Chief Economists Report



The 2023 economic outlook for the MET industries

CONTENTS

Message Iron the Director General	
Employment	6
Hours Worked	8
Production	10
Export	11
Productivity	13
Research & Development	14
Investment	15
Labour cost	16
Message from the Chair of the Chief Economists Group	17

Message from the Director General Delphine Rudelli



The world in 2023 is a very different place to do business. The fallout from the COVID-19 pandemic has forever changed the way we work and produce; energy has been weaponised and at the same time we face the realities of the twin transition and a demographic challenge that has the potential to create an enduring issue for industry.

Challenging situation in the MET industries

As we face into a global slowdown, alongside the terrible humanitarian crisis in Ukraine, the fallout from the war is jeopardising European industry's access to many of the inputs needed to ensure our industrial future. This will also hold true in the longer term as supplies from Russia will likely be subject to sanctions for some time to come. The economic outcomes of this conflict are manifold. On the one hand, continued aggression by Russia in Ukraine will drag the European and broader economy into a deeper downturn. On the other hand, in the current scenario, the energy challenges which industry is dealing with due to this conflict show no signs of subsiding. Energy shortage could prove to be a particular threat to our industries.

Even though energy prices have stabilised at a high level, core inflation continues to rise in Europe as wage increases outpace productivity growth. The banking turmoil is now making the necessary monetary tightening even more difficult. At the same time, central banks are constricting the financing environment for companies and customers, creating new uncertainties, and making investment even more difficult.

In 2023 we see an industry recovering from a global pandemic, rocked by supply chain challenges, dealing with issues around access to capital for companies and energy price shocks. Furthermore, we see targeted attempts to attract companies away from European countries and, we find ourselves heavily reliant on Asia in order to realise the green and digital transitions that will be key to driving economic growth in the medium-term.

A European industrial policy for a globally competitive MET sector

Europe's industrial heartland, which is suffering from high energy prices and facing threats from China and the U.S., is going through a challenging period.

One of the pillars of the global economy, global free trade, is increasingly under threat and protectionism is mounting in some regions of the world. This is leading to one of the drivers of economic growth for our sector, open markets, being endangered. We are also seeing the race to subsidise industries beginning and with it the push to lure manufacturing away to new markets across the globe with lavish subsidies.

This is why we need, now more than ever, a real European industrial policy with long term competitiveness at its heart. A strategy that will not see European industry fall behind its international competitors, but thrive in the current industrial landscape. We must improve investment conditions in Europe while also creating an appropriate regulatory environment, particularly by cutting red tape and administrative burden for companies. A simpler, faster and more predictable regulatory environment creates the framework conditions for the investment which is badly needed across Europe. The adaption of state aid rules for companies producing the technology to realise net-zero targets should also play its role.

Concretely, we must see a European solution to boost industry, we must see European solutions made in Europe.

Europe therefore needs to focus much more on technology openness. Entrepreneurship and competition – not regulations – create new ideas and solutions to today's challenges. For more European innovation, we need more market economy and less state intervention, alongside reliable and fit for purpose framework conditions.

However, there are some reasons to be optimistic. Recent data is showing an increase in global trade after some years of it receding, which is in part due to the consequences of the COVID-19 Pandemic. Protectionism hinders competition and innovation and could prove detrimental to realising the green and digital transitions. Furthermore, international supply chains have contributed to a massive eradication of poverty through job creation in many developing countries. European companies, emphasising quality products and long-term relationships often have contributed to the development of an important middle class in these countries. This is why we must, now more than ever, stand up for the multilateralism which has underpinned the global economy for decades.

The green and digital (twin) transition

The twin transition is arguably one of the quickest and most pronounced changes which industry has experienced in living memory and in the coming years manufacturing is set to experience this transformation in full flow. The MET industries are well placed to play their part in the development and manufacture of the technology that will provide the solutions to the challenges of tomorrow. However, policy makers must also play their part by ensuring the adequate investment to bolster our industrial base and by making Europe an attractive place to innovate and do business. Furthermore, we must increase our strategic sovereignty in Europe, we are too reliant on other parts of the globe to produce the products that fuel our economies and industries, this is unsustainable in the long run. We can only solve this by providing Europe's industry with fair and reliable conditions for innovation and investment. Quotas on imports or purchases, on the other hand, would further damage competitiveness.

