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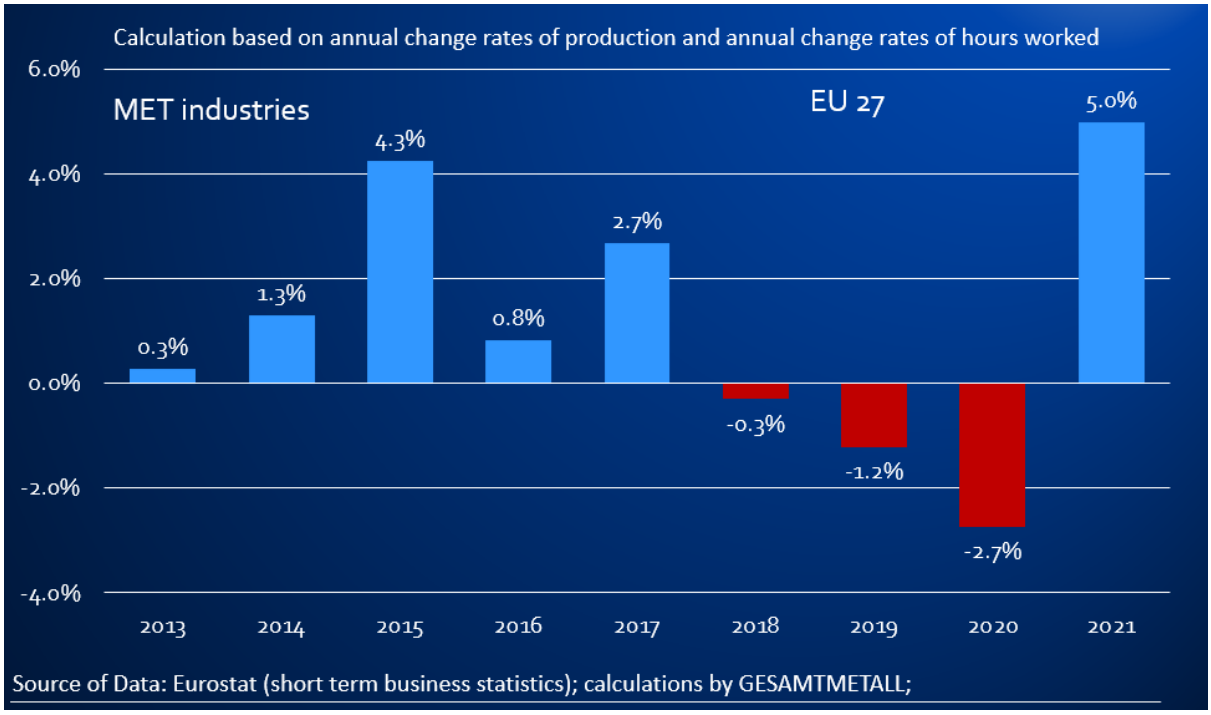
EU Transparency Register
61370904700-45

PAPER – 15/03/2023

Tech and Industry employer's views on Digitalisation and Productivity



Changes of Productivity y-y of the MET Industries, % (Capital Goods Industry)

Introduction

Digitalisation, in its broad definition, is thought to increase productivity. However, despite a small number of exceptions, productivity growth has declined in most developed countries in recent decades. This holds true whether these countries have a digitalised industry or not.

The introduction of digitalisation and new technologies to companies are often regarded as a possible way to increase productivity. Given the digitalisation of the MET industries, and manufacturing more broadly, over the last decade, this resurgence of productivity seems to be taking longer than expected to materialise. This paper investigates the link between these two phenomena in the MET sector and how digitalisation affects companies, particularly in relation to employment, social affairs and labour issues.

Digitalisation within the MET industries

As part of the process of digitalisation, technologies such as 3D printing, the Internet of Things and Artificial Intelligence have been transforming the MET industries in recent years.

However, we have seen yet another year of weak productivity for our sector. We note further declines in 2020 which began in 2018. In 2020, the productivity figure was so low that there has been only one year since 2005 where productivity was worse, in 2009 during the 2008/2009 crisis. The decline in 2020 has been reversed in 2021, however, 2021 productivity has recovered, among other issues, mainly due to the increase in production. Since 2012, the development of labour productivity in the European MET industries has been extremely low in comparison to the era before the 2008/2009 crisis.

