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Industry



Structure

The EU's industrial economy is covered by four activities: mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; and water supply, sewerage, waste management and remediation activities.

Manufacturing was by far the largest of these four activities: in 2019, it accounted for more than four fifths (84.7 %) of industrial value added in the EU and for an even higher share of industrial employment (90.3 %).

Concentration of industrial activity – top five EU Member States

(%, share of EU employment and value added for each activity, 2019)

EU industrial activities in 2019

2.3 million enterprises

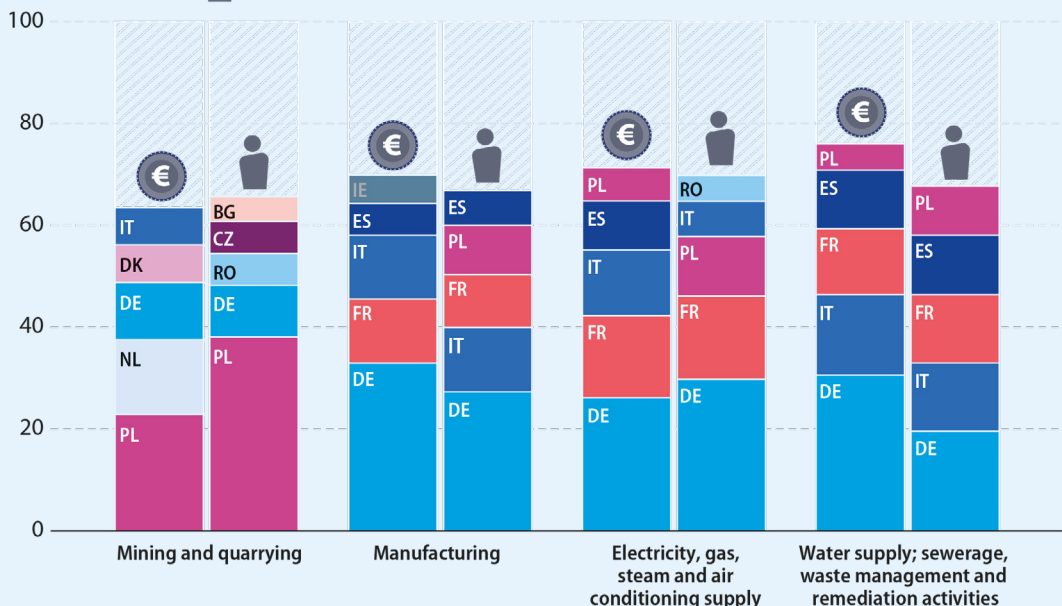
33.4 million persons employed

€2.3 trillion of value added

In 2019, Germany had the highest share of EU value added for the manufacturing sector (33.0 %), for water supply, sewerage, waste management and remediation activities (30.6 %) and for electricity, gas, steam and air conditioning supply (26.2 %). By contrast, Poland contributed the largest share of value added to the EU's mining and quarrying sector (22.8 %), followed by the Netherlands (14.7 %).

Germany also recorded the highest shares of EU employment for the same three industrial activities as noted above, with shares of 27.3 %, 19.6 % and 29.8 % respectively. Poland had the largest employment share within the EU's mining and quarrying sector, at 38.1 %.

€ Value added Employment



Note: electricity, gas, steam and air conditioning supply, MT: not available.

Source: Eurostat (online data code: sbs_na_ind_r2)

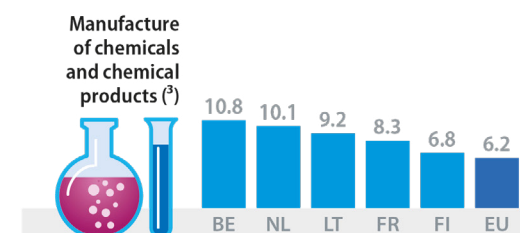
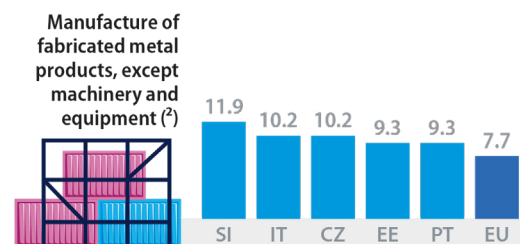
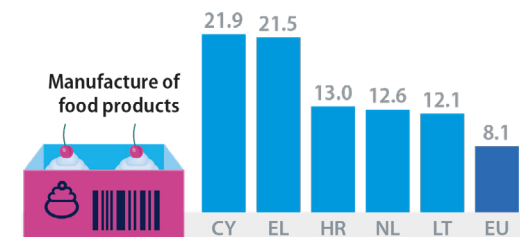
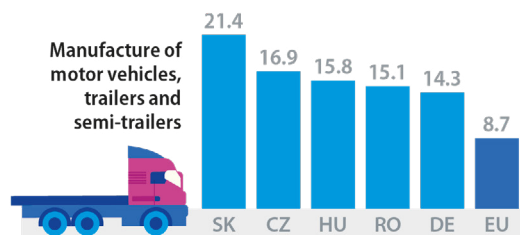
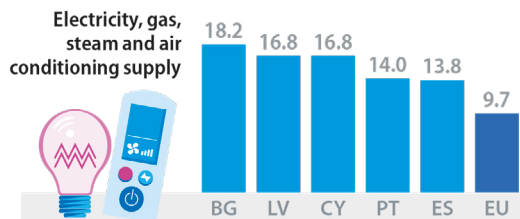
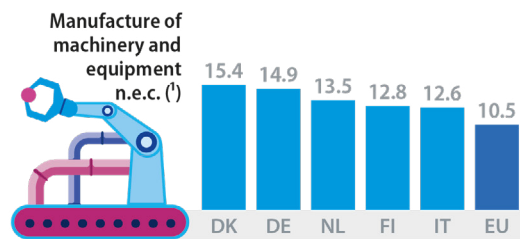
Value added specialisation – top five EU Member States