Access to the right pool of labour and skills are also key to realising this transition. However, persistently low numbers of school leavers coupled with a simultaneous breakdown of the performance spectrum and declining numbers of school graduates in the medium term will keep demographic challenges high, and therefore the skills needed to achieve the twin transition in demand, for at least the current decade. We are seeing increasing competition as a result of technological developments, together with broad additional demand for STEM professionals – both graduates and skilled labour. Despite above-average attractiveness in terms of wages and working hours, the MET industries is increasingly confronted with labour shortages.

Raw materials act

However, if we are to realise the green and digital transitions, and a resurgence of European industry, we must ensure access to raw materials. Whether this is titanium and aluminium from Russia or lithium, cobalt and copper from China, access to the right inputs for production must become a reality for businesses.

The raw materials act must remain a high priority for policy makers in order to ensure we enable the supply of raw materials to the companies who need them. Ensuring we have the correct resources available means increasing EU production, increasing efficiencies where possible, alongside facilitating the supply of these materials via supply chains from third countries. This will be key in achieving a fair green transition and the goals of net-zero.

Corporate sustainability

EU legislation related to sustainability, such as the Directive on Corporate Sustainability Reporting (CSRD), Corporate Sustainability Due Diligence Directive (CS3D), among others, are creating increased burden on companies, especially for SMEs.

Our industries rely on efficient global supply chains and a stable market environment. As part of addressing the current economic challenges, companies are seeking to strengthen and diversify their supply chains. However legislative initiatives of this nature are having an adverse effect on the operations and supply chains of European based companies, undermining their global competitiveness at a time when competitiveness internationally is of particular importance.

Companies have a responsibility to take social, environmental and human rights issues into account in addition to their economic and financial performance. Many MET companies already include environmental, social, and corporate governance factors in their ongoing due diligence measures and their daily business. As European companies are world leaders in monitoring supply chains' adherence to human rights and environmental protection therefore policy makers should focus on providing a framework fit for purpose in order for companies to thrive in an international context.

The internal market

The single market turns 30 this year. Launched in 1993, this marvel of modern integration established the free movement of goods, services, capital and people across the EU and continues to be one of the EU's greatest accomplishments.

European MET companies are deeply enshrined in the EU internal market, as we not only produce high-tech goods, but also provide services for these goods, free and frictionless labour mobility within the single market is therefore crucial for MET companies. However, this European achievement cannot be taken for granted. Our common market is still a work in progress and serious challenges remain in relation to obstacles to free movement of workers, particularly with regard to the short-term posting of workers to provide services in the EU.

We must see the political will to ensure we make the single market really work for MET companies. A properly functioning single market will not only continue to deliver the jobs and GDP growth to which we have become accustomed, it is also key to realising future objectives such as European strategic autonomy.

European Year of skills

Ceemet stands ready to play its part in making the European Year of skills a real success where we see tangible outcomes for companies, particularly for SMEs who continue to struggle to find skilled workers. The MET industries will continue to provide the upskilling and reskilling of workers needed for the better adoption of new technologies. This year should also contribute towards ensuring that industry has the skills available to really tackle both the green and digital transitions. We must finally see educational institutions align their curricula with the needs of the labour market, only then can we go some way to addressing the chronic labour shortages which we are seeing in our sector and ensure the skilled talent necessary to achieve sustainable growth. The basis of industry is an educated workforce and it must be of paramount importance to see this delivered in Europe.

