

A renewed industrial policy strategy

SUMMARY

EU industry seems to be on a solid path to recovery from the crisis, with growth in both employment and value added. Industry creates jobs across the economy and is responsible for the bulk of investment in private research and development. In the same way as in other developed parts of the world, European industry is undergoing a transformation based not least on increased convergence between traditional industries and the digital sector. This change is bringing both opportunities and challenges. In order to maintain the global competitiveness of European industry, many current shortcomings, such as insufficient investment levels, widening productivity and innovation gaps, and skills shortages, must be addressed.

Many of these issues have been emphasised before: in the aftermath of the recent crisis the EU sought to boost the reindustrialisation of Europe in order to stimulate jobs and growth. The European Commission under Jean-Claude Juncker has made this one of its top priorities and, after a series of related initiatives such as the investment plan and the circular economy package, in September 2017 it announced a renewed industrial policy strategy. This strategy takes a holistic approach, combining both existing and new horizontal and sector-specific initiatives, and sets out actions to be launched by early 2018. The newly proposed initiatives concern cybersecurity, free flow of non-personal data, trade and foreign investment, raw materials and public procurement. Upcoming proposals will concern the circular economy, the intellectual property rights framework, sustainable finance, mobility and skills.

The reaction from stakeholders has been mixed: while many have welcomed the strategy in general, particularly its holistic approach and the involvement of multiple stakeholders, others have criticised it as lacking clear new objectives and actions and a long-term vision.



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European industry at a glance

The EU is the world's largest exporter of <u>manufactured goods</u> (and services), which accounted for 83 % of total exports from 2008 to 2016. Around two-thirds of private sector <u>research and development</u> (R&D) investment and 17 % of total value added in the EU comes from manufacturing. Industry, employing 32 million people, provides around a quarter of all private-sector jobs and each additional job in manufacturing creates up to 2.5 jobs in other sectors, particularly in services. EU industry is generally competitive,

achieving a trade surplus with the rest of the world, and its productivity, particularly in manufacturing, compares favourably with other developed economies such as the USA.

Europe is the global leader in many industrial sectors, particularly in high value added, low ecological footprint and advanced products and services (examples include the automotive, pharmaceuticals, chemicals, mechanical engineering and fashion industries). Furthermore, European companies are at the forefront of many important technological developments such as advanced manufacturing, nanotechnology, biotechnology, micro- and macro-electronics, photonics and advanced materials. These new technologies are coupled with the need for greater resource efficiency and the imperative of promoting a sustainable, circular and low-carbon economy, generating both opportunities and challenges.

undergoing European industry is major transformation. Some call it the fourth industrial revolution: convergence between traditional industries and the digital sector is resulting in the integration of smart products with intelligent, This personalised services. is coupled accelerated economic, societal and environmental change, the bundling of services and manufacturing, and new business models, and is being fed by technological breakthroughs in areas such as robotics, the Internet of Things, artificial intelligence,

Gradual recovery from the crisis

In 2016, industry's share of EU value added (20.3 %) was 0.9 percentage points smaller than in 2006 (19.3 %). The drop was not gradual but took a u-shape. The sharpest contraction occurred between 2007 and 2009, with value added plummeting by 12.7 % in volume terms. Industrial output further declined by 2.2 % between 2011 and 2013, and increased between 2014 and 2016 (by 2.3 %, 3.9 % and 1.5 % respectively each year). Altogether industry gross value added for the EU grew by 6.4 % between 2009 and 2016. Manufacturing added value alone increased by 23 % in real terms and its share as a proportion of the economy rose from 14.7 % 16.1 %. The decreasing trend employment was also reversed. After the period of decline between 2009 and 2013, when employment decreased by 1.8 million (5.4 %), over 1.5 million net new jobs were created. In manufacturing, jobs grew at an even higher rate, mostly in better paid engineering, professional and management posts. Positive trends in industry value added and employment were also reflected in an annual growth rate in labour productivity in EU industry of 2.7 % on average from 2009 to 2016. This growth was higher than in other major economies such as the USA (+0.7 % per year on average between 2009 and 2015), Japan (+3.4 %) and South Korea (+2.3 %).

energy systems and the bio-economy. Furthermore, <u>value chains</u> are increasingly global, while digitised <u>supply chains</u> provide a more central role for customers.

This industrial transformation holds the promise of creating future-proof and flexible manufacturing, based on mass customisation, rapid delivery and better quality. Importantly for the economy, it is also likely to improve productivity – crucial for maintaining Europe's competitiveness – and offer significant employment opportunities in medium and high-tech manufacturing.