(%, share of industrial value added, 2019)

In 2019, measured by value added the six largest activities (based on NACE Rev 2 divisions) within the EU's industrial economy were: the manufacture of machinery and equipment not elsewhere classified (10.5 % of industrial value added); electricity, gas, steam and air conditioning supply (9.7 %); the manufacture of motor vehicles, trailers and semi-trailers (8.7 %); the manufacture of food products (8.1 %); the manufacture of fabricated metal products, except machinery and equipment (7.7 %); and the manufacture of chemicals and chemical products (6.2 %).

Among the EU Member States, Denmark had the highest share of its industrial value added within the manufacture of machinery and equipment (15.4 %), followed by Germany with a 14.9 % share. For electricity, gas, steam and air conditioning, Bulgaria (18.2 %) had the highest proportion, while for the manufacture of motor vehicles, trailers and semi-trailers, the highest share was recorded in Slovakia (21.4 %).

In Cyprus, the manufacture of food products accounted for 21.9 % of industrial value added in 2019, just ahead of the 21.5 % share observed in Greece. In Slovenia, the manufacture of fabricated metal products except machinery and equipment accounted for 11.9 % of industrial value added. Belgium had the highest degree of relative specialisation across the EU Member States for the manufacture of chemicals and chemical products, with 10.8 % of its industrial value added being generated in this subsector, ahead of the Netherlands where a 10.1 % share was observed.



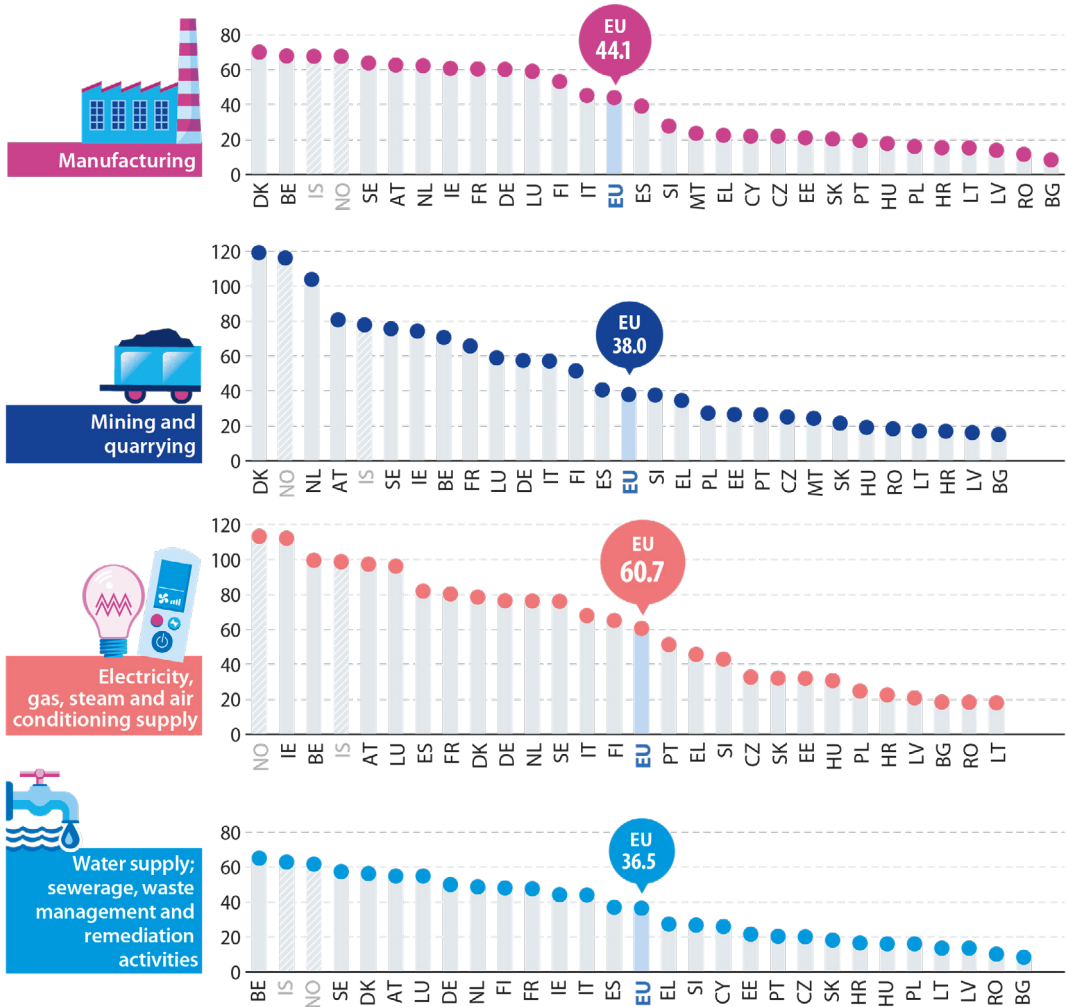
Note: data are shown for the six largest activities based on EU value added for NACE Rev. 2 industrial divisions. MT: not available.

