

Chief Economist report



The 2022 economic outlook for the MET industries

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Message from the Director General

Delphine Rudelli



We are living through turbulent times for the Metal, Engineering and Technology-based (MET) sector. After decades of peace in Europe, the Russian invasion of Ukraine has brought about the unthinkable. This, coupled with already existing issues, such as the disruptions in supply chains and labour shortages, to name but a few, are creating an extremely challenging environment for companies.

A challenging world for entrepreneurs

Inevitably, following the beginning of the conflict in Ukraine, we are seeing unforeseen economic consequences play out in front of our eyes. These range from increasing energy costs and high inflation to further supply chain problems as well as the numerous drags on economic growth. On top of that, despite the recent surge in GDP growth figures, the COVID-19 pandemic will leave a lasting effect on the competitiveness of MET companies. We are noticing a slowing of the supply of Russian gas in Europe, which is extremely worrying. However, if we consider the possible complete cessation of the supply of that gas, the consequences for our industries are unimaginable. Gas is not only needed for electricity, but more importantly for process heat.

A possible gas embargo would bring metal production and processing to a complete standstill within a few days in some countries, including Germany. Compensation through other energy sources is impossible, at least in the short term. In this context, it is imperative that the supply of resources to companies is ensured as this is the lifeblood of production. As shown by recent developments, one of these essential resources is semiconductors, and therefore their supply to MET companies must be safeguarded in the short, medium and long term. Ukraine supplies about 50% of the world's neon gas, a crucial product for the manufacture of semiconductors, the supply of which is already under huge strain. On a positive note, the European Commission's work in this field, notably with the European Chips Act, is to be welcomed.

A perfect storm for companies

In the aftermath of the COVID-19 pandemic, we must especially concentrate on labour market issues. Indeed, the existing vacancies in our sector cannot be filled by those persons already on the labour market. Therefore, now, more than ever, we must ensure the right active labour market policies for those people that are not in, or looking for, employment. Furthermore, upskilling of people, of all skill levels, is imperative. This requires investment by all relevant stakeholders, social partners, governments and the European Commission.

Despite the short to medium term market opportunities, the Green Deal has the potential to have a negative net impact on the MET industries. If we have a phase-out of the internal combustion engine by 2030, we can see a loss of 150 000 jobs at German suppliers and both Italian and Spanish suppliers are set to lose over 70 000 jobs each in this scenario. Furthermore, the forces of supply and demand in the market continue to drive up commodity prices, which coupled with the fallout from the covid-crisis, and the current economic mix of low unemployment and high inflation, is creating a perfect storm for companies.

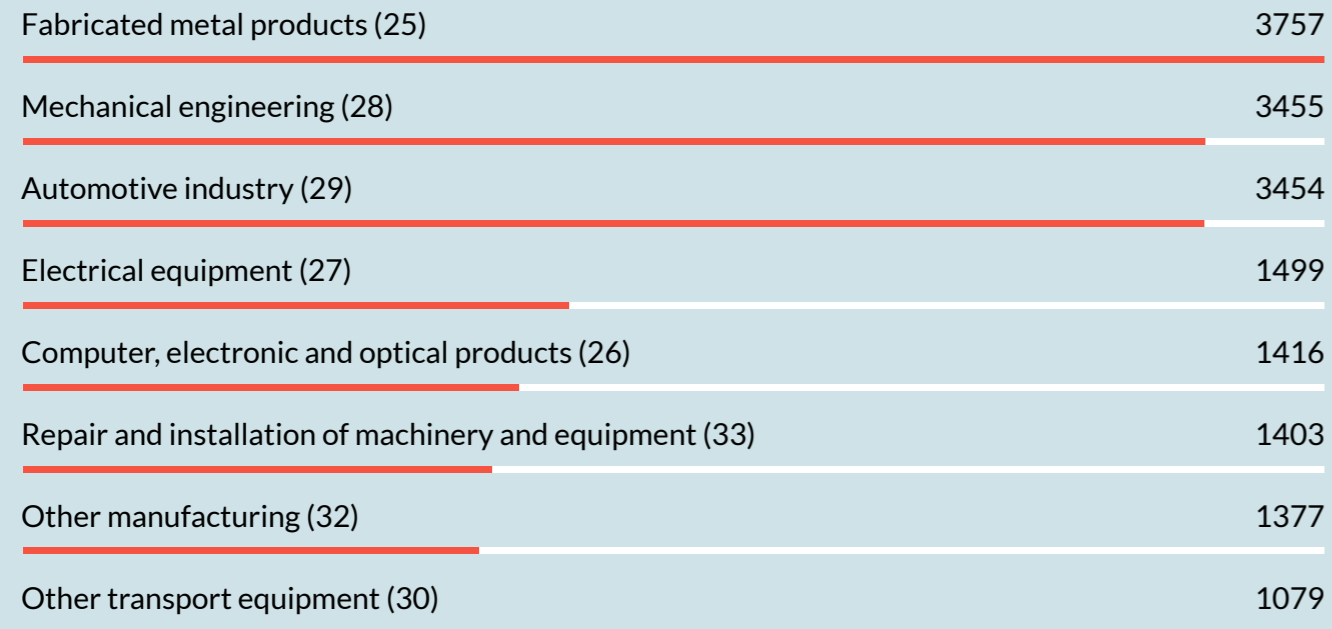
This is not to mention issues which were already creating a business unfriendly environment before the pandemic and the war in Ukraine, such as the EU-UK relationship. A good bellwether in this context is the technology industries in Belgium, where the latest figures show that its exports to the UK have decreased dramatically. Exports to the UK have steadily decreased since the referendum in 2016, the current figure is a decrease of 23%. For reference, in that same period, exports to all other countries in the world increased on average, surprisingly, also by 23%.

Altogether, the MET industries face many challenges ahead. However, as we have seen in recent times, the EU can work to resolve large scale problems. It must now double down on its efforts to ensure manufacturing employers can continue to produce and remain the backbone of the European economy going forward.

Employment

Heavy weights of the MET industry

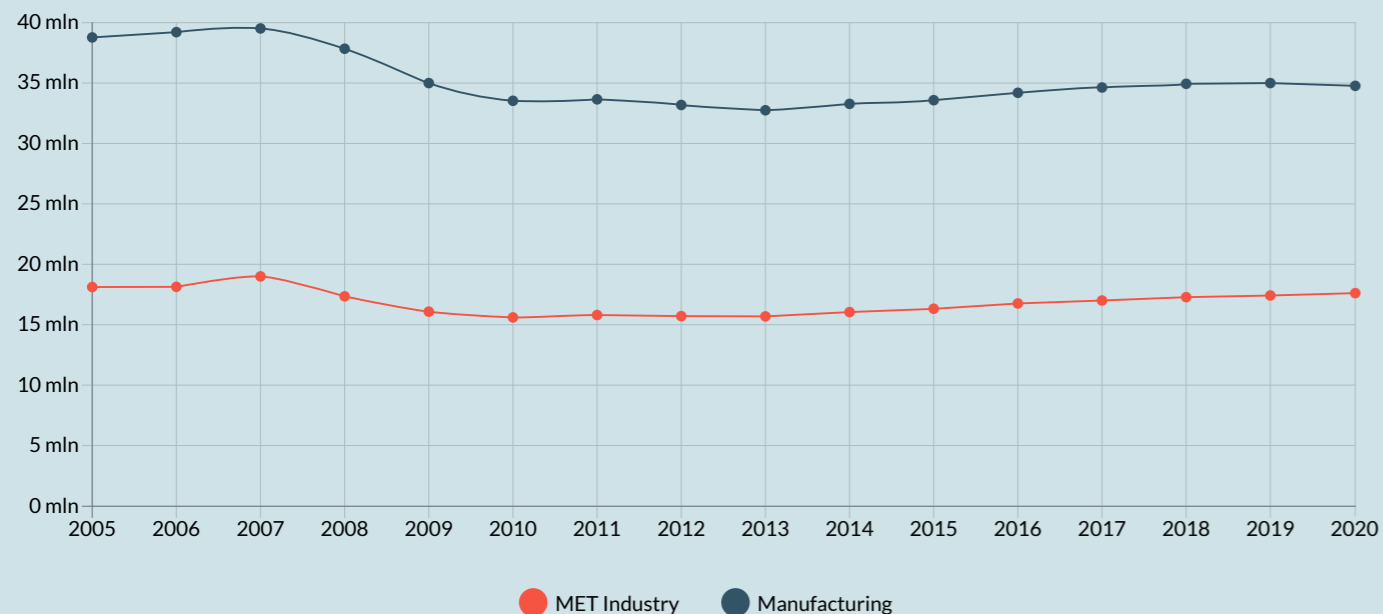
Employment of the different sectors in 2020



