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Where manufacturing begins

7 August 2012

CECIMO position paper

Consultation on the EU2020 flagship on Industrial Policy

Mid-term review of the EU industrial policy flagship initiative

The EU industrial policy flagship is one of the seven flagship initiatives mentioned in the Europe 2020 Strategy which are devised to ensure smart, sustainable and inclusive growth in the EU. The flagship initiative was launched in 2010 with the Commission Communication "An integrated industrial policy for the globalisation era" adopted by the European Commission on 28 October 2010. The flagship sets out a strategy to boost growth and jobs by maintaining and supporting a strong, diversified and competitive industrial base in Europe. The 2012 review of the industrial policy communication will be adopted by the Commission in September 2012. The new communication will focus on a limited number of new initiatives capable of delivering results to tackle the economic crisis in the short to medium term and on streamlining the implementation of the industrial policy strategy by tackling eventual shortfalls.

Below, in Part I, you will find CECIMO's answers to the questions in the online survey of the European Commission prepared for the public consultation. In Part II, you will find CECIMO's position paper on the EU industrial policy flagship which was submitted by CECIMO to the European Commission as an attachment to the online survey.

Part I: CECIMO's answers to the public consultation

1. General Information

1.1 Please enter your name, address, and e-mail address.

CECIMO - The European Association of the Machine Tool Industries (Register ID No 79464041975-17), 66 Avenue Louise, 1050 Brussels, Belgium, information@cecimo.eu.

1.2 Who do you represent?

Business organisation



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1.3 In which sector(s) do you operate?

Manufacturing - Other

1.3.1 Please specify:

CECIMO brings together 15 national Associations of machine tool builders, which represent approximately 1500 enterprises in Europe employing around 150,000 people. The sector generated €21 billion turnover in 2011 (more than 97% of total machine tool production in Europe and more than one third of global production).

2. Policy Priorities facing European Industry

2.1 In your experience, which of the following policy-related factors are most important for the competitiveness of European business? Please select a maximum of three factors:

SME-friendly business environment and entrepreneurship - Technologies, standards, design and innovation - International market access and global competition

2.1.1 SME-friendly business environment and entrepreneurship: please explain the importance of the issue, giving examples and evidence.

CECIMO represents approximately 1500 industrial enterprises in Europe, more than 80% being SMEs. SMEs in the sector are negatively affected by the weak demand in the European market which is derived from a lack of market confidence (owing to the austerity crisis) and the shortage of liquidity. As long as customer industries do not invest in new production equipment, this will affect growth of the sector and its innovation potential since innovation projects are carried out in close cooperation with customers. Main market opportunities are outside Europe, especially in emerging economies. Nevertheless, most SMEs lack financial and organisational capacity to penetrate alone into third markets. Moreover, difficulties in accessing to finance, export credits, R&D funding and research staff weaken the hand of EU SMEs on the global stage. Finally, shortfalls in the EU regulatory framework, especially in market surveillance, distort the level playing field at the expense of competitiveness.

2.1.2 SME-friendly business environment and entrepreneurship: how can businesses themselves better respond to these issues?

SMEs need to penetrate into third markets collectively for example by establishing networks and platforms whereby they pursue common goals and share logistics and services. This would help them share resources, co-operate to overcome common obstacles and lower risks and costs of market access. In this model of co-operation, companies would still maintain their independence. Furthermore, in some sectors such as the automotive industry, the customers of the machine tool industry are getting bigger and fewer. They have stringent technical requirements for high volume orders; they demand rapid delivery and a well-established service across world regions where they operate. SMEs in the machine tool



industry can come together to respond to high volume orders, for example by producing machines which operate in the same production line.

2.1.3 SME-friendly business environment and entrepreneurship: what can policymakers do to address the issues at Member state, local or regional level?

Member states could establish SME support networks and platforms with a focus on accessing international markets. This would include forms of cooperation to enable companies to go on the international markets together as well as legal and commercial advice and training as regards the business and regulatory framework and IPR protection in third markets. Governments should promote such support schemes and make them easily accessible for SMEs. Moreover, national policies should help manufacturing SMEs to easily access to finance, R&D funds and research personnel. As regards the demand problem, SMEs traditionally operating in the EU market only risk facing harmful consequences if customer demand in Europe does not pick up soon. National and regional programmes should propose measures to help stimulate manufacturing investments in customer industries, for example by facilitating to finance new projects. Industrial modernisation programmes and policies can help stimulate demand.

