



Spring 2012  
Issue #6

# cecimo

Where manufacturing begins

## magazine

## Do all companies play by the rules?

EU machinery industry  
calls for efficient  
border controls to  
stop non-compliant  
products

*In this issue...*

The industry's actions towards  
a level-playing field



**Market Surveillance**  
Industry's Support Platform

**Mr Martin Kapp, New  
President of CECIMO**  
Machine tools will be a  
key driver behind the  
development of future  
products



**Blue Competence Machine Tools**  
CECIMO takes the lead to promote  
sustainable manufacturing



**Competitiveness  
of the European  
Mechanical  
Engineering Industry**  
Overview of the new  
EU report





# EMO

## Hannover

### 16-21·9·2013

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The CECIMO General Assembly, held in November 2011 in Zurich, appointed Mr Carl Martin Welcker as General Commissioner for EMO 2013, which will take place in Hannover. Mr Welcker, in his capacity of General Commissioner, will supervise the organization of EMO 2013 and will be driving the promotion of the event, which will include a series of press conferences in major world capitals during the next two years.

Mr Welcker is President and CEO at Alfred H. Schütte GmbH & Co. KG in Cologne. He is Deputy Chairman with the German Engineering Federation (VDMA) and member of the executive board of the Federation of German Industry (BDI).



# Leading Europe to a sustainable and competitive future



Dear Readers,

Today, innovation determines the strength of manufacturing companies amidst global competition and high pressure from low wage economies. Product innovation is more and more intrinsically linked with innovation in materials. Especially, growing pressure on climate and natural resources compel manufacturing industries to reduce and/or change the material content of their products. The machine tool industry develops processing technologies which enable bridging the developments in materials science with industrial

production. Moreover, besides being an enabler of product innovation, the machine tool industry boosts productivity in end user sectors thanks to the automated production systems it provides. The development of the sector benefits to manufacturing industries across the board.

At CECIMO we constantly reflect on how to help the European machine tool industry to adapt to the changing needs of the market and the society. Bearing in mind the need to develop a common framework to increase awareness on sustainability amongst the machine tool industry, CECIMO has started operating the **Blue Competence Machine Tools** initiative as of February this year. The voluntary initiative will help set 'sustainability standards' for the sector and increase awareness among customers on sustainable solutions available on the market. Moreover, it will encourage innovation in the area of energy/resource efficiency by improving communication between suppliers and buyers.

Furthermore, we continue to voice the needs of our industry at political level. We welcome the **European Commission's Study on the Competitiveness of the European Mechanical Engineering Industry** which provides a comprehensive analysis of the competitiveness of the sector in the era of globalisation. CECIMO has contributed to the making of this report by providing comments, figures and data on the machine tool industry. Before winter, CECIMO participated at the **Machinery and Market Surveillance Conference** organized by the European Commission. Our speakers urged the EU and Member States to improve market surveillance for business-to-business goods in order to restore the level playing field for manufacturers.

Despite increased awareness on manufacturing at EU level, Europe is still missing an integrated long term strategy for manufacturing required to unleash its full potential. The Commission's study on mechanical engineering underlines that manufacturing value chains in Europe are highly integrated and are mutually reinforcing, both upstream and downstream. Therefore, there is a need to take on a **European perspective on the needs of the manufacturing industry**. The study provides the EU with a good basis to draw up concrete policy responses and finally take courageous steps to implement the **Europe 2020 industrial policy flagship initiative**.

Manufacturing will provide Europe with the tools and know-how required to build a competitive low-carbon economy. It is high time for Europe to take serious decisions and to start building a sustainable growth path for its manufacturing industry. The global competition for future products is tough and there will be no place left for latecomers.

Filip Geerts  
Director General

## INTERVIEW

**Interview with Martin Kapp,  
President of CECIMO**

*Vision and plans for CECIMO*

## EU POLICY AND LEGISLATION

**A New Look at Market Surveillance**

*Can the EU help even the playing field?*

**How to Boost Europe's Capability to  
Master Key Enabling Technologies?**

*Conclusions for advanced manufacturing  
in Europe*

## CECIMO SPECIAL

**EU Report on the Competitiveness of  
the Mechanical Engineering Industry**

*Overview and insights*

## ANALYSIS

**Textile Machinery and Global  
Competition**

*Lessons for the machine tool industry*

## RESEARCH

**East-West Cooperation for Innovation**

*Benefits on both sides*

## CECIMO NEWS

**Blue Competence Machine Tools**

*CECIMO takes the lead to promote  
sustainable manufacturing*

**The CECIMO Statistical Toolbox**

*Concrete, Comprehensive, Convenient*

## INSIDE CECIMO

**Merger of AFM with the  
Tooling Industry**

*Uniting forces for a stronger association*

# Martin Kapp Becomes the New CECIMO President

*The CECIMO General Assembly of 12 November in Zurich approved the presidency of **Mr Martin Kapp**, following Mr Michael Hauser, who stepped down as his two years mandate came to an end. We have interviewed President Kapp about his objectives and priorities during his term.*



**Mr Kapp, what are your feelings as you take over the President position with CECIMO? What does CECIMO mean to you?** I am very pleased and honoured that I will be heading the global representative association of the European machine tool industry. CECIMO has been defending the interests of the sector and promoting it in and outside Europe for over sixty years. CECIMO was first established with the mission to create a common market place for the European machine tool industry through the EMO exhibitions. Today, besides this important role, CECIMO acts as a major contributor to the making of European policies which shape the future industrial landscape in Europe. CECIMO speaks on behalf of 15 member associations and up to 1500 machine tool builders. This is a responsibility with tremendous importance and a hard job to handle. I will rely first on my years of personal experience honed in the German machine tool industry and on the full support of members, delegates and the CECIMO Secretariat in Brussels to accomplish the goals we have set for my Presidency.

**What are your plans, priorities and strategic action points for the next two years?** I have taken over an impressive agenda from the previous presidents, my esteemed colleagues Mr Javier Eguren and Mr Michael Hauser. Those issues will require follow-up. Over the last four years, CECIMO has embarked on a broad communication strategy to promote the machine tool industry as a strategic key enabling

sector. The machine tool industry has the answers to most of the grand societal challenges we are facing today from climate change to ageing society, and we will continue explaining this to policy-makers and to general public. Our efforts will be geared at maintaining a sustainable and competitive manufacturing base for the machine tool industry in Europe.

CECIMO has recently finalized a comprehensive report on the competitiveness of the sector, under the presidency of Mr Hauser. The report unveils current challenges facing our industry which comprise internationalization, market access, shortage of skilled labour, financial constraints, bottlenecks in the supply chain and energy-efficiency among others. We will analyze one by one the causes and consequences of these challenges, identify the ways to address them, propose our solutions to European decision-makers and follow-up on their actions.

CECIMO will continue collecting and publishing market intelligence and forecasts to support companies in their strategic decisions. We know that our forecasts are used also by financial actors, thus, they serve as guidelines for those who want to invest in the machine tool industry. Furthermore, CECIMO will enhance relations with international sister associations from other parts of the world, for example as regards to statistics exchange, but also issues of common interest which

need to be addressed at global level, such as the shortage of engineers.

