ECONOMIC REPORT

Economic and steel market outlook 2022-2023

Third quarter report

Data up to, and including, first quarter 2022

August 2022



Introduction

The positive trend seen in apparent steel consumption throughout 2021 continued over the first quarter of 2022, but was slowed down by ongoing, severe global supply chain disruptions, rising energy prices and production costs. In particular, these issues are expected to weigh even more in the second half of 2022, together with the effects of Russia's war in Ukraine.

The impact of this situation on steel-using industries and the overall economic outlook are set to take their toll on apparent steel consumption in 2022. Therefore, steel consumption is expected to see its third annual recession over the last four years, albeit moderate (-1.7%, formerly set at -1.9%), most probably as a result of quarterly drops that are foreseen over the second, third and fourth quarters of 2022. Apparent steel consumption is set to recover in 2023 (+5.6%), but the overall evolution of steel demand remains subject to high uncertainty, which is likely to continue to undermine demand from steel-using sectors. High uncertainty is set to last at least until the first quarter of 2023, conditional upon developments in the Russia-Ukraine war – which are unforeseeable at the time of writing – and its impact on global supply chains.

EU steel market overview

In the first quarter of 2022, growth in apparent consumption increased (+6.5%, after +10.1% in the fourth quarter of 2021), totalling a volume of 37.1 million tonnes. This is still below the pre-pandemic peak reached in the fourth quarter of 2018.

The whole year 2020 was considerably impacted by the COVID-19 pandemic and saw apparent steel consumption in the EU plummet (-10.7%) for the second consecutive year after the slump (-5.2%) seen in 2019.

In 2021 apparent steel consumption rebounded (+15.7%, slightly revised upwards from +15.2% in the previous outlook). The heavy disruptions due to the ongoing supply chain issues and the consequences of the war in Ukraine on steel-using industries, and the overall economic outlook, are set to take their toll on apparent steel consumption in 2022. Therefore, apparent steel consumption is expected to see its third annual recession over the last four years, albeit moderate (-1.7%, previously estimated at -1.9%), most probably as a result of quarterly drops that are foreseen over the second, third and fourth quarters of 2022. Apparent steel consumption is set to recover in 2023 (+5.6%), but the overall evolution of steel demand remains subject to high uncertainty, which is likely to continue to undermine demand from steel-using sectors.

Domestic deliveries recorded a tiny growth rate in volumes over the first quarter of 2022 (+0.2%, after +1.2% in the fourth quarter of 2021), mirroring the evident slowdown in demand within the EU experienced since the second half of 2021. Over the whole of 2021 deliveries sharply rebounded (+11.3%), following 2020's sharp drop (-9.6%) that marked the second consecutive decline in yearly terms after 2019 (-4.2%).

Imports – including semi-finished products – into the EU continued their pronounced increase (+28.8%) also over the first quarter of 2022, albeit at a lower rate compared to the fourth and third quarter of 2021 (+43.4% and +47.7% respectively), but rose very modestly (+0.4%) over the second quarter. Imports of finished products also rose very modestly (+0.6%), after a rise of +34% over the first quarter. Bearing in mind that only 2021's second quarter figures specifically reflect the comparison with the exceptionally low figures of the year before, which was heavily impacted by the pandemic, it is clear that import penetration over the last quarters has remained considerably high.

EU steel-using sectors

Despite the persisting supply chain issues and Russia's invasion of Ukraine, steel-using sectors marked the fifth consecutive year-on-year growth over the first quarter of 2022 (+4.9%), gaining speed compared to the fourth quarter of 2021 (+2.6%). This trend had peaked in the second quarter of 2021 when steel-using sectors achieved a spectacular, one-off growth rate (+27.9%). This was due to the industrial recovery gaining momentum, but it was also a result of the comparison to record lows of the second quarter of 2020.

By contrast, over the second half of 2021 total production activity in steel-using sectors had been increasingly impacted by the ongoing supply chain issues (lack of components and materials, bottlenecks and rising transportation costs, etc.) and rising energy prices that took their toll in terms of production costs, component shortages and lower output. However, total output in steel-using sectors in 2021 rebounded (+8.6%, previously estimated at +7.3%) after the sharp drop recorded in 2020 due to the impact of COVID-19 (-10.4%), mainly thanks to very positive developments over the first two quarters. The war in Ukraine has certainly impacted the outlook for the rest of 2022 - with supply chain issues still persisting and even being exacerbated - but figures for the first quarter of 2022 (Russia invaded Ukraine on 24 February) do not yet reflect the impact on the steel-using sectors' output as whole. However, different developments for individual sectors lie behind this figure. The positive evolution of total steel-using sectors' output was a combination of very positive developments in the construction, mechanical engineering and transport sectors on one hand, and severe drops in output for automotive and domestic appliances on the other, which had already been impacted by ongoing supply chain issues in the previous quarters.

Steel-using sectors' output is expected to continue to expand in 2022, but growth will be halved further compared to EUROFER's previous outlook (+1.1% vs +2%). This is a result of the rapid deterioration of the global industrial and economic outlook following Russia's war in Ukraine, coupled with ongoing and worsening supply chain issues. This combination of factors is expected to yield either very modest growth or even drops in output over the three remaining quarters of this year. Growth in output will accelerate only moderately in 2023 (+2.2%), due to overall high uncertainty which is likely to continue and ease only from the second quarter of 2023 onwards.

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The EU steel market: supply

Real steel consumption

Real steel consumption in the first quarter of 2022

In the first quarter of 2022 real steel consumption continued to grow (+3.1%), albeit a lower rate than in the fourth quarter of 2021 (+4.5%).

Real steel consumption had rebounded strongly in 2021 (+9%, after -9.7% in 2020 and -3.6% in 2019) and growth is expected to continue, albeit at a very low pace, in 2022 (+1.5%, revised downwards from +1.8% in the previous outlook), before gaining some speed in 2023 (+3.1%, previously estimated at +4.2%).

The two consecutive recessions of 2019 and 2020 were caused by the considerable slowdown in the

EU REAL STEEL CONSUMPTION Forecast from Q2-2022



activity of steel-using sectors (due to manufacturing and trade downturns) and the COVID crisis, respectively. A counter-cyclical destocking trend from late 2019 continued throughout 2020 and only reversed starting from the first quarter of 2021. It was also visible over the first quarter of 2022, despite the rapidly worsening industrial outlook for the rest of 2022 due to the war in Ukraine. Normally, stocks increase in the first half of the year, but the opposite occurred in 2020. This pronounced destocking process was over at the end of 2020, and materialised robustly over the first two quarters of 2021. This stock building process was interrupted in the third quarter, which saw a sharply negative change in stocks, reflecting the deterioration of expectations for steel demand over the next quarters. This resulted from growing supply chain problems starting in the second half of 2021 and causing severe repercussions on demand from steel-using industries. However, stock changes were positive again over the last quarter of 2021 and the first quarter of 2022, mirroring continued growth in steel demand. This trend is expected to deteriorate again over the second half of 2022 due to the continued impact of Russia's war in Ukraine, the inflation rise and the deterioration of the global outlook.

