Chief Economist Report



The 2021 economic outlook for

the MET industries

Investment levels must increase for recovery



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Message from the Director General Delphine Rudelli

2020 has been the worst year in living memory for the companies which make up the Metal, Engineering and Technology-based (MET) industries in Europe. This is highly significant for a sector that has an overwhelming majority of SMEs.

Despite the challenges, MET industry companies kept the employment level stable at 17.5 million workers. An extraordinary achievement to which agile labour market regulation such as short time work schemes contributed. Just as did government support schemes and social partner cooperation keeping companies open and safe during the crisis. Today 51% of the workers in manufacturing are employed in MET sector companies.

The MET companies are in a good starting position to face the digital and green transition that is ahead. With the investment plans provided by the Next Generation EU, the European Commission and national governments need to make sure that our sector benefits and remains what it is: a stable pillar of European society.

Employment

Heavy weights of the MET industry

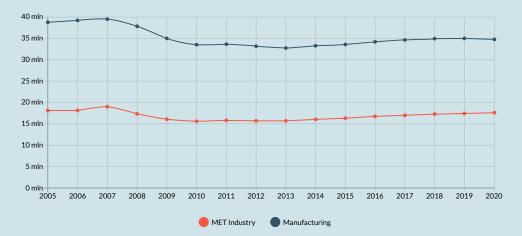
Employment of the different sectors in 2020

Fabricated metal products (25)	3737
Mechanical engineering (28)	3492
Automotive industry(29)	3481
Computer, electronic and optical products (26)	1502
Electrical equipment (27)	1445
Repair and installation of machinery and equipment (33)	1409
Other manufacturing (32)	1390
Other transport equipment (30)	1081

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

MET industry covers half of industrial employment

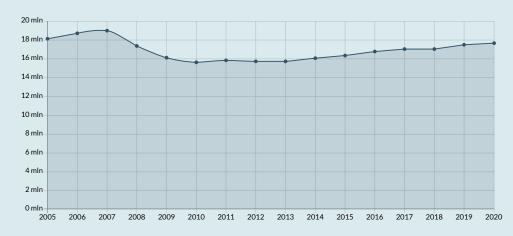
Employees in MET industry and in total Manufacturing



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

Employment in the European MET industry

MET employment is recovering despite the pandemic



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



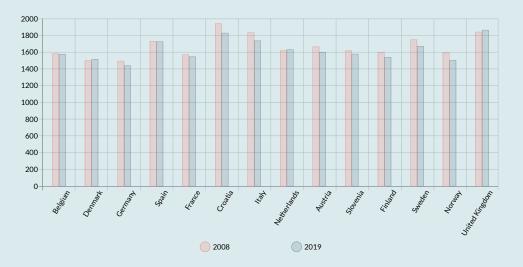
After having increased employment levels in the period before the crisis of 2009, the European MET industries had to cut a lot of jobs during that deep crisis. There was still more than a 1 million job shortfall in 2020.

However, despite the COVID-19 pandemic, the MET industries increased employment in 2020, with current employment levels standing at 17.7 million workers.

Manufacturing of fabricated metal products, mechanical engineering and the automotive industry are the heavy weights of the MET sector in Europe.

Share of MET employment in relation to total manufacturing employment rose in recent years and in 2020 arrived at 51%.

Average annual hours worked per capita Manufacturing

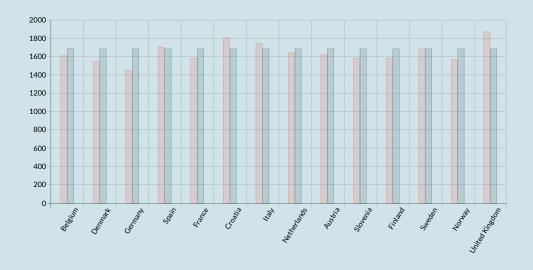


Source: Eurostat



Average annual hours worked per capita

MET industry



•2018 •Source: Eurostat •Blue bar: Average for EU27 & UK

Within the majority of the countries represented by Ceemet, the annual average hours worked per capita in the manufacturing industry was reduced in comparison with the pre-crisis period.