•in thousand •EU27 & UK •Age:15 – 64 •Source: Eurostat

MET industry covers half of industrial employment

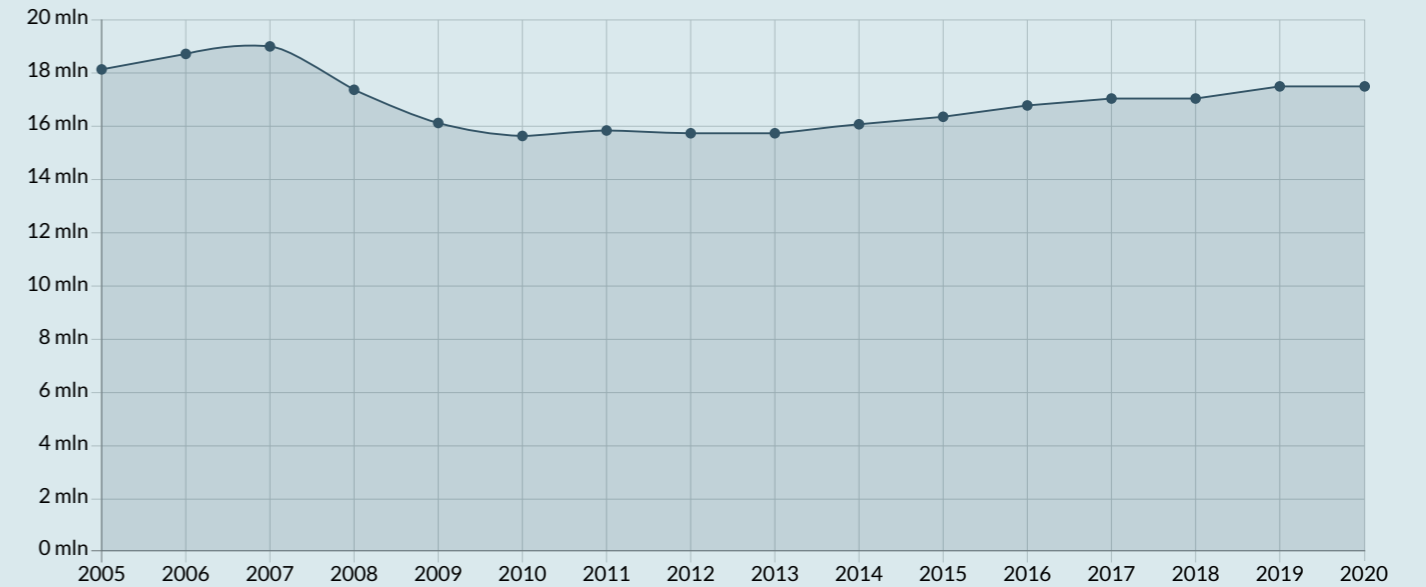
Employees in MET industry and in total Manufacturing



•2005 – 2019: EU28 •2020: EU27 & UK •Age:15 – 64 •Sectors: 25 – 30, 32&33 •Source: Eurostat

Employment in the European MET industries

MET employment is recovering despite the pandemic



•2005 – 2019: EU28 •2020: EU27 & UK •Age:15 – 64 •Sectors: 25 – 30, 32&33 •Source: Eurostat

Manufacturing of fabricated metal products, mechanical engineering and the automotive industry are the heavyweights of the MET industries in Europe.

The share of MET employment in total manufacturing employment rose in recent years and in 2020 arrived at 51%. This is the highest percentage share of MET employment in total manufacturing since 2005.

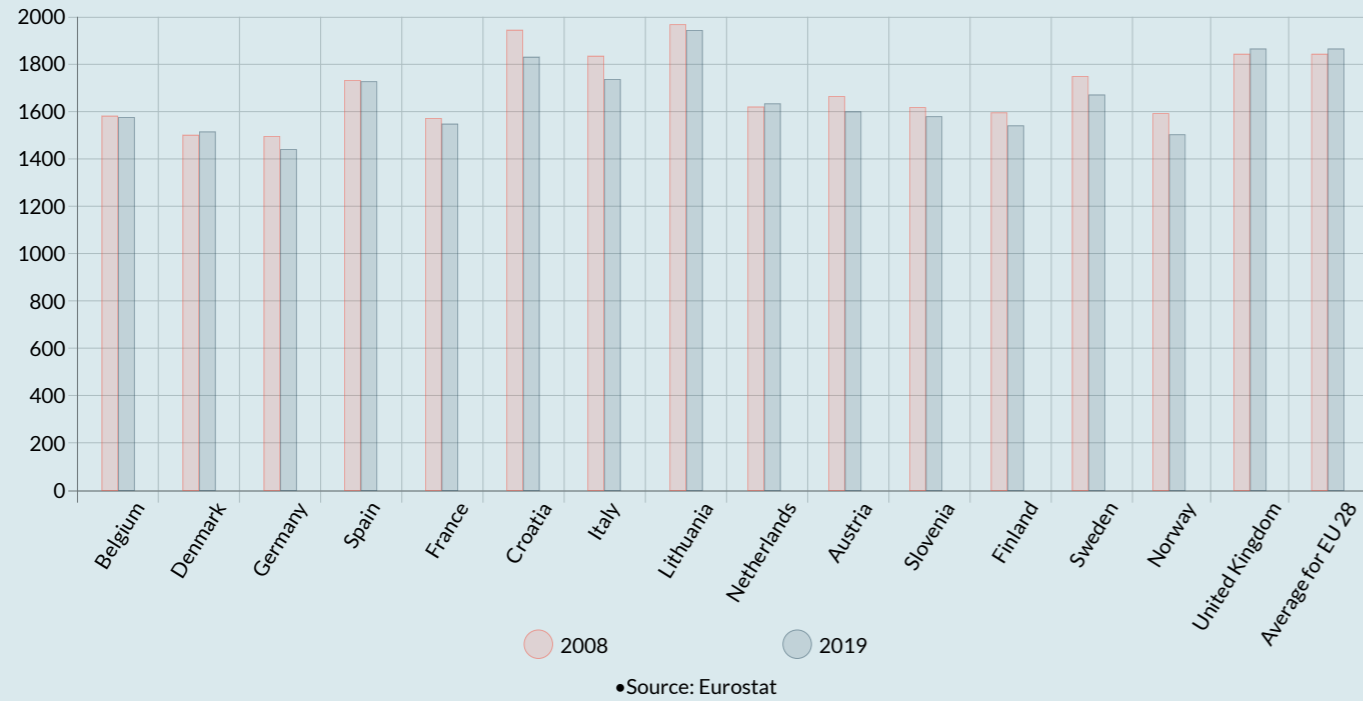
After having increased employment in the period before the 2008/2009 crisis, the European MET industries had to cut a lot of jobs as a result of that deep crisis.

In terms of employment, the MET industries could not fully compensate the losses suffered during the 2008/2009 crisis: there was still more than a 1 million job shortfall until 2020.