**What about EMO?** EMO has been, up to the present, the major platform which enabled the European machine tool industry to reach its customers in Europe and in the rest of the world in a very efficient and effective way. We will ensure that this marketing and sales instrument provided by CECIMO will continue successfully. We constantly review the competitive position of EMO in the global marketplace and we design necessary measures for unleashing its full potential to promote our industry worldwide. In the coming years, our major preoccupation will be ensuring an equally effective promotion of all the segments we represent within our industry worldwide, namely metalworking and metalforming. We are investigating if the European machine tool industry needs a new or better exhibition in one or more non-European countries and if the European machine tool builders need better services at exhibitions in other regions of the world. For this purpose, we have created the 'EMO Committee' within CECIMO which will be responsible for developing short and long term strategies to enrich or enlarge the thematic focus of EMO being the leading show of the sector.

**Which issues will be the top agenda items for the sector?** Sustainability, innovation, skills and trade together with internationalisation will be high on the agenda. Sustainability is a top priority in the medium and long term. The



European machine tool industry has recently undertaken a voluntary initiative on sustainability under the title of "Blue Competence® Machine Tools" to address ecological, economic and social aspects of sustainability. This initiative testifies the commitment of companies in our sector to optimize the use of energy and other resources whereby they aim to contribute to the development of clean production, whilst they supply faster, better and higher quality manufacturing solutions to other industries. CECIMO will devise this initiative to create environmental awareness within the industry. We will guide our companies towards the adoption of sustainability principles in their production and business organization, which will have a tremendous impact on the quality of lives of European citizens and on the competitiveness of our industry.

As the machine tool business is increasingly globalized and consumption shifts to emerging countries, our companies need to have better access to third markets. Moreover, they need to adjust their organization and business model to cope with challenges in international markets. These challenges span tariffs, regulatory barriers, the protection of IPR, as well as liaising with local suppliers and business partners. Companies need to be able to manage global

ing competitiveness, growth and jobs creation. Advanced manufacturing and energy efficiency in production processes are two of these promising areas.

Addressing the shortage of skills is a top-priority in this new period. The lack of qualified labour has started to put pressure on our companies in many ways, affecting innovation, costs and growth potential of businesses. First of all, the machine tool industry is a technology-driven sector. It requires engineers with a multidisciplinary background who can master mechanical engineering, software engineering, hydraulics and materials among other disciplines. Moreover, skilled technicians are needed not only to invent new products and services, but also to realize cost-effective high quality production. In addition, our businesses increasingly need soft skills such as project management, business awareness, creativity and communication which can help them manage globalized supply chains whilst meeting needs in local markets. CECIMO will invest in image campaigns to attract young graduates to our industry and to promote skills development.

**The machine tool industry was hit very hard during the recent global economic crisis. Has the sector**

**overcome the crisis now? What are the future challenges in the markets?** Following the economic meltdown in 2009, we have seen a strong

rise in orders throughout 2010 and 2011, which enabled our industry to reach a production value of more than 20 billion euros last year. This growth trend will see a slowdown in the first half of 2012. However, the order books of our companies are full and this will keep them busy in the coming months given the 6-to-8 months' time lag between orders and production. In fact, the sector is finally back to the normal business cycle. Consumption in Europe has also bottomed out in 2011 after a long-lasting stagnation period, which is another sign of normalization.

Nevertheless, machine tool markets have been radically reshuffled and this is a structural change. Over the last two years, as demand in Europe remained extremely weak, the dynamic markets in the emerging Asian countries have ir-

reversibly become our biggest customers. In line with the growth of the share of emerging countries such as China in the global GDP, these countries will be responsible for the bulk of machine tool consumption in the long term. The challenge for our companies will be to keep and/or improve their market share in these countries against an increasing competition coming from local manufacturers. Our companies need strong finances to embark on internationalization, and financial constraints deriving from the European debt crisis are not helping at the moment.

**Do you think that the EU political agenda has enough focus on manufacturing? What are your expectations from European policies in the coming years?** For sure, the primordial issue on the EU political agenda is the sovereign debt crisis and the future of euro. As I mentioned before, the financial stability in Europe is a prerequisite for the healthy operation of the real sector. Nevertheless, while implementing fiscal austerity measures, policy-makers should not shift their attention away from structural policies which will underpin economic growth. Manufacturing has a great potential to boost economic growth in Europe.

In the face of societal and economic challenges, we have to reconsider our current economic development model; we need to shift to more sustainable consumption and production patterns. Not only Europe, but the entire world. This will happen, sooner or later. The advanced manufacturing industries such as machine tools will enable us to produce the energy and resource-efficient products and services of the future while generating high value added jobs. The manufacturing industry is a strong candidate to be the central pillar of economic growth in Europe. In order to unleash the growth potential of our sector, we expect from the EU decision-makers sufficient support for innovation, an industry-friendly and predictable regulatory framework for energy efficiency and facilitated market access for our exports and investments in high-growth markets outside Europe. ■



***"The manufacturing industry is a strong candidate to be the central pillar of economic growth in Europe."***

supply chains and establish themselves as reliable suppliers to customers located in new markets outside Europe. CECIMO will communicate the needs of our businesses to European policy-makers to ensure that the ongoing trade negotiations and the EU SME policy support internationalisation.

**How will CECIMO support innovation and skills?** CECIMO will continue supporting innovation in the sector by providing input into the preparation of the EU research policy and programmes. We will ensure that our sector gets a fair share from the new EU Framework Programme for Research and Innovation, Horizon 2020, which will run from 2014 to 2020. We advocate that research funding is guided to the most promising areas which will have a knock-on effect on the entire economy, stimulat-

# A New Look at MARKET SURVEILLANCE



## Can the EU Help Even the Playing Field?

*Amidst high global competition, European machinery industries express concerns about Europe's weakness to enforce the EU legislation for technical harmonisation. Products originating both from EU countries and from outside the EU, which do not conform to essential requirements (health, safety, environment and other) laid down in EU directives distort competition. There is a broad consensus in both policy and business spheres that market surveillance is key to ensure a level playing field and to meet the Europe 2020 Strategy objective for creating "a strong European industrial base which is able to compete globally".*

The objective of market surveillance is to ensure that only safe products enter the EU internal market. In practice, it should ensure a high level of protection of public interests throughout the European Union including health and safety at work, environment and consumer protection. However, unequal levels of market surveillance in different Member States and divergences in the level of resources allocated to it have thus far prevented the EU from maintaining consumer and business confidence in the conformity assessment system and the internal market in general.

Market surveillance in the EU has always had a strong focus on the safety of consumers whereas industrial goods have suffered from a lack of attention until present. Machinery industries, being one of the most competitive sectors in the EU, are increasingly exposed to unfair competition from manufacturers which do not comply with essential requirements of the EU harmonized legislation. This has become a greater problem in recent years due to the globalisation of trade, increased outsourcing and a growing number of imports into the EU, mainly from Asia.

Market surveillance has traditionally been focused on guaranteeing the free movement of goods in the EU through the proper enforcement of harmonized

legislation. Today, the focus is shifting towards ensuring fair competition in the Internal Market.