However, in order to reap these benefits, a number of challenges need to be addressed. The most important that can be addressed at EU level include: the investment rate, which is still below pre-crisis levels, widening productivity gaps between Member States and

regions, an increasing innovation gap between the EU and some of its competitors such as Korea and Japan, data sharing and cross-border flow issues, legal questions relating to intellectual property rights, insufficient EU-level standardisation, and skills mismatches and shortages within the workforce.

Overview of EU actions

Development of industry is one of the key objectives of the <u>Europe 2020</u> strategy. Four out of its seven flagship initiatives are important in the context of improving industrial competiveness: <u>Innovation union</u>, <u>A digital agenda for Europe</u>, <u>New skills for new jobs</u> and <u>An industrial policy for the globalisation era</u>. The last of these initiatives in particular proposes action to boost industry, focusing not least on access to raw materials, resource efficiency, standardisation, and strengthening the single market.

The previous Commission (Barroso II) also sought to boost the reindustrialisation of Europe, in order to secure growth and jobs, which were at the top of the EU's post-crisis agenda. In three communications² it proposed a series of measures to improve the business environment, increase investment in industry, facilitate access to finance, improve infrastructure, deepen the single market, enhance human capital and skills, support innovation, sustainability and resource efficiency. It also set out six priority areas for investment in innovation (advanced manufacturing for clean production; key enabling technologies; bio-based products; sustainable industrial and construction policy and raw materials; clean vehicles and vessels; and smart grids) and aimed at increasing industry's share of GDP to 20 % by 2020.³

Consequently, one of the <u>top priorities</u> of the 2014-2019 Commission is the creation of a deeper and fairer internal market with a strengthened industrial base.⁴ The Commission has launched a number of horizontal policy instruments designed to boost European industry: the

Watify

Launched in December 2016, Watify is an campaign promoting technological transformation and modernisation of industry, scheduled to run until the end of 2018. It will encourage SMEs and regions to utilise the benefits of innovative business models and a vast array of advanced technologies such as the Internet of Things, mobile solutions, Deep Learning and big data analytics, advanced materials nanotechnologies, and industrial biotechnology, 3D printing and robotics. It will be achieved by bringing SMEs together with stakeholders who can help them to adopt the new technologies and models in a series of 240 awareness-raising events and 40 matchmaking events.

<u>investment plan</u> to finance the modernisation of industry; the <u>digital single market strategy</u> to allow industry to reap the benefits of digitisation; the <u>energy union</u> to make one of the most important inputs to industrial production more affordable, secure and sustainable; the <u>circular economy</u> to promote resource-efficient and sustainable manufacturing in Europe; the <u>capital markets union</u> to facilitate industry's access to finance; and the <u>single market strategy</u> to remove obstacles for industry identified in areas such as professional services, standardisation, intellectual property, patents, mutual recognition and the business environment for small and medium-sized enterprises (SMEs) and start-ups.

Furthermore, the 2016 communication entitled <u>Digitising European industry – Reaping the full benefits of a digital single market</u> set out steps for the digital transformation of industry and proposed measures to address the main challenges in areas such as funding, standardisation, cloud and data infrastructure, innovation (including the Internet of Things, advanced manufacturing and digital technologies) and skills.

The Commission has <u>reported</u> that the skills gaps and mismatches relating to digital and high-tech technologies are increasing, and that highly qualified employees are hard to find. The two main 2016 initiatives to address this challenge were: the <u>new skills agenda</u>, which aims to address these issues by equipping the workforce with relevant skills and upskilling and reskilling existing employees, and the <u>digital skills and jobs coalition</u>, which invites the Member States to refine their digital skills strategies, establish national digital skills coalitions, and develop measures that include the necessary skills and competences at all levels of education and training.

Industrial policy is implemented through a multitude of initiatives spread across a variety of policy fields and support programmes. Many of its important tools such as the-European Structural and Investment Funds, Horizon 2020, the Connecting Europe Facility, COSME, Galileo and Copernicus rely on the EU budget. The main industrial sectors in the EU are also supported by sector-specific action plans and 'smart' legislation. The EU is particularly involved in developing sectors that are important on account of their geostrategic nature and a high degree of public intervention, such as defence and space, as well as those with high-potential, such as the key enabling technologies (KETs).