2.1.4 SME-friendly business environment and entrepreneurship: what can policymakers do to address the issues at EU level?

Common support structures at EU level could be devised to assist SMEs in finding business partners in non-European markets. For example, the capacity and the reach of the Enterprise Europe Network could be streamlined to this end. As regards the problem of financing, there is a common agreement among industries that Basel III rules which require banks to hold higher capital levels are leading to a more restricted access to bank lending for manufacturing companies. A remedy needs to be found to this situation. The EU needs a vibrant manufacturing industry as much as it needs a consolidated financial system. Moreover, banks evaluate manufacturing SMEs based on their past balance sheets, which may look not great in times of recession or during downward cycles, especially in cyclical industries. Companies should be evaluated on the basis of their business strategies, activities and plans, as well. The EU should also help trigger private financing in Europe and mobilise EIB funds for SMEs.

2.3.1 Technologies, standards, design and innovation: please explain the importance of the issue, giving examples and evidence.

Amidst rising international competition and the increasing power of emerging countries in manufacturing, European companies will need to invest more than ever in innovation to differentiate from competitors. The liquidity shortage on the financial markets, a lack of demand from customers in the European market for new projects and the grip of the austerity crisis on governments continue to hamper the innovation capacity of many European companies. EU machine tool builders need to invest in non-price features to differentiate from competitors. In order to improve their performance, precision, efficiency and environmental performance, they need to invest in R&D. SMEs have difficulties in using



R&D funds available at both the EU and national level due to complicated application procedures. Moreover, they do not have access to the best research staff and engineers, partly because they are attracted by large companies and partly due to obstacles to the mobility of researchers in the EU.

2.3.2 Technologies, standards, design and innovation: how can businesses themselves better respond to these issues?

Businesses can cooperate to create common platforms for research and development. This would allow them to pool strategic resources and know-how. They may need to come together to afford costly technology development activities and to be able to meet requests of large customers. Moreover, they need to analyse better the needs of customers in emerging markets which will be the main driver of growth for the sector. Machine tool companies need to present themselves to their traditional customers as strategic innovation partners so that they can embark on long term partnerships whereby machine tool companies could follow their customers operating globally when they invest in other regions of the world.

2.3.3 Technologies, standards, design and innovation: what can policymakers do to address the issues at Member state, local or regional level?

SMEs are more interested in joining 'development' projects in which they can commercialise results rapidly. Governments should, therefore, take a cohesive approach to research, development, and deployment. This approach should ensure an effective commercialization of publicly-funded technologies which are developed as a result of basic research by laboratories and universities. In other words, this involves a stronger emphasis on R&D that improves manufacturing processes and supports scale-up. The link between manufacturing processes and product development should be created. In order to do so, national and regional R&D funding should cover the entire innovation chain and should place a strong focus on demonstration actions which lead to prototypes and pilot lines where new production processes are tested and validated. There is a need for rebalancing R&D funds towards application-oriented research and development activities to encourage commercialisation of research results.

2.3.4 Technologies, standards, design and innovation: what can policymakers do to address the issues at EU level?

The EU is also recommended to increase emphasis on advanced manufacturing processes and support scale-up. Advanced manufacturing is the key factor for the creation of new industries. Nevertheless, the proposal for the Horizon 2020 Programme allocates the smallest budget to the "industrial leadership" pillar among three pillars of funding. The share of R&D budget for the NMP programme (covering production technologies) remains relatively low when it is compared with other areas funded under Horizon 2020 - although it has increased compared to FP7 in real terms. The budget allocated for the NMP programme (€4.3 billion in the proposal) should be increased. Furthermore, a stronger emphasis on development



activities should be ensured so as to support commercialisation. It is very positive that the Factories of the Future Public Private Partnership will continue under Horizon 2020, which is an exemplary model with its strong attractiveness for SMEs and its focus on demonstration.

2.12.1 International market access and global competition: please explain the importance of the issue, giving examples and evidence.