(¹) EU: excluding IE. IE: not available. (²) EU: excluding PL. PL: not available. (³) IE and PL: not available.

Source: Eurostat (online data code: sbs_na_ind_r2)

Average personnel costs within industrial sections

(€ thousand per employee, 2019)



Note: IS, 2018. Mining and quarrying: CY: not available. Electricity, gas, steam and air conditioning supply: CY and MT: not available. Water supply; sewerage, waste management and remediation activities: MT: not available.

Source: Eurostat (online data code: sbs_na_ind_r2)

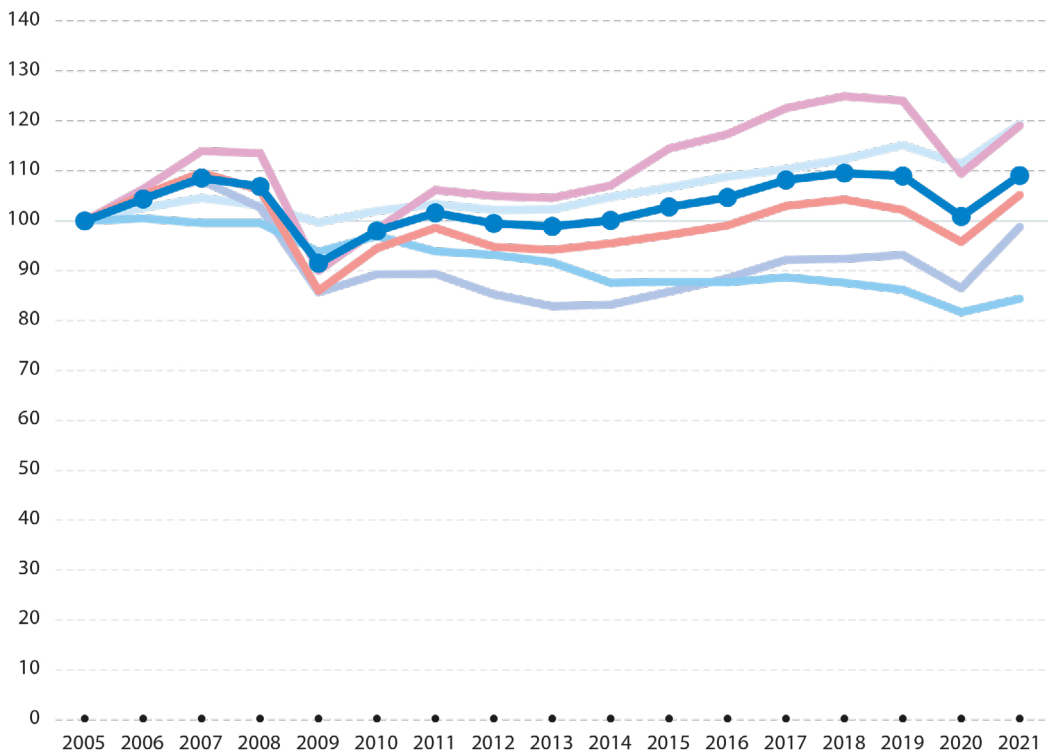
In 2019, average personnel costs across the four sections within the EU's industrial economy ranged from a high of €60 700 per employee for electricity, gas, steam and air conditioning supply down to €36 500 per employee for water supply, sewerage, waste management and remediation activities.

In the vast majority of EU Member States, the highest average personnel costs across industrial activities were registered for electricity, gas, steam and air conditioning supply. The only exceptions in 2019 were Denmark, the Netherlands and Poland (incomplete data for Cyprus and Malta): in all three cases, average personnel costs were higher for mining and quarrying. By contrast, the lowest average personnel costs were often recorded for water supply, sewerage, waste management and remediation activities; Estonia, Greece, Croatia and Portugal were exceptions, as average personnel costs were lower in manufacturing.