In line with SWIP developments (see page 10), real steel consumption is expected to increase (+1.5%) in 2022 and grow more robustly (+3.1%) in 2023.

FORECAST FOR REAL CONSUMPTION - % CHANGE YEAR-ON-YEAR											
Period	Year 2021	Q1′22	Q2′22	Q3′22	Q4′22	Year 2022	Q1′23	Q2′23	Q3′23	Q4′23	Year 2023
% change	9.0	3.1	1.4	-2.2	3.6	1.5	6.9	4.1	6.6	2.9	3.1

Apparent steel consumption

Apparent steel consumption in the first quarter of 2022

The positive trend seen in apparent steel consumption throughout 2021 continued over the first quarter of 2022, but slowed down being impacted by ongoing, severe global supply chain issues, rising energy prices and production costs. In particular, these are expected to impact even much more severely over the second half of 2022, coupled with the expected effect of the war in Ukraine. In the first quarter of 2022, growth in apparent consumption increased (+6.5%, after +10.1% in the fourth quarter of 2021), totalling a volume of 37.1 million tonnes. This is still below the pre-pandemic peak reached in the fourth quarter of 2018.

EU APPARENT STEEL CONSUMPTION Forecast from Q2-2022



The whole year 2020 was considerably impacted by the COVID-19 pandemic and saw apparent steel consumption in the EU plummet (-10.7%) for the second consecutive year after the slump (-5.2%) seen in 2019.

In 2021 apparent steel consumption rebounded (+15.7%, slightly revised upwards from +15.2% in the previous Outlook). The heavy disruptions due to the ongoing supply chains issues, the consequences of the conflict in Ukraine on steel-using industries and the overall economic outlook are set to take their toll on apparent steel consumption in 2022. This is expected to see its third annual recession over the last four years, albeit moderate (-1.7%, previously estimated at -1.9%), most probably as a result of quarterly drops that are foreseen over the second, third and fourth quarters of 2022. Apparent steel consumption is set to recover in 2023 (+5.6%), but the overall evolution of steel demand remains conditional on very high uncertainty, which is very likely to continue to undermine demand from steel-using sectors.

EU domestic and foreign supply

Domestic deliveries recorded a tiny growth rate in volumes over the first quarter of 2021 (+0.2%, after +1.2% in the fourth quarter of 2021), mirroring the evident slowdown in demand within the EU since the second half of 2021. Over the entire 2021, deliveries sharply rebounded (+11.3%), following a pronounced drop in 2020 (-9.6%) that had marked the second consecutive decline in yearly terms after 2019 (-4.2%).

Imports – including semi-finished products – into the EU continued their strong increase (+28.8%) also over the first quarter of 2022, albeit at a lower rate, after +43.4% and +47.7% in the fourth and third quarter of 2021 respectively. Given that only 2021's second quarter figures reflect the comparison with the exceptionally low figures of the previous year, which was heavily impacted by the pandemic, this means that import penetration over the last three quarters has remained considerably high. In 2021 imports from third countries rose (+31.9%) after two consecutive drops (-17.1% in 2020 – due to the impact of COVID-19 – and -10.9% in 2019), mirroring the improvement in steel demand.

EU APPARENT STEEL CONSUMPTION - IN MILLION TONNES PER YEAR												
Year	2014	2015	2016	2017	2018	2019	2020	2021	2022 (f)	2023 (f)		
Million tonnes	136	142	147	149	153	145	129	150	147	155		

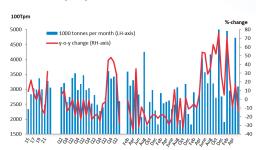
FORECAST FOR EU APPARENT STEEL CONSUMPTION - % CHANGE YEAR-ON-YEAR											
Period	Year 2021	Q1′22	Q2′22	Q3′22	Q4′22	Year 2022	Q1′23	Q2′23	Q3′23	Q4′23	Year 2023
% change	15.7	6.5	-5.9	-4.3	-2.6	-1.7	6.2	6.7	5.3	4.1	5.6

Imports

Total steel imports (including semis) into the EU rose very modestly (+0.4% year-on-year) over the second quarter of 2022, after an increase (+29%) in the first quarter. Also imports of finished products increased marginally (+0.6%), following a rise (+34%) in the first quarter. Imports of flat products dropped (-2.3%, after +37% in the first quarter), while import of long continued to rise (+12%, after +25% in the first quarter).

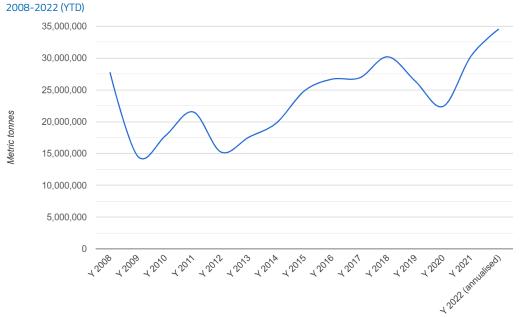
Over the entire year 2022 YTD, imports of finished products have increased (+9%), as well as imports of flat products (+6%) and imports of long products (+18%).

EU TOTAL STEEL IMPORTS, FINISHED PRODUCTS 2008-2021 (YTD)



Imports were volatile across 2020, 2021 and the first half of 2022, continuing a trend seen since 2019. After the outbreak of COVID-19, imports surged again for certain products and showed some volatility over the second half of 2020, but the increase became much more pronounced during 2021, particularly over the second and third quarters, up to high levels in historical terms. This development mirrored the continued improvement in steel demand, while volatility continued over the fourth quarter of 2021 and the first half of 2022.

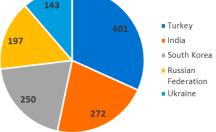
TOTAL IMPORTS FROM THIRD COUNTRIES, FINISHED STEEL PRODUCT



Imports by country of origin

In the first half of 2022, the main countries of origin for finished steel imports into the EU market were Turkey, India, South Korea, the Russian Federation and Ukraine. These five countries represented 47% of total EU finished steel imports. Turkey and India continued to be the largest exporters of finished steel products to the EU (with a share of 14.9% and 10.1% respectively), followed by South Korea (9.3%), the Russian Federation (7.3%) and Ukraine (5.3%).