The machine tool industry is an export-oriented industry. Three quarters of CECIMO production is shipped abroad, whereas more than half of it is exported outside Europe. In the face of the shift of manufacturing activity and markets to Asian markets, European SMEs need to go out on international markets to look for business opportunities. This is not an easy task because they need to go through a management transformation, improve their human resources, and understand the business culture in other countries. Also, they need to set up effective services channels for their customers. For the machine tool industry, Asia will cover up to 70% of global demand whereas Europe's share is forecast to be around 18%, according to Oxford Economic forecasts prepared for CECIMO. Another challenge for EU companies is fierce global competition sometimes caused by government backed companies in Asia. The cost of accessing to global supply chains, including to material, may sometimes prove to be higher for EU companies.

2.12.2 International market access and global competition: how can businesses themselves better respond to these issues?

Companies will increasingly need to adjust their products, production and services to needs of emerging markets and global customers. There is a need for organisational and management transformation in SMEs to adapt to globalisation. Businesses can overcome obstacles to market access by forming alliances and going on the market together. They can consider setting up joint activities outside Europe for example by using common platforms and services. In order to achieve the organisational transformation required, SMEs need to invest in the training of their workforce. Moreover, they need to differentiate from customers to tackle global competition. With the increasing importance of services in the manufacturing industry, EU companies need to invest in industrial services. They need to highlight non-price features of their products such as quality, performance and precision; therefore, they need to invest in marketing to explain their difference to customers in different world regions.

2.12.3 International market access and global competition: what can policymakers do to address the issues at Member state, local or regional level?

With the shift of economic activity from Europe to Asia, supply chains tend to move as well. A strong machine tool supply chain in Europe is crucial for the competitiveness of companies. National and regional policies should support the achievement of this objective. Meanwhile, machine tool companies need access to global supply chains at comparable prices as Asian competitors. Moreover, EU companies plead for access to finance and to export credits at comparable conditions with competitors in other regions of the world. Fair competition is a pre-requisite to secure a competitive position for EU companies on the global stage.



Furthermore, national and regional policies should support the creation of SME support schemes which gather and provide strategic information on international market access for SMEs. Stronger emphasis should be placed on promotion/marketing activities, including trade fairs, to promote European industry in strategic markets outside Europe.

2.12.4 International market access and global competition: what can policymakers do to address the issues at EU level?

The EU's FTA agenda should be driven by economic rationale and should focus on creating clear benefits for the EU industry. The EU should invest its energy and limited resources in negotiating FTAs with strategic economic and trade partners. Especially emerging economies are important for the mechanical engineering industry. For strategic trade partners with which the EU is unlikely to sign a FTA, the focus should be on removing technical barriers to trade and unfair policy practices which go against WTO rules and distort competition at the expense of EU companies in those markets.

2.16 If you have further comments on this consultation or suggestions please write them in the box below.

The flagship initiative needs to be complemented with a comprehensive **European strategy for the manufacturing industry** including concrete objectives and measurable targets. The EU needs to strive to guarantee among member states a stronger political commitment for the development of the manufacturing industry. An important target should be regarding the contribution of manufacturing to the EU GDP. The share of manufacturing in EU GDP dropped from 20% in 1997 to 15% in 2009. An EU-wide target would highlight the commitment of the EU to the re-industrialisation of Europe. The EU can play an important role in coordinating manufacturing efforts across member states. If manufacturers could see this commitment, they would be better prepared to invest; companies would be more persuaded to make their R&D investments in Europe, consequently, the number of manufacturers in Europe would grow, innovation would flourish and this would create new job opportunities for young people.

2.17 Do you want to upload a longer written response or background documents?

See the uploaded document. Moreover, a recent CECIMO study on the competitiveness of the European machine tool industry provides a comprehensive picture of challenges facing the EU's machine tool industry and includes recommendations for both companies and policy-makers (available here: <http://bit.ly/HCG>)

3. Publication of contributions

3.1 Please indicate here if you wish your contribution to be anonymous. Unless you specify otherwise, your contribution will be published on the Commission's website together with your identity.

Please publish this contribution under the name given.



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Part II: CECIMO position paper on EU industrial policy flagship

CECIMO welcomes the mid-term review of the EU industrial policy flagship initiative and the accompanying public consultation. CECIMO believes that this review comes at a crucial moment for the EU manufacturing industries, including the machine tool industry, which are increasingly feeling the negative consequences of the extended sovereign debt crisis in the EU and are faced with an ever stronger challenge of globalisation.

