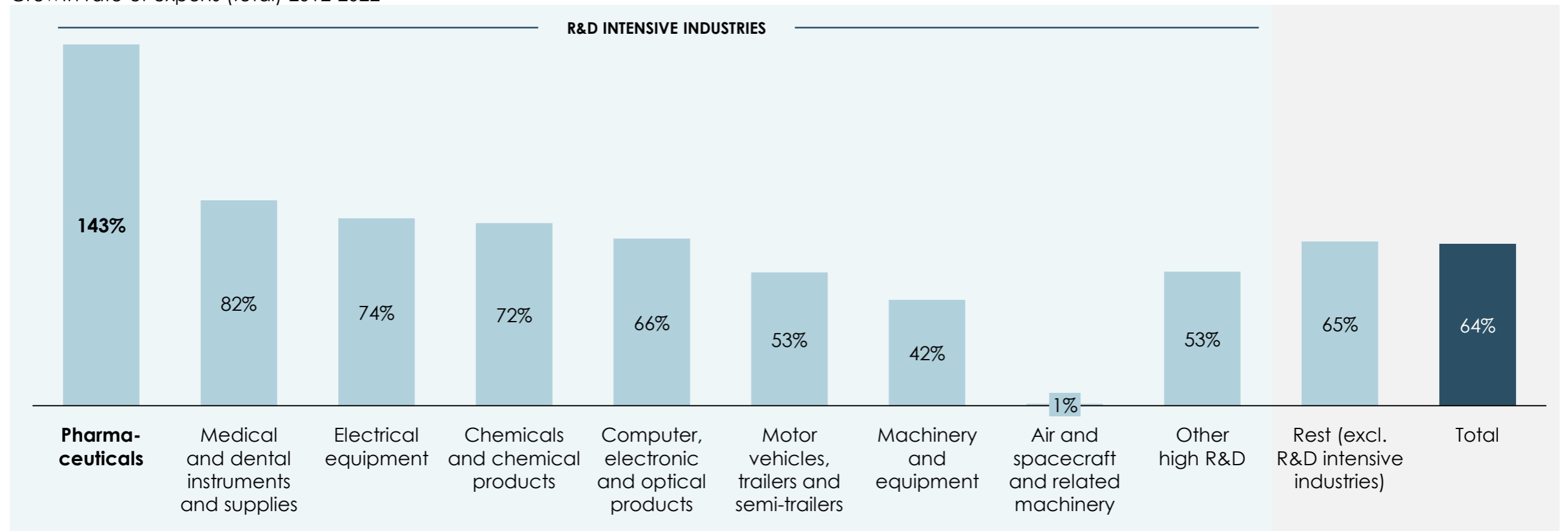


Note: Includes extra- and intra-EU exports from all EU27 countries. The sum for EU27 is reported by Eurostat and is greater than the sum reported data for available member states hence it must include confidential data. Source: EUROSTAT international trade in goods data.

The export growth in pharmaceuticals is significantly higher than for other R&D intensive industries

Figure 4. Total EU export growth between 2012 and 2022, distributed across R&D intensive and remaining industries