EU FINISHED STEEL IMPORTS BY COUNTRY 6M-2022, monthly '000 metric tonnes



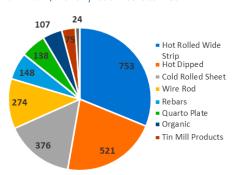
Over the first six months of 2022, imports of finished products from third countries rose overall (+9%). In particular, decreases were recorded in imports of finished products from India (-18%) and Turkey (-1%). Significant drops were also recorded in imports from Russia (-46%) and Ukraine (-33%), due to the impact of EU sanctions and war disruptions respectively. By contrast, imports from South Korea remarkably rose (+35%).

Imports by product category

Customs data show that both flat and long product imports increased (+6% and +18% respectively) over the first six months of 2022. The share of long products out of total finished steel product imports was 23%. Over the second quarter of 2022, imports of flat products dropped (-2.3%), while imports of long products rose (+12%).

Within the flat product market segment, over the first six months of 2022 imports of almost all flat products rose compared to the same period of 2021. Imports of cold-rolled sheet recorded the highest increase (+32%), followed by imports of coated sheet (+19%) and hot dipped (+14%). By contrast, imports of hotrolled wide strip moderately fell (-2%). Imports of quarto plate dropped more significantly (-25%).

EU FINISHED STEEL IMPORTS BY PRODUCT 6M-2022, monthly '000 metric tonnes

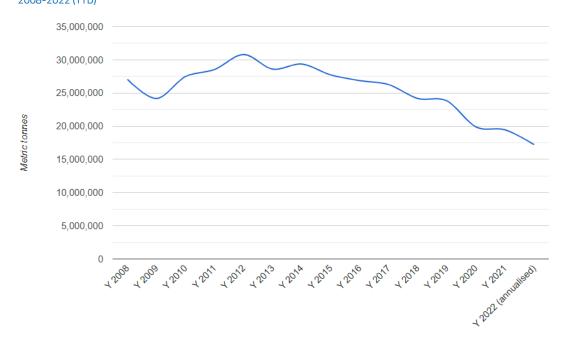


Meanwhile, all long product imports rose in the first six months of 2022. In detail, imports increased particularly for rebars (+37%). More moderate increases were recorded for merchant bars (+13%), wire rod (+11%) and heavy sections (+9%).

Exports

In the first six months of 2022 total EU exports of finished steel products to third countries decreased (-14%). Over the entire year 2021, exports of finished products had dropped (-2%) compared to 2020. In particular, over the first six months of 2022 exports of flat and long products both dropped (-11% and -21% respectively).

EU TOTAL STEEL EXPORTS – FINISHED PRODUCTS 2008–2022 (YTD)



Exports by country

The main destinations for EU steel exports over the first six months of 2022 were Turkey, the United Kingdom, the United States, Switzerland and China, followed by Egypt, India and the Russian Federation. The first five destinations together accounted for 58% of total EU finished product exports.

Exports to all major destinations decreased over the first six months of 2022, with the exceptions of Switzerland (+7%) and the United States (+4%).

The largest decreases in exports were observed with Russia (-54%, largely due to the consequences of the war against Ukraine), China (-34%), the United Kingdom (-23%), India and Egypt (both -20%), while exports to Turkey decreased more moderately (-5%).

Exports by product category

Over the first six months of 2022, flat product exports dropped (-11%), as well as for long products (-21%). Over the entire year 2021 exports of flat products had dropped (-3%) compared to 2020, while exports of long products had remained unchanged.

In the first six months of 2022, flat products accounted for 68% of finished product exports overall.

Exports of most individual flat products decreased compared to the same period of the previous year. In particular, exports of coated sheet dropped (-26%) as well as those of cold rolled sheet (-13%) and hot dipped (-26%). By contrast, exports of quarto plate increased (+6%).

Trade balance

The EU's total steel product trade deficit (finished plus semis) amounted to 2.1 million tonnes per month over the first six months of 2022. In 2021, total trade deficit amounted to 1.5 million tonnes per month.

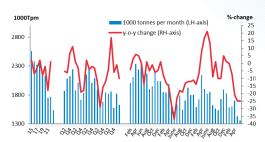
For finished products, the trade deficit over the first six months of 2022 amounted to 1.4 millon tonnes per month. Over the entire year 2021, trade deficit amounted to 906 kilotonnes.

Over the first six months of 2022, flat products recorded a deficit of 1.2 million tonnes per month (923 kilotonnes in 2021). Long products also recorded a deficit (208 kilotonnes), whereas a surplus (17 kilotonnes) was recorded in 2021.

The biggest trade deficits - including semis - with individual trade partners were with Russia (674

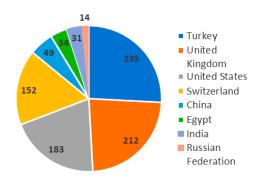
kilotonnes), India (353 kilotonnes), Ukraine (292 kilotonnes), South Korea (265 kilotonnes), Turkey (218 kilotonnes) and China (193 kilotonnes). The major destination countries for EU finished steel exports with a trade surplus over the first six months of 2022 were the United States (221 kilotonnes), Switzerland (93 kilotonnes) and the United Kingdom (45 kilotonnes).

EU TOTAL STEEL EXPORTS



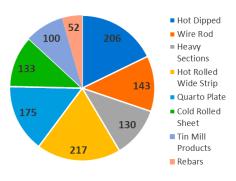
EU FINISHED STEEL EXPORTS BY DESTINATION

6M-2022, monthly '000 metric tonnes



EU FINISHED STEEL EXPORTS BY PRODUCT

6M-2022, monthly '000 metric tonnes



The EU steel market: final use

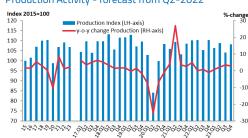
Outlook for steel-using sectors

Total steel-using sector activity in the first quarter of 2022

Despite the persisting supply chain issues and the war in Ukraine, steel-using sectors marked the fifth consecutive year-on-year growth in the first quarter of 2022 (+4.9%), gaining speed compared to the fourth quarter of 2021 (+2.6%). This trend had peaked in the second quarter of 2021 when steel-using sectors achieved a spectacular, one-off growth rate (+27.9%). This was due to the industrial recovery gaining momentum, but it was also a result of the comparison to record lows of the second quarter of 2020.

