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FOLLOW UP OF THE STUDY ON THE COMPETITIVENESS OF THE MECHANICAL ENGINEERING INDUSTRY

Executive Summary

The recently published study on the competitiveness of the mechanical engineering industries, for which we thank the Commission, recognises the industry as a strategic enabling industry which participates actively in the Europe 2020 goals including at the level of societal changes, competitiveness and growth. The study describes the industry as strong and healthy and expects a bright future for mechanical engineering in Europe. The study also highlights the central role played by the mechanical engineering industry for climate change policies to meet Europe's environmental challenges, such as resource efficiency and energy.

The mechanical engineering industry is described as one of the leading manufacturing sectors in terms of performance and one of the most competitive in Europe, highly technology and export oriented. The industry has succeeded in maintaining its share of world markets while other major producers such as Japan and the USA have seen sharp drops in their output and share of global production.

If in the follow up to the economic crisis, in the months up to mid-2011, there had been a resurgence of growth, European mechanical engineering is today beginning to feel the impact of increasingly fierce competition on global markets: in recent months this trend has, for some sectors of the industry, become more pronounced.

After having established a strict and straightforward austerity and stability policy, the EU will now have to focus on the question how to create more growth in order to mitigate the consequences of the debt crisis. In this context, the mechanical engineering industry can and must play a strong role. If the EU wants to create more growth, it must build on their strengths and this is, among other, the European mechanical engineering industry because:

1. It is a traditionally strong industry in Europe with a broad base and still ahead of its global competitors in many areas.
2. It is a future industry and has the potential to help in creating the necessarily needed growth in Europe.
3. It is one of Europe's major employers
4. It is an industry which also helps to achieve the other important political objectives of the Europe 2020 strategy, such as climate change, energy and resource efficiency.
5. It enables other industries to become more competitive, efficient and environmentally-friendly and is therefore a key industry in Europe.

In the light of the Commission's proposed follow up to the report, both at the level of the forthcoming Communication on industrial policy and in the light of the Commission's work

Orgalime, the European Engineering Industries Association, speaks for 34 trade federations representing some 130,000 companies in the mechanical, electrical, electronic, metalworking & metal articles industries of 22 European countries. The industry employs some 10.2 million people in the EU and in 2011 accounted for some €1,666 billion of annual output. The industry not only represents some 28% of the output of manufactured products but also a third of the manufactured exports of the European Union.

programme in this area, as representatives of the mechanical engineering sector in Europe, Orgalime would therefore like to highlight a few core issues which, in our opinion, need to be tackled if we want Europe's mechanical engineering industries to play a crucial role for generating more growth in Europe..

Our focus in this paper is, besides highlighting certain issues, to provide recommendations on:

- Maintaining an attractive investment and regulatory framework in Europe
- Ensuring stronger support for the industry at the level of R&D&I
- Providing support for the industry to maintain its enviable export and trading performance
- Providing more visible political support at the level of industrial policy.

Maintaining an attractive investment and regulatory framework in Europe

Mechanical engineering companies, which are largely family owned companies, have always invested both in their home markets and close to their client markets. In recent years the share of exports in the total output of companies has tended to rise, not only because of the strong development in its overseas client markets, but also increasingly due to the diminishing investment in Europe of the industry's client sectors.

For Europe to be attractive to the development of the mechanical engineering industry, it must therefore be attractive to its whole supply chain and to its clients.

More particularly at the level of the mechanical engineering industries, the issues today are:

Access to finance for SMEs

From many companies and in particular, the small and medium enterprises which form the core of mechanical engineering industries, access to finance has become a crucial issue: companies must have access to capital for investing in their production, their markets, research and development and to trade globally.

The financial and banking crisis, with the ensuing lack of confidence in the economy as a whole, including in the manufacturing sector have led to a sharp drop in available funds at reasonable rates of interest. This is therefore putting a brake on the development of many mechanical engineering companies.

This situation has been made worse following the adoption of the BASEL III rules which are being implemented progressively (although in some countries rather rapidly) over the coming years.