Future orientated European manufacturing

However, it is not all doom and gloom. Despite a challenging environment, inflation may have peaked in the EU however it is still persistently too high and is a constant worry for business owners and customers alike. Employers are, before anything, entrepreneurs, using challenges as opportunities and having a huge capacity to find solutions to the key global issues of our times. MET companies still represent 45% of the R&D spend for the entire economy, and nearly 55% of total manufacturing employment.

The European MET industries will continue their innovative production to manage climate change and the digital transition and ensure that the future of industry is made in Europe.

Employment

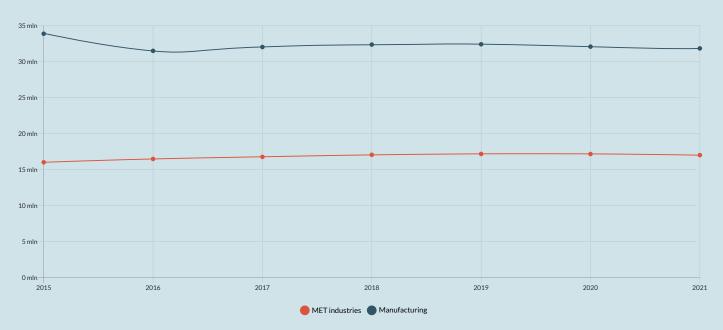
Heavy weights of the MET industries

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

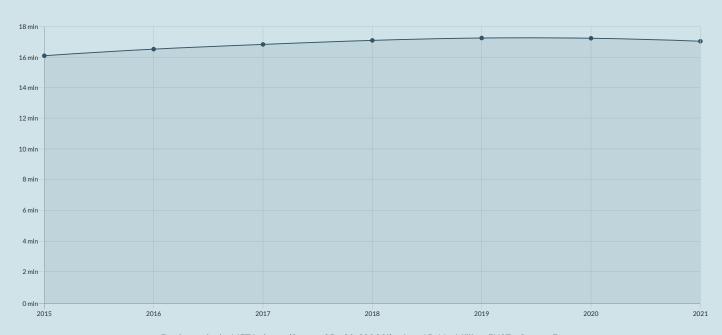


[•] Employment of the different Sectors (Sectors 24 – 30, 32&33*) • Age: 15-64 • in thousand • EU27• Source: Eurostat

Employment in the European MET industries



Corona-crisis causes some job losses in the MET Industries



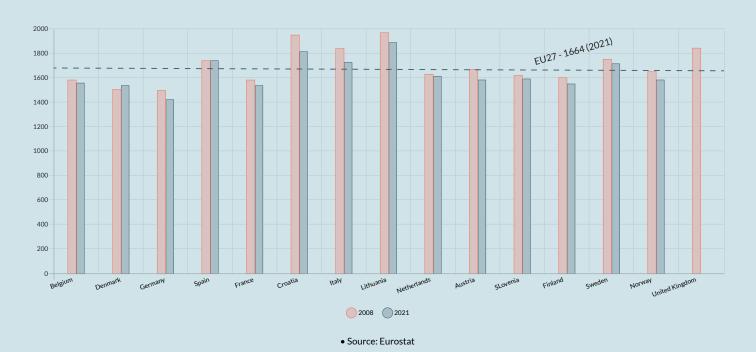
• Employees in the MET Industry (Sectors 25 – 30, 32&33*) • Age: 15-64 • Million; EU27 • Source: Eurostat

- Employment has grown steadily in the MET industries since 2010, however this was interrupted in 2020 by the corona-crisis.
- In 2021, 190,000 fewer people were employed in the MET Industries than in 2019. This represents a reduction of 1.1% in the overall employment of our sector. Current employment levels stand at 17.1 million workers.
- The MET industries have managed to keep the number of employees stable relative to the sharp drop in production during the corona-crisis.
- Nevertheless, structural change and the corona-crisis are clearly reflected in the medium-term employment trends.