In the MET industries, the annual average hours worked per capita shows a significant variability between countries, with Germany at 1,449 and UK at 1,874.

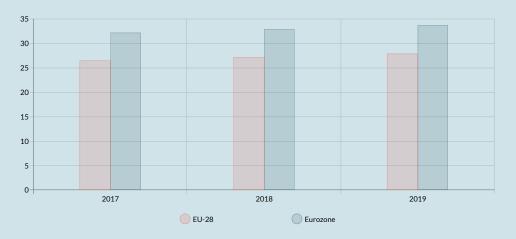
After the second crisis in the 2011-12 period, we saw an increasing trend until 2016 but since 2017, once again, a slight decline has been registered.

A very limited number of countries are positioned around the EU27+UK average.

Labour cost

Manufacturing industries

Hourly labour cost in the EU & the Eurozone



•Source: Ceemet own calculations



Labour cost

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

Margins recovered gradually thanks to a decrease in oil prices and the Euro to Dollar exchange rate between 2014 and 2016.

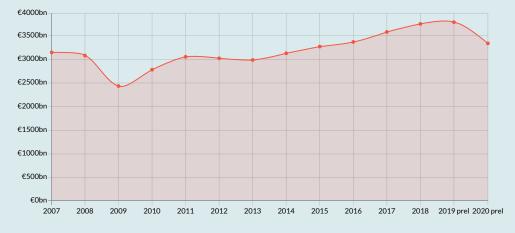
The average hourly labour cost in the EU27 + UK in 2019 was about €34, during the same period the per hour cost in the Eurozone was about €28.

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.

Production

Value of production

Value of annual production in engineering, steel and metals in EU



Source: Eurostat

Value of production

MET share of total manufacturing in value of annual production



Source: Eurostat

Value of production in the MET sector decreased from a preliminary €3446 billion to €3045 billion or by 11,6%.

Volume of production according to short term data is estimated to have fallen by 13% in Engineering industries excluding steel and metals.

The hardest hit sectors were: transport equipment, motor cars and machinery & equipment.

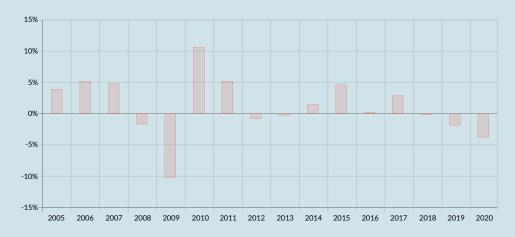
Production in total manufacturing is estimated to have decreased by 9,5%.

Value added in total manufacturing decreased by a preliminary 7,3% in value and by 7,8% in volume.

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



From 2012 to 2020 the development of (labour) productivity in the European MET industries was considerably lower than in the era before the 2009 crisis.

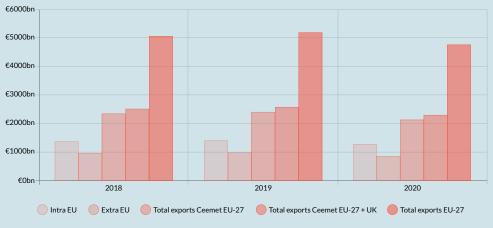
This weakness of productivity can be observed in most industrialized countries and often in the entire economy.

The COVID-19 pandemic in 2020 has intensified the decline in MET productivity which was caused by a low level, and partly a decline, of MET production and rising employment on the other hand.

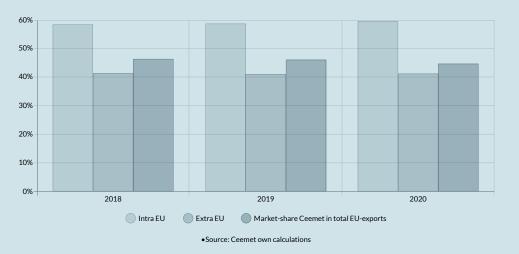
To get higher productivity it is essential to increase the competitiveness of the MET industries in relation to our global competitors.