Industrial policy strategy

On 13 September 2017, in his annual <u>State of the Union address</u>, European Commission President Jean-Claude Juncker announced a renewed <u>industrial policy strategy</u> for the EU that focuses on supporting innovation, digitisation and decarbonisation. On the same day the Commission adopted a communication entitled <u>Investing in a smart, innovative and sustainable industry – A renewed EU industrial policy strategy</u>. To monitor progress and identify further action needed at international, EU, national, regional and local levels, the strategy formalises the following fora for stakeholders: (i) a **high-level industrial roundtable**, which will be set up in 2018, with representatives from national, regional and local authorities and industry, social partners and civil society to give feedback and implementation advice on policy action, and (ii) an annual **European industry day**, the first edition of which took place in <u>February 2017</u>, bringing together policy makers, entrepreneurs, innovators, start-ups, the tech community and trade union representatives.

The renewed EU industrial policy strategy combines both existing and new horizontal and sector-specific initiatives and sets out measures to be carried out by the end of 2018. They are clustered around seven specific themes:

- a deeper and fairer single market: empowering people and businesses,
- upgrading industry for the digital age,
- building on Europe's leadership in a low-carbon and circular economy,
- investing in the industry of the future,
- supporting industrial innovation on the ground,
- the international dimension, and
- partnership with Member States, regions, cities and the private sector.

The annex to the communication on the strategy presents a detailed (though non-conclusive) list of key actions for smart, innovative and sustainable industry, which are either brand new (launched on the day of the State of the Union address or shortly afterwards), still planned for 2017 and 2018 in the context of the strategy, or already known⁷ (announced before the strategy in various previous policy initiatives and frameworks – these constitute the majority of key actions in the annex).

New initiatives in the framework of the 2017 State of the Union address

In order to enhance protection against cyber-attacks in the EU, the Commission adopted a cybersecurity package on 13 September 2017.8 This included the proposal to create an EU cybersecurity agency, based on the existing European Agency for Network and Information Security (ENISA), tasked with assisting the Member States with preventing and responding to cyber-attacks. The agency would organise annual EU-wide cybersecurity exercises and improve the sharing of threat intelligence and knowledge by setting up information sharing and analysis centres. Its mandate would also include assisting with the development of the EU certification framework recognised in all the Member States and confirming that products and services are cyber-secure. Furthermore, the Commission proposed establishing a European cybersecurity research and competence centre,⁹ which, working together with the Member States, will be tasked with supporting the development of technology and industrial capabilities in cybersecurity. Another initiative of the package is the blueprint for a coordinated EU response to cyber-attacks, which recommends procedures to be used in the event of large-scale cross-border cybersecurity incidents or crises, utilising existing and established crisis management principles and mechanisms. In order to make the blueprint operational, the Commission is asking Member States and EU institutions to set-up an EU cybersecurity crisis response framework, which is to be tested in cyber and crisis management exercises. As a deterrent to cybercrime the Commission has also proposed a directive on combating fraud and the counterfeiting of non-cash means of payment, which extends the scope of the offences to all payment transactions, introduces common rules on penalties and clarifies the scope of national jurisdiction.

The <u>communication</u> accompanying the package outlines the possibility for those Member States that are more advanced in cybersecurity, and that choose to pool their capabilities, to include cyber defence in the framework of permanent structured cooperation (<u>PESCO</u>) and the <u>European Defence Fund</u> to support cyber defence projects. The communication also announces the possibility of setting up a cybersecurity emergency response fund to assist those Member States that have put in place measures required under EU law in the event of emergency. Regarding the international dimension, the EU is to implement the <u>framework</u> for a joint EU diplomatic response to malicious cyber activities and support capacity-building efforts to assist third countries.

In order to remove barriers to data mobility the Commission has proposed a <u>regulation</u> on the free flow of non-personal data.¹⁰ It is aimed at removing unjustified or disproportionate national rules requiring organisations to locate the storage or processing of data in a particular Member State. Instead they will be able to do it <u>anywhere</u> in the EU, with the only acceptable exceptions being justified by public security. Member States will be obliged to notify the Commission of any new or existing data localisation requirements. Furthermore, public authorities will have access to data stored and processed in another Member State (or in the cloud). The Commission will encourage providers to draw up self-regulatory codes of conduct so that it is easier for professional users to switch between cloud storage service suppliers. The effective application of rules will be coordinated by a system of single contact points (one in each Member State).