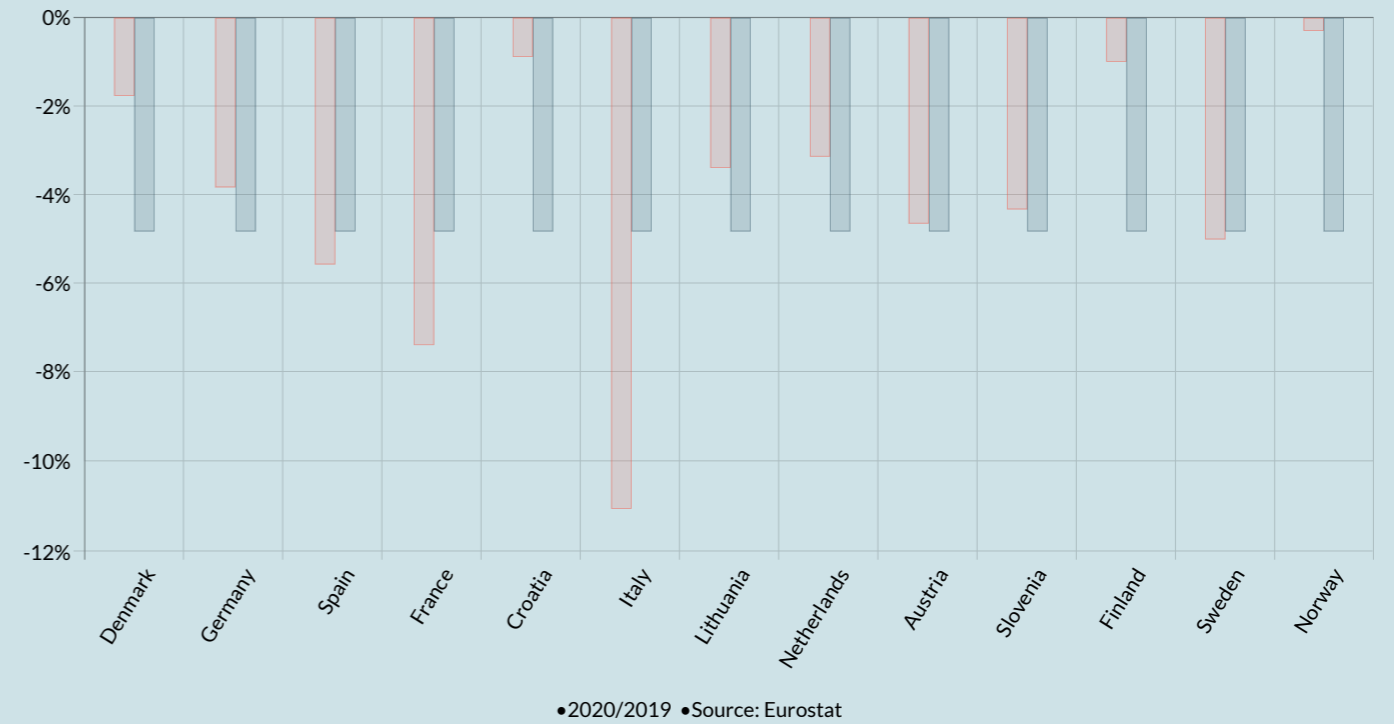
Due to the COVID-19 crisis, the MET industries had to reduce employment in 2020 slightly. The current employment levels stand at over 17.4 million workers.



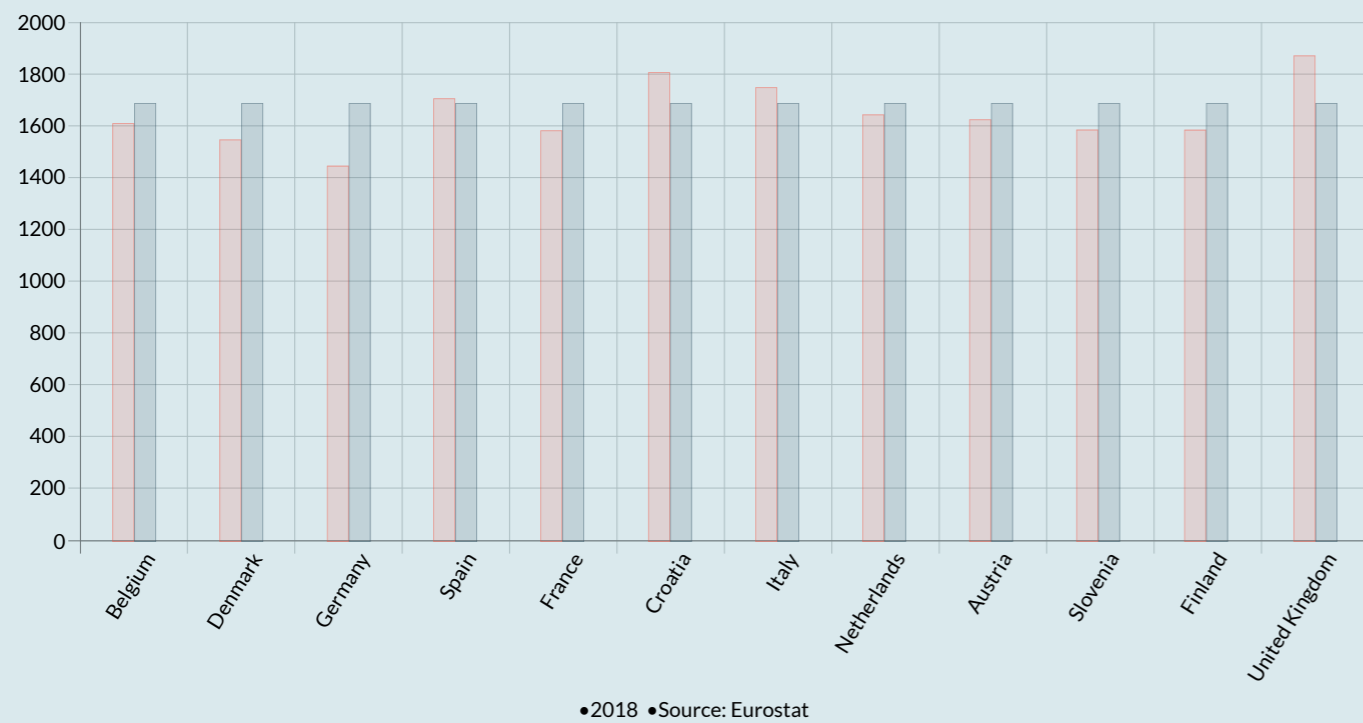
Average annual hours worked per capita Manufacturing



EU27 Hours Worked Per Capita Manufacturing



Average annual hours worked per capita MET industries



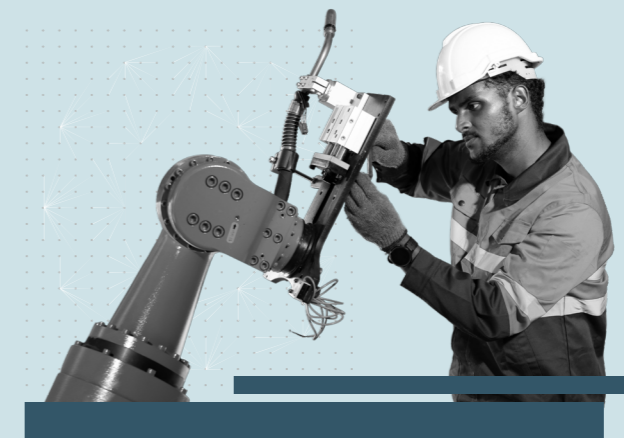
In most Ceemet members' countries, the annual average hours worked per capita in the manufacturing industry was reduced in comparison with the 2008/2009 pre-crisis period.