In order to enhance productivity growth governmental and private investments in Europe must be increased.

Export



•Source: Ceemet own calculations



About two thirds of the sales of the MET industries are realized due to the exports.

There has been a decrease of 10,7% in the export figures in the MET sector in 2020 vis-à-vis 2019. Intra EU exports have decreased by 9,4% with extra EU exports down by 12,6%.

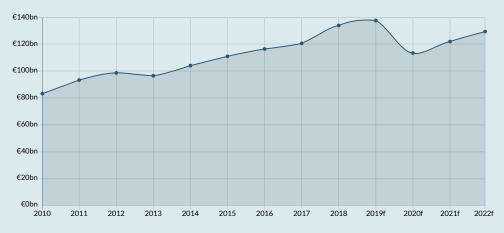
Between 2010 and 2012 there was a boost in exports towards Brazil, Russia, India and China. Following that, between 2013 and 2019, there was a sustainable increase of exports across the globe, however the COVID-19 pandemic has since ended this upswing.

The exports outside the EU have become relatively more important over the last years. In 2002, about one third of the exports went outside the EU. In 2020 it was just over 40%.

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.

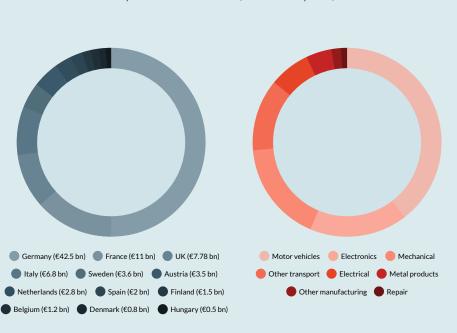
The latest data from 2018 shows quicker growth, however as predicted by MET economists, things will take a turn for the worse in 2020 and up to 2022.

In 2018, the investment levels of the MET industries was €134 billion however it is predicted to drop in 2020, predictions also show it will regain some of its growth to €130 billion by 2022.

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.

Research & Development

€90 bn R&D spent in the EU MET industry



Breakdown by MET subsector

(% of total spend)

•Source: OECD

In 2017 the MET industries spent over €90 billion in Research and Development. The MET industries are some of the most research intensive and innovative subsectors in Europe. Many of these industries provide highly skilled jobs and will play a pivotal role in solving many of our societal issues, particularly on climate change, the digitalisation of industry and upskilling the workforce.

The automotive sector is the largest R&D performer within the MET industries. This sector spent nearly 35 billion in 2017. It is closely followed by electronics, representing €16.5 billion of R&D expenditure, and the machinery and equipment sector comes in third spending more than €15 billion.

Germany, France, UK and Italy accounted for over three quarters of total MET R&D expenditure, with 48% of all R&D expenditure in Germany alone. Motor Vehicles accounted for 39% of MET R&D spend, followed by Electronics at 18%.



Message from the Chair of the Chief Economists Group Patrick Slaets

With a more than 11% decrease in production figures the MET industries are experiencing the worst industrial crisis since WWII. This dramatic decrease can be explained by two reasons:

1. The lockdowns initiated by governments in various countries had a twofold effect. The shutdown of the economy as a whole had an effect, as did the halting of many of the production sites across Europe.

2. As a consequence of the above, demand was badly hit. There is consensus among MET economists about the need to move toward a digital and green transformation. Especially when the jury is still out on what will be the effects when the multitude of support measures come to an end. While 2020 represents a drop of investment, by 2022 investment levels should reach a volume of €130 billion. Whereas the Next Generation EU plan provide support schemes for industry, Ceemet's Chief Economists Report figures show that MET employers are getting ready to do their part and boost productivity and create economic growth.

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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