By contrast, over the second half of 2021 total production activity in steel-using sectors has been

EU STEEL USING SECTORSProduction Activity - forecast from Q2-2022



increasingly impacted by the ongoing supply chain issues (lack of components and materials, bottlenecks and rising transportation costs, etc.) and rising energy prices, that took their toll in terms of production costs, component shortages and lower output. However, total output in steel-using sectors in 2021 rebounded (+8.6%, formerly estimated at +7.3%) after the sharp drop recorded in 2020 due to impact of COVID-19 (-10.4%), mainly thanks to very positive developments over the first two quarters. The war in Ukraine has certainly impacted the outlook for the rest of 2022 - with supply chain issues still persisting and even being exacerbated - but figures for the first quarter of 2022 (Russia invaded Ukraine on 24 February) do not yet reflect the impact on the steel-using sectors' output as whole. However, different developments for individual sectors lie behind this figure. The positive evolution of total steel-using sectors' output was a combination of very positive developments in the construction, mechanical engineering and transport sectors on one hand, and severe drops in output for automotive and domestic appliances on the other, which had already been impacted by ongoing supply chain issues in the previous quarters.

	% Share in total	Year	04/22	02/22			Year	04/22				Year
	Consumption	2021	Q1'22	Q2′22	Q3'22	Q4'22	2022	Q1'23	Q2 ² 23	Q3′23	Q4 ⁻ 23	2023
Construction	35	7.7	16.0	6.5	1.8	-1.6	5.3	-4.4	0.6	3.6	2.5	0.6
Mechanical engineering	14	15.3	10.1	2.9	0.2	-0.1	3.2	-1.8	2.7	5.6	3.1	2.4
Automotive	18	3.4	-10.0	-1.9	11.9	1.4	-0.5	4.9	5.7	6.6	2.4	4.9
Domestic appliances	3	5.4	-8.7	-4.4	2.3	1.0	-2.7	0.8	3.5	4.6	2.0	2.7
Other Transport	2	2.0	14.5	6.0	1.4	2.5	6.0	2.9	5.1	2.0	4.2	3.5
Tubes	13	10.6	5.0	1.7	1.0	4.4	3.0	0.2	4.6	4.9	1.2	2.7
Metal goods	14	12.9	7.9	4.9	1.5	-0.2	3.5	-1.4	1.3	1.5	1.5	0.7
Miscellaneous	2	10.1	7.6	2.3	1.5	0.0	2.7	0.5	4.3	3.5	2.5	2.7
TOTAL	100	8.6	4.9	0.1	0.8	-1.1	1.1	0.7	2.3	3.4	2.7	2.2

Total steel-using sectors forecast 2022-2023

Steel-using sectors' output is expected to continue to expand in 2022, but growth will be halved further compared to EUROFER's previous outlook (+1.1% vs +2%). This is a result of the rapid deterioration of the global industrial and economic outlook following Russia's war in Ukraine, coupled with ongoing and worsening supply chain issues. This combination of factors is expected to yield either very modest growth or even drops in output over the three remaining quarters of this year. Growth in output will accelerate only moderately in 2023 (+2.2%), due to overall high uncertainty which is likely to continue and ease only from the second quarter of 2023 onwards.

Construction industry

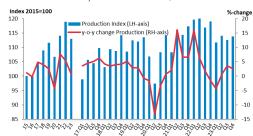
Construction industry activity in the first guarter of 2022

The positive trend in construction output seen throughout 2021 continued up to the first quarter of 2022, at a higher rate than the previous quarter (+16%, after +6.6% over the fourth quarter of 2021).

The figures seen since the first quarter of 2021, in particular, reflected the continued quarter-on-quarter improvement in the construction activity and the vigorous boost provided to the sector across the EU by governmental support schemes at EU and national level. This has especially benefitted the private residential and civil engineering subsectors. Only over the fourth quarter of 2021 growth in construction output lost some speed due to ongoing problems along the global supply chain, which resulted in increasing scarcity of construction materials – as well as construction workers' shortage – in many EU countries.

EU CONSTRUCTION SECTOR





CONSTRUCTION CONFIDENCE INDICATOR BALANCE OF POSITIVE AND NEGATIVE ANSWERS



In line with real production volumes, in the first quarter of 2022 (data for the second quarter are not yet available at the time of writing) gross fixed investment in construction increased (+4.7% on a yearly basis). This was the fifth consecutive quarterly increase (+1.8% in the preceding quarter).

Growth was fuelled by residential investment (+4.9%, after +1.6%), despite the expectation of higher future mortgage rates due to possible monetary policy tightening in connection with rises in government bond yields. Growth continued to be boosted also by generous housing and renovation supporting schemes in place in many member states. Positive developments were seen also in 'other construction' investment (+4.4%, after +2%), particularly in civil engineering. Its expansion should continue during the second half of 2022, as governments have been using it since the COVID-led recession of 2020 as a cyclical tool (thanks also to NextGenerationEU programmes) to bolster recovery. However, the impact of these publicly-funded construction schemes is expected to ease considerably due to multiple downside factors (supply chain issues, war in Ukraine, etc.), including the shortage of construction materials which is increasingly becoming a source of concern.

Construction industry analysis forecast for 2022-2023

Construction activity fell in 2020 (-4.4%), after increasing (+2,5%) in 2019. Output then rebounded in 2021 (+7.7%, revised upwards from +5.9%). The outlook for 2022 forecasts higher growth than previously estimated (+5.3% vs +2.3%), thanks to very positive developments over the first half of the year. However, this trend is expected to ease considerably in 2023 (+0.6%).

Construction confidence in the EU started to improve substantially since the lows seen in mid-2020, at the time of the outbreak of the COVID-19 pandemic, almost reaching 2018 levels in the course of 2021. Issues all along the supply chain and the overall deterioration of the economic and industrial outlook have been starting to impact the sector only since February 2022 while confidence has declined from then on, as confirmed by latest available data (June 2022). However, overall construction activity should continue to grow — albeit at rather low rates — mainly thanks to governmental housing supporting schemes (that will benefit households, offsetting their loss of purchasing power due to growing inflation), as well as to public construction schemes. Civil engineering is expected to provide the strongest contribution to the construction sector's performance. This segment will also be supported by EU-wide public policies (NextGenerationEU, etc.). Their effects have become increasingly uncertain and difficult to quantify, though, in light of the recent deterioration of the economic outlook.