### **Weak enforcement undermines the Internal Market**

The so-called New Approach conceived in the early 1980s provided a great amount of flexibility in the EU legislative process by limiting legislative harmonisation to the adoption of essential requirements. However, requirements for the enforcement methodology were vaguely defined in New Approach directives, and most of the practical details regarding surveillance methods were left to the discretion of Member States. Consequently, "New Approach has not always guaranteed a sufficient level of confidence in the market whether for products manufactured in the EU or imported from third countries", states the European Commission on its website. It adds: "[...] this has led to unequal implementation in the Member States, unequal market surveillance interventions and misuse of safeguard mechanisms".

Moreover, a recent report of the European Parliament highlights that the overall malfunctioning of market surveillance has created barriers to free movement, distorted competition, jeopardized consumer safety and undermined citizens' trust in the internal

market. Consequently, the confidence on the CE mark, which is the external symbol verifying the conformity of products with the applicable requirements outlined in harmonised EU legislation, has gradually diminished.

### **New Legislative Framework: what difference does it make?**

The New Legislative Framework (NLF), which entered into force in January 2010, creates for the first time a binding framework for common market surveillance which requires equal treatment for all products covered by EU legislation. The NLF, which is composed of two legislative texts adopted in 2008 and effective as of January 2010, introduces revisions to the New Approach to fix the deficiencies as regards to market surveillance as well the accreditation system.

Regulation (EC) No 765/2008 creates for the first time common minimum requirements for national market surveillance authorities and their activities to ensure coherent EU wide action against non-compliant products. The Decision 768/2008/EC lays down a common framework and rules for conformity assessment, and it introduces new obligations for importers and distributors besides manufacturers. The framework legislation also aims at restoring confidence on CE marking by ►

providing clarifications on the meaning and the use of CE marking as well as on the rules and conditions for affixing it.

### **Clear obligations on Member States for market surveillance**

As regards market surveillance, the Regulation (EC) No 765/2008 contains explicit obligations for Member States to carry out checks and to withdraw non-conforming products. The objective is to ensure effective and uniform enforcement throughout the EU. According to this, Member States shall monitor compliance with product safety requirements; establish adequate procedures to follow up complaints on product-related risks; monitor accidents, verify if corrective action has been taken and follow up and update scientific and technical knowledge related to safety issues.

Another important provision is the obligation on Member States to carry out checks at external borders before the release of products to free circulation. In order to streamline action for the achievement of these obligations, the regulation requires Member States to enhance cooperation and information exchange amongst market surveillance authorities as well as with customs authorities. In the new framework, Member States are required to provide market surveillance authorities with the powers, resources and knowledge which are necessary for the proper performance of their tasks. They need to establish, implement and regularly update market surveillance programmes which they will share with the European Commission and other Member States. Results from regular assessments on the effectiveness of these programmes will also be shared with those latter and made publicly available.

### **Increased information and resource sharing**

The NLF aims at ensuring an effective exchange of information, pooling of resources and streamlined cross-border cooperation between surveillance authorities to achieve efficient and consistent market surveillance throughout the EU. Electronic tools will play an important role to this end. For example, the RAPEX system, initially designed for the rapid exchange of information on dangerous consumer products between Member States and the Commission, is now being extended to non-consumer products. Furthermore, a database for information exchange will be developed to enable the exchange of best practices, joint actions results and details of non-compliant products. The European Commission will probably use the existing ICSMS (European Market Surveillance system) database reserved mainly to market surveillance authorities, for this purpose. The extension of the scope of this database offers a chance to enable other stakeholders with valuable market knowledge to notify competent authorities of dangerous products electronically. Archiving product safety information in such a database is also susceptible to facilitate increased awareness on dangerous products across the borders.

### **Are things moving forward?**

The Regulation (EC) No 765/2008 entered into force in January 2010. From this date, EU Member States were requested to establish national programmes which they have submitted to the European Commission. The Member States need to put in place the necessary legislations and measures as well as the infrastructure and coordination mechanisms. However, they have proved so far to be slow in fulfilling their obligations derived from the Regulation. The burden of the debt crisis



on the back of government budgets is thought to be the main reason for their immobility. However, this should not be an excuse. The benefits of securing the market share of European manufacturers vis-à-vis free-riders will be much greater not only in economic terms but also thanks to the impact of properly-functioning rules-based Internal Market on encouraging innovation.

The Commission, on its end, has taken some important steps towards implementation. It has set up a specific expert group as a subgroup of the Senior Officials Group for Standardization (SOGS) for market surveillance (SOGS MSG). Another development has been the adoption of the 'alignment package' on 21 November 2011 with the objective of aligning ten technical harmonisation directives to the Decision 768/2008/EC. Moreover, the Commission is currently preparing a single legislative framework to align the General Product Safety Directive (GPSD) with the New Legislative Framework. ►►



### **On market surveillance, growth and jobs**

"The machines we produce in Europe meet the highest health and safety standards. Complying with EU legislation may cost an average European machine tool manufacturer up to 8% of its annual sales. Today, fierce global competition is driving profit margins drastically down in the machine tool business. We are faced with unfair competition outside Europe due to protectionist government policies and in Europe due to the weak enforcement of internal market rules. If Europe wants to unleash the full potential of its manufacturing industry to generate jobs and growth, it needs to ensure a level playing field both in and outside the internal market."

**Jean-Camille Uring**, COO, Fives Cinetic (CECIMO Vice-President)



### On market surveillance and innovation

"Manufacturers which play unfairly eat up the market share of quality producers with cost advantages they acquire by avoiding compliance with EU regulations. Lower sales means reduced profitability, and this leads to a drop in European R&D investments. We need to make economic gains on new products and process developments so that we can reinvest profits in innovation. In the machine tool business, innovation is the key factor to maintain a competitive edge. R&D costs may be as high as 6% of annual sales for a machine tool company supplying advanced production solutions."

**Michael Hauser**, CEO, TORNOS S.A. (CECIMO Vice-President)



The Regulation (EC) 765/2008 and the GPSD laying down product safety requirements respectively for goods harmonized under the Community legislation and non-harmonized consumer goods, partly overlap. The alignment is necessary to remove doubts which may arise for market surveillance.

Furthermore, the development of a multi-annual plan is foreseen. This plan will be devised to explore and put in place appropriate coordination mechanisms, means, actions and methods for the development and implementation of the EU market surveillance framework. As regards controls on external borders, the Commission has developed guidelines for controls in the area of product safety and compliance to help facilitate cooperation between customs authorities and market surveillance authorities.

### Industry issues a manifesto

The common position of European machinery industries regarding market surveillance is presented in a manifesto entitled '10 Key Actions for an Effective Market Surveillance', co-signed by seven European trade associations including CECIMO. The manifesto calls for better enforcement of EU legislation and the harmonisation of enforcement practices which show a great variety across Member States in the EU. Industry wants to see the European Commission assuming a greater role in coordination.

There is a risk that once a product is banned from entry it finds another weaker entry point to sneak into the Internal Market. The underlying reasons may vary from divergent protection levels at the external borders, to a lack of common understanding in risk assessment and weak communication between authorities in different member states. Moreover, Member States apply different fines and sanctions to

non-conforming producers or on traders, which reduces the chance to deter infringers. Against this background, the following summarizes the actions points suggested by the industry:

### Harmonize rules and enforcement practices

The manifesto calls on the Commission to initiate the establishment of an agreement between Member States which would draw up a set of essential requirements for efficient Europe-wide market surveillance. This would include the adoption of a common risk assessment method and commonly agreed measures on deterrent sanctions against rogue traders (e.g. fines, withdrawals or destruction of non-compliant goods at the expense of the responsible market operator).