Furthermore, these low productivity gains make it even more challenging to implement the green transition. This is despite the great strides being made by European industry in greening its production processes, leading to a deep transformation within our sector.

We must remain conscious of the fact that there are multiple factors which affect productivity. We cannot say that simply because productivity isn't increasing, digitalisation isn't increasing productivity. What is also feasible is that the aggregate gains realised by digitalisation haven't yet been sufficient to reverse this trend.

In the UK, according to a survey carried out by Make UK, the UK national member of Ceemet, in 2018 only 4% of manufacturers were considered to be in the revolutionary stage of digitalisation, where manufacturers are changing the way they derive value and interact with customers and suppliers. However in 2021, that figure had risen to an incredible 23%, nearly a quarter of UK manufacturers. According to the same study, 56% of UK manufacturers said that the adoption of digital technologies reduced costs and crucially improved productivity[1].

Employment is still increasing in many Member States, which shows that even in a digitalised world, the workforce is still of paramount importance to companies. In Belgium, between 2016 and 2019, more than 220,000 extra people have found their way into the labour market. That figure indicates, that even in a digitalising world, their economy still needs extra people[2]. However at the same time, productivity only increased by 0.1% and we saw an increase in open vacancies from 108,000 to 142,000. This was despite the fact that the decrease in jobseekers went from 596,000 to 487,000. This deluge of open vacancies has only increased since then, is now also to be found across our sector, and show no signs of abating in 2022. The existing vacancies in our sector simply cannot be filled by those persons already on the labour market.

It is important to also highlight that digitalisation of industry should be seen as more than just changing production methods in order to gain efficiencies. Often we see too much investment in changing production rather than the value proposition coming from the product. Digitalisation should also be used in a more effective way to change business models and create more value for customers.

It is often the case that labour is taxed at a higher rate than capital. Therefore, it is often suggested that it is easier to make profits by replacing labour with capital. While this may be true in the short term, this is damaging for productivity in the long run. Innovation is one clear example of an issue which is enhanced by the way that labour is deployed in companies. Furthermore, having the right skills goes some way to ensuring good labour quality and by extension an increase in productivity.

New ways of working must ensure the competitiveness of the MET industries

We need to ensure competitiveness and higher productivity vis-a-vis our competitors located in other regions of the world. New ways of working and learning will help gain market share in an ever more globalised world. The use of technologies - such as the cloud - have been shown to have a positive impact on productivity in many countries. Companies which adopt cloud technologies have also seen productivity gains. Good broadband internet has also been shown to boost the productivity of companies. According to a Banque de France study "the expansion of broadband internet had a positive impact on imports in France at the start of the 2000s, and suggest that this phenomenon might be a driving factor behind the beneficial effect of broadband on productivity.[3]" The same study goes on to say that "younger firms that adopt cloud technology are more likely to benefit from higher productivity gains. This effect is less clear-cut for incumbent firms, which nevertheless reorganize to take advantage of emerging technologies when they use the cloud."

Furthermore, training is important for the competitiveness of companies. Federmeccanica, the Italian national member of Ceemet, along with others, have created a platform for training

1 https://www.makeuk.org/insights/publications/industry-4-0-the-enabler-to-green#:~:text=Cutting%20edge%20technologies%20such%20as,of%20the%204th%20Industrial%20Revolution
2 https://acdn.be/enewsv7/upload/whitepaper/Be-The-Change-guidance-and-levers.pdf p13
3 https://publications.banque-france.fr/sites/default/files/medias/documents/wp-785.pdf

workers in a digital age. This platform offers companies operational support in the definition and implementation of training programmes. In Belgium, Agoria, the national member of Ceemet, have their 'Be the Change' project which endeavours to address the skills gap. This project is investigating value added and employment. It shows that the activity rate and employment rate are increasing. However, due to a number of factors, it is extremely difficult, if not impossible, for new workers to reach the same level of productivity.