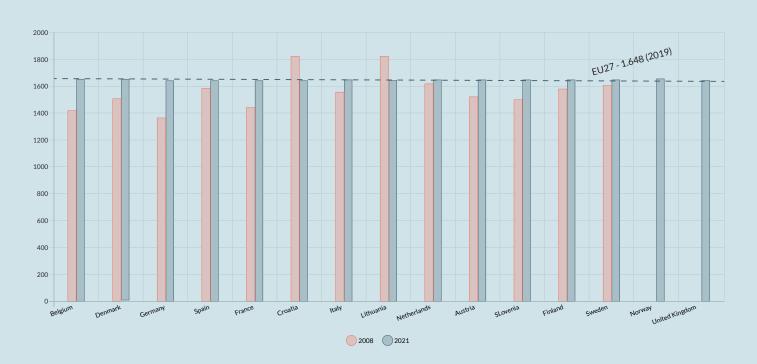
Average annual hours worked per capita

Manufacturing



Average annual hours worked per capita

MET industries

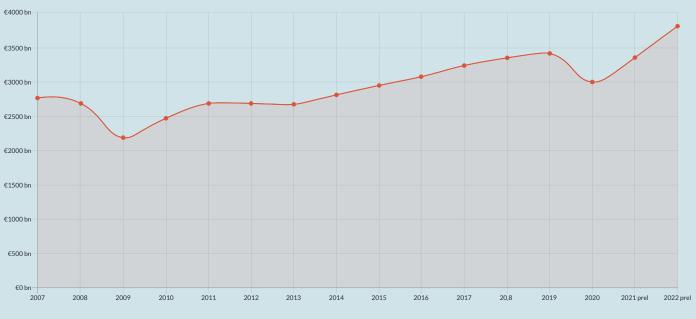


- In most member countries of Ceemet the 2021 annual average hours worked per capita in the Manufacturing industry was reduced in comparison to the 2008-09 pre-crisis period.
- Due to the COVID-19 pandemic, in 2020 a wide decline was observed in the EU27 area, with significant differences between countries. In 2021 most countries noted a significant increase, but not enough to recover the hours worked per capita lost in the previous year.
- In 2022 the number of hours worked remained stable in all countries. In the MET industries, the annual average hours worked per capita has shown a significant variability between countries.



Production

Value of annual production MET industries in billions of Euros



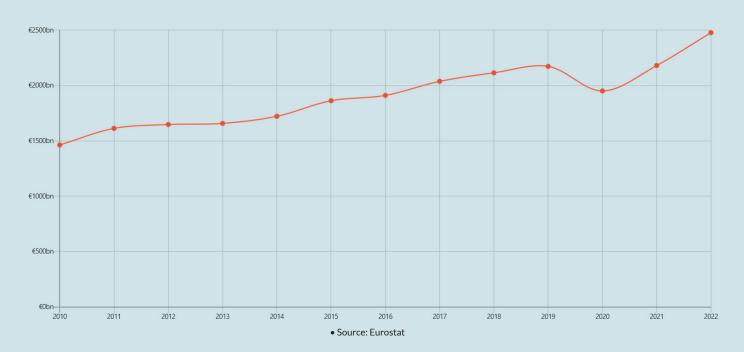
• Source: Eurostat



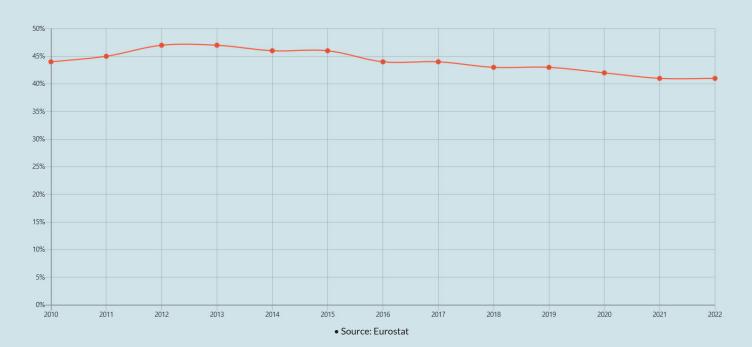
- Production values in the MET industries have finally surpassed their 2019 peak. We have seen an increase of 11.8% in 2021 and a 13.6% increase in 2022, following the decrease of 12% which occurred in 2020.
- This increase can be attributed in part to the quick rebound in production in 2021 which has carried into the preliminary figures for 2022. However, policy makers should not take this as a prognosis for the future, as this is an upswing from a low base caused by the COVID-19 pandemic. Current preliminary production values for 2022 stand at €3,813 billion.
- We see a difference of about 20% in the value and volume of production since 4th quarter of 2020. It is evident from the graph above that they have started to decouple in recent years.