These new rules which will be implemented in the EU through the Capital Requirements Directive IV will no doubt make access to finance for small and medium sized enterprises even more difficult than it already is today, in particular if the rules require banks to hold substantially higher levels capital and liquidity in the short term. Orgalime however appreciates that these rules will of course help the banking system to become more robust and to evolve in a sound financial environment.

Regulatory stability and predictability

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The capital goods industry of which mechanical engineering is the major sector produces high technology long lasting equipment, which requires lengthy research and development times and therefore time to recover the investment made by companies. If for many years, the regulatory framework for the industry was stable and supportive for developing the internal market and therefore a strong home base, this is no longer the case. Today regulatory stability and predictability seem to be a thing of the past, thereby requiring companies to frequently adapt to new requirements issuing from constantly changing legislation. We regret the continuous regulatory changes of the last few years which have adversely affected our industries' markets in the EU in particular, affected the competitiveness of our clients who are increasingly restrictive in their investments in the EU. This inevitably has an impact on the mechanical engineering industry too, in particular in Europe.

Such lack of stability is also impacting the mechanical engineering industry: for example, if the European Commission has, on several occasions, confirmed its commitment to regulatory stability, we understand that the review and probable revision of the Machinery Directive is on the table; this is considered to be one of the main pieces of legislation for the industry. Adapting to new legislation always implies a certain burden for companies, in particular for SMEs. Considering the fact that the Directive has been applicable only since the end of 2009 and that work on guidance and translation thereof is not yet completed, companies should not yet again have to face a new legislative environment, but should rather be allowed to concentrate their efforts on their core business – engineering and innovation.

For example, conservative estimates indicate that, for manufacturers of mobile machinery, two thirds of engineering capacities are already taken up with adapting machine design to statutory rules. This share should not be increased because of untimely revisions of directives which function well. It is clear that having to focus on innovation on adapting regulation may well be at the expense of competitiveness of companies' products on international markets..

A further example is the Pressure Equipment Directive which was recently excluded from the package of directives to be aligned with the New Legislative Framework, and which it is expected will now be completely revised so that some of its articles are aligned with the CLP Regulation.

Finally the planned revision of the Gas Appliances Directive should be mentioned. A widening of the scope of this Directive in order to include machinery that is covered by the Machinery Directive should be rejected as it would cause unnecessary double regulation. Both the safety requirements of the Machinery Directive and the existing harmonised standards already cover the risks arising from gaseous fuels.

The mechanical engineering industry, which is composed mainly of SMEs, needs a stable and predictable regulatory environment as a basis for its own competitiveness, investment and growth.

Orgalime emphasises the need for regulators to assess any proposed regulatory changes in the light of the current economic situation, to consider the costs to businesses of increased regulation and to carefully evaluate EU mechanical engineering's competitiveness when proposing new legislation.

A proportionate approach to regulation

While, Orgalime believes that regulatory stability and predictability are essential, we also believe that where, in the context of application of community policies, legislation is adopted, then the approach to such legislation must also be proportionate.

An example of where Orgalime has had concerns is in the area of Eco design, where a framework directive designed essentially for the consumer goods market is today being increasingly used in a wider perspective.

Although Orgalime believes that the main objective of the Eco design Directive 2009/25/EC of removing the worst performing products from the market is appropriate and supports the holistic approach of the Directive, we feel that a cautious approach needs to be adopted when applying it to capital goods. A sense of proportion is required when determining eco-design requirements for capital goods. Capital goods differ from consumer goods significantly in terms of their complexity and range of applications. Instead of imposing rigid design requirements on machinery and plant and their components which cripple innovative ideas, regulators should concentrate on formulating longer environmental targets, thereby giving manufacturers the freedom to promote their creativity. Moreover, with the adoption of the resources strategy, we have seen moves to extending the scope of the Directive beyond energy related products. This we believe is premature and could bring legal uncertainty, disruption of the ongoing implementation, weakening of the credibility of this important legislative instrument and last but not least, additional and unnecessary costs for our industries for at best a nominal environmental benefit.

And above allenforce existing regulation properly = market surveillance

As has been highlighted by our industry, including most recently through the workshop organised in November 2011 in collaboration with the European Commission, fair and efficient market surveillance is a core issue for the mechanical engineering industry.