### Strengthen external borders

Industry pleads the EU to pay particular attention to external border controls. Conformity controls have been absent at the customs until the introduction of clear obligations on Member States by the Regulation (EC) No 765/2008. Member States are rather slow in implementing these obligations and there is no standard framework to coordinate the actions undertaken in different Member States.

The EU is also urged to provide financial assistance to Member States located in major entry points for illegal imports. Moreover, training customs officials for the identification of non-compliant products could also help enhance their capacity. Industry wants to see the Commission to coordinate and fund joint market surveillance actions with the involvement of market surveillance and customs authorities.

### Partner with industry

Industry calls on the EU to encourage both market surveillance and customs

authorities (as well as relevant European structures such as ADCO groups) to be more open to cooperate with industry stakeholders. Opening up the information exchange channels and tools reserved to authorities (such as the ICSMS) to input coming from the industry can help diversify the sources of information. Some European industry associations, including CECIMO, have recently created the 'Market Surveillance Industry Support Platform' (see p.23) which is an online resource database providing product-specific technical documentation to authorities for conformity checks. Industry invites authorities to make use of this input.

Moreover, industry is willing to embark on a closer cooperation with the EU and Member States in enforcement as well. The manifesto proposes to set up a common cooperation platform which will launch campaigns focusing on certain products or product categories with a view to achieving maximum effectiveness with limited resources. ■



### Launch of a Common Industry Platform for Market Surveillance

**Filip Geerts**, Director General of CECIMO, signing the manifesto



# How to Boost Europe's Capability to Master Key Enabling Technologies?



*The High Level Group (HLG) on Key Enabling Technologies (KETs) initiated by the European Commission finalized one year of work and published a final report which includes key recommendations to facilitate the deployment of KETs<sup>1</sup> in Europe. The High Level Group recommends investing simultaneously in technological development and advanced manufacturing capacity in Europe.*

<sup>1</sup> Nanotechnology, photonics, micro/nanoelectronics, advanced materials, biotechnology and advanced manufacturing systems.

## **Advanced manufacturing systems as a key enabling technology**

"In a resource-scarce and knowledge-rich Europe, we need to focus on producing new products which have a high R&D and knowledge intensity and which require a low level of material and energy", highlights the thematic report on advanced manufacturing systems published by the KETs HLG. Mastering cutting edge innovation in advanced manufacturing systems will boost Europe's capacity to develop resource and energy-saving production processes. Moreover, it will allow a broad spectrum of European industries to exploit new materials to improve product features.

Due to the impact of climate and environmental pressures on the society and rapid changes in technology, today, customer expectations are changing quickly and innovation cycles are getting shorter. This suggests that those who acquire advanced manufacturing systems the earliest can benefit from first mover advantages in the development of future products and respond to market needs. Europe can tap into growth and employment opportunities offered by KETs by developing a strong and globally competitive research and manufacturing base.

Filip Geerts, CECIMO Director General and member of the KETs HLG Sherpa Group, states: "Advanced manufacturing systems are the interface between new technologies, such as nanotechnology, micro-electronics, photonics and the market. Production technology provides industry with the means and solutions to apply technologies in their production and products, amplifying the impact of emerging technologies on the economy and society." He adds that Europe needs to master advanced manufacturing systems to be able to produce new products more cost-effectively, faster and better than competitors.

## **Obstacles to innovation and market uptake**

The KETs HLG puts forward recommendations to remove barriers to innovation faced by European manufacturers in KET-related industries. The major obstacles are identified as high costs of research, a lack of financing support for risky technological innovation projects, a growing deficit of R&D skills, high risks of investment for individual companies and costly scaling-up processes. The gap between research and markets, or the sum of obstacles to commercialization, are described as the 'valley of death' in the report.

European research policy and funding instruments help correct market failures to a certain extent. However, the analysis of these instruments reveals that they have the inherent defect of focusing only on one end of the innovation value chain. The EU research strategy has a strong focus on scientific and pre-competitive research. Due to the high risks involved, companies cannot move on to the next stages such as pilot demonstration and first production which are necessary to research results across to the market in the form of new products and services.

## **Keeping manufacturing in Europe**

The KETs HLG group strongly advocates keeping a sound manufacturing base for KETs in Europe. The result of the risk-averse approach in Europe towards KETs-related investments is that the EU has a strong position amongst international competitors in patent applications in KETs-related areas whereas manufacturing has largely shifted to Asia. Research and manufacturing are intrinsically linked and mutually reinforcing. Especially, start-up SMEs rely on the existence of technology institutes and manufacturing companies in the EU. It is only by manufacturing in European territories that Europe can benefit from growth and employment opportunities offered by KETs. ►►



# Competitiveness of the European Mechanical Engineering Industry

*The competitiveness of the European mechanical engineering industry was examined in a comprehensive study commissioned by the European Commission and conducted by the IFO Institute under the coordination of Dr. Hans-Gunther Vieweg. The report confirms that, thanks to its ability to create high added value and its export performance, mechanical engineering is a major contributor to the GDP and trade balance of the EU. Nevertheless, notably since the outbreak of the recent global economic crisis, the sector suffers from a loss of productivity and a worsening price competitiveness vis-à-vis major international competitors.*

The mechanical engineering industry is the major supplier of capital goods including equipment and machinery to many other industries. It is positioned as an enabler of innovation. It will play a crucial role in achieving Europe 2020 climate and energy targets since it is the main enabler of energy and resource-efficient processes and products. This strategic European sector records an impressive economic performance globally. However, without a comprehensive European strategy for manufacturing, the industry risks failing to live up to new global challenges and maintain its leadership position.

## The export champion

The EU study states that the mechanical engineering industry in Europe is one of the only sectors which have a trade surplus with the rest of the world. Over the last ten years, the average productivity of the European mechanical engineering was much higher than the manufacturing industry (in general) accompanied with higher wage levels than the average of manufacturing. Moreover, the output growth in mechanical engineering was faster than total manufacturing and the gross value added (contribution to GDP) generated by the sector, which recorded an increase despite the economic turmoil during 2009.

Moreover, the strength of the mechanical engineering industry in export markets enabled it to tap growth markets outside the EU. This can be observed in the improvement of trade balance of the sector which increased from € 49.4 billion in 2000 to € 119.3 billion in 2010 (see Table I). Over the past decade, mechanical engineering exports grew at an annual average rate of 5.8% whereas the imports increased only by 2.3%. Over the period under investigation the share of mechanical engineering exports in total manufactured goods exports rose up to 15%, despite the fact that the capital goods industry was hit worse than other manufacturing sectors during the 2009 crisis.

The EU has a deficit of € 157 billion in total manufacturing and this deficit would have been much higher without the positive contribution of mechanical engineering to the trade balance. The EU is less dependent on imports of mechanical engineering products than other manufactured goods (see Table I).