State of the machine tool industry and European manufacturing

The European machine tool market underwent a dramatic slump in the aftermaths of the economic crisis of 2009. The recovery which kick-started at the end of 2009, and driven mainly by non-European demand, has pushed the output to the level of 21 billion Euros in 2011, which is 26% higher than the output recorded in 2010. Nevertheless, this production output is approximately 15% lower than in the record year of 2008. In the meanwhile, CECIMO exports reached 16.5 billion Euros in 2011 almost catching up with the all-time high figures observed in 2008. However, **imports and apparent consumption remained weak** and far below their value in 2008 despite significant growth in 2011 compared to 2010.

Recently, the recovery has slowed down and a decline in consumption has been observed, especially in some southern European countries, which reflects the sentiment in the European market. As machine tools are capital goods used in all sorts of industries, this trend reflects at the same time the level of investments in production machinery in Europe. Advanced manufacturing systems are vital for the efficiency and productivity of industrial plants. Therefore, **manufacturing investments are crucial for the modernization of the EU industrial base and the competitiveness of the economy in general.**

The stagnation of manufacturing investments in Europe represents a contrast with the activity level in the global manufacturing landscape where the level of manufacturing investment remains high especially in many developing countries. A complete range of new materials, products and processes are emerging in world markets to meet the demand for solutions which will improve the quality of life both in developed and developing countries. 'Sustainability' has emerged as the major source of growth both for existing industries and emerging high-growth industries. Global demand for these new solutions is present. Manufacturers in all sorts of industries turn their faces to suppliers of advanced manufacturing systems, requesting flexible, cost-effective and resource-efficient solutions. European industries are not exempt from this competition and, soon or later, they will have to upgrade their production systems to be able to catch up with the pace of main competitors and emerging competitors. **For the moment, European investments seem to be dampened by the liquidity shortage and weak market confidence.**



The global demand for advanced manufacturing systems, which is already reflected in strong European machine tool exports, is likely to get stronger especially amidst rising costs and climate pressure on manufacturing businesses. The world output of mechanical engineering products for instance is forecasted to increase from 527 billion Euros in 2010 to 928 billion Euros in 2025.¹ Companies which invest in the right production and tooling systems can gain a competitive edge by making their production more cost-effective and environmentally friendly, and by improving the time-to-market. The European Commission's forecasts suggest that the EU27 output in mechanical engineering will grow from 2010 to 2025 together with other major economies. Nevertheless, the major part of demand will come from China and other BRIC countries. **The European machine tool industry and the mechanical engineering industry in general will only be able to tap into growth opportunities if they are successful in emerging markets.**²

Besides competition between business enterprises for industrial leadership in the post-crisis era, **major manufacturing countries are also entering into a 'system competition' through the deployment of ambitious industrial policies.**³ The revival of manufacturing and national industrial policies are linked partly to the technological changes especially in the information and communication systems which re-shape the manufacturing business; partly, to global unemployment problems and hopes put on manufacturing for creating new jobs; and partly, to the capability of the manufacturing industry to solve societal challenges including climate change, ageing society, the security of supply and sustainable mobility.

Europe needs to act in order to grasp the new opportunities offered by manufacturing. **Manufacturing can stimulate the creation of new industries, underpin the foundations of a sustainable economy, drive growth and generate new jobs.**

Major challenges

Against the background presented above and based on the experience of the machine tool industry, the European manufacturing industry is faced with various challenges:

¹ EU Study on the competitiveness of the EU mechanical engineering industry, 2011, p.277

<http://bit.ly/GXO4EQ>

² European Commission Press Release (MEMO/12/204), *Mechanical Engineering Industry – A large, successful and heterogeneous sector*, Brussels, 22 March 2012

³ Chinese 12th Five Year Plan foresees fiscal, taxation and other policy measures to accelerate the incubation and development of the country's strategic emerging industries. Source: <http://bit.ly/MGEdb5> For the US manufacturing strategy, see 'A National Strategic Plan for Advanced Manufacturing', February 2012 <http://1.usa.gov/OF3MHR>; 'A framework for revitalizing American Manufacturing', Executive Office of the US President, December 2009 <http://1.usa.gov/R9AdAU>. For India's new manufacturing policy, see: <http://on.wsj.com/v9MIV1>