While regulation in this area has been enacted through the New Legislative Framework, which we very much welcome, now it is time to make it work on the ground: this is essential in order to ensure that a level playing field and the expected high level of conforming products on the EU market are achieved to the benefit of the safety of users, the environment and the competitiveness of manufacturers.

Although it is widely recognised that better controls at EU borders are essential to ensuring that equipment which is placed on the EU market is safe and in conformity with current legislation, these controls can only be effective if there is a sufficient allocation of resources in the various Member States and a better coordination between all the actors in the chain, whatever their role (industry, national authorities, various Directorate Generals within the Commission).

We therefore welcome the Commission's moves towards implementing a market surveillance action plan and confirm our willingness to participate in rendering it practical and effective. We are however concerned at moves to once again modify the regulatory framework which has only recently been adopted.

Ensuring stronger for the industry at the level of R&D&I

EU funded R&D&I

Research, technological development and innovation are all essential to maintaining the worldwide technological leadership that Europe's mechanical engineering industry has acquired in many areas. European Research Policy plays a significant role in underpinning this position and we thank the European Commission for its support in this area.

Many companies could benefit from taking part in the European Research Framework Programme (FP). The programme's key strengths for the business community are helping a company improve its own R&D by means of external resources and building a knowledge-based network across

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Europe. We have unfortunately witnessed a steady decline in industry participation in FPs (the downward trend has slipped from 39% in FP4 to 31% in FP6). For years we have been highlighting the shortcomings, but little has happened until now to provide any solution. As a result, today industry participation in FP7 has gone down to 25%, with only some 15% of SMEs.

The engineering industry is nevertheless of the opinion that it is still worth investing in European R&D and innovation projects: through the creation of European Technology Platforms (ETPs), industrial involvement has increased in all road mapping and priority setting activities. Since the launch of the Commission economic recovery plan in 2008 and the associated Public Private Partnership (PPP) initiatives, another significant step forward has been achieved.

The increased industry involvement within the Factories of the Future (FoF) PPP proves that it was worth the efforts made by the private and public side. Unlike ordinary FP projects, PPP projects are developed taking into account the recommendations of industry experts to a significant extent. PPPs represent a pragmatic move to facilitate the interaction between SMEs, research organisations and public entities. Dedicated not-for-profit associations, such as EFFRA, have been set up for PPPs to pool the expertise of research and development experts from companies and research institutes. Consequently, the establishment of the Factories of the Future PPP has led to re-engaging the engineering industry and notably its SMEs into European funded projects; this has triggered in turn substantial private R&D investments. A more reasonable success rate, a better balance between industrial and academic participation, and less oversubscription were also identified as improvements.

Every high value product has a manufacturing process behind it. Manufacturing enables technological innovations and is the key to making Key Enabling Technologies and new products reality, affordable and accessible, so as to multiply their societal and economic benefits. Since manufacturing is an indispensable element of the innovation chain, the involvement of the industrial manufacturing community (e.g. in PPPs) will help to overcome the barriers to innovation and to bring research results to the market and to improve their impact.

FoF projects focus on industrial application and aim at a Technology Readiness Level of 6 and above, which is exactly what has been asked for in the recently published Key Enabling Technologies (“KETs”) Report. Demonstration activities play a prominent role in the ‘Factories of the Future’ PPP, to ensure that industrial viability, clear economic potential and impact on societal challenges of new technologies are proven. Such activities help guarantee further application and market uptake.

We support the political move that EU R&D&I policy should cover the full innovation cycle and should be managed under a common framework with standardised and simplified procedures, provided that basic principles such as subsidiarity and competition policy, are respected.

In addition, when extending the scope towards the market, the focus should be on applied, pre-competitive research in order to ensure that the technological base for subsequent activities is laid down. However, achieving this will require more than increased funding and simplified procedures: industry needs to become yet more involved in agenda and priority setting; one way of doing so would be to create more PPPs. Furthermore, synergies between existing initiatives in the area of R&D policy (ETPs) and Industrial Policy (Sectoral industrial policy initiatives and High Level Groups) need to be sought and collaboration intensified.