Export

Exports of the Ceemet sectors

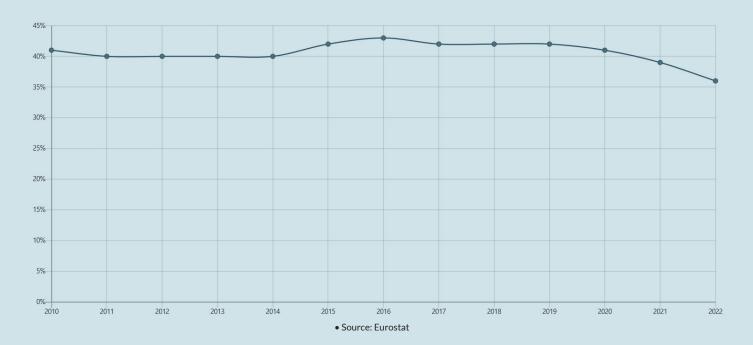


Part of Ceemet exports outside EU



Part of Ceemet exports in total EU exports

Share of Exports of Ceemet decreased slightly



- About 60% of the sales of the MET industries are realized due to exports, furthermore the export numbers for our sector
 have generally had an upward trend in recent years.
- However, for the last decade, 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.
- Furthermore, the MET industries part of EU exports has decrease considerably since around 2019.
- It is therefore imperative that the EU has a competitiveness agenda which contributes to increasing MET companies' share of EU and world trade.

Productivity

Changes of productivity of the MET industries

Productivity recovers after Corona Crisis



• Changes of Productivity year-over-year of MET Industries • Calculation based on annual change rates of production and annual change rates of hours worked • EU27 • Source: Eurostat



- We have seen a dramatic increase in productivity in 2021, with productivity in the MET industries recovering subsequent to the corona-crisis.
- However, the corona-crisis in 2020 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 on the other hand. 2021 productivity has recovered due to base effects.
- 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.

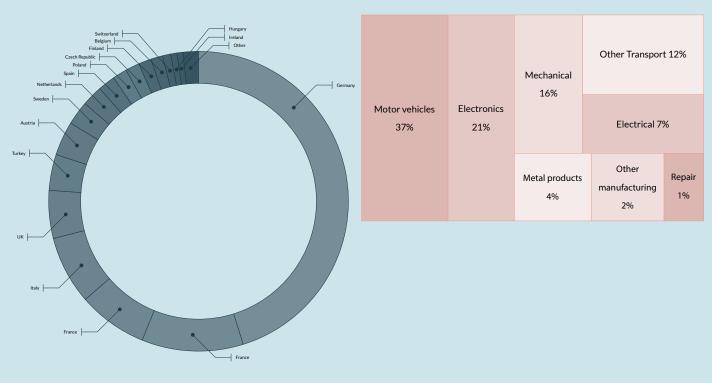
Research & Development

€170bn R&D spent

in the EU MET industry

Breakdown by MET subsector

(% of total spend)