Growth rate of exports (total) 2012-2022

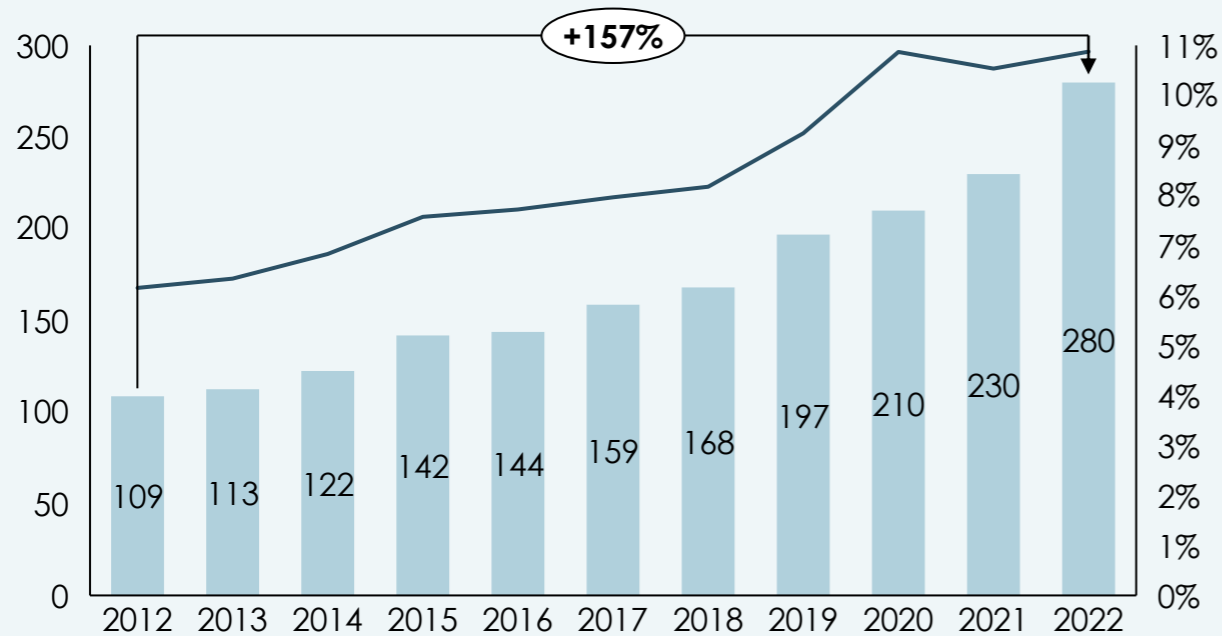


Note: Includes extra- and intra-EU exports from all EU27 countries. The following industry codes have been applied: Medical and dental instruments and supplies: D325, Chemicals and chemical products: D20, Electrical equipment: D27, Computer, electronic and optical products: D26, Air and spacecraft and related machinery: D303, Motor vehicles, trailers and semi-trailers: D29, Machinery and equipment: D28. Source: EUROSTAT international trade in goods data.

Exports both outside of and within the EU have grown since 2012

Figure 5. Extra-EU pharmaceutical exports

Billion EUR and per cent of all extra-EU goods export

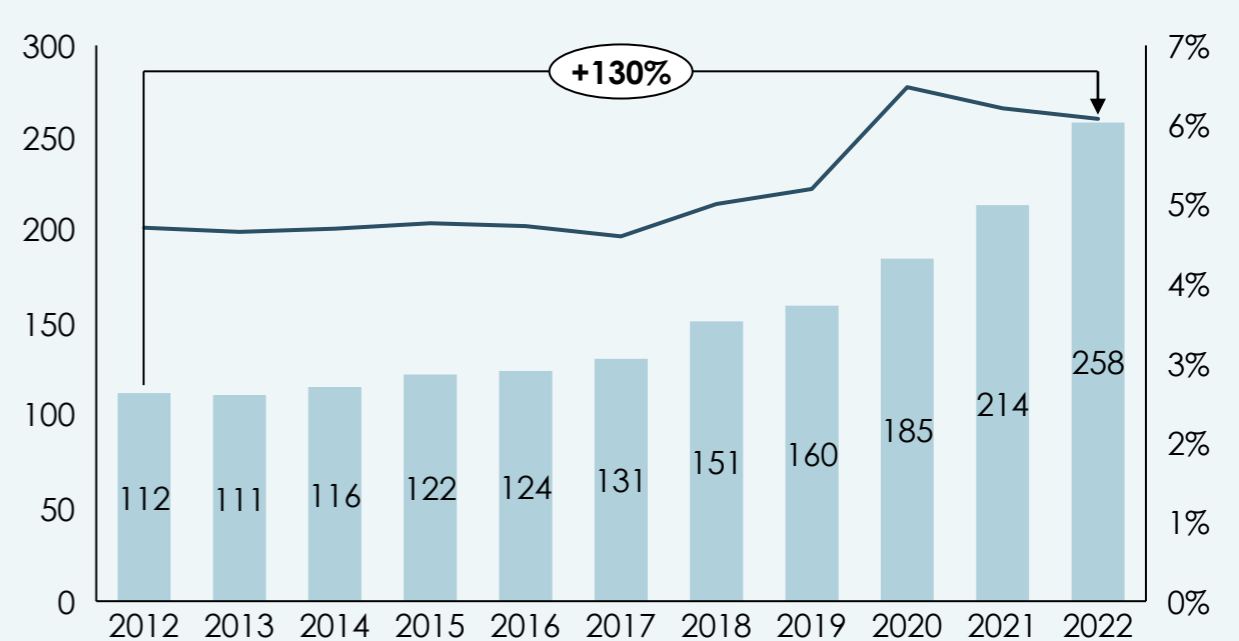


■ Extra-EU pharma exports (left axis)
 — % total extra-EU exports (right axis)

Note: Includes extra-EU exports from all EU27 countries. The sum for EU27 is reported by Eurostat and is greater than the sum reported data for available member states, hence it must include confidential data.
 Source: EUROSTAT international trade in goods data.