The Commission also proposed trade and investment initiatives under the <u>trade package</u>. This included the new <u>framework</u> enabling the Member States and Commission to screen foreign investments in relation with security and public order. It sets up a <u>cooperation mechanism</u> that provides for the sharing of information and the exchange of opinions and comments on foreign investments among Member States and the Commission. The

package also included recommendations to the Council to open trade negotiations with Australia and New Zealand, and to start negotiations on the establishment of a <u>multilateral investment court</u>. From now on any new proposal for negotiating mandates for trade agreements will be made public. Finally, the package proposes the formation of an advisory group on EU trade agreements to improve interaction between the Commission and civil society on trade matters.

The Commission has also presented a revised list of 27 <u>critical raw materials</u> for the European manufacturing industry that can be used, for example, to incentivise domestic production through recycling or mining, in trade negotiations, or while developing research and innovation measures.

In October 2017 the Commission¹¹ asked the Member States to focus on six priority areas¹² to improve <u>public procurement</u>. It also offered a <u>voluntary mechanism</u> to provide authorities with clarity and guidance when planning large infrastructure projects (by setting up a helpdesk and checking the procurement plan for compatibility with EU legislation). Member States are also encouraged to follow specific <u>steps</u> to improve the technical knowledge, business skills and innovative purchasing ways of public buyers.

Achieving clean, competitive and connected mobility is also the priority of the Commission in the context of the renewed EU industrial policy strategy. On 8 November, it <u>adopted proposals</u> on stricter CO₂ <u>emissions standards</u> for cars and vans (the current regulations expire around 2020), an <u>alternative fuels infrastructure action plan</u> to foster the development of charging infrastructure in Europe, and initiatives to advance autonomous driving.

Forthcoming initiatives planned for late 2017 and early 2018

The renewed EU industrial policy strategy announces a series of measures on the circular

economy, including a <u>strategy on plastics</u> and initiatives to promote the production of renewable biological resources and their conversion into products and energy.

The European intellectual property framework will be updated. The Commission is planning an <u>assessment</u> of the functioning of the <u>directive</u> on the enforcement of intellectual property rights and adoption of a communication on European licensing framework for <u>standard-essential patents</u>.

The <u>new skills agenda for Europe</u>, adopted in 2016, launched a set of measures to help European citizens develop a broad set of relevant skills to improve their chances on the labour markets and tackle skills shortages. This agenda will now be extended to key industry sectors, such as construction, steel, paper, green technologies and renewable energies, manufacturing and maritime shipping.

Furthermore, within the framework of the capital markets union, the Commission is preparing a strategy on <u>sustainable finance</u> to encourage flows of private capital to sustainable investments that emphasise

European Parliament

In July 2017 the Parliament asked the Commission to 'develop, by early 2018, together with the Member States, a Union strategy and an action plan for a consistent and comprehensive industrial policy aimed at Europe's reindustrialisation, with targets, indicators, measures and time scales... based inter alia on digitalisation, on an energy- and resource-efficient economy and on a lifecycle and circular economy approach'. This should be developed in extensive dialogue with stakeholders and after analysis of the impact of its incorporation into EU strategic policy initiatives. The MEPs stressed that industrial policy needed to address challenges faced by SMEs and called for support for competitiveness clusters and innovation hubs, and efforts to strengthen interregional cooperation in innovation. The Parliament underlined the need to reduce administrative burdens and to keep sufficient funding for industry in the next MFF.

environmental, social and governance considerations. The Commission has also emphasised that 'putting this holistic strategy into practice is a shared responsibility. Its success depends on the efforts and cooperation of the EU institutions, Member States, regions and most importantly on the active role of industry itself.'

Stakeholder views

<u>Business Europe</u> underlined that renewed attention to an industrial strategy is of paramount importance for Europe's long-term prosperity and employment, as well as for addressing the impact of fast technological, economic and political changes. The organisation also stated that taking into account the fact that half of European business is built into global value chains, policy making must not be inward-looking, but create the conditions for industry to adapt quickly and anticipate future trends.

The European Trade Union Confederation (ETUC) welcomed the goal of giving better support to EU industry and industrial employment. However, it observed that the renewed EU industrial policy strategy lacked specific references to managing change, worker participation, restructuring and job losses. The ETUC argued that, without active change management, trends such as digitalisation and decarbonisation could destroy more jobs than they created. The confederation also urged Member States to make a firm commitment to EU industrial policy.

European standardisation organisations <u>CEN and CENELEC</u> supported the call for a more competitive European industry and committed to actively participate in the related discussions. They underlined that the strength of the European standardisation system lay in its inclusiveness, removing barriers to trade and facilitating market access for products and services.