Non-residential construction has paid the highest toll to the pandemic in 2020 and also partly in 2021 with increasing vacancy rates, a trend that may continue as tele-working has remained rather common in the post-pandemic scenario. The subdued business investment outlook remains unfavourable to investment in non-residential projects in the near future.

Automotive industry

Automotive activity in the first quarter of 2022

In the first quarter of 2022 the automotive sector's output dropped for the third consecutive quarter (-10%, after -14.6%). The sector had started rebounding from the third quarter of 2020, thanks to the removal of lockdown measures that had de facto stopped industrial production, culminating in an exceptional increase (+66%) in the second quarter of 2021 (almost entirely due to the comparison with the record lows of one year before). Subsequently, severe supply chain issues took their heavy toll on the sector's output, coupled with the overall uncertain outlook of the sector also on the demand side.

EU AUTOMOTIVE SECTOR

Production Activity - forecast from Q2-2022



In annual terms, in 2021 output in the automotive sector recovered only modesty (+3.4%, slightly revised downwards from +3.8%) following the severe drop experienced in 2020 due to the COVID-19 pandemic (-20.4%), that was the second consecutive annual recession after 2019 (-4%). The EU automotive sector had

already experienced its worst slump during the euro area crisis of 2009-2012, when the recession was even bigger (-26.3%). Nonetheless, it is worth reminding that the automotive sector in 2020 has been hardest hit compared to all other steel-using sectors. Its output has been on a downward path since the third quarter of 2018: sluggish domestic and export demand, trade-related uncertainties, emissions rules, shifting patterns in ownership and model ranges had been felt all over 2019 before the onset of the pandemic. The continued supply chain issues that materialised over the summer of 2021 increasingly resulted in shortage of components and semiconductors, rise in energy prices and in production costs, slowdown in global trade (automotive is a largely export-oriented sector). Russia's invasion of Ukraine in late February 2022 – whose additional disruptive effects on the sector are already visible - has further worsened an already subdued outlook.

EU passenger car and commercial vehicle demand

Ongoing disruptions on the supply side, in particular the shortage of semiconductors affecting the supply of vehicles as well as hikes in energy prices and soaring shipping costs, went on taking a considerable toll on the automotive industry. This situation also contributed to continued depressed demand and consumer uncertainty. The latest passenger car registrations data show that in June 2022 passenger car registrations continued their downward trend in the EU (-15.4% year-on-year), as supply chain issues keep on weighing on vehicle output. In absolute numbers, June 2022 recorded the lowest numbers of cars sold in the month of June since 1996. All four major EU markets contributed to the fall. Germany recorded the strongest decline (-18.1%), followed by Italy (-15.0%) and France (-14.2%), while Spain saw a more modest decline (-7.8%).

Over the first half of 2022, the number of new car registrations in the EU fell (-14%) compared to one year earlier.

Automotive industry forecast 2022-2023

After a severe slump (-20.4%) in 2020 due to the impact of the pandemic, in 2021 automotive output modestly rebounded (+3.4%). The sector is expected to drop, albeit moderately, in 2022 (-0.5%), due to the very severe repercussions of the ongoing supply chain disruptions and the war in Ukraine. These downside factors are expected to persist throughout 2022 and at least until the first quarter of 2023. In addition, subdued consumer confidence, due to modest disposable income developments, have continued to impact car demand from consumers since the second half of 2018.

The latter is expected to remain weak until the macroeconomic picture and consumer disposable income substantially improve - which has become now less likely given the worsening economic outlook and more subdued economic growth perspectives. Uncertainties around the implementation of EV and delays in the launch of new models - many hybrid or fully electric, preparing the ground for the complete ban of petrol cars by 2035 – and lack of facilities (recharging points, etc.) have proven unsupportive factors of consumer demand and have also delayed investment decisions by carmakers. Full recovery in global trade and external demand from major markets such as the United States, China and Turkey will remain a key factor for EU car exporters. However, this is not likely to materialise as long as the current war-related uncertainty continues, as well as global supply chains issues and very high energy and oil prices, which penalise both producers and buyers. In the longer-term, political commitment (Fit for 55, etc.) at EU level towards the full adoption of EV by 2035 should prove somewhat supportive, despite the fact that general car demand appears to be dependent on fragile consumer confidence throughout 2022 and 2023.

As a result, 2022 is expected to be another difficult year for the sector, with the third recession (-0,5%) in sight within four years. Growth is expected to rebound in 2023 (+4.9%), provided that supply chain issues and global uncertainty ease substantially.

Mechanical engineering

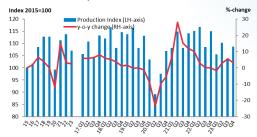
Mechanical engineering activity in the first quarter of 2022

Output in the mechanical engineering sector grew (+10.1%) in the first quarter of 2022, recording the fifth consecutive quarterly increase (+12% in the fourth quarter of 2021). Driven by the overall recovery of the industrial sectors after the impact of COVID-19, the rebound recorded since the third quarter of 2020 brought back output to absolute high levels - albeit still below those recorded before 2019. Recovery in orders and output gained speed up to the third quarter of 2021, but it has been clearly exposed to downside risks since then. Among them, the ongoing global supply chain issues, which are considerably disrupting industrial activity in the EU as well as in other world economies, and the even more disruptive impact of Russia's invasion of Ukraine. The latter has not yet been reflected in the sector's output to a considerable extent, but output is expected to slow down, and even shrink, over the remaining quarters of 2022.

After a sharp fall (-12%) in 2020 due to the pandemic following flat growth in 2019 due to global trade tensions and the subsequent slowdown in manufacturing sectors, mechanical engineering output has rebounded robustly (+15.3%) in 2021, thanks to the sharp recovery of industrial sectors in the EU, in particular over the first half of the year.

EU MECHANICAL ENGINEERING

Production Activity - forecast from Q2-2022



Mechanical engineering forecast 2022-2023

Output in mechanical engineering is set to grow only modestly in 2022 (+3.2%), and at an even lower rate in 2023 (+2.4%).

After the heavy toll of the pandemic, in 2021 manufacturing has bounced back quickly due to the relatively strong reliance of the EU mechanical engineering sector on export markets, the investment climate and global trade recovery. However, slowdowns in industrial activity and other indicators have been showing a quick turn in the cycle since August 2021. From then on, the combined effect of the pandemic's persistence and issues affecting the global supply chain have been weakening demand in key EU domestic markets. The outlook – rapidly changing for the worse – has become clearly negative due to the persisting global supply chain issues combined with the effects of the war in Ukraine, set to impact negatively on the sector's output starting from the second quarter of this year.