Developments

Industrial production index

(2005 = 100, EU, 2005–2021)



Industry – total

- Non-durable consumer goods
- Capital goods
- Intermediate goods
- Durable consumer goods
- Energy

Note: industry covers NACE Rev. 2 Sections B to D.
Source: Eurostat (online data code: [sts_inpr_a](#))

The industrial production index is an important indicator to monitor the business cycle; it is a volume index that reflects real changes (after removing the impact of price changes) in industrial output.

Industrial output in the EU contracted in 2008 and 2009 as a result of the recession associated with the global financial and economic crisis. Output declined 1.6 % in 2008 (compared with a year before) and was down as much as 14.4 % in 2009; after two years of recovery, there were also decreases in 2012 and 2013 before industrial output in the EU resumed its upward trajectory. Having grown for five consecutive years, there was a 0.5 % decline for the EU's industrial production index in 2019, followed by a considerable contraction in 2020 (down 7.4 %); this most recent decline was driven by falling output for all types of manufacturing, most notably for capital goods (down 11.8 % in 2020), reflecting the impact of the COVID-19 pandemic. Industrial output rebounded in 2021, recording growth of 8.1 %, bringing the index level back to approximately the same level it had been in 2019.

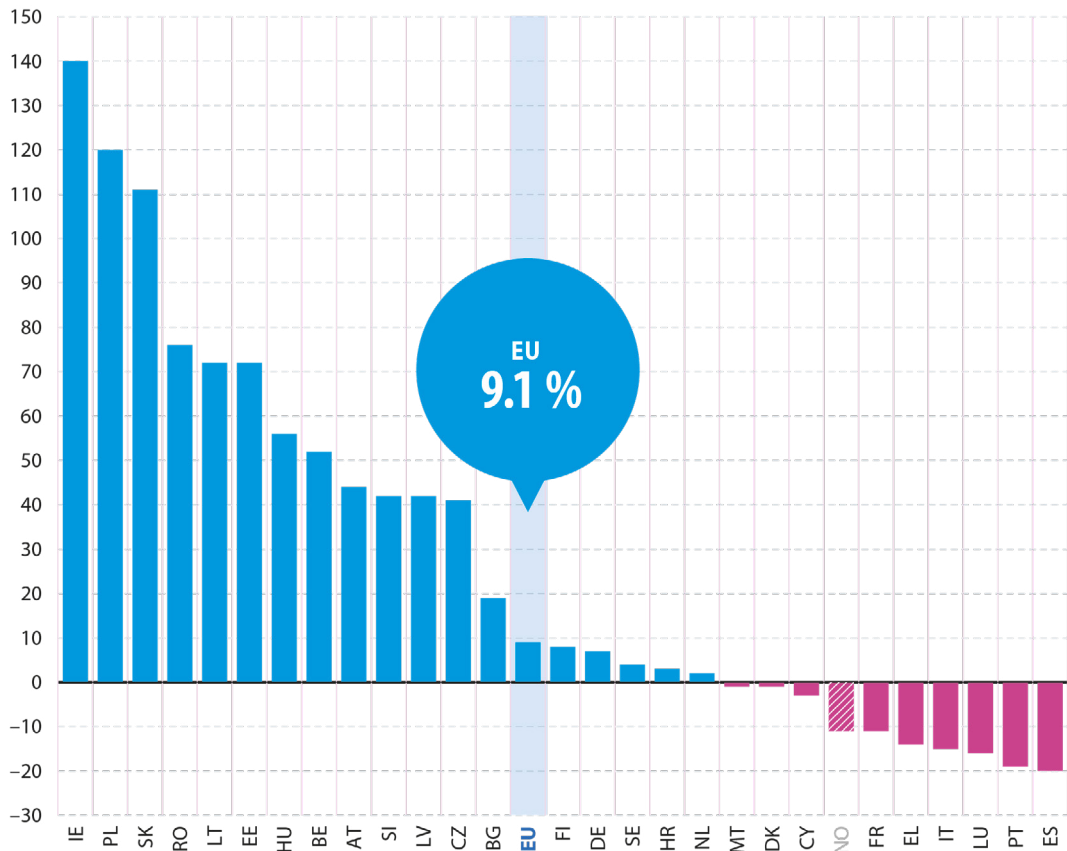
When considering the information shown in the figures on pages 36 and 37 it should be remembered that the period covered (2005–2021) includes the global financial and economic crisis and subsequent recovery. Furthermore, by ending in 2021, the overall rates of change reflect the combination of the long-term developments and the often substantial (downward) impact of the COVID-19 pandemic in 2020 and rebound in 2021.

Overall change in the industrial production index

(%, 2005–2021)

EU industrial production was 9.1 % higher in 2021 than it had been in 2005. The highest growth rates among the EU Member States during this period were recorded in Ireland, Poland and Slovakia, all of which had a level of industrial output in 2021 that was more than double its 2005 level.