Last but not least, we believe more care must be taken to evaluate ex-post whether EU R&D&I policy and funding is achieving its objectives of reinforcing the competitiveness of the industry and therefore its ability to compete on global markets.

A skilled workforce

Europe's success in the area of mechanical engineering is also largely dependent on its long tradition of manufacturing machinery and the skilled work force that has been attracted to the industry.

To maintain the ability for innovation, the mechanical engineering industry needs well trained technical staff (Engineers, technicians...) in sufficient numbers. The Commission's own research has shown that there is a significant lack of engineers and skilled staff which of course has an effect on the development of the industry. As mechanical engineering products become ever more complex and accompanied by an increasing service offering – so most companies expect increasing demand for skilled staff at all levels in the coming years.

If many companies were able to keep their staff on during the recent economic crisis and therefore were able to serve the needs of the market when the recovery dawned, mechanical engineering companies are once again increasingly seeking high calibre apprentices, qualified workers, skilled technicians and engineers. The trend towards early retirement is making the situation worse.

This situation also essentially arises from the fact that, in the increasingly hi tech environment of the industry, there is a mismatch between the skills that companies need and those that are available on the labour market: lifelong learning therefore needs to become a reality and further, improved two way collaboration between education and industry is necessary to achieve quality and innovation in education, up-to-date career guidance and education, allowing workers and companies to adapt to changes in technology and methods of working.

Providing support for the industry to maintain its enviable export and trading performance

The mechanical engineering industry is a winner of globalisation. The growth of the industry was strongly driven by exports and the success on international markets. We believe that in the future, much of the dynamic growth in this area will come from third markets; mechanical engineering companies are ready to participate in this growth because they are very competitive in and outside of their domestic markets. With their highly innovative products and solutions, often tailor-made to fit the needs of the customer, they provide high added value and therefore have the competitive potential to remain successful on global markets.

With nearly 40% of the world's market, Europe remains the world's largest producer and exporter of machinery, significantly outperforming both the USA and Japan.

A properly functioning internal market and freedom of access to and investment in third-country markets are, as a consequence, of vital importance for this industry. If we welcome the European Commission's drive to open up new markets through the negotiation of FTAs, we do however sense an increasing disruption in trading conditions, both on many of our export markets, but also on the internal market, which arises from national interpretations of harmonising community legislation or harmonised standards which, we fear, is increasingly due to protectionist tendencies. A clear signal against protectionism and committed action for more liberalisation is required.

Providing more visible political support at the level of industrial policy

In these times of uncertainty where Europe is facing in many countries severe restrictions and austerity measures, we believe that the European institutions have a unique role to play in stressing the benefits that an advanced manufacturing industry, such as mechanical engineering, offers: Europe needs to focus beyond austerity on real growth.

Manufacturing companies are often in the 'hot seat' when times are difficult, when jobs are lost or companies need to restructure or relocate part of their production to ensure their overall competitiveness.

This is therefore the time to stress how well the European mechanical engineering industries are performing despite the economic crisis and to present them as an example of an industry which has a future in Europe, is generating growth and offers employment.

The European institutions should be proud of Europe's mechanical engineering industry, which provides not only jobs to millions of people in Europe, but also a high level technology and complex solutions to other manufacturing sectors in the value chain and enable all sectors of the economy to achieve more environmentally conscious production and to answer the societal challenges facing Europe, while remaining productive and competitive manufacturers in Europe.

We therefore believe that these positive facts should be communicated widely and not hidden in a report reserved for the happy few. Moreover this political support would need to be translated into concrete and short- or medium-term actions developed together by the Commission and our industry so as to achieve a common goal: keep mechanical engineering industries in Europe, help them remain competitive on both domestic and global markets.

Concrete actions proposed

With this in mind we therefore propose hereafter a few concrete actions where the European Commission can play a significant role:

- Ensuring regulatory predictability and stability: despite a commitment to better regulation and regulatory stability, there is a tendency of regulators to frequently review regulation which inevitably seems to lead to revisions of the law or recasts where new requirements are introduced. Concrete examples of areas of concern today include the envisaged revision of the Machinery Directive, the future revision of the Pressure Equipment Directive and the Gas Appliances Directive. The recently extended scopes of the WEEE and the RoHS Directives must also be mentioned in this respect. We are also concerned about the demands from certain stakeholders and legislators to extend the scope of the Eco design directive and the increasing use of this instrument for capital goods.