After the second crisis in the 2011-12 period, an increasing trend was seen until 2016, but since 2017, once again, a decline has been registered.

In 2020, the hours worked per capita declined widely in the EU27 area, with significant differences between countries.

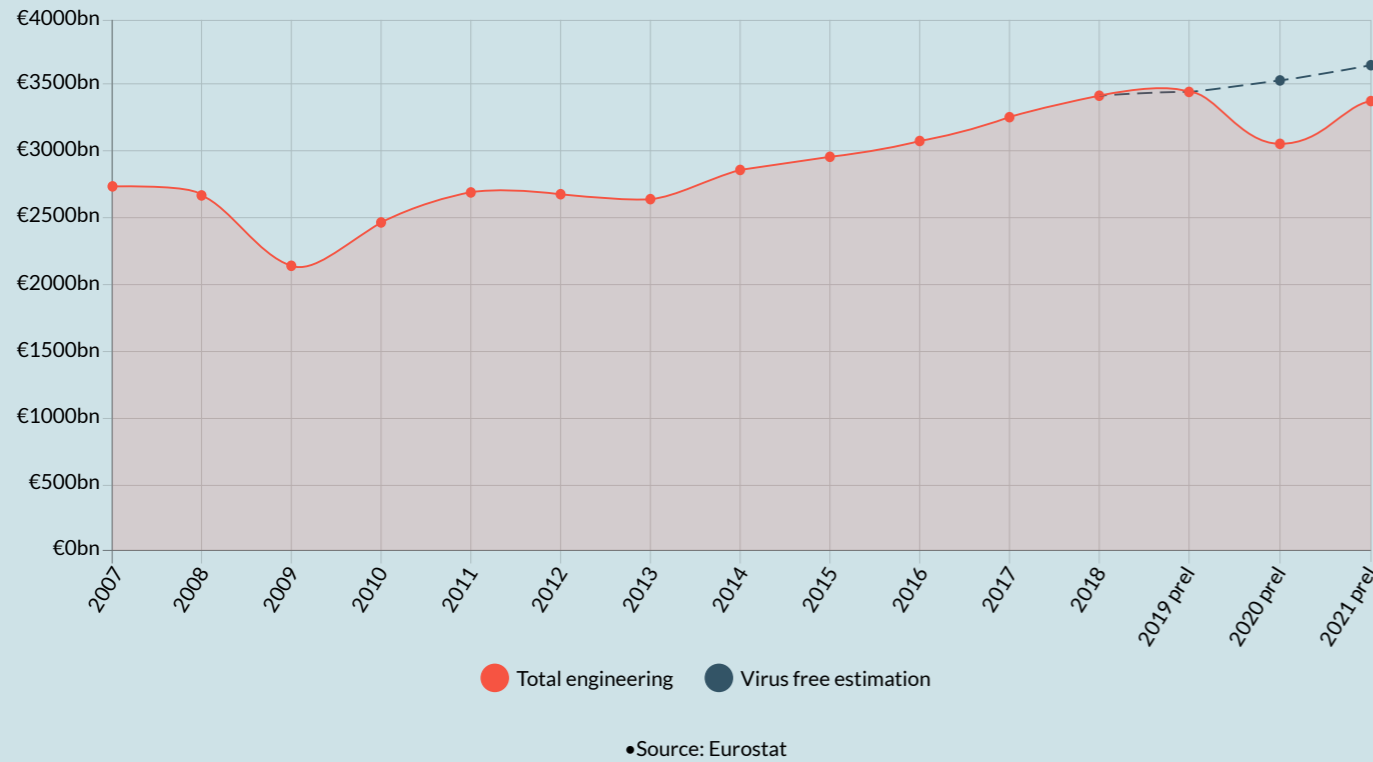
Italy registered the worst data (-11,1%), also as a consequence of the lockdown, when a vast interruption of metalworking activities occurred.

In the MET industries, the annual average hours worked per capita shows a significant variability between countries.

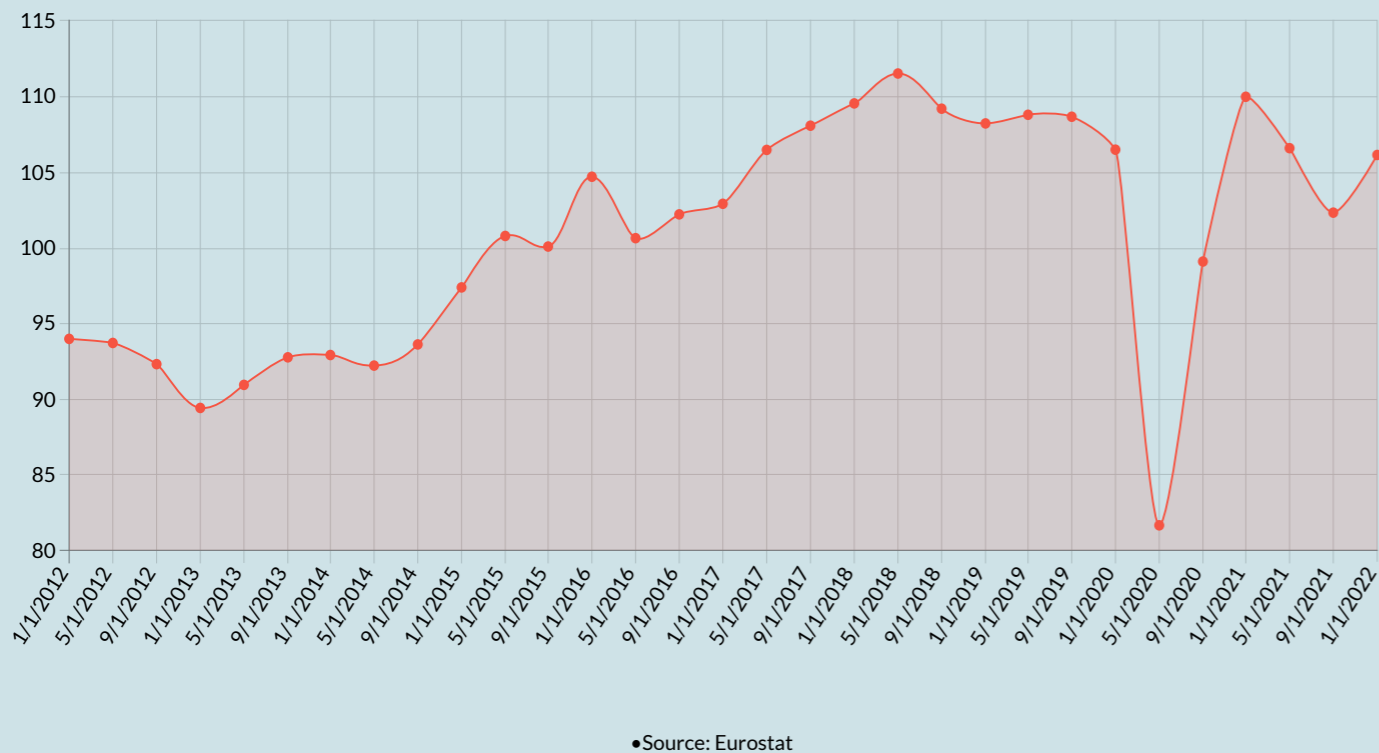


Production

Value of annual production MET industries in billions of Euros



Volume of production MET industries



The preliminary value of production in the MET sector has thankfully turned a corner from its detrimental decrease of 11.6% in 2020.