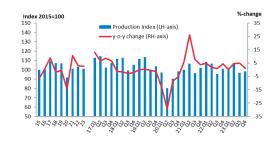
Steel tube industry

Steel tube industry activity in the first quarter of 2022

Despite the continued supply chain issues, the fourth quarter of 2021 has confirmed the positive trend of the tube sector, recording the fourth consecutive increase in output (+5% year-on-year, after +3.9% in the preceding quarter). Over the entire year 2021, the tube sector rebounded (+10.6%), after the severe drop experienced in 2020 (-14.4%) due to the pandemic.

EU STEEL TUBE SECTOR

Production Activity - forecast from Q2-2022



Steel tube industry forecast 2022-2023

After a rebound in 2021 (+10.9%), output in the tube sector is expected to grow moderately in 2022 (+3%) and also in 2023 (+2.7%).

During 2020, output in the EU steel tube industry was heavily impacted by the industrial stoppages due to the COVID-19 outbreak. Likewise for other steel-using sectors, the rebound seen over the first three quarters of 2021 eased somewhat in the fourth quarter as a result of severe global supply chain issues. The disruptions linked to Russia's war in Ukraine have further delayed ongoing projects and impacted the availability of materials. In the longer term, demand for large welded tubes from the oil and gas sector should not improve substantially, despite the recent, considerable hikes in energy prices. These appear to be more supply-driven than demand-driven, due to the consequences of the war and the related disruptions of oil and gas supply.

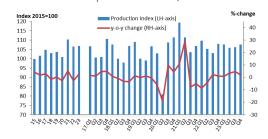
The recent recovery of global oil demand (including oil prices, although struggling to rise to levels comparable to other commodities, e.g. natural gas) is not expected to boost the launch or the implementation of new pipelines in the short term. On the other hand, demand from the construction sector is set to recover a bit more robustly, whereas tube demand from the automotive and engineering sectors is forecast to remain relatively weaker. In addition, import pressure on steel tube markets in the EU will remain high, particularly for the commodity segment.

Electrical domestic appliances industry

Electrical domestic appliances industry activity in the first quarter of 2022

Over the first quarter of 2022 output in the electrical domestic appliances sector dropped for the third time in a row (-8.7%, after -5.1% in the fourth quarter of 2021). The third quarter of 2021 had in fact seen the end of a very positive trend that had started in the third quarter of 2020, with a bigger-than-expected recovery in output after the removal of lockdown measures and widespread remote working across the EU that boosted demand for home appliances and other related goods. On an annual basis, in 2020 output fell more moderately (-2.6%) compared to other EU steel-using sectors and rebounded (+5.4%) in 2021, thanks to very positive performances recorded over the first half of the year.

ELECTRICAL DOMESTIC APPLIANCE SECTOR Production Activity - forecast from Q2-2022



Electrical domestic appliances industry forecast 2022-2023

Output in domestic appliances is set to drop in 2022 (-2.7%) and to recover (+2.7%) in 2023. Growth is expected to be negative in the first half of 2022 as a result of the disruptions linked to the war in Ukraine as well as to global supply chains.

On the other hand, some supportive factors will provide positive contribution to growth: working from home will remain widespread in the EU over the next two years, albeit to a lower extent than during the COVID-19 pandemic. In the longer term, developments linked to the so-called 'Internet of Things' (i.e. smart applications that enable to connect home appliances, devices, etc.) should also benefit the sector, but their impact is not likely to be visible before 2023.

EU economic outlook 2022-2023

GDP growth

Due to the expected impact of Russia's war in Ukraine, ongoing supply chain issues and rising energy and commodity prices coupled with very high inflationary pressures, EUROFER's GDP forecasts for the EU in 2022 have been further lowered compared to the previous outlook. However, economic recession is for the time being ruled out both in 2022 and 2023. As the above-mentioned downside factors are not expected to ease substantially before the first quarter of 2023, GDP growth estimates are set at +2.6% for 2022 and at +1.6% for 2023 (+2.9% and +2.4% in the previous outlook). Economic recession in 2020 in the EU was -6%, marking the first recession since 2013 and the sharpest on record. In 2021, real GDP in the EU grew (+5.3%), as a result of the robust rebound in the economy and the industry further to the removal of most COVID-related restrictive measures.

Over the second quarter of 2022, real GDP growth in the EU proved to be quite resilient and recorded +0.6% quarter-on-quarter (+4% year-on-year), the same level as in the first quarter. However, there are still serious concerns that Q3 and Q4 2022 could both result in negative quarter-on-quarter growth, signalling a technical recession (i.e. two consecutive quarter-on-quarter drops) due the continuation of the war and its repercussions on energy and commodity prices as well as supply chain issues. This is what has already happened in the United States, which entered economic recession in Q2 2022. Among the biggest EU economies, Germany recorded flat GDP growth (+1.5% year-on-year) mostly due to problems affecting its industrial sector, automotive in particular. France, Italy and Spain all recorded positive GDP growth (+0.5%, +1% and +1.1% respectively), but growth lost speed compared to the first quarter (except for Italy). On a year-on-year basis, though, these countries recorded higher growth than in the first quarter (+4.2%, +4.6% and +6.3%, respectively) also as a result of the comparison to the relatively low GDP volumes seen in Q1 2021.

Leading indicators have been continuously worsening since August 2021, as a result of skyrocketing energy prices (natural gas in particular, which has reached all-time highs), material and component shortages, high shipping costs that have resulted in major global supply chain disruptions. Growing uncertainty, primarily linked to the conflict in Ukraine, has cast a shadow on the whole year 2022 and also on part of 2023. Global trade, the industrial supply chain, commodity prices as well as the impact of the economic sanctions to Russia are set to take their toll also on economic growth of EU countries.

At the time of writing, the impact of the above factors is not easy to quantify as uncertainty remains very high. It is clear, however, that EU economic growth in 2022 will be considerably lower than previously foreseen. Should current crisis factors persist, a technical economic recession scenario could also materialise in the course of this year, or – even more likely – a stagflation scenario, which is a combination of persistently high inflation and stagnating GDP growth rates. In any case, the consequences of Russia's invasion of Ukraine will persist over time. Economic sanctions to Russia as well as other war-related disruptions, skyrocketing energy prices and record-high inflation, are also expected to stay.