When reviewing legislation, we would also urge the Commission to carry out consultation processes which always leave open the option of no change and really apply the principles of competitiveness proofing and "think small first".

- Market surveillance: although the industry very much welcomes the plans that will be put in place at various levels and directorates within the Commission ("Roadmap for enhancing the market surveillance enforcement for goods- A multi-annual plan' and a Roadmap for the period 2012-2014), we are less concerned to see yet another legislative revision: for us it is essential that concrete actions are taken now or in the very short term.

In this context, we have suggested a market surveillance manifesto which has recently been complemented by [concrete proposals sent by Orgalime to DG Taxud](#): to reinforce market surveillance, it is important that it should start at the borders of the EU and that customs authorities do not limit their checks on high-risk products to health and safety obligations only, but also take into account environmental requirements (WEEE, REACH, RoHS) in which our industries are investing so much. Fair competition for all economic operators can only exist if all

market operators are facing and meeting the same requirements, whether related to health, safety or the environment.

- R&D and innovation: we welcome the support given by the Commission to the NMP programme and in particular to the Factories of the Future PPP. However we are concerned that in the Horizon2020 proposals, the level of funding for production technologies has risen relatively little (in terms of percentages, the budget share foreseen for production technologies has even decreased) and that the industry pillar of the proposed future programme is by far the smallest one. This is of particular concern since, after successfully attracting a higher proportion of industry participation in the FoF PPP and in particular at the level of SMEs, as well as a higher success rate for projects in this area for the first calls (25%), as the success of this programme has increased, so we are now seeing that success rates are dropping sharply. In the last call they reached only some 17%. This needs to be remedied through a higher allocation of funding to the NMP programme.

Moreover given the increasing success among SMEs, it is all the more important to ensure that the transaction costs associated with the Framework Programme should be reduced: as often for the smaller projects in particular the required checks and balances exceed the benefits. It is essential to rebalance this risk-averse culture and to reduce controls to the necessary minimum and acceptable level: more flexibility in cost accounting and reporting should be provided, allowing for the standard practices already used by beneficiaries; there should be fewer rules and instruments; the same basic rules and procedures, application methods etc. should be used for all instruments.

- Continue to focus on combating protectionism and opening up markets: we believe the focus should be on ensuring:
 - In the internal market, the Commission should act in its capacity as guardian of the treaties to ensure that European legislation is applied properly without deviations arising from national reinterpretations.
 - On international markets, combat the signs of rising protectionism, whether through non-tariff barriers such as complex and lengthy certification systems, local, content requirements or other.
 - A rapid conclusion of the ongoing FTA negotiations in India ensuring facilitated access to the market and public procurement, and the removal of the substantial and often unjustified tariff and non-tariff barriers maintained by India.
- Lifelong learning and education of young workers

Whereas we welcome the initiatives developed within the Employment Package which focuses, among others, on skills and lifelong learning and find the tools to anticipate skills demand very useful, we believe it is of utmost important to improve the quality of education and training by increasing cooperation between the two systems. This requires flexibility in the system and the adoption of the right framework conditions to reach the objectives of growth and competitiveness for the mechanical engineering industry. The emphasis on vocational training and lifelong learning is important but what is even more important is a change of mindset, beginning from a very early age. European initiatives could help to support such an approach.

- Providing more visible political support: we believe that it is important that the European Commission should provide the means for regular dialogue with the industry in these various areas so as to ensure that policymakers establish an effective consultation mechanism. This would not only allow for an exchange of views, but would also enable a regular feedback of the mechanical engineering industry on policies and regulation, thereby achieving more effective competitiveness proofing and ex post evaluation of regulation and policies.

Finally we would welcome a more proactive approach of the Commission in its own work, but also in communicating to member states and to the wider public the benefits that the industry provides and the need to provide a favourable investment climate which Europe needs today to ensure a return to growth and more employment. This aim, we believe, should be at the heart of Europe's industrial policy.

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