## International performance of Europe

The mechanical engineering showed a better performance, both in terms of productivity growth and price competitive-

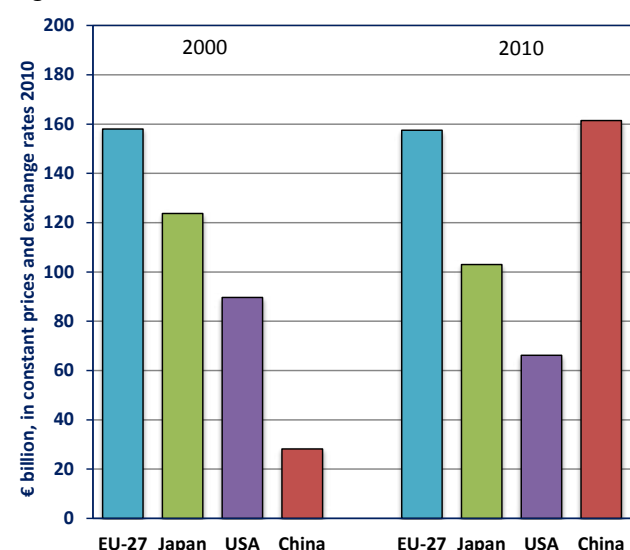
Table I: Key indicators for the EU-27 foreign trade

Sector	Indicator	2010	Annual average growth rate in %		
			2000-05	2005-08	2008-10
EU-27	Domestic demand <sup>(1)</sup>	374.2	1.4	9.7	-11.0
Extra-EU Trade	Imports	bn. € 1500.6	3.8	9.9	-0.4
	Exports	bn. € 1343.9	4.8	7.6	3.1
Extra-EU Trade	Imports	bn. € 81.2	-0.1	12.6	-6.2
	Exports	bn. € 200.4	4.3	13.7	-1.8
			2000	2008	2010
Trade balances	Extra-EU <sup>(2)</sup>	bn. €	-142.4	-246.2	-156.7
Trade balances	Extra-EU <sup>(2)</sup>	bn. €	49.4	115.7	119.2
BI Mechanical Engineering <sup>(3)</sup>	Extra-EU	0 = neutral > 0 = advantage < 0 = disadvent.	12.6	27.8	19.8
RCA Mechanical Engineering <sup>(4)</sup>	Extra-EU		29.4	35.6	40.9

Source: Eurostat; national statistical bureaus; Cambridge Econometrics; Ifo Institute

ness, compared to total manufacturing in Europe between 2000 and 2010 (See Table I). The higher growth rate in labour productivity was achieved through real productivity upgrading, in other words, by technology and skills upgrading in the firms. Unit labour costs in mechanical engineering remained relatively stable, which did not harm these productivity gains and contributed positively to price competitiveness. ➡

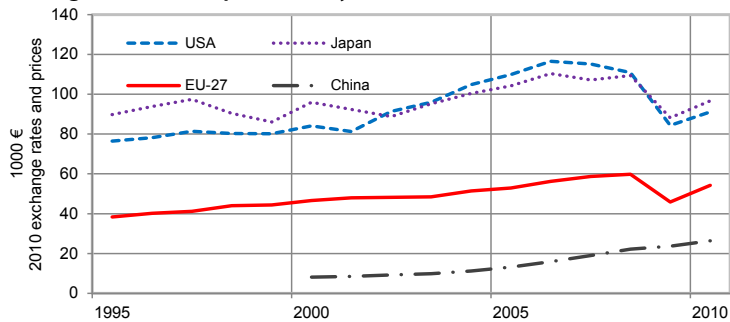
Figure I: Gross-value added



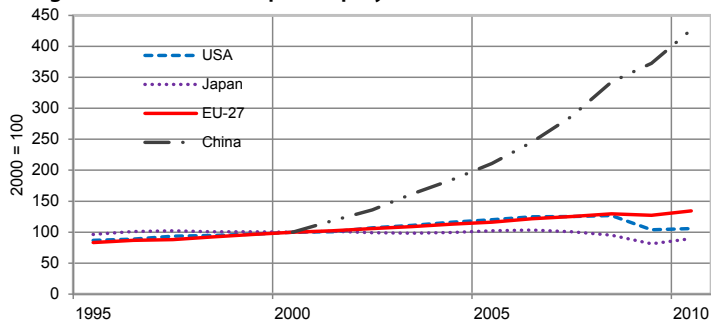


When it comes to the performance of the European mechanical engineering industry on the international scene, Europe performed pretty well compared to major competitors, namely the United States and Japan, during the period under investigation. After the turmoil in 2009, the European ME industry could reach the level of gross value added (GVA) recorded in 2000, whereas the GVA in the U.S. and Japan was down by 35% and 57% respectively in 2010. Only China was able to compete with the EU on eye-to-eye level (see Figure I). When we look at employment indicators, all major developed economies countries suffered from a loss of workplaces (EU -14%, U.S.-23% and Japan -27%).

**Figure II: Labour productivity**



**Figure III: Labour costs per employee**



Compared with the U.S. and Japan, the European mechanical engineering industry has seen its price competitiveness deteriorate. Despite the fact that labour costs in the EU remained at a comparable level with those in the U.S. and Japan, the EU is lagging behind in labour productivity (see Figure II). One of the reasons behind this trend is market rigidities which derive from the labour laws in EU Member States. A more important reason resides in the split which occurred between the labour costs in the EU and in competitor economies. Labour costs in the EU could not adjust to the economic crisis in 2009 (see Figure III).

Finally the last two EU enlargements to countries with lower labor productivity dragged down the average for the EU. Labour productivity of the larger New Member States are on a similar level with China. However, labour costs are much higher. This indicates an insufficient price competitiveness.

#### **Developed economies have a competitive edge**

Despite worsening price competitiveness, the European mechanical engineering industry could increase its export share in major economies over the period 2000-2010. The share of EU mechanical engineering imports reached 34.2% of total mechanical engineering imports in the U.S. 37.2% in China and 22% in Japan. Meanwhile the share of EU imports in manufacturing industries (other than mechanical engi-

neering) saw a decline in these countries. Meanwhile, US and Japan also recorded a trade surplus in mechanical engineering whilst they achieved growing specialization. In China there is an increasing importance of mechanical engineering in trade with manufactured goods. Mechanical engineering is well-suited for developed economies.

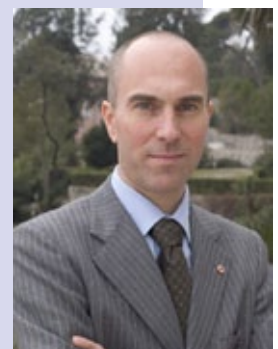
The European mechanical engineering industry is characterized by sophisticated intra-industrial and inter-industrial division of labour, which has supported specialization. The existence of high-tech part and component suppliers in Europe is a major factor enabling companies to achieve sophisticated designs, outstanding quality and performance in final products. Upstream linkages to metal industries, electrical engineering and electronics are equally important. Moreover, close ties with client industries and their specific needs have allowed Europe to become a global leader in manufacturing technologies. The mechanical engineering industry has largely benefited from a large industrial infrastructure in Europe. A highly qualified workforce, technological excellence and strong suppliers underpin its competitiveness. Therefore, unlike other industries, the industry is less sensible to relocation pressures from low-wage countries and it is strongly anchored in European production networks. This helps preserve jobs during economic turmoils and the sector quickly regains competitiveness during economic up-cycles.