The impact of the pandemic

The COVID-19 pandemic has had a disproportionate effect on the European labour market. The various national lockdowns, to a greater or lesser extent, accelerated the use of digital technologies by companies, which will have its own knock on effects.

This could lead us to believe that we would see an upswing in productivity numbers subsequent to the increased use of technology. However, this doesn't appear to be the case. The corona crisis in 2020 has intensified the decline in MET productivity which was caused by on the one hand a low level - and partly a decline - of MET production and a rising employment on the other hand.

Investment in digitalisation does not kill jobs …it creates them!

Digitalisation increases labour market opportunities and has created better working conditions within our sector. Automation has created many new job profiles and increases job creation within certain job profiles in the MET industries. Job losses, whereby workers are replaced by machines, have been widely discussed. However, what is less widely addressed is the job creation brought about by new occupation profiles dedicated to developing and utilising these new technologies.

As has been shown by many studies, new technologies such as Artificial Intelligence create jobs and ensure future global competitiveness and thus the continuation of prosperity and strategic autonomy in Europe. According to the World Economic Forum, as written for their Pioneers of Change Summit in 2020, "AI will create more jobs than it destroys." They go on to say that "Just a few decades ago, the internet created similar concerns as it grew. Despite scepticism, the technology created millions of jobs.[4]"

Outcomes and policy suggestions

We must ensure work that aims for efficiency; it is therefore necessary to increase the added value of the work done at production sites. As is the case in MET companies, ensuring work is carried out in a safe and healthy environment is key to having a motivated workforce who will in turn increase productivity. Furthermore, we must work smarter, employing the correct tools, skills and knowledge deployed in the correct manner. This is particularly true in view of the unfavourable demographic development facing Europe.

The progressive build-up of bureaucracy is a burden on the competitiveness of European MET companies. A prominent example is the European Corporate Sustainability Due Diligence Directive, which would be almost impossible to implement for many medium-sized companies. There must therefore be a moratorium on bureaucracy.

Policy recommendations:

- Take measures to increase productivity, as this is essential for the competitiveness of the MET sector in global markets. In the MET industries, we already see competitiveness challenges borne out in the dramatic decrease of exports outside of the EU since 2012.
- New bureaucratic regulations must be prevented. In view of the multiple crises, Europe's industry needs a bureaucracy freeze. Furthermore, outdated bureaucratic processes urgently need to be modernized and administrative regulations selectively dismantled.

4 https://www.weforum.org/agenda/2020/10/dont-fear-ai-it-will-lead-to-long-term-job-growth/

- In addition, member states and public institutions must lead the way in the use and implementation of digital processes and applications to facilitate scaling of European solutions.
- Enhance productivity growth by increasing private and governmental investments in the EU. The MET industries are playing their part, as investment in our sector is predicted to arrive at €141 billion in 2023, surpassing its 2019 peak. Further measures must be taken to increase and stimulate investments in Europe. This also includes more IPCEI-Programmes[5] and the further development of the EU Chips Act to ensure a level playing field with other global competitors.
- Ensure the correct availability of technical skills, access to technical skills are crucial for companies to thrive in a digital economy. This applies to both vocational training and university degrees. STEM subjects must be the focus in this regard.
- Ensure manufacturers have access to high speed internet and use of the cloud. Ensuring infrastructure projects to improve internet speed and cloud access will be of vital importance to realise the potential productivity gains of the digitalisation of industry.
- Reduce, where possible, the financial barriers to digitalising for MET companies. The EU Taxonomy Regulation is detrimental to the effective financing of European companies and thus also to productivity development. It must be suspended.
- Research & Development must be supported holistically and more strongly in Europe. On the one hand, through greater technological openness and on the other hand, through a significant increase in Horizon Europe for investments in key technologies.

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About Ceemet

- Ceemet represents the metal, engineering and technology-based industry employers in Europe.
- Member organisations represent 200,000 companies in Europe, providing over 17 million direct and 35 million indirect jobs.
- Ceemet is a recognised European social partner at the industrial sector level, promoting global competitiveness for European industry through consultation and social dialogue.

5 Important Projects of Common European Interest (IPCEI) are strategic instruments for the implementation of the European Union (EU) Industrial Strategy.