Figure 6. Intra-EU pharmaceutical exports

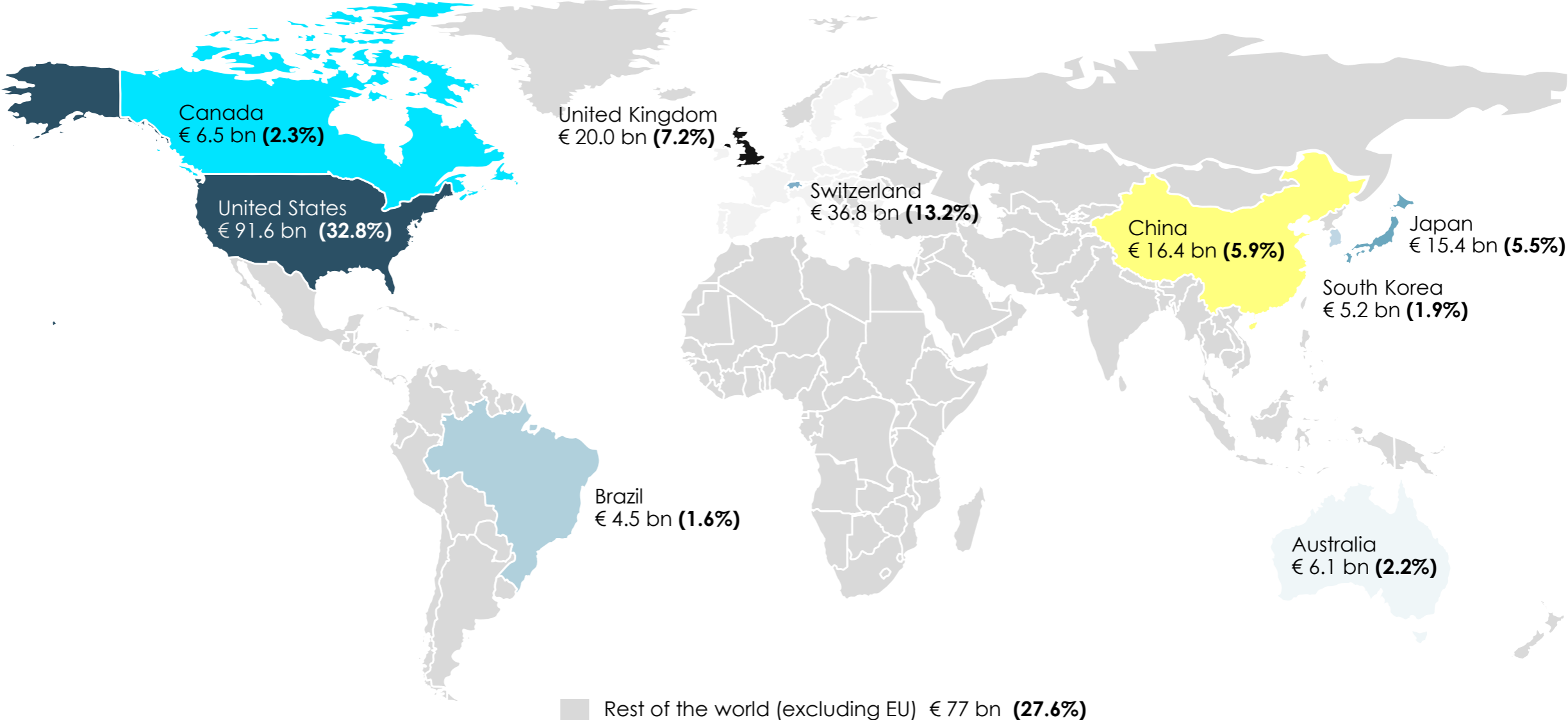
Billion EUR and per cent of all intra-EU goods export



■ Intra-EU pharma exports (left axis)
 — % of all intra-EU exports (right axis)

Note: Includes intra-EU exports from all EU27 countries. The sum for EU27 is reported by Eurostat and is greater than the sum reported data for available member states hence it must include confidential data.
 Source: EUROSTAT international trade in goods data.

Almost one third of the EU's pharmaceutical extra-EU exports go to the United States, making up the largest non-EU export market

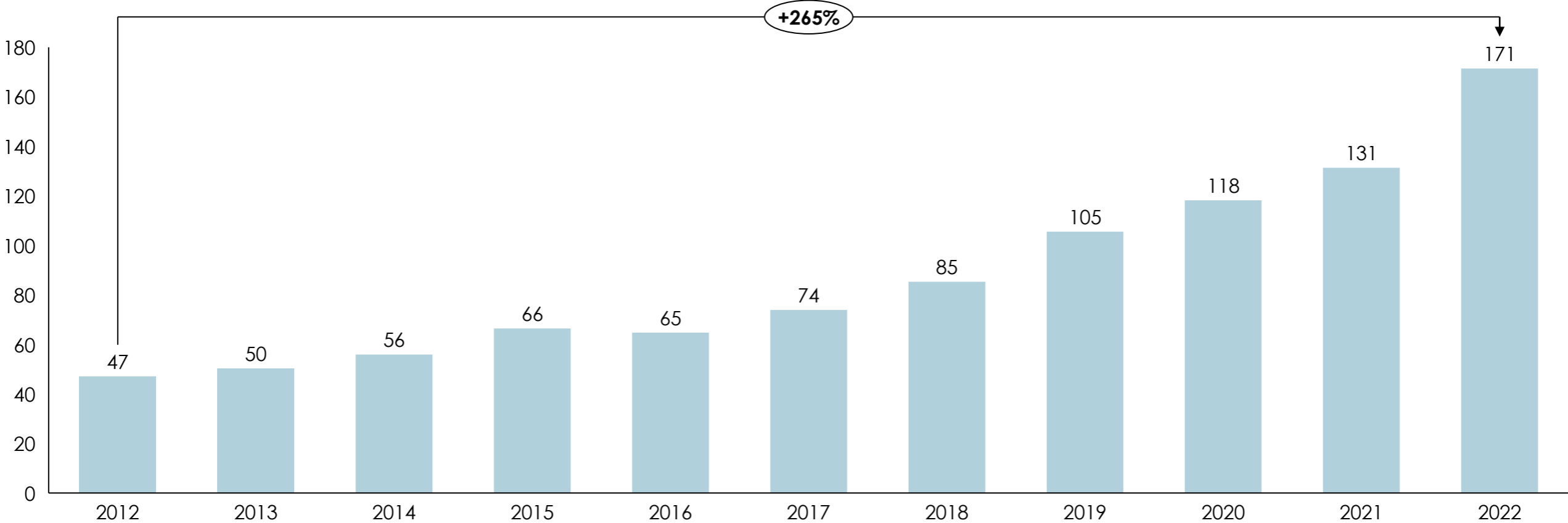


Source: EUROSTAT international trade in goods data.

The extra-EU pharmaceutical trade surplus has increased by 265% since 2012 and reaches a trade surplus of 171 billion EUR in 2022

Figure 7. Extra-EU trade balance in pharmaceuticals

Billion EUR

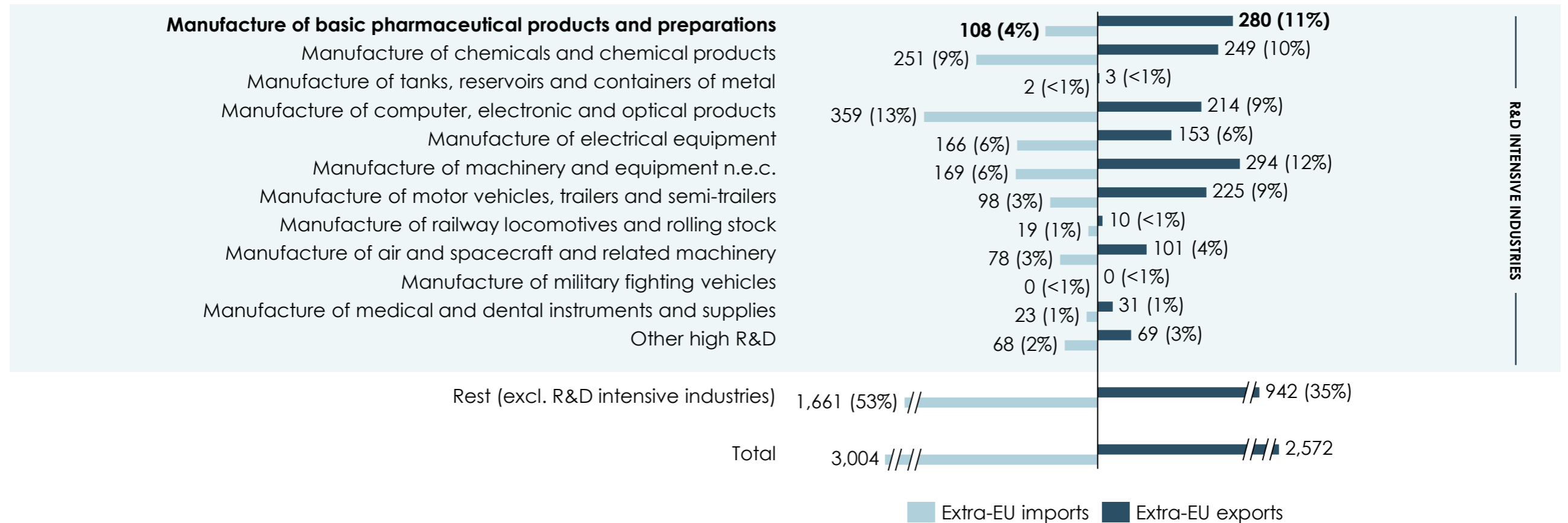


Note: The graph shows the difference between extra-EU exports and -imports. The sum for EU27 is reported by Eurostat and is greater than the sum reported data for available member states hence it must include confidential data. Source: EUROSTAT international trade in goods data.

Pharmaceuticals represent 11% of all extra-EU exports in goods

Figure 8. Extra-EU trade in goods distributed across R&D intensive and remaining industries, 2022

Billion EUR (per cent of total imports/exports)



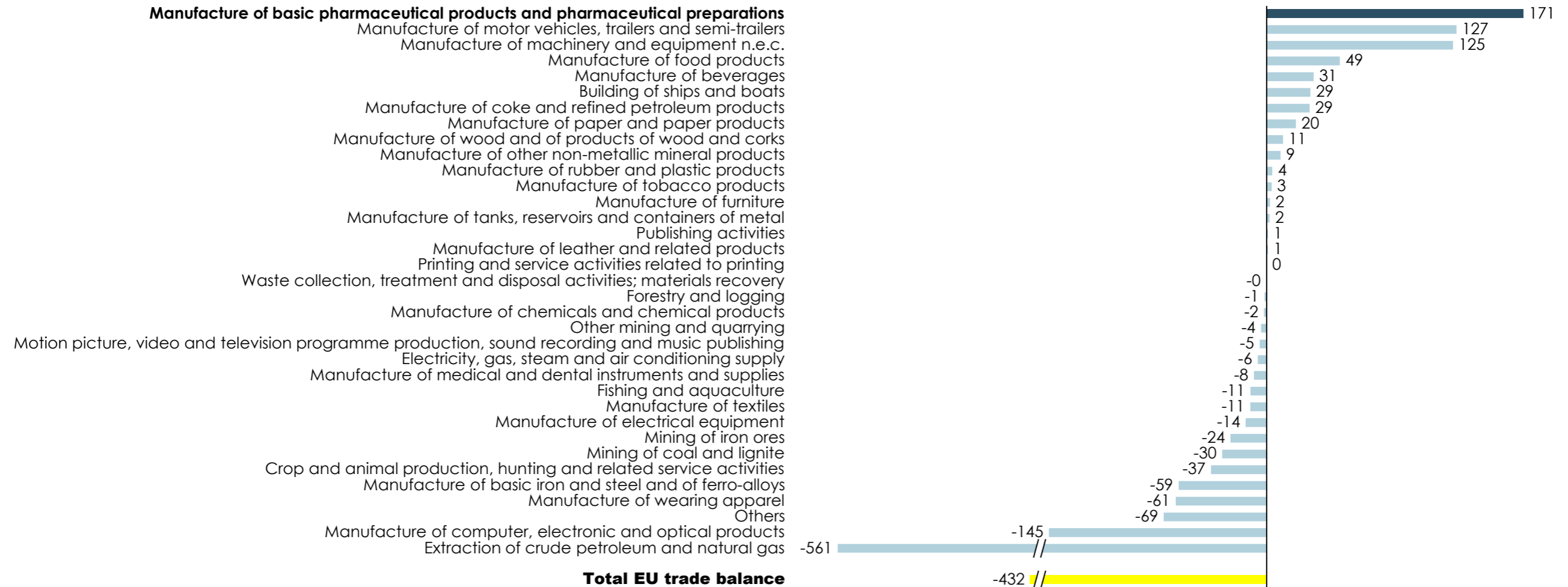
Note: Includes extra-EU trade from all EU27 countries. Sectors are grouped according to NACE 2-digit groupings. The following industry codes have been applied: Medical and dental instruments and supplies: D325, Chemicals and chemical products: D20, Electrical equipment: D27, Computer, electronic and optical products: D26, Air and spacecraft and related machinery: D303, Motor vehicles, trailers and semi-trailers: D29, Machinery and equipment: D28. Differences are due to roundings. Source: EUROSTAT international trade in goods data.

Trade in pharmaceutical goods has the highest positive contribution to the EU's trade balance in 2022

The EU had a negative trade balance in 2022 primarily driven by large imports of crude petroleum and natural gas. In 2020 and 2021, the EU trade balance was positive, and the pharmaceutical industry was also the industry with the largest positive trade balance in those years.

Figure 9. Extra-EU trade balance in goods distributed across industries, 2022

Billion EUR



Note: Includes extra-EU trade from all EU27 countries. Sectors are grouped according to NACE 2-digit groupings. No sector has been excluded. Source: EUROSTAT international trade in goods data.

Appendix

Full list of NACE 2-digit codes and industry names included in this study and shown on page 6

| NACE code | Name | NACE code | Name |
|-----------|--|-----------|---|
| 01 | Crop and animal production, hunting and related service activities | 21 | Manufacture of basic pharmaceutical products and pharmaceutical preparations |
| 02 | Forestry and logging | 22 | Manufacture of rubber and plastic products |
| 03 | Fishing and aquaculture | 23 | Manufacture of other non-metallic mineral products |
| 05 | Mining of coal and lignite | 24 | Manufacture of basic iron and steel and of ferro-alloys |
| 06 | Extraction of crude petroleum and natural gas | 25 | Manufacture of tanks, reservoirs and containers of metal |
| 07 | Mining of iron ores | 26 | Manufacture of computer, electronic and optical products |
| 08 | Other mining and quarrying | 27 | Manufacture of electrical equipment |
| 10 | Manufacture of food products | 28 | Manufacture of machinery and equipment n.e.c. |
| 11 | Manufacture of beverages | 29 | Manufacture of motor vehicles, trailers and semi-trailers |
| 12 | Manufacture of tobacco products | 30 | Building of ships and boats |
| 13 | Manufacture of textiles | 31 | Manufacture of furniture |
| 14 | Manufacture of wearing apparel | 32 | Manufacture of medical and dental instruments and supplies |
| 15 | Manufacture of leather and related products | 35 | Electricity, gas, steam and air conditioning supply |
| 16 | Manufacture of wood and of products of wood and corks | 38 | Waste collection, treatment and disposal activities; materials recovery |
| 17 | Manufacture of paper and paper products | 58 | Publishing activities |
| 18 | Printing and service activities related to printing | 59 | Motion picture, video and television programme production, sound recording and music publishing |
| 19 | Manufacture of coke and refined petroleum products | Others | Others (unallocated and blanks) |
| 20 | Manufacture of chemicals and chemical products | | |



AUTHORS

Julia Sabine Wahl, Partner
Lærke Kilsdal, Lead Economist

Belgium

Maison de la Radio
Place Eugène Flagey 18
BE-1050 Brussels

Denmark

Langebrogade 3C
DK-1411 Copenhagen

Finland

Lönnrofikatu 5
FIN-00100 Helsinki

Sweden

Lilla Nygatan 14
SE-111 28 Stockholm

www.copenhageneconomics.com