#### **Challenges to European mechanical engineering**

A major challenge to the sector comes from emerging countries which show an impressive economic performance which accompanies rapid industrial development. China is emerging as a strong actor in volume markets and large Chinese firms enjoy scale economies in a large domestic market. Moreover, the Chinese government, by means of an ambitious industrial policy, is pouring large sums of money into building up a competitive research base which supports industrial innovation. Especially, firms in new EU Member States which produce mainly medium-tech products are challenged by Chinese firms which compete with them in the same range of products. The latter enjoy higher labour

*"This study confirms that mechanical engineering is an enabling industry which is key to modernise the European industrial base and to achieve Europe 2020 climate and energy targets. Nevertheless, it is challenged by fierce global competition and bottlenecks in the value chain. The highly integrated manufacturing value chains across the Member States remind us that we need to have a European approach to industrial policy. We hope that the EU will interpret this message correctly to implement an integrated, long term and visionary industrial policy."*

**Mr Alberto Tachella**, Chairman of the CECIMO Communication Committee; Vice-President, IMT S.p.A - Tacchella Macchine Plant



### Machine tools outperform other sub-sectors

The report shows that the machine tool industry generates almost 5% of total mechanical engineering output in Europe. Between 2000 and 2008 the sector grew annually nearly twice as fast as the whole mechanical engineering in Europe. Moreover, it outperformed most of the other sub-sectors in terms of productivity growth measured as value added per capita and annum in 2005 prices. However, the decline in production of machine tools caused by the economic crisis was much greater. The sector is subject to cycles of much higher amplitude than the other sectors on average.

productivity and much lower labour costs.

European SMEs are challenged by large Asian firms, mainly from China, focusing in volume production which squeezes out the profit margins. The latter gain a comparative advantage in large Asian markets by investing in broad distribution networks and services staff. Medium and large European firms with higher technology intensity are faced with fierce technological competition heated up by competitors in other developed economies such as Japan and Korea. Moreover, the prospects for the skill-base, a traditional comparative advantage of Europe, are not very positive as a lack of skilled engineers and technicians represent a growing problem for firms. There is also a scarcity in many soft skills including management, which is particularly important to enable firms manage the internationalization process as markets for engineering products shift to emerging countries. Notably, the outstanding importance of technology and the need to offer a broad range of services and comprehensive information with products underscores the importance of providing the technical staff with soft skill qualifications.

### How to maintain the European competitiveness in mechanical engineering?

The study puts forward a set of recommendations for industry and policy-makers.

#### Companies

The major recommendation for firms is to review their organization and business model. European mechanical engineering firms are recommended to increase the share of services supply in their business to become full hand suppliers of goods and

services. As competitors from other countries catch up with European firms in technology, company owners and executives are recommended to put a stronger emphasis on non-price features, for example on services provided throughout the entire life-cycle of their products. As customers located in Europe increasingly become keen on outsourcing part of their production, companies could meet this demand by positioning themselves as subsystem suppliers. This provides firms with the opportunity to better integrate into the value chain of customers and present themselves as reliable and long-term partners to OEMs.

#### Industry associations

Industry associations are called on to launch image campaigns to promote engineering, especially by underlining the contribution of mechanical engineering to tackling societal challenges such as energy/resource efficiency and waste reduction. As regards the labour market, regular dialogue with trade unions remains important in order to find solutions for better adjusting to increasingly frequent cyclical fluctuations. Maintaining the highly skilled workforce during crisis periods is of utmost importance for the competitiveness of the industry. Finally, associations are advised to publish reports and statistics to inform financial actors about the economic climate in the industry, to help facilitate access to finance.

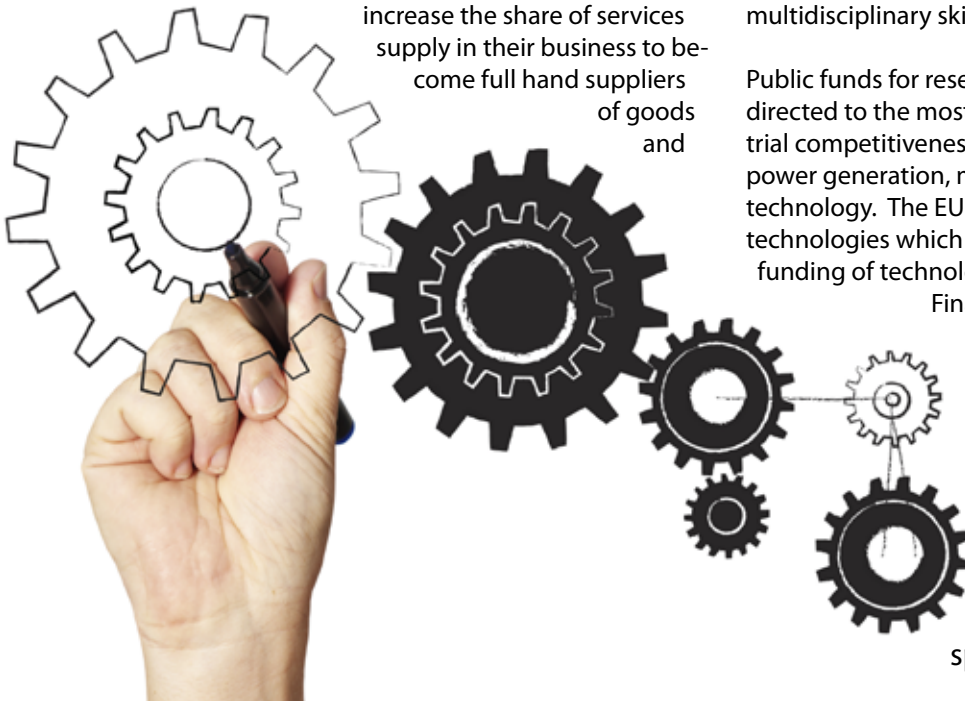
#### Policy-makers

With increasing global competition, life-cycle of many products, including that of capital goods became shorter. This requires ever greater investment in research and innovation. The study recommends implementing a comprehensive clustering policy to help SMEs integrate in value chains of their customers, and embark on joint technology development.

Market surveillance is underscored as a key to prevent Internal Market rules from creating unfair advantages to non-conforming manufacturers. Fair competition is required to let quality manufacturers to strengthen their market position and keep Europe as an attractive manufacturing location. Outside Europe, focusing market access efforts on the most promising markets is recommended. Moreover, regular monitoring of labour demand and supply is required to track workforce needs. An effective cooperation in the government-industry-academia triangle is needed to boost innovation cooperation and to cater the needs of industry for multidisciplinary skills.

Public funds for research and development need to be directed to the most promising areas which enforce industrial competitiveness, according to the study. These include power generation, material sciences and manufacturing technology. The EU is urged to pay special attention to technologies which help achieve climate goals. This calls for funding of technologies with lowest CO2 abatement costs.

Finally, the European Commission is invited to investigate framework conditions in some developed countries which have been more successful in attracting private R&D investments from EU firms. Europe needs to restore attractiveness in that respect. ■



# Challenges of Globalisation for Textile Machinery Manufacturers and Implications for Machine Tool Suppliers



**By Peter Gnägi**

*Head of the Business Group Spun Yarn Systems and Member of the Group Executive Committee, Rieter AG*

## **The shift of the textile machinery business to Asia as a consequence of a mega-trend**

In 2050, China and India will account for 50% of the worldwide gross domestic product as it was the case in 1700. A growing GDP per head and the large size of the population are the cause of this change. In respect to textiles, there exists a direct correlation between the GDP and the fiber consumption per head. This implies that there will be a constantly growing demand in the foreseeable future.