Inflation - at first perceived as temporary - has become a growing concern and reached highs unseen since 1988. Inflationary pressures initially stemmed from the persisting bottlenecks affecting supply chains and scarcity of components, but they have continued to intensify and, as a result, inflation rate reached 9.6% in the EU in June 2022 (it was 1.3% in February 2021). This was caused by the continued shortage of critical commodities worsened by the conflict in Ukraine - and supply chain issues coupled with skyrocketing energy prices. Energy inflation went up from 12.2% in June 2021 to 41.1% in June 2022. The inflation rate recorded in June was the highest since 1988 in many EU countries: 8.5% in Germany, 8.4% in Italy, 10.8% in Spain, 11.6% in the Netherlands, and above 20% in the Baltic countries. EUROFER's forecast is that inflation will remain at high levels for the rest of 2022, reaching an average annual rate of 7.6% (the highest rate since 1984) and then slow down to 4.1% in 2023.

As a consequence, central banks were bound to quickly reverse their hyper-accommodative monetary policy stance that had been extremely supportive of economic recovery in previous years. Due to the highest inflation rate since 1981 (9.1% in June), the U.S. Federal Reserve has raised its policy rate three times since March this year (by 25 basis points in March, by 50 in May and by 75 in July), although Q2 2022 GDP data already signal that the economy has entered technical recession. Equally, the ECB raised its policy rate by 50 bps in July – for the first time since 2011 – and has announced a further hike in September, although real interest rates remain widely negative. In addition, the ECB has terminated its PEPP (the COVID-led exceptional Asset Purchase Programme), which helped keep government bond yields low for highly-indebted countries. On the other hand, the ECB had also approved its new Transmission Protection Instrument (TPI) to ensure continuity with the former PEPP and help stabilise government bond secondary markets. Due to the impact of Russia's invasion of Ukraine and the need to continue to provide public support to the economy, the Stability and Growth Pact has been suspended until the end of 2023.

During the pre-COVID economic slowdown of 2019 and – to a lesser extent – since the onset of the pandemic, GDP growth had been mainly led by domestic demand and private consumption in particular, whereas the contribution to growth provided by external trade has been decreasing, notably in largely export-driven economies such as Germany. Government consumption as well as private fixed investment have continued to provide positive contribution to growth. Concerning private consumption, it has not proven sufficient to offset the negative developments of exports and other GDP components. It is also constrained by ongoing consumer uncertainty, which is heavily driven by inflationary pressures.

Persistent uncertainty due to the pandemic, serious inflationary concerns, supply chain disruptions and the war in Ukraine have induced major forecasters to review their global GDP outlook for 2022 and 2023. As a result, the IMF and the OECD have revised downwards their latest global GDP projections. In particular, the IMF had lowered it to +3.2% from +3.6% in its April 2022 update (U.S. +2.3%, eurozone +2.6%). The OECD in its June 2022 outlook foresees +2.6% real GDP growth for the euro area in 2022 and +1.6% in 2023.

Confidence indicators

After the restart of the industry and along with the post-pandemic economic recovery, a spectacular improvement in confidence was recorded until the end of the second quarter of 2021. This led to well above prepandemic levels peaking at 118 in July, a fourteen-year high, before it started easing in August and September following widespread concerns over supply chain issues and inflation. This downward trend has continued since then, reaching a 10-month low in July 2022.

ECONOMIC SENTIMENT INDICATOR (ESI), EU

(long-term average=100)



The latest S&P composite PMI for the euro area (July 2022) signals that, for the first time since February 2021, euro area economic output declined, due to a deepening manufacturing downturn coupled with a further slowdown in the service sector. There were also additional signs of the negative impact of very high inflation on consumer demand: overall new business intakes saw the steepest fall since May 2013 (excluding the period of COVID-19 lockdowns). Due to growing concerns surrounding future gas supply, recession risks and persistently high price pressures, in July business confidence fell to its weakest level since the outbreak of COVID-19 in the first half of 2020. The seasonally adjusted S&P Global Eurozone PMI Composite Output Index dipped below the 50.0 (no change) mark in July. The manufacturing sector was particularly weak during July, as production volumes fell at the fastest rate since May 2020. High inflation is increasingly impacting output levels as businesses adjust to lower order volumes.

It is worth signalling that global supply chain issues weighing on economic and industrial activity since 2020 are showing some signs of easing, as demand conditions are quickly softening due to inflationary pressures squeezing demand from consumers. Easing lockdowns in China has contributed to soften global supply chain issues, but manufacturing output growth is still widely affected and remains weak in all advanced economies.

In detail, prices for container ships have stabilised but remain high due to persistently high levels of congestion. As a result, the Global Supply Chain Pressure Index dropped in June, but levels remain high close to those seen during the first lockdown period in the second quarter of 2020.

S&P GLOBAL EUROZONE COMPOSITE OUTPUT INDEX

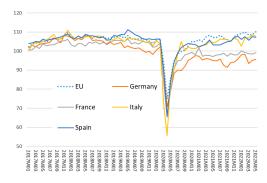


Mirroring the above developments, after the pronounced drop in industrial production in the EU (-8.1%) in 2020 and the vigorous rebound in 2021 (+7.9%), EUROFER foresees a more moderate growth in 2022 and 2023 (+3% and +3.6%, respectively).

EU industrial production bounced back significantly since the trough due to the outbreak of the pandemic in the second quarter of 2020. Over the first quarter of 2022, however, industrial production slowed down (+1% in the EU compared to +6.3% in the preceding quarter), while dropping (-1.2%) in Germany. Industrial production rose in France (+1.1%, after -0.5% in the fourth quarter of 2021). Among other major euro area economies, industrial output continued to increase in Italy and Spain (+1.4% and +1.6%, respectively).

The latest available monthly data (up to June 2022) show that industrial output volumes in the EU – albeit with national disparities – have recovered from the exceptional losses due to the pandemic, but they remained below the all-time highs recorded during the strong cycle of 2017. In particular, industrial output has recovered up to pre-pandemic levels in Italy and Spain but not in France and, to an even larger extent, in Germany. Industrial output has been impacted by global supply chain disruptions already before Russia's war in Ukraine. Industrial output is likely to remain subdued throughout 2022 as a result of uncertainty linked to the war, ongoing supply chain disruptions and increasing energy costs.

INDUSTRIAL PRODUCTION INDEX,S.A., MONTHLY DATA (2015=100)



Economic fundamentals

Despite the long-lasting impact of the COVID-19 pandemic on the economy, labour market fundamentals have continued to prove resilient in most EU countries. However, job creation continued to be affected by lower levels of production activity in industry and by persistent uncertainty about short-term business conditions.