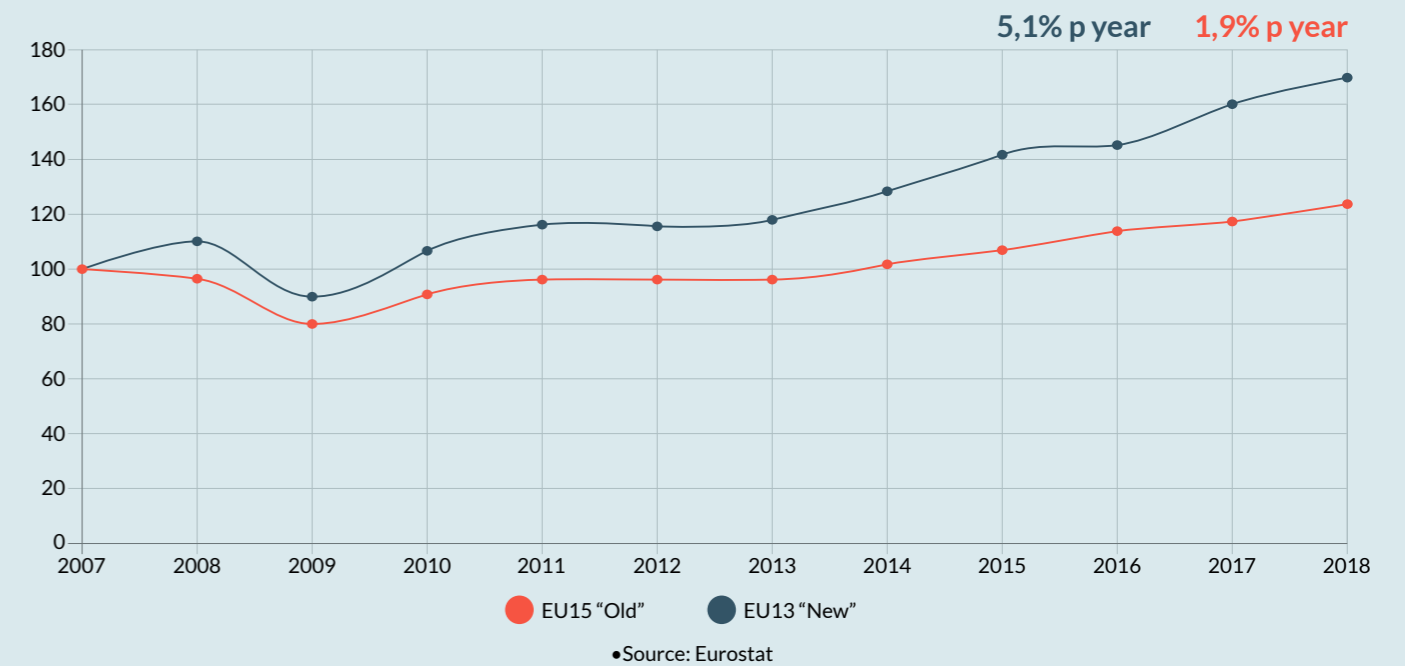
This is however cold comfort for manufacturers who in a virus-free scenario should be seeing an annual production value of €3,638 billion in preliminary figures, an enormous difference of €273 billion from a hypothetical growth rate in 2021.

Current preliminary production values for 2021 stand at €3,365 billion, still well short of the preliminary 2019 figure of €3,446 billion.

The volume of production according to short term data is estimated to have fallen by 11,8% in the engineering industries excluding steel and metals in 2020 or at about the same rate as in value. The upswing that started in the second half of 2020 indicates that the volume of production will increase by 8.5% on average in 2021. That number is rather impressive but should be seen against the very low base in 2020. The evolution of production during 2021 has been more or less on the same level, as can be seen in the graph.

EU + UK Volume of production			
	Index 2015=100	Machinery	Motorcars
2019	107.4	109.8	102.4
2020	94.7	96.2	80.6
2021	102.8	104.4	97.7

Growth rates in production. "Old" EU15 (incl. UK) and "New" EU13

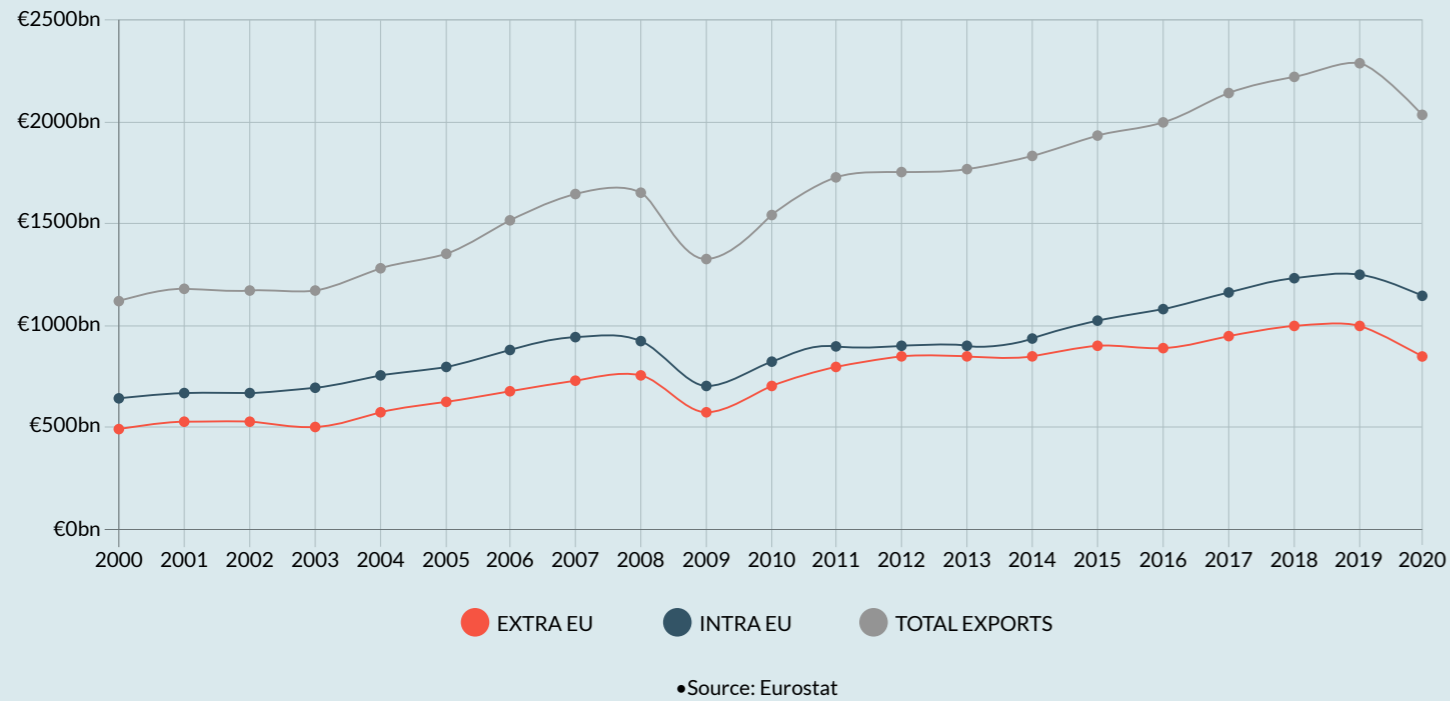


The development of growth rates in production between the old EU15 (plus the UK) and the new EU13 shows a marked difference. Using 2007 as a base year, within our sector, we can see an increase of 5.1% per year in the EU13, with only a 1.9% increase in the EU15. There are many reasons why this could happen. However, the principal reason is the low cost of production in the EU13 that has attracted foreign direct investment, also the establishing of a subsidiary or increased sourcing by Western companies in the EU. The population in the EU13 has also become richer over the years and thereby increased their demand for locally produced engineering products.