It is also evident that textile machinery will be produced in big markets, which points to a shift from Europe to China and India. The pattern is similar to the time when the textile industry shifted from England to the European continent. In 1800, Rieter was key in driving this process on the receiving side. Now the role has reversed, but the direction stays the same: Eastbound. A more recent example of a similar mechanism was led by Japan, Korea and Taiwan from the 1960's onwards. Initially low-cost, low-quality countries, they have taken over the camera and consumer electronics market almost completely and play a major role in the car industry.

Rieter has chosen to be part of the above-mentioned process in order not to share the fate of the English textile machinery industry. The question that we now ask to ourselves is: "What will make sense to do in Asia in 5, 10, 15 years?" rather than: "How can we keep X, Y, Z in Europe?"

## **Rieter's first steps on the long path to a true global company**

Embarking on a global business strategy requires reviewing the markets and

adapting organizations, products and manufacturing accordingly. The main challenge is to find the right speed for the changes. We have done some of the things too fast, some others too slow and fortunately, a few of them at the right speed.

## **Organizational strategy**

An adapted organizational set-up must be chosen to serve the global markets. First of all, there is no easy solution. Second, there is not a right or wrong solution. There are alternatives with advantages and disadvantages. They are located between the two poles "market dominance" and "product dominance". We have understood that product dominance will not lead to success in the future. But it is too early for a complete market dominance strategy: If we would fully empower our people in China and India and make the products for these markets only, we would fail also.

In the reorganization project of 2009, we opted for a global organizational set-up by functions. Marketing and sales as well as the supporting functions are locally present in many countries. Product development and manufacturing are present in five countries: Switzerland, Germany, Czech Republic, China and India.

The main organizational challenges are the inertia against change on one side and cultural and geographical distances on the other side. Important for a good start was to spend more resources and money on the change process rather than on organizational development. The target of the change process was to actively involve all key employees, which covers most of the superiors and 20% of all employees. These people

were not just informed, but they had a role in shaping the organization within clearly defined bounds.

## **Product strategy**

One key question is how much or how little the products have to be adapted to the local markets. After some experiments with truly local products in the mid-segment, we opted for a concept of a standardized and global basic line with local options and local material content.

In this context we have to answer the question about the optimal location for product development. Should it be close to the customers? To the suppliers? To our own manufacturing? To institutes?

The location depends on the product phase. In the initial development phase, it is useful to stay in close connection with key suppliers and research institutes worldwide. It is a must to deeply understand the needs of the customers. If we cannot answer the question: "Why will the customer pay for the feature X?", we will probably go in the wrong direction.

The more the product advances toward the prototype phase and series production, the more the product development has to be close to the supplier base, be it our own manufacturing or external partners.

Our global set-up reflects this strategy: Basic developments and concepts are done in Europe with worldwide partners, whereas the final design is executed in the country where we source the materials. This normally means that two or three globally distributed teams work ►►





together. So far, one of them is always in Europe.

### **Manufacturing strategy**

The manufacturing strategy implies to find the right mix between in-house operations and purchasing components on the market. Clear criteria are applied in the decision making process.

Rieter produces key technology and mass production parts in house. In some

cases, we also make the machines for these parts. This is how we maintain an intimate know-how within the company, which enables us to be on a competitive edge vis-à-vis competitors outside Europe and to continue realizing certain manufacturing operations in Europe.

As for the rest of the materials, Rieter makes them either in-house or buys them on the market, or both. Final assembly is always done in-house in order

to ensure a high quality level and as a final check. The location of the final assembly is selected based on diverse criteria, including quality, flexibility and origin issues.

### **Lessons for the machine tool industry**

Machine tool markets seem to have followed a parallel development path to the textile machinery industry with a certain delay. Europe is still the biggest production base for machine tools and the supplier of metalworking technology to the rest of the world. However, Europe's leadership will be threatened.

In this respect, the experience of Rieter could provide useful insights for machine tool builders about how to cope with the internationalization challenge. With the shift of consumption to Asia, European machine tool manufacturers will be confronted with similar situations as Rieter. They can decide to be part of the evolving new world in the East. It is, first of all, a question of will and determination. ■



## **Bridging East-West Europe Through Innovation and Cooperation**



**By Dr. Hans-Martin Schneeberger**  
*President of SCHNEEBERGER AG*

*Nowhere in the world but in Europe can you find such a full and comprehensive set of skills and capability within a geographical area spanning less than 2000 km in length. We have all it takes to be a world class manufacturing place.*

### **Being an SME is an increasingly tough job**

SMEs have often fewer resources than large corporations, less marketing power and they are forced time and again to do more with less. In industries such as financial services, healthcare or food processing they face regulatory burdens that even big companies find challenging. In the manufacturing sector, they lack economies of scale that help larger competitors to occupy the position of low cost producers.

Mid-sized firms are being challenged by many factors: larger rivals try to

squeeze them out by heating up competition, customers gradually exercise their power in pricing and other tough contractual terms, and in many cases in their supply chain, the leverage of SMEs is minimal vis-à-vis their vendors which are in many cases several times bigger than themselves. In order to effectively respond to these market challenges, mid-sized firms must be smarter, faster, more effective and more efficient.

Successful mid-sized companies prefer focusing on building a strong niche rather than trying to dominate an entire sector. Therefore, focused innovation is

a crucial pre-condition for their competitiveness. The owner of the company and executives occupy a central role in all aspects of the business of an SME, and therefore innovation is entrepreneur-driven.

### **What can SMEs get out of Europe?**

If the entrepreneurial leadership is key to kick-start innovation in SMEs, 'innovation cooperation' is an equally important factor to enable them to fulfill their innovation potential. Innovation requires interdisciplinary capabilities spanning many different areas and, moreover, the required disciplines in



most cases change over time. This typically calls for developing and maintaining a skill and competence set which is far too broad for a typical SME to achieve alone. Therefore, SMEs need to go outside their plants to find research and innovation partners.

There is a diverse industrial landscape across the EU territories when it comes to manufacturing in terms of skills, costs and industrial structure. In Western Europe, a typical strength of manufacturing companies is their focus on skills and their capability to produce first pass yields of complex parts and assemblies in a low-volume high-mix environment. Engineers and technicians are able to work on specifications and drawings provided in foreign languages. Furthermore, a more important source of their strength is that they have an excellent capability to develop, install and improve the necessary quality feedback and control loops to enable permanent quality improvements and cost reductions at the same time. Eastern European manufacturing companies, on their end, have a strategic edge based on labor costs. This edge can be converted into cash when it is applied to producing parts in a low-mix high-volume environment quite often for less complex parts and assemblies with well-defined and structured requirements.

Here lies the unique strength of Europe! Nowhere in the world but in Europe can we find this full and comprehensive set of skills and capability within a geographical area spanning less than 2000 km in length. This set of skills and capabilities offer a great potential to enable industry to cost-competitively address

'low-volume high-mix' opportunities for complex parts and assemblies and 'high-volume low-mix' opportunities for less complex parts at the same time.