- The **austerity crisis** has slumped **market confidence** and it has led banks to tighten credit lines. This translates as **weak demand** for machine tools in Europe.
- Despite the overall booming exports of machine tools from Europe to the rest of the world, the **stagnation of domestic demand** is causing serious **problems to manufacturers** (mainly SMEs) in some member states which rely on European demand.
- **An eventual drop in exports** to the rest of the world may hit the large exporting machine companies as well, squashing them into a weak domestic market. Moderate prospects for the Chinese growth increases the probability of such scenarios. Moreover, industrial policies of competitor countries may make market access more difficult for certain European exports.
- Despite real customer demand in Europe for upgrading their production systems, a **lack of liquidity hampers productive investments**, undermining the **competitiveness of the entire European industrial base**.
- **The shortage of liquidity and insufficient** customer demand for new production solutions negatively **affect innovation** in the machine tool industry. Innovation will be the key driver of sustained growth in developed countries. Moreover, with government budgets in the grip of the austerity crisis, **R&D funds are also under pressure**. Today, public-private partnerships are key to the take-up of certain technologies. In the absence of government support for R&D, business spending in R&D risks declining as well.⁴
- Increasing **system competition** triggered by industrial policies of competing countries is likely to increase competitive pressures on R&D investments by creating an attractive framework for research and innovation investments outside Europe. Moreover, an effective manufacturing strategy has an enormous capacity to engage private and public actors as well as to mobilize national resources towards the achievement of ambitious targets. If the EU fails to respond to manufacturing strategies of competitors, it may find itself lagging behind in this race.
- Restoring market confidence in Europe and boosting manufacturing investments is a pre-requisite for a healthy functioning of the economy. Meanwhile, it should be recognized that for certain industries (e.g. mechanical

⁴ Business R&D expenditure accounted for 54.1% of the overall EU-27 R&D expenditure in 2009, which was already lower than the rate recorded in 2008 (63.9 %). According to these figures, the EU lagged behind Japan and the United States where business-funded R & D accounted for 78.2 % and 67.3 % of total R & D expenditure, respectively, in 2008. (Source : Eurostat - <http://bit.ly/Nbb12j>; <http://bit.ly/OKKGQA>)



engineering) **important market opportunities will be outside Europe**, mainly in emerging countries.⁵ This requires that companies adjust their products, production and services to international markets, which is not always an easy task.⁶

Against this background, CECIMO urges the EU to **draw up a clear vision and a long-term strategy** to ensure a sustainable growth path for its manufacturing industry. This is important to enable Europe to seize new growth, employment and innovation opportunities.

The EU has a world-class industrial base in advanced manufacturing industries and in some sectors, such as machine tools, it shows outstanding trade performance on the global stage.⁷ This success owes to the high innovation capacity of firms and the top quality products and services that they offer. Despite visible deindustrialization⁸ over the past decades, the EU still maintains a strong manufacturing base which builds on a strong scientific base, engineering know-how and a skilled workforce. The European manufacturing industry is competitive on the global stage.

Most of the current problems find their source in the austerity crisis and a lack of market confidence hampering investments. The **prolongation of the crisis** may result in further deterioration of the situation with high costs on manufacturing industries. For example, with declining sales and R&D investments, European manufacturers risk lagging behind new technological and market trends. In that case they may miss out important market opportunities in high growth countries. These risks call for action to safeguard a successful future for Europe's manufacturing industry. Moreover, **global competition** is another major factor which urges the EU to pay more attention to the manufacturing industry. As output in rapidly industrializing countries such as China and India increase, they also improve their engineering capabilities and skills. Necessary **measures should be taken to ensure the sustainability and the long term competitiveness of the sector vis-à-vis increasing global competition.**

⁵ EU Study on the competitiveness of the EU mechanical engineering industry, 2011, p.278

⁶ The company size and the lack of human resources and in-house knowledge is a major obstacle to successful internationalization. On the other hand market access barriers including tariffs and non-tariff barriers hamper European exports. Source: CECIMO Study on the competitiveness of the European machine tool industry, 2011 <http://www.cecimo.eu/>

⁷ CECIMO Study on the competitiveness of the European machine tool industry, 2011, p.18 <http://www.cecimo.eu/> Also see: Outstanding performance of EU mechanical engineering industry <http://bit.ly/Nxm7EL>

⁸ The share of EU manufacturing had dropped from 20 % in 1997 to 15 % in 2009. (Source: EU Industrial Structure 2011 <http://bit.ly/Mq6TKN>) However, this does not mean that manufacturing became less important for the economy. The same study highlights: "From a long-term perspective, manufacturing sectors have remained among the most productive in the EU economy. Labour productivity growth per person employed in industrial sectors, from 1995 to 2010, was higher than in the most productive services activities, such as wholesale, retail and financial intermediation."