A total of nine EU Member States recorded lower levels of industrial production in 2021 than in 2005. The largest contractions during this period were in Spain (–19.6 %), Portugal (–18.9 %), Luxembourg (–16.5 %), Italy (–14.7 %), Greece (–13.8 %) and France (–11.1 %).

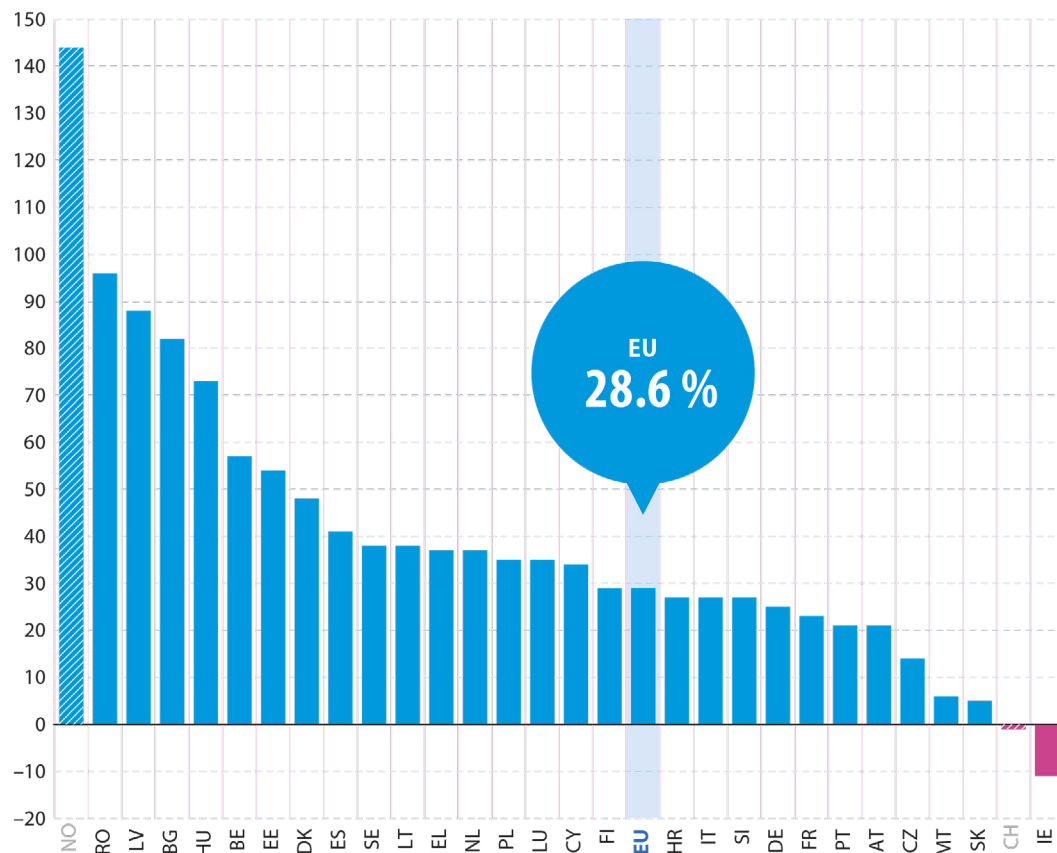


Note: industry covers NACE Rev. 2 Sections B to D.

Source: Eurostat (online data code: sts_inpr_a)

Overall change in industrial producer prices

(%, 2005–2021)



The industrial producer price index is based on selling prices reported by a sample of producers across the EU. This indicator is used to monitor price developments at various stages of industrial processes; changes in producer prices can be an early indicator of inflationary pressures within an economy.

Note: industry covers NACE Rev. 2 Sections B to D and Division 36.

Source: Eurostat (online data code: [sts_inpp_a](#))

Industrial producer prices in the EU rose at a relatively subdued pace between 2005 and 2021. The overall change in prices during this period was an increase of 28.6%. Industrial producer prices increased in all but one of the EU Member States. The highest increases were recorded in Romania (up 96.3% overall), Latvia (87.6%) and Bulgaria (81.9%). The only exception was Ireland, where prices fell 10.9%.

Focus on high-tech industry

High-tech manufacturing activities

(%, share of manufacturing value added, 2019)

High-tech industries cover the manufacture of selected products: pharmaceuticals; computer, electronic and optical products; air and spacecraft and related machinery. In 2019, these activities provided work to 2.0 million people in the EU (6.8 % of manufacturing employment), while they added €293 billion of value (14.6 % of manufacturing value added).

In 2019, high-tech industries accounted for 24.5 % of manufacturing value added in Belgium, while the next largest share was recorded in France (18.0 %). In a majority of the EU Member States less than 10.0 % of added value in manufacturing was derived from high-tech industries. The lowest share was recorded in Portugal (4.7 %).