Export

Exports of the Ceemet sectors

Export decreased by 10% in 2020



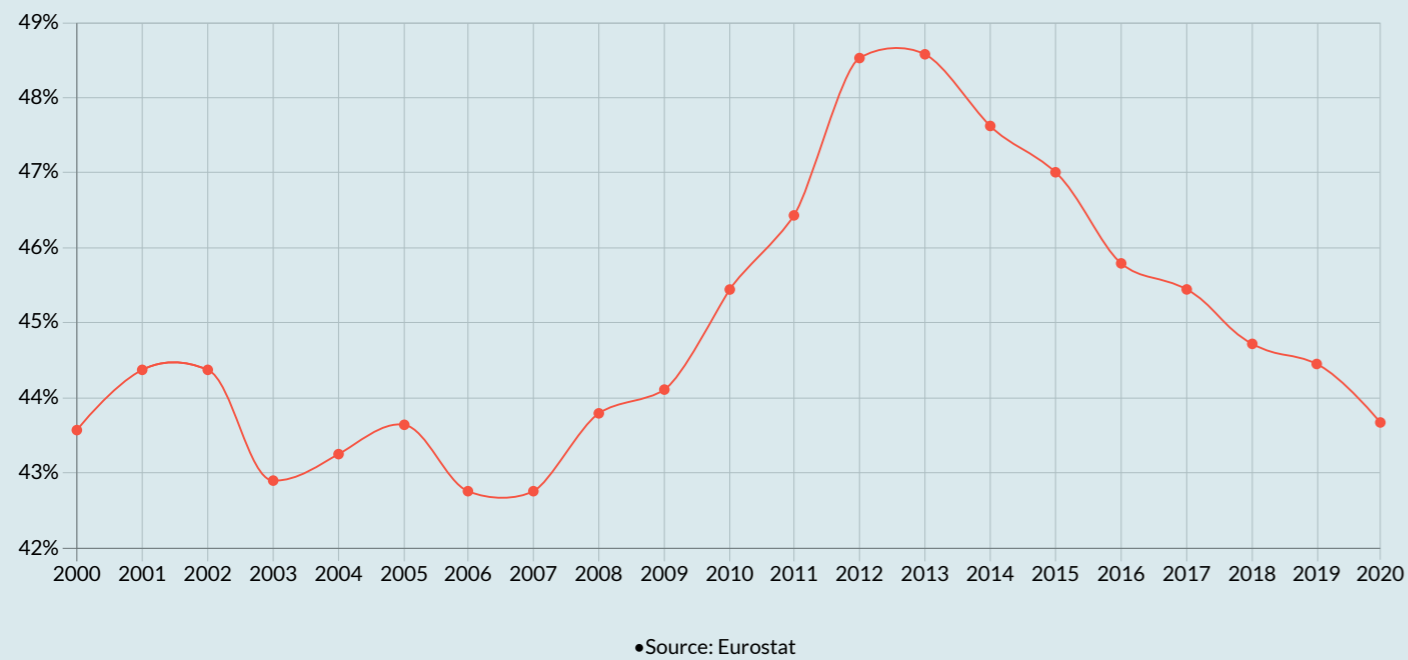
Part of Ceemet Exports in total EU exports

Share of Exports of Ceemet decreased slightly



Part of the extra European exports of the Ceemet sector

Extra-European exports are decreasing since 2012



About 60% of the sales of the MET industries are realized due to exports.

Between the years 2007 and 2012, MET companies saw a dramatic increase in extra-EU exports. Particularly from 2010 to 2012, there was a boost in exports towards Brazil, Russia, India and China. However, since 2012, MET exports outside of the EU have decreased considerably.

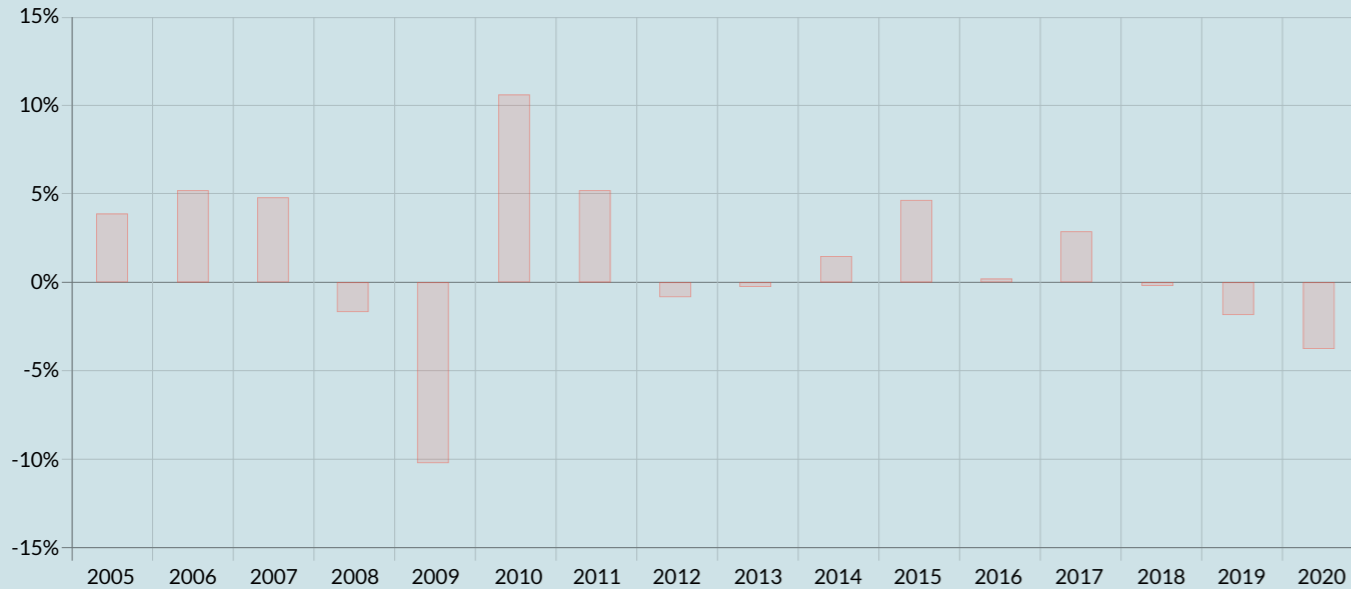
This dramatic decrease could be caused by many factors; however, it certainly indicates a competitiveness issue. Europe has lost competitiveness vis-à-vis the rest of the world, and as a result, has lost part of its share of world trade.

Therefore, it is imperative that the EU has a competitiveness agenda which contributes to returning that lost competitiveness and increases MET companies' share of world trade.

Productivity

Changes of productivity of MET industry (EU27 & UK)

Another period of weak productivity



•Calculation based on annual change rates of production and annual change rates of hours worked •Capital goods industry
 •Source: Eurostat (short term business statistics) & Ceemet own calculations



Another period of weak productivity has been seen since our last publication of the Ceemet Chief Economists Report. However, in 2020 the figure has been so low that there has been only one year in our figures where productivity was worse. It was in 2009 during the 2008/2009 crisis.

In 2020, the COVID-19 crisis has intensified the decline in MET productivity which was caused by a low level – and partly a decline – of MET production and a rising employment at the same time.

In the last years (2012 – 2020), the development of (labour) productivity in the European MET industries was considerably lower than in the era before the 2008/2009 crisis.

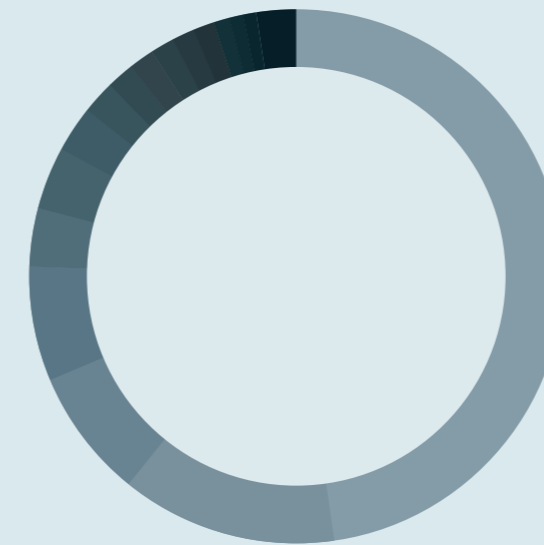
This weakness of productivity can be observed in most industrialised countries and often in the entire economy.