Policy recommendations

I. CECIMO urges the EU to draw up a manufacturing strategy on the occasion of the review of the industrial policy flagship initiative

The flagship initiative provides a good basis to give a holistic response to challenges facing the EU industrial base since it covers issues affecting the entire value chain from raw materials to services.

Nevertheless, the flagship initiative needs to be complemented firstly, with a clear **strategy for the manufacturing industry** in Europe including concrete objectives and measurable targets. Secondly, the EU needs to guarantee among member states a **stronger political commitment** for the development of the manufacturing industry.

An important target should be regarding the contribution of manufacturing to the EU GDP. The share of manufacturing in EU GDP dropped from 20% in 1997 to 15% in 2009. An EU-wide target would highlight the commitment of the EU to the **re-industrialisation** of Europe.⁹ Europe should shy away from voicing support for its strategic and competitive industries which are major contributors to the current account balance and societal challenges.

If manufacturers could see this commitment, they would be better prepared to invest; companies would be more persuaded to make their R&D investments in Europe, consequently, the number of manufacturers in Europe would grow, innovation would flourish and this would create new job opportunities for young people.

II. CECIMO recommends the EU to take immediate action in the following fields

The EU's manufacturing strategy should cover a range of areas affecting the competitiveness and the future of manufacturing. As a priority, the following issues should be addressed:

- **Market access for SMEs:**

The EU, in cooperation and coordination with member states, should help create new **forms of cooperation**, for example between government, industry and trade associations, to facilitate the access of SMEs to international markets. **SME networks and platforms are needed to ensure critical mass and to lower market access costs** for small EU companies. A recent EU study emphasized the importance of ensuring cooperation along the value chain in efforts for opening up to third markets.¹⁰ This would reduce costs and lower risks faced by manufacturers whilst searching for subcontractors in non-European countries,

⁹ The multiplier effect of manufacturing could also help generate new opportunities and jobs in services sectors.

¹⁰ EU Study on the competitiveness of the EU mechanical engineering industry, 2011, p.284



providing a stable environment for European companies to expand. Expansion should not be confused with relocation. Expansion implies that Europe remains a strong manufacturing base and the European companies have a global reach to exploit market opportunities in other regions and countries.

- **R&D and innovation:**

R&D investments are a pre-requisite for the improvement of production methods and the generation of new products which will enable the shift to a low-carbon economy. The share of R&D expenditure in manufacturing is 78.8% in the EU R&D expenditure¹¹. Europe is the world leader in patent applications in advanced manufacturing industries, covering half of EPO/PCT applications in the world.¹² Although the EU lags behind the United States in terms of the share of business R&D spending in total R&D spending; EU firms make similar efforts in R&D when compared with similar companies from the US. The main problem in the EU is about commercialization, but also non-technological research¹³.

Therefore, **an effective European strategy for advanced manufacturing should take a cohesive approach to research, development, and deployment**. This approach should ensure an effective commercialization of EU-funded technologies which are developed as a result of basic research by laboratories and universities. In other words, this involves a **stronger emphasis on R&D that improves manufacturing processes and supports scale-up**, whilst respecting competition rules.¹⁴ The link between process and product innovation should be ensured by covering the entire innovation life-cycle and focusing on demonstration activities. The transfer of innovation from universities to SMEs needs to be encouraged to support commercialization efforts.

The Factories of the Future Public Private Partnership is a successful model for this approach. By facilitating interaction between SMEs, academia and public entities and by giving the lead to industry experts to determine research priorities, the programme has attracted many SMEs to European research projects over the last three years. Through increased emphasis on demonstration activities, Factories of the Future PPP helps validating the industrial viability of research results and maximizing their impact on social and economic development.