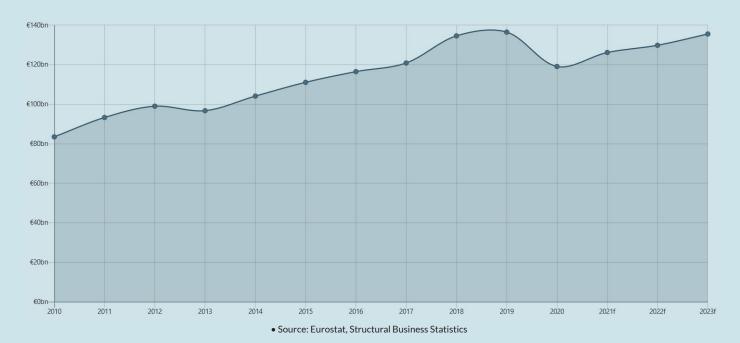
•Source: OECD

- In 2019, the MET industries in the EU-27 & UK spent €170 billion in R&D expenditure.
- 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 and France, UK and Italy accounted for over three quarters (70.8%) of total MET R&D expenditure. Motor Vehicles accounted for 37% of MET R&D spend, followed by Electronics at 21% and Mechanical Equipment at 16%.
- Biggest spend on subsectors by select 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



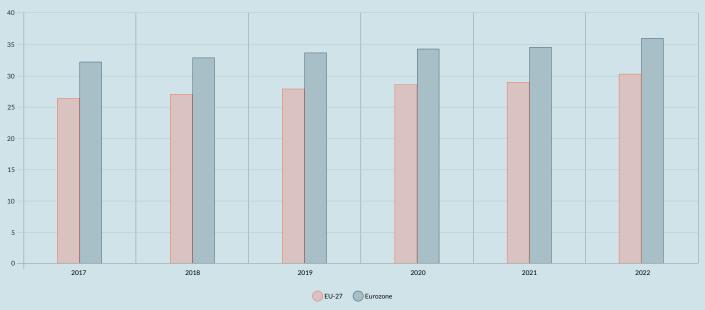
- Despite a relatively sharp drop in 2020 due to the COVID-19 pandemic, since 2010 the level of investment in tangible goods in
- In the preliminary figures for 2023 we have yet to surpass the investment levels of 2019.

the MET industries has increased slowly but steadily.

• Measures to increase and stimulate investments in Europe are still needed. The Green Deal Industrial Plan goes some way to putting in place these measures, however we must be cautious to ensure it strikes the right balance for industry.

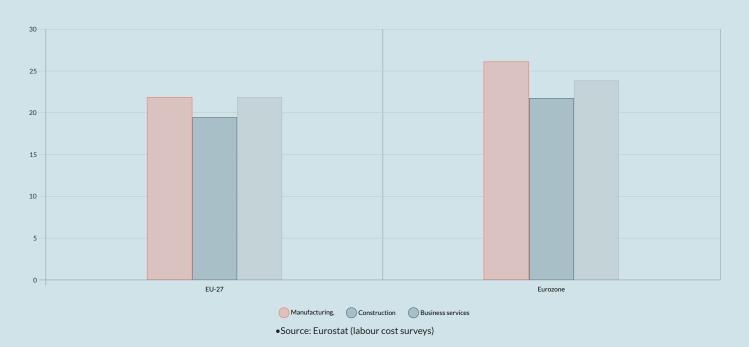
Labour cost

Total hourly labour costs in manufacturing industries



•Source: Eurostat (labour cost surveys)

Hourly wages in 2021



- Labour costs within the EU manufacturing industries have been steadily increasing since 2017, in 2021 labour costs in the Eurozone reached a peak of around €36. The average hourly labour cost in the EU in the same year was just above €30.
- 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 2021, EU manufacturing paid the same hourly wages as business services, both paying €21.9, with construction paying lower hourly wages at €19.5 in the EU. While in the Eurozone, manufacturing was a clear frontrunner paying €26.1, with business services and construction paying €23.9 and €21.8 respectively.

Message from the Chair of the Chief Economists Group

Patrick Slaets



The global outlook for the MET industries is one of unpredictability. While European economies, for the most part, have narrowly escaped recession, we are less certain of the outcome for our sector. What seems relatively certain is that our industries will operate somewhere close to a zero-growth environment. However, with some good fortune, recession will be avoided and we might even return some positive figures.