Higher productivity is essential for the international competitiveness of the MET industries. In order to enhance productivity growth, governmental and private investments in the EU must be increased.

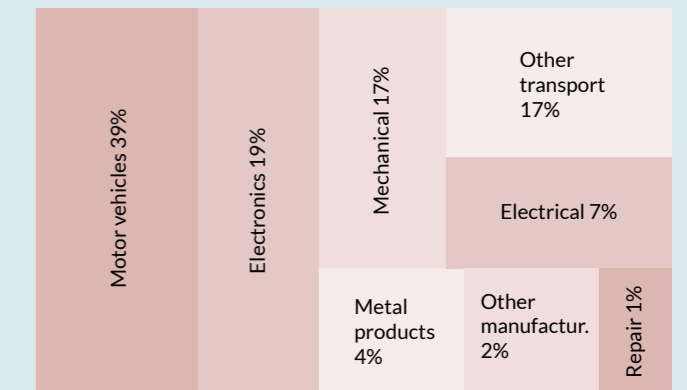
Research & Development

EUR 105bn R&D spent in the EU MET industries in 2019

Breakdown by MET subsector (% of total spend)



- Germany ● France ● UK ● Italy
- Sweden ● Austria ● Netherlands
- Spain ● Poland ● Czech Republic
- Finland ● Belgium ● Denmark ● Hungary
- Ireland ● Norway ● Other



•Source: OECD

In 2019, the MET industries in the EU-27 & UK spent €105 billion in R&D expenditure. In the same year, total R&D spend for the entire economy was €235 billion.

A number of MET sector companies are at the forefront of cutting-edge innovation with many in recent years increasing their use of both green and new automation technologies. As a result of these investments, the MET subsectors are leading a host of European nations in terms of productivity and sustainability.

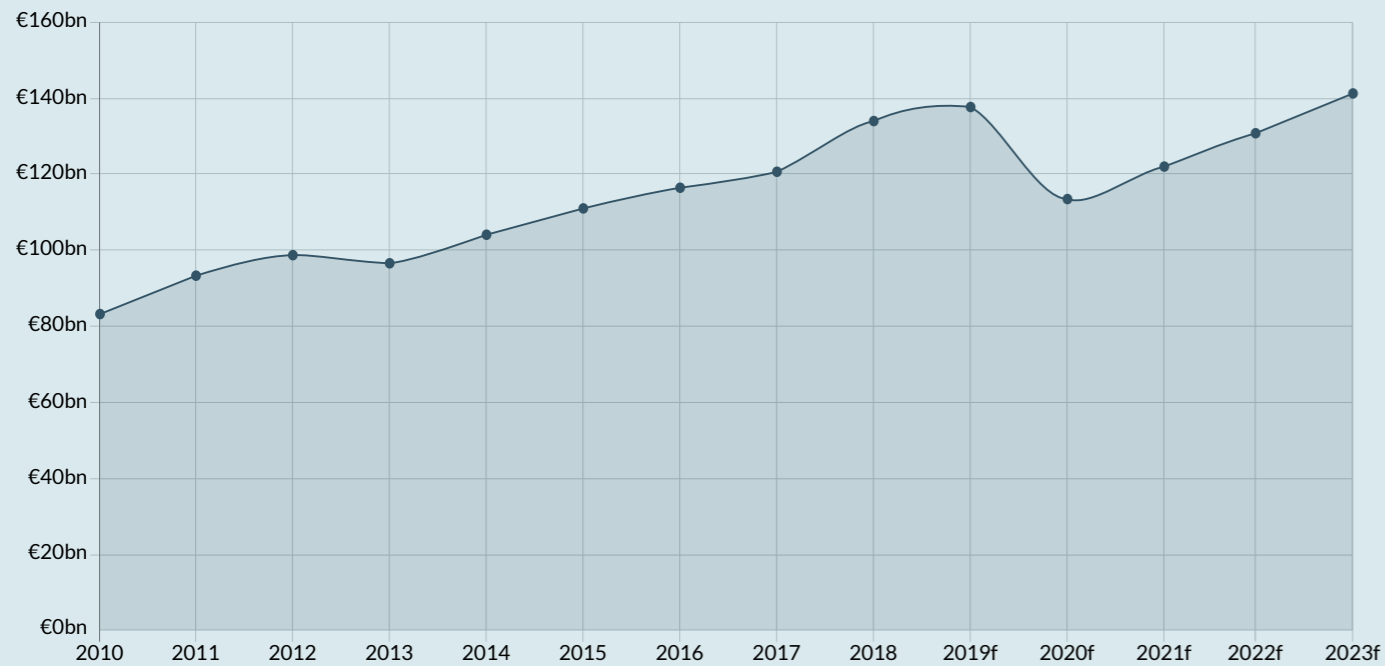
Germany, France, UK and Italy accounted for over three quarters (75.6%) of total MET R&D expenditure. Motor Vehicles accounted for 39% of MET R&D spend, followed by Electronics at 19% and Mechanical Equipment at 16%.

Biggest spend by subsector for selected countries: Germany (Motor Vehicles), France (Electronics), UK (Motor Vehicles), Italy (Mechanical), Netherlands (Mechanical), Finland (Electronics), Sweden (Motor Vehicles).

Investment

Investment level of the MET industries

Gross investment in tangible goods of the MET industries in the EU27 & UK



•Source: Eurostat, Structural Business Statistics Forecasts 2019-2022: EU Commission Autumn 2020

Since 2010, the level of investment in tangible goods has increased slowly but steadily.

The latest data from 2020 shows that because of the covid-crisis things took a turn for the worse in that year. However, we have preliminary data showing a quick recovery already in 2021. If forecasts are accurate, pre-pandemic levels will be surpassed in 2023.

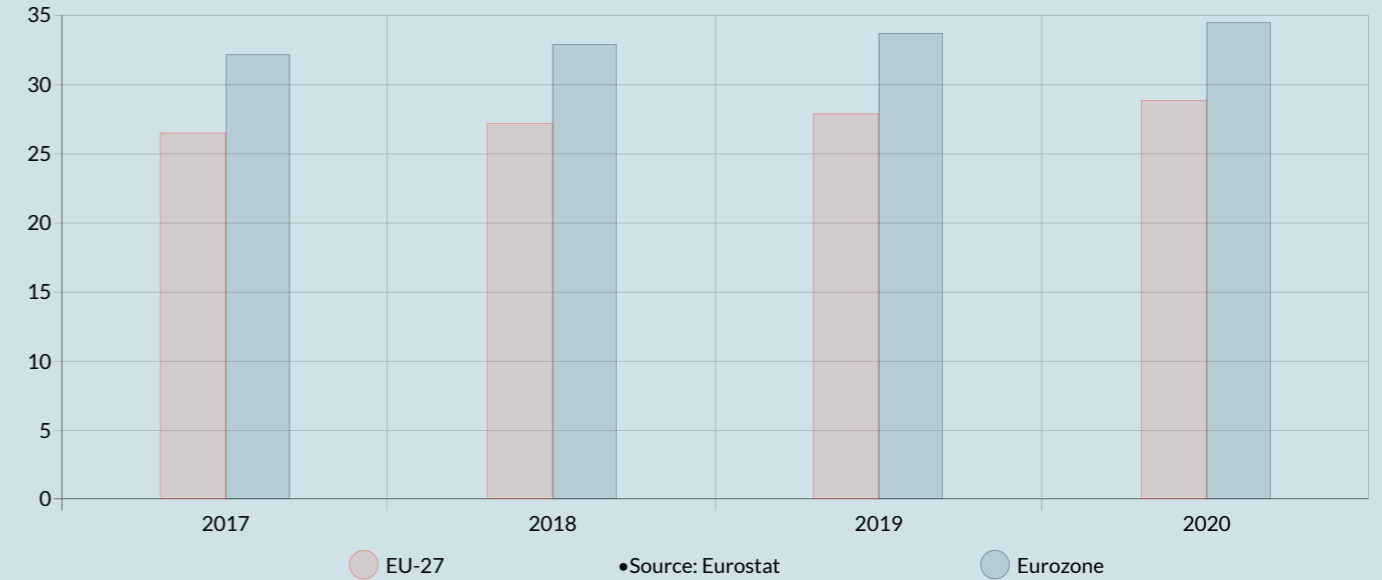
In 2020, the investment level of the MET industries was €116 billion. However, as predicted, it will regain its growth to €141 billion in 2023.