The EU unemployment rate, which had remained around late 2019 levels, peaked at 7.8% in September 2020 to gradually ease to 6.8% in August 2021, to 6.2% in February 2022 and to 6% in June 2022, as labour market proved quite resilient and reacted slowly to the deterioration of the macroeconomic environment. Unemployment levels have continued to hide considerable differences across member states (still at 12.6% in Spain) and across economic sectors. Consumers have been suffering from substantial decreases in their in disposable income due to job losses, temporary lay-off or reduction of working time. This dynamic has slashed consumption growth. Despite government support and increased

EUROFER MACROECONOMIC DATA, EU
ANNUAL % CHANGE, UNLESS OTHERWISE INDICATED

	2020	2021	2022	2023
GDP	-6.0	5.3	2.6	1.6
Private consumption	-7.4	3.8	3.7	2.2
Government consumption	0.6	3.7	1.4	1.0
Investment	-6.4	6.9	2.7	3.0
Investment in mach. equip.	-11.9	9.1	3.3	3.5
Investment in construction	3.6	-5.1	6.9	4.0
Exports	-10.2	10.6	4.7	3.9
Imports	-9.4	9.9	5.9	4.4
Unemployment rate (level)	8.1	7.7	7.2	7.1
Inflation	0.5	2.7	7.6	4.1
Industrial production	-8.1	7.9	3.0	3.6

social expenditure to mitigate the impact of the pandemic, uncertainty will continue to weigh down on consumer confidence until throughout 2022, due to persisting and even worsening supply chain issues affecting the global economy and industry and, to a larger extent, slashed growth outlook due to the conflict in Ukraine. In this scenario, the rise in commodity prices — coupled with accelerating inflation — is due to continue to impact household energy costs and limit considerably their purchasing power while increasing their savings propensity.

Government investment and public expenditure are expected to continue to play a countercyclical role and could provide a strong contribution to the growth of domestic demand, although room for manoeuvre is now reduced due to the end of ECB asset purchase programme. The NextGeneration EU package will continue to be implemented, but its most noticeable effects will only be visible from 2023.

Glossary of terms

Sector definitions according to NACE Rev.2

Building & Civil Engineering

- **41** _____ Construction of buildings
- 42 ____ Civil engineering
- **43** _____ Specialised construction activities
- **25.1** ____ Manufacture of metal structures and part of structures
- 25.2 Manufacture of tanks. generators. radiators. boilers

Mechanical Engineering

- 28 _____ Manufacture of machinery and equipment
- **27.1** ____ Manufacture of electric motors. generators. transformers
- 25.3 ____ Manufacture of steam generators. except central heating hot water boilers

Automotive

29 _____ Manufacture of motor vehicles and trailers

Domestic Appliances

27.51 Manufacture of electric domestic appliances

Other Transport Equipment

- **30** Manufacture of other transport equipment
- **30.1** ____ Building and repair of ships
- **30.2** Manufacture of railway locomotives and rolling stock
- **30.91** ___ Manufacture of motorcycles

Steel Tubes

24.2 Manufacture of steel tubes

Metal Goods

25 Manufacture of fabricated metal products excluding 25.1-25.2-25.3

Other sectors

- **26** Manufacture of computer. electronic and optical products
- Manufacture of electric motors. generators. transformers and electricity distribution and control apparatus excluding 27.1 and 27.5

EU steel market definitions

SWIP: Abbreviation for Steel Weighted Industrial Production index. It is used as a proxy for real steel consumption. Activity in the steel-using sectors is weighted with the relative share of each sector in total steel consumed by all sectors.

Real steel consumption: Real consumption is the use of all steel products used by steel-using sectors in their production processes, also referred to as the 'final use' of steel products, adjusted for the stock cycle.

Apparent steel consumption: Apparent consumption is also referred to as 'steel demand'. It is total deliveries of all steel products and qualities by EU producers plus imports less 'receipts' into the EU, minus exports to third countries. In other words, apparent consumption is deliveries by EU producers plus imports minus receipts (that is, imports by EU producers themselves of material that is further processed), minus exports to third countries. EUROFER's definition of apparent consumption includes all qualities, including stainless, and all finished products and semi-finished products. If apparent consumption exceeds real steel consumption, the surplus is stocked in the distribution chain. If apparent consumption is less than real steel consumption, inventories are being withdrawn.

Steel industry receipts: In both the apparent consumption and market supply statistics, the imports component of the calculation is written, in the EUROFER definition, as 'imports less receipts'.

The 'receipts' in this instance mean imports by EU producers themselves of finished or semi-finished steel products that are further processed by the producer and transformed into other products. In the publicly available EUROFER figures, only finished products are shown and thus impacted by the receipts calculation.

This correction is important because it prevents double-counting that would artificially inflate the size of the market. If an EU producer imports a tonne of hot rolled strip that it further processes into a tonne of cold rolled which it then delivers to the EU market - in an uncorrected calculation the import of one tonne would then become one imported tonne plus one EU-processed and delivered tonne. The imported tonne is thus corrected out in the import side of the market supply and apparent consumption figures.

Narrow definition: EUROFER applies the so-called "narrow definition" which excludes steel tubes and first transformation products from the product scope used for calculating steel consumption. Hence, the steel tube sector is a steel-using sector under this definition.

Steel intensity: The ratio of real steel consumption to steel weighted production in the steel-using sectors. This reflects the usually slightly negative impact on consumption of innovation in steel products, inter-material substitution, improvements in process efficiency and design, etc.

About the European Steel Association (EUROFER)

EUROFER AISBL is located in Brussels and was founded in 1976. It represents the entirety of steel production in the European Union. EUROFER members are steel companies and national steel federations throughout the EU. The major steel companies and national steel federations in the United Kingdom and Turkey are associate members.

The European Steel Association is recorded in the EU transparency register: 93038071152-83.

About the European steel industry

The European steel industry is a world leader in innovation and environmental sustainability. It has a turnover of around €170 billion and directly employs 330,000 highly-skilled people, producing on average 160 million tonnes of steel per year. More than 500 steel production sites across 22 EU Member States provide direct and indirect employment to millions more European citizens. Closely integrated with Europe's manufacturing and construction industries, steel is the backbone for development, growth and employment in Europe.

Steel is the most versatile industrial material in the world. The thousands of different grades and types of steel developed by the industry make the modern world possible. Steel is 100% recyclable and therefore is a fundamental part of the circular economy. As a basic engineering material, steel is also an essential factor in the development and deployment of innovative, CO2-mitigating technologies, improving resource efficiency and fostering sustainable development in Europe.



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