The European confederation of industrial and service cooperatives (CECOP) asked the European Commission and Member States to preserve European traditional industry, claiming it was subjected to closure and relocation even when profitable. It regretted that the strategy did not refer explicitly to cooperatives, but welcomed it as an initiative aiming to boost large infrastructure projects. CECOP also asked for more attention to be given to SMEs.

The European Chemical Industry Council (Cefic) welcomed the strategy as a good starting point and called for industry-specific pathways to be defined for key sectors and value chains. The aluminium industry (European Aluminium) welcomed the fact that the renewed EU industrial policy was based on innovation, sustainability and fair trade. It also called for a balance to be maintained in the enforcement of multiple legislations. The refinery sector (FuelsEurope) argued that the strategy painted 'too positive a picture of the situation for manufacturing' while high energy costs, regulatory burden and uncertain investment climate were affecting European industry negatively. On the other hand, FuelsEurope appreciated the recognition of the need for multi-stakeholder dialogue including local and regional solutions. The machine tool industry (CECIMO) welcomed the strategy but emphasised that its main shortcoming was the lack of a long-term vision. It stated that the strategy did not outline concrete measures to help EU industry stay or become the world leader in innovation, digitisation and decarbonisation. On the other hand, CECIMO appreciated the multi-stakeholder approach in the framework of the proposed high level industrial roundtable.

The EU media network <u>Euractiv</u> argued that the Commission had not taken into account calls from the Member States, the European Parliament and the private sector to present

EPRS

new strategic objectives based on clear indicators and targets, but instead 'compiled and organised all the existing plans, clarifying the tasks for the different actors involved.'

Main references

Davies R., <u>Industry 4.0 – Digitalisation for productivity and growth</u>, EPRS, European Parliament, September 2015.

European Commission, <u>State of the Union 2017 – Industrial policy strategy: Investing in a smart, innovative and sustainable industry,</u> September 2017.

European Commission, <u>Industry in Europe – Facts & figures on competitiveness & innovation</u> 2017, September 2017.

OECD, The Next Production Revolution, May 2017.

Endnotes

- ¹ For example, a negative trend of foreign direct investment into the EU has been recently <u>reported</u>.
- Industrial Policy: Reinforcing competiveness from October 2011, A stronger European industry for growth and economic recovery Industrial policy communication update' from October 2012, and 'For a European industrial renaissance, from January 2014.
- ³ According to this 2017 <u>publication</u> industry generates 24 % of GDP, so it appears that this target has been achieved.
- ⁴ Industry-related initiatives are not exclusive to this priority. They can also be found for instance in <u>New boost for growth, jobs and investment</u> and <u>Connected digital single market</u>'.
- ⁵ Furthermore, it is likely that, in the <u>future</u>, opportunities will grow for highly-skilled people, but stagnate for medium-skilled people, and decline for low-skilled people.
- Examples include: the <u>chemicals</u>, <u>automotive</u>, <u>tourism</u>, <u>textiles</u>, <u>defence</u>, <u>fashion and creative</u> industries, the <u>raw</u> <u>materials</u>, <u>metals</u>, <u>minerals</u> and <u>forest-based industries</u>, the <u>mechanical engineering</u> and <u>electrical engineering industries</u>, and the <u>food</u>, <u>healthcare</u>, <u>biotechnology</u>, <u>aeronautic</u> and <u>maritime</u> industries.
- These initiatives are from many different policy fields, classified under the seven themes of the strategy. There are initiatives that had already been launched, such as the <u>services package</u>, the <u>compliance package</u> (both stemming from the <u>single market strategy</u>), and the <u>strategy on digitising European industry</u> (announced in the <u>digital single market strategy</u>), and initiatives that have yet to be proposed by the Commission, such as SME listing on public markets (in the framework of the <u>capital markets union</u>) or <u>innovation fund</u> (in the framework of the <u>revision of the EU emissions trading system</u>).
- The <u>package</u> includes two communications (on <u>cybersecurity</u> and <u>NIS</u>), a proposal for a <u>regulation</u>, a proposal for a <u>directive</u>, a <u>recommendation</u>, a <u>staff working document</u> and a <u>report</u>.
- ⁹ The pilot is scheduled to commence in 2018.
- ¹⁰ The flow of personal data is covered by the General Data Protection Regulation from 2016.
- 11 This initiative was announced in the State of the Union context but adopted a few weeks later.
- These include: greater uptake of innovative, green and social criteria in awarding public contracts; professionalisation of public buyers; improving access to procurement markets for SMEs in the EU and for EU companies in third countries; increasing the transparency, integrity and quality of procurement data; digitisation of procurement processes; and more cooperation among public buyers across the EU.

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