#### **How to boost cross-border cooperation?**

Several factors facilitate innovation cooperation between SMEs across regions. The first requirement is a strong base of high quality research institutions such as universities or engineering schools. Such institutions provide the required matrix for cooperation and collaboration between SMEs, and if they are also involved in industrial research or product development, they can act as a great training ground for future employees.

A second pre-requisite is the availability and accessibility to financing. SMEs need to be financially strong to excel in innovation cooperation, or they need to have facilitated access to financial

support. Thirdly, a strong ICT infrastructure is needed to facilitate the effective and efficient exchange of information within research and innovation activities. It also enables businesses to communicate fast and at low cost with their business partners including the customer. SMEs can gain even enhance their competitive edge by increasing the speed at which they do business across the globe. Today, needs of the manufacturing industry are shaped by the permanent necessity to slash costs, to accelerate revenue growth and to reduce not only the time-to-market for new products but also to reduce (notably for SMEs) time-to-cash for new and innovative products. Fourthly, the industry needs motivated and skilled people who are interested to explore cooperation opportunities.

In conclusion, the key words to enable innovation cooperation among SMEs in Europe are a 'strong commitment to R&D spending', an 'adequate ICT infrastructure' and 'strong science oriented institutions for research'. Europe has unique strengths and capabilities; we have all it takes to be a world class manufacturing place. With the help of proper support from the policy makers, we can unleash our full potential to generate a large number of technology oriented high value adding jobs. ■

*This article is an extract from the speech of Mr. Schneeberger 'Cooperation in innovation of manufacturing systems for Medium Size Technology Companies' that he delivered at the MANUFUTURE 2011 Conference, 24-25 October 2011 Wroclaw, Poland. The theme of the conference was "West and East Europe in global High Added Value Manufacturing".*



# CECIMO Takes the Lead to Promote Sustainable Manufacturing

*CECIMO has launched a European initiative which aims to raise the sustainability bar in the machine tool industry: Blue Competence Machine Tools. With this initiative, CECIMO aims at increasing awareness and knowledge amongst the machine tool industry about sustainability. Moreover, CECIMO takes up a leading role to guide the sector in setting standards in the area of sustainable production and products. The machine tool industry plays a key enabling role during the shift towards a resource-efficient low carbon economy.*

## A European alliance for a sustainable future

In the face of the climate change and depleting natural resources, CECIMO sends a strong message to companies to pool their expertise, knowledge and resources in order to generate solutions which will help tackle these mega challenges. Therefore, CECIMO offers to European machine tool builders a common platform under the Blue Competence Machine Tools initiative, which will enable them to join their forces and coordinate efforts for the development of energy- and resource-efficient production solutions and products.

The machine tool industry is already a key provider of production solutions which help reduce energy and material consumption in the production process in a broad spectrum of user industries, including automotive, aerospace, railway vehicles, energy generation equipment and more. Moreover, thanks to innovative solutions offered by machine tools, these sectors can drastically improve product features. Advances in materials science go hand in hand with advances in production technologies and, thanks to this, user industries can produce, for example, more fuel-efficient aero engines or lighter cars and ships which have an important impact on the environment.

However, a comprehensive framework within which manufacturers could cooperate to this end has been missing so far. Blue Competence Machine Tools is the first common European initiative which defines objectives and transparent criteria and standards for sustainability in the machine tool industry covering production, products and business

practices. CECIMO considers the initiative as a long-term commitment which will embed the principles of sustainability into the sector.

The Blue Competence Machine Tools initiative merges economic, ecological and social goals in one, and it demonstrates the contribution the machine tool industry can make to achieve smart, sustainable and inclusive growth in Europe.

CECIMO has introduced Blue Competence Machine Tools for the first time with a press conference in Brussels, followed by a second press conference at the METAV Exhibition in Düsseldorf, Germany. The press conferences attracted the attention of the media, the public and private sectors, as well as NGOs.

## 'Manufacturing' solutions for Europe 2020 targets

The initiative is in coherence with the Europe 2020 strategy objectives with regards to climate change and resource-efficiency. Blue Competence Machine Tools will help promote sustainable manufacturing as a means for achieving more responsible use of natural resources and energy, thus contributing to the protection of environment and to sustainable development. The wide adoption of sustainable solutions in manufacturing industries will make an important contribution to the conservation of natural resources, the protection of the environment and the fight against climate change.

Sustainable manufacturing solutions enable user industries to ensure that they can continue to grow and create value for the society without compromising the needs of future generations for natural resources. A world-competitive manufacturing base will be the main driver to improve the quality of life of the European society and in the rest of the world. If it develops in the right direction, manufacturing will give Europe full control over its future economic development and provide solutions to grand societal challenges. Blue Competence Machine Tools has the ambition to become a landmark initiative which will help open up a sustainable development path for European manufacturing.

Sustainability is increasingly becoming a factor of differentiation for machine tool companies, thus leading to a higher level of competitiveness in the global marketplace. Besides high precision, accuracy, speed and performance, customers increasingly demand for solutions which reduce the total cost of ownership. Blue Competence Machine Tools will reaffirm the position of Europe as the global leader in sustainable manufacturing solutions and it will help the sector make a leap forward to an even more successful future. Growth in manufacturing output very often translates into growth in





### Launch of the Blue Competence Machine Tools at European level on 17 February 2012

Filip Geerts, Director General of CECIMO, Juha Mäkitalo, President, FINN-POWER OY, Dr. Frank Brinken, CEO of StarragHeckert Group, Dr. Willi Nef, Head of Sales, TORNOS S.A., Martin Kapp, President of CECIMO and Managing Partner, Kapp Group, Coburg

#### The environmental challenge

The global economy and the demand for energy are constantly growing. According to World Bank Data, the global energy consumption increased from 5,508,537 to 11,787,115 kt (of oil equivalent) between 1971 and 2008. Moreover, the CO<sub>2</sub> emissions at global level increased from 9,420,523 to 32,082,583 kt between 1960 and 2008 according to the World Bank, as a result of mostly economic activities. This constantly growing energy consumption, associated with more CO<sub>2</sub> emissions and overuse of natural resources and raw materials, endangers our society. In order to connect the dots between economy, ecology and society, energy and resource-efficient solutions are needed.

jobs creation throughout the manufacturing value chain. Manufacturing which generates high added value through the provision of solutions for future challenges will be a major source of job creation in Europe.

#### How does it work in practice?

CECIMO started operating the Blue Competence initiative for the 'Machine Tools' sector in February this year. The Blue Competence initiative was launched in Germany by the German Engineering Federation in 2009 for the entire mechanical engineering industry. CECIMO, with the support of some national member associations, has brought the initiative at European level for the machine tool sector. Operated by CECIMO, Blue Competence Machine Tools is open to the participation of all machine tool companies across Europe and to national associations.

A company which wants to participate in the initiative has to meet the pre-defined sustainability criteria in its production and business practices. Thus, companies make a public commitment to add value to the economy, environment and society. Companies which have met the pre-conditions can

thereafter communicate to their customers and to the public that they are a member of Blue Competence Machine Tools.

Participating national associations play an important role in the implementation of the Blue Competence Machine Tools initiative. They are the first contact point for companies in their respective countries and they assume the main responsibility for the promotion of the initiative within their national borders. They also conclude individual agreements with companies and institutes operating in the field of machine tools.

The CECIMO Steering Committee decides on the general policy for the Blue Competence Machine