It is regrettable that in the Horizon 2020 proposal the budget foreseen for the 'industrial leadership' pillar is the smallest among three pillars (the other two being 'excellence in science base' and 'tackling societal challenges'). Although the

¹¹ http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/R_&_D_expenditure_in_business_enterprises

¹² European Competitiveness Report 2010, p. 149

¹³ European Competitiveness Report 2011, p.21 <http://bit.ly/xzIStm>

¹⁴ The recently published high Level Group Report on Key Enabling Technologies (p.32) also highlights that the EU R&D funds should be rebalanced so as to increase the share for technological research and development.



budget allocated to the NMP programme (in the industrial leadership pillar), which covers production technologies, is higher than in the previous FP7 programme (4,3 billion Euros which is a 23% increase), **the share of the NMP budget compared to other programmes remains relatively low and should be improved.**

- **Access to finance:**

The **impact of Basel III rules on the accessibility of manufacturing SMEs to bank credits** should be reviewed and compensatory measures should be taken if negative measures are noted. There is a common agreement among the industry that banks which are required to hold higher capital levels under Basel III rules are less keen to lend to manufacturing companies. The liquidity shortage negatively affects capital investments in customer industries of mechanical engineering, delaying the modernization of the EU industrial base and hampering the revenues of suppliers.

The problem of access to finance is increasingly becoming a factor which distorts the level playing field at the expense of European manufacturers. For instance, European manufacturers are faced with unfair competition from non-EU suppliers which benefit from generous export credits from their governments.

The EU should help stimulate and develop private financing in Europe. The available instruments such as EIB funds should be used to offer favorable schemes for SMEs and manufacturing investments.

- **Regulatory framework:**

The **ineffective enforcement EU regulations in the internal market expose EU manufacturers, especially in capital goods sectors, to unfair competition** from free riders. The upcoming Safety (also known as Market Surveillance) Package should address these shortcomings affecting the engineering industries.¹⁵ This new legislative framework should ensure that product checks at the borders are common practice and based on uniform criteria across member states; penalties against rogue traders across member states are uniform, deterrent and proportionate; and there are effective communication channels between industry stakeholders and market surveillance authorities to cooperate for the detection and removal of non-compliant products from the internal market.

The EU should effectively implement 'competitiveness proofing' and fitness check instruments especially in environmental legislation impacting the cost competitiveness of capital goods sectors which compete in an increasingly globalized market place. More specifically, the impact of environmental regulation on the competitiveness of industries should be closely monitored and measured

¹⁵ See the industry manifesto: 10 Key Actions for an Effective Market <http://bit.ly/OHPLf5>. See also the CECIMO-CECE-FEM-CEMA joint position paper: <http://bit.ly/PcuRWn>



through ex-ante and ex-post assessments. Impact assessments should pay full attention to the 'productivity' aspect among others.

- **Skills:**

The main problem in the manufacturing industry is a lack of skills on the European market which match industry needs. The EU can be more pro-active in this field. As a priority action, it should develop an **EU Agenda for manufacturing skills** which should help **identify skills needs** of the industry. Moreover, a stronger focus should be placed on education and training programmes to equip people with manufacturing skills. In the face of high unemployment rates in some member states, these programmes combined with measures which encourage mobility can help remedy socio-economic problems whilst helping manufacturing companies find the highly skilled workforce they need.

The promotion of manufacturing is crucial to attract people to manufacturing jobs. The EU and member states can play a stronger role in the promotion of the manufacturing industry by organizing manufacturing skills events across the EU. As manufacturing is the key solution provider for sustainability problems, the link between sustainability and manufacturing should be highlighted in these efforts.

Nevertheless, these efforts will remain incomplete if trained/educated young people do not find a place to go. Young people would like to see promising employment prospects in manufacturing if they are to embark on a career in this field. Therefore, a European Manufacturing Strategy is a pre-requisite to establish confidence amongst businesses, encourage manufacturing investments in Europe, which will generate job opportunities for young people.

Finally, in the era of globalisation, EU manufacturing companies will be successful only if they can boost their brain force and technology, and make global connections to suppliers' networks and customers. Therefore, besides engineers and technicians, manufacturing needs **managers with a global mind, marketing staff, economists and other non-technological skills**.

About CECIMO

CECIMO is the European Association of the Machine Tool Industries. We bring together 15 national Associations of Machine Tool Builders, which represent approximately 1500 industrial enterprises in Europe*, over 80% of which are SMEs. CECIMO covers more than 97% of total Machine Tool production in Europe and more than one third worldwide. It accounts for almost 150,000 employees and a turnover of nearly €21 Billion in 2011. Three quarters of CECIMO production is shipped abroad, whereas more than half of it is exported outside Europe*. For more information visit www.cecimo.eu

*Europe = EU + EFTA + Turkey