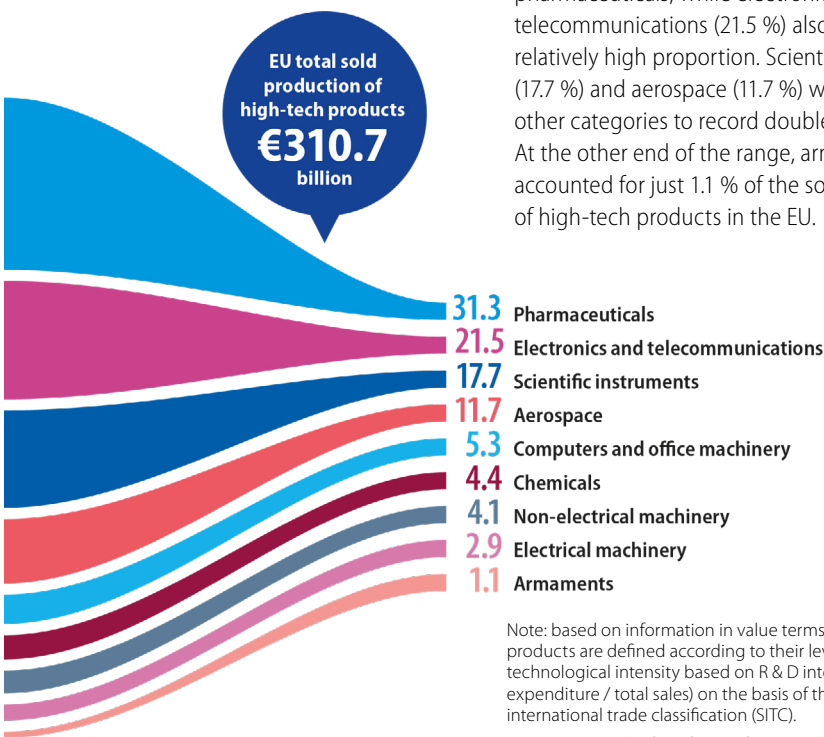
Note: DK, IE, CY, LU and SK, not available. EE, IS and CH: 2018. NL: 2017.

Source: Eurostat (online data code: sbs_na_sca_r2)

Sold production of high-tech products

(%, share of all high-tech products, EU, 2020)

In 2020, 31.3 % of the EU's sold production of high-tech products was made-up of pharmaceuticals, while electronics and telecommunications (21.5 %) also contributed a relatively high proportion. Scientific instruments (17.7 %) and aerospace (11.7 %) were the only other categories to record double-digit shares. At the other end of the range, armaments accounted for just 1.1 % of the sold production of high-tech products in the EU.