Measures to increase and stimulate investments in Europe are still needed. However, we must be cautious about what is happening outside Europe concerning, for instance, different kinds of investment stimulus measures.

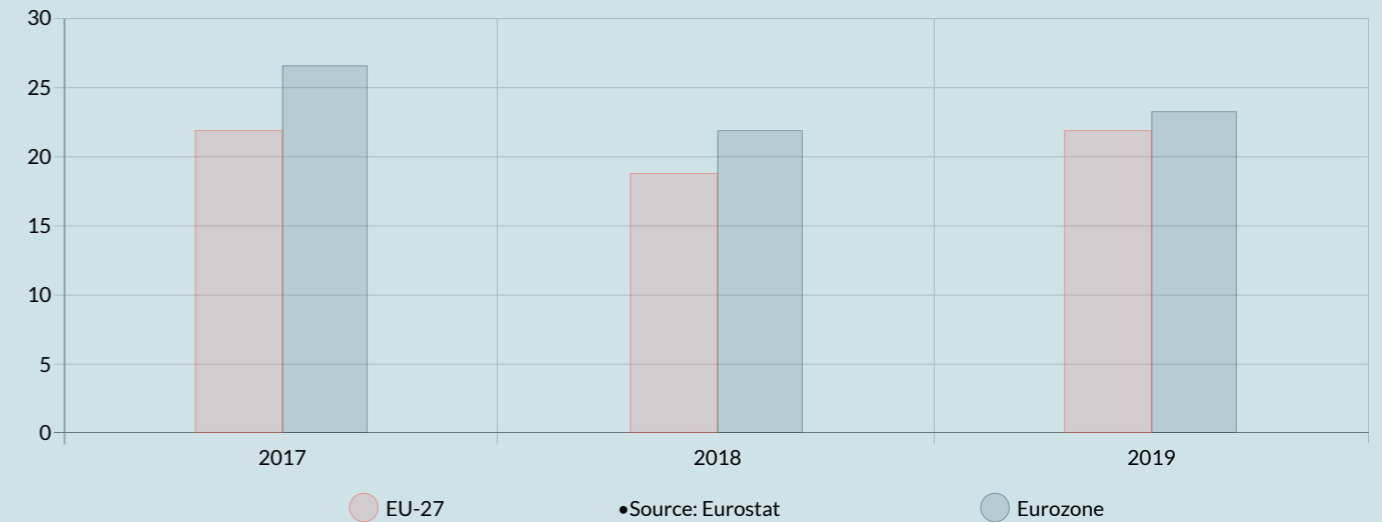
Labour cost

Manufacturing industries

Hourly labour cost in the EU & the Eurozone



•Source: Eurostat



•Source: Eurostat

Labour cost within the EU manufacturing industries has been steadily increasing since 2017. Previous to this they increased until 2016, but at a slower pace than before the 2008/2009 crisis, owing to reduced inflation.

The average hourly labour cost in the EU in 2020 was about €28.6, during the same period the per hour cost in the Eurozone was about €35.

The cost of labour is a crucial factor in analysing competitiveness. Other factors such as productivity, price-quality ratio and innovation are also important benchmarks.

In 2020, EU manufacturing paid more or less the same hourly wages as business services at €21.7 and €21.5 respectively, with construction continuing to pay lower hourly wages at €19.2 in the EU. While in the Eurozone manufacturing was a clear frontrunner paying €25.9, with business services and construction paying €23.6 and €21.5 respectively.

Message from the Chair of the Chief Economists Group

Patrick Slaets



2021 has been an uncertain year for the MET industries, and 2022 is not shaping up to be any better. The conflict in Ukraine is causing severe economic consequences in Europe. Looking at one of the MET industries' most important sectors, Ukraine is a main exporter of automotive parts to Europe.

Effects of war on economic development

If this war continues in the longer term this will nearly certainly cause a recession due to the fact that automotive plants will have to close. Taking Germany as an example, if automotive plants are not producing for five weeks, this could lead to a 1 percentage point decrease in the national GDP. Looking at Russia, it accounts for 5% of aluminium production, 7% of nickel, 4% of copper and 2% of zinc. However, most importantly Russia is the second largest exporter of aluminium in the world, the majority of which goes to Europe. Russia also accounts for 17% of global steel trade. Since the beginning of the conflict, steel prices have increased considerably and alternatives can hardly be found. Companies report that European steel mills are working at full capacity and could no longer accept new orders. If we follow this logic, we can expect increases in the prices of all of these metals. This is on top of already historically high commodity prices.

A ray of light for recovery...

Before the beginning of this conflict, we had seen a much better than expected economic performance, with growth figures that were so good they contributed to an overheating of the economy. This has led to the well documented supply chain issues, and in some contexts more importantly, the deluge of open vacancies which were found across our sector and show no sign of abating in 2022. Nevertheless, we have been left with a covid-deficit in our figures which will take many years to realign to the growth path we left in March 2020, when the covid-crisis started in Europe. As a sector, and for the economy as a whole, we rebounded from the corona-crisis much quicker than expected. This led to an overheating economy with record high metal prices and delays on products such as chips and microprocessors. This will only increase with the ongoing conflict in Ukraine, disrupting processes in the whole MET sector, particularly for the automotive, mechanical and electronic sectors. The corona-deficit also indicates that if we would have had a corona-free economy we could have seen 3% higher production figures. No country or sector has managed to reach the level that they would have been at if the COVID-19 pandemic hadn't taken place. Therefore, the corona-crisis has, and will continue to, cost economies in value added and could take at least 10 years to get back on the path we were on before the pandemic.

...turning into a dark outlook

Add all these issues together with decreasing investor confidence as well as a diminishing of international trade, we have a recipe for some unstable economic scenarios. MET economists see the possibility of two broad economic scenarios: a shorter war scenario which may result in up to a 1 percentage point, or slightly above 1 percentage point, decrease in GDP figures; and a longer war scenario where we could see beyond a 3 percentage points decrease in GDP figures. From a Ceemet perspective, the GDP decline is largely driven by a decline in industrial production. The current sanctions and supply chain disruptions are mainly hitting the MET industries. A significant drop in production perspectives and a resurgence of short-time work can already be expected. In the event of a prolonged conflict or an energy or commodity embargo, the MET sector faces negative growth figures. An escalating conflict with continued energy challenges, alongside high prices and low growth, coupled with a recession, could bring us back to the 1970s where we saw the dreaded stagflation take hold of our economies. Combine this with supply chain issues which are predicted to affect our industries well into 2023, particularly automotive parts and neon gas, alongside increased commodity prices, we could very well see the breaking of economic records, and not in a positive context.

Ceemet represents the Metal, Engineering and Technology-based industries (MET) **employers** in Europe, covering sectors such as metal good, mechanical engineering, electronics, ICT, vehicle and transport manufacturing.

Our members represent **200,000 companies** in Europe providing nearly **17 million direct jobs and 35 million indirect jobs.**

Ceemet is a recognised **social partner**. Our vocation is promoting global competitiveness for European industries.



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