What is abundantly clear is that we will have less growth than expected. Our industries certainly experienced a recession in the first six months of the Ukraine war. Even before the outbreak of the Russian war of aggression, 2022 was expected to be a difficult time economically. Having said that, perhaps in an example of the resilience of our sector, even in the worst-case scenario, we are likely to finish with only a small decline in our growth figures.

Sub-sector by sub-sector

A deep dive into the sub-sectors of our industries tells a more nuanced story. The fabricated metal sector saw a massive increase in prices of metals and energy. Moreover, the sector encountered lots of scarcities in terms of steel and non-ferrous metals. This forced the closure of some production lines which simply could not find both ferrous and non-ferrous metals in order to continue their production. The closing of Chinese ports, which affected mainly the processing of metals, also contributed to this shortage.

Semiconductor concerns continue, despite an improved situation and our sector is still experiencing delivery delays that are still much greater than before the corona-crisis. The automotive and electrotechnical sectors are particularly impacted by these delays and some companies have even experienced closures in 2022 due to delays in the delivery of microchips. Unfortunately for our industries, many indicators point to this becoming a problem which will persist for some time.

One of the bright spots from the MET sector is the situation in the mechanical engineering sector. This sub-sector has seen marginal improvements in the second half of 2022 outstripping some of the other sectors in the MET industries.

The cost of doing business

More broadly speaking, enduring energy price shocks have been extremely problematic. Some sectors are more affected than others. Fabricated metal companies, for example, have been hit worse than others but even the more service orientated companies still have seen enormous increases in their energy costs. It is no secret that there has been a large percentage increase in energy prices from 2021 to 2022. However, despite the fact that energy prices have decreased considerably in recent months, prices are still fluctuating, and are a multiple of what they were at the beginning of 2020.

Gas prices are two to three times higher than before the COVID-19 pandemic. Although, we have seen a marked drop at the end of 2022 compared to the peak reached in summer 2022. This is no small part related to the abundant reserves currently existing in Europe, the mild temperatures in winter 2022-2023 and a double digit decrease of gas consumption in the EU.

The price of oil is also higher than before the COVID-19 pandemic, but the effect on companies is less pronounced. Base metals such as copper, zinc and aluminium have all experienced double digit increases, along with a not insignificant increase in the price of steel.

Impact on wages and wage cost

However, the extremely challenging issue of the last months has been inflation. This is leading trade unions to request, often unfeasible, increases in wages. In every country represented within the MET industries we are seeing enormous upward pressure on wages. This is having an adverse effect on the competitive position of the MET industries as inflation is higher in respect of other regions of the world.

Future prospects

Many of the above are the economic consequences of the Ukraine war, energy price shocks and inflationary pressures. Having said that, the scarcity of semiconductors and materials existed before the war, and was improving. However, after the outbreak of the war we saw a steep increase in this problem, regressing us about six to nine months in the progress made. Crucially for our sector, metal prices are far from their pre-corona levels. They are still badly affected by the negative economic effects in 2022.

On a more positive note, before Russia's invasion of Ukraine, MET economists had already predicted a challenging environment in 2022. Taking into consideration everything which has occurred, the result is better than expected. Our sector has outperformed what could reasonably have been expected in the current climate. This is a good indicator of the agility and resilience of our sector.

Furthermore, the cost of logistics are decreasing to pre-corona levels and continue to evolve in the right direction. Our sector continues to provide the societal solutions to realise the digital and green transitions, which is in turn helping to increase the activities of companies.

All told, the decrease in the growth figures in our sector were not as severe as could have been expected. Against the backdrop of a war on the borders of the EU, double digit inflation and skyrocketing natural gas prices, companies showed tremendous resilience and fortitude.

However, we can foresee further economic headwinds. Our dependence on other regions to achieve the net-zero aims is an extremely challenging position for our industries. Against this backdrop and an apparent slowing of globalisation, alongside increasing unilateralism, protectionism cannot become the new reality for European manufacturing.