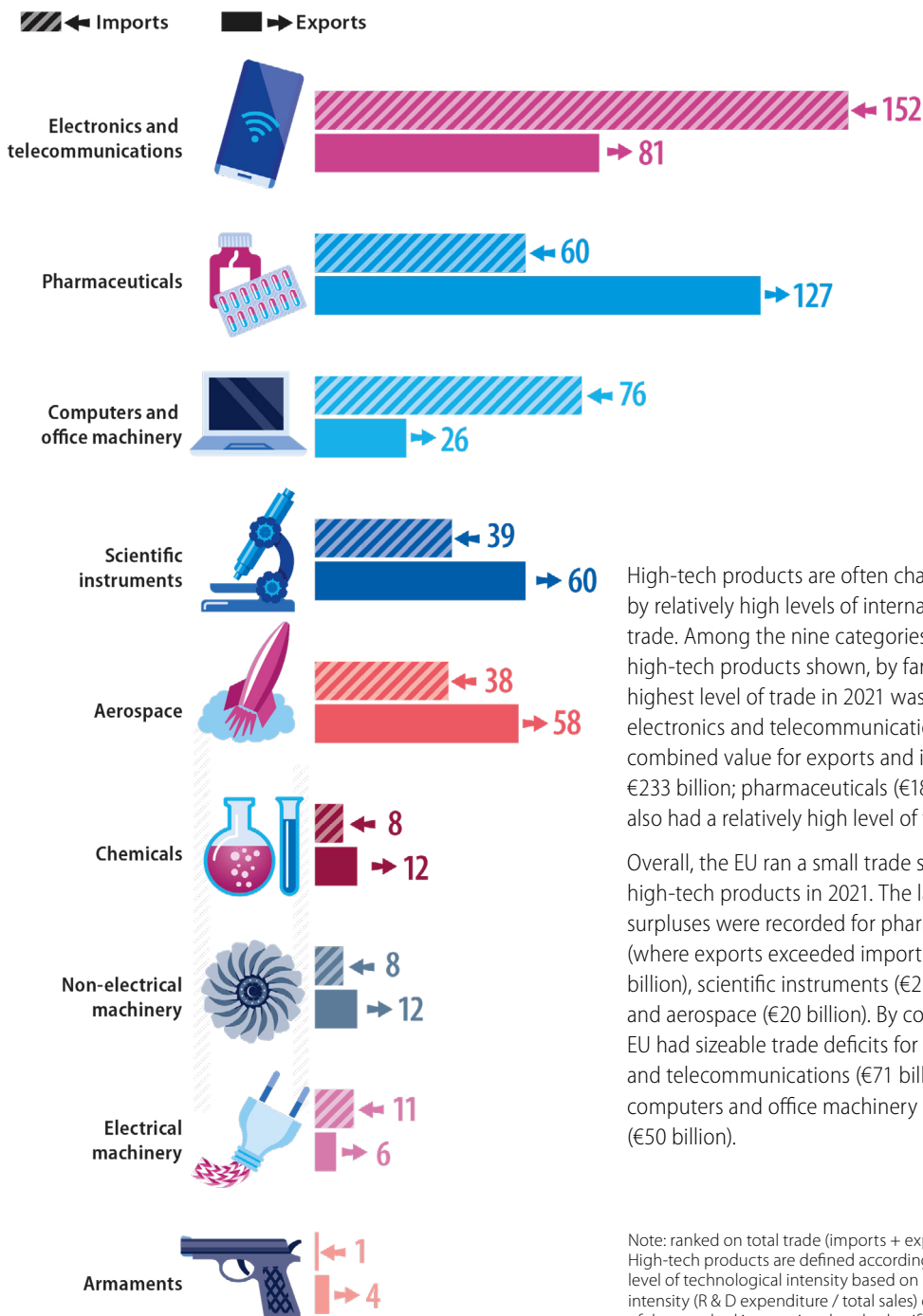


Note: based on information in value terms. High-tech products are defined according to their level of technological intensity based on R & D intensity (R & D expenditure / total sales) on the basis of the standard international trade classification (SITC).

Source: Eurostat (online data code: DS-066341)

Trade in high-tech products

(€ billion, EU, 2021)



High-tech products are often characterised by relatively high levels of international trade. Among the nine categories of high-tech products shown, by far the highest level of trade in 2021 was for electronics and telecommunications, with a combined value for exports and imports of €233 billion; pharmaceuticals (€187 billion) also had a relatively high level of total trade.

Overall, the EU ran a small trade surplus for high-tech products in 2021. The largest surpluses were recorded for pharmaceuticals (where exports exceeded imports by €67 billion), scientific instruments (€21 billion) and aerospace (€20 billion). By contrast, the EU had sizeable trade deficits for electronics and telecommunications (€71 billion) and for computers and office machinery (€50 billion).

Note: ranked on total trade (imports + exports). High-tech products are defined according to their level of technological intensity based on R & D intensity (R & D expenditure / total sales) on the basis of the standard international trade classification (SITC).

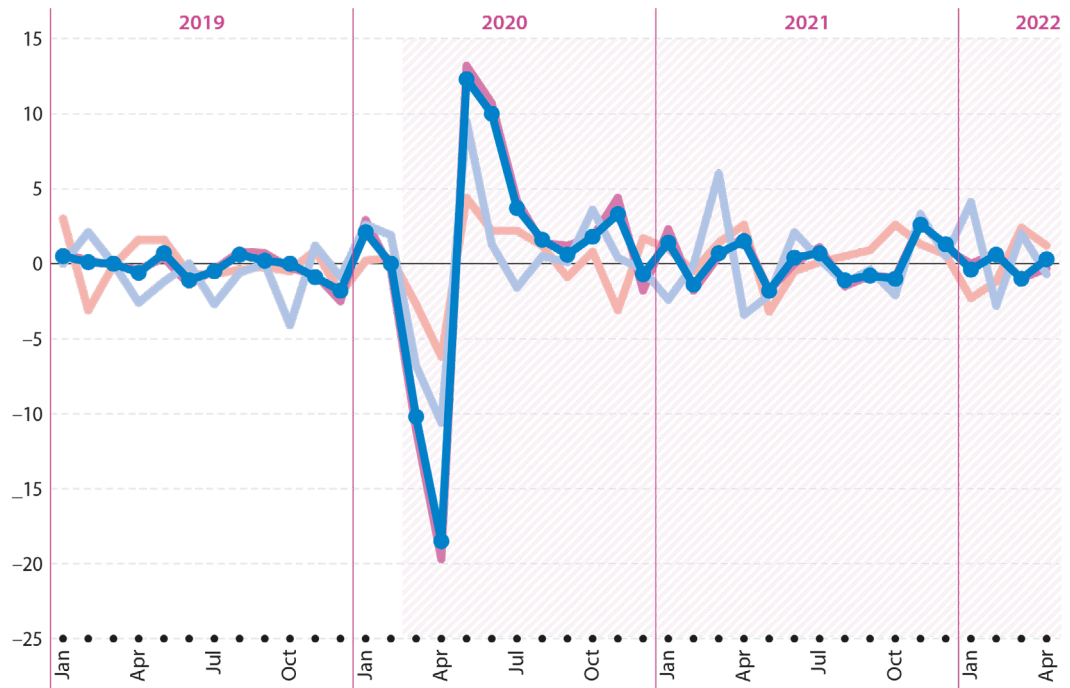
Source: Eurostat (online data code: DS-018995)

Latest developments

Monthly data for 2020 and to a lesser extent 2021 show the impact of the COVID-19 pandemic on the industrial economy. The most recent data for 2022 may be impacted by a wider range of issues, for example aftereffects of the COVID-19 crisis on supply chains and early impacts from the Russian military aggression against Ukraine and the related sanctions.

Industrial production indices

(%, change compared with the previous month, EU, January 2019–April 2022)



Industry – total

- Mining and quarrying
- Manufacturing
- Electricity, gas, steam and air conditioning supply

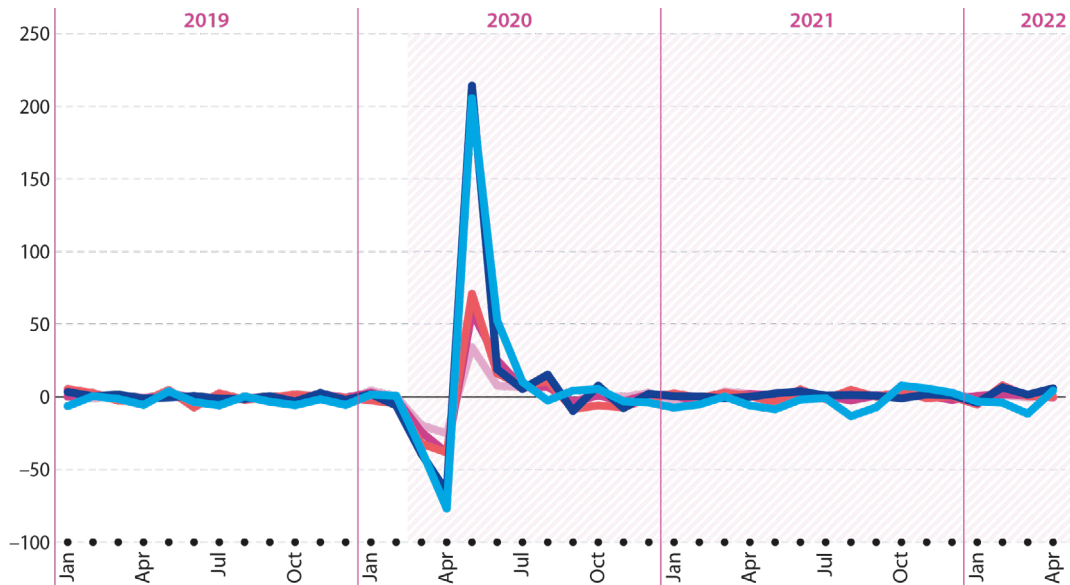
Note: the industry total covers mining and quarrying (NACE Rev. 2 Section B), manufacturing (Section C), and electricity, gas, steam and air conditioning supply (Section D).

Source: Eurostat (online data code: sts_inpr_m)

The largest month-on-month decreases in EU industrial output during the first wave of the pandemic were registered in March 2020 (down 10.2 %) and April 2020 (down 18.5 %). These decreases were followed by a rebound in activity, with output increasing in May, June and July 2020, up 12.3 %, 10.0 % and 3.7 % respectively. Since then, monthly rates of change have ranged from –1.8 % to 3.3 %.

Industrial production indices for the five manufacturing divisions most impacted during the COVID-19 pandemic

(%, change compared with the previous month, EU, January 2019–April 2022)



- Motor vehicles, trailers and semi-trailers
- Leather and related products
- Wearing apparel
- Furniture
- Textiles

Note: the five manufacturing divisions most impacted by the COVID-19 pandemic were selected on the basis of the change in EU production indices between February and April 2020.

Source: Eurostat (online data code: sts_inpr_m)

Across the EU, the industrial activities that suffered the largest impacts during the first wave of the COVID-19 pandemic in March and April 2020 included the manufacture of: motor vehicles, trailers and semi-trailers; leather; wearing apparel; furniture; and textiles. However, output for these activities rebounded strongly in May and June 2020.

For the manufacture of furniture, textiles and leather, more recent information shows a relatively stable development for output since autumn or early winter 2020.

By contrast, industrial output for the manufacture of wearing apparel had returned close to its February 2020 level by August 2020, but output fell quite sharply for most of the remaining months of 2020 before stabilising in 2021; some volatility returned in the first couple of months of 2022.

The recovery for the manufacture of motor vehicles, trailers and semi-trailers continued over a few more months: in October 2020, output reached a level just 2 % below that observed in February 2020. Thereafter output declined most months, falling 32 % overall between October 2020 and September 2021. Output expanded somewhat in the remaining months of 2021, but volatility returned in the first few months of 2022.

[For continuously updated visualisations containing time series for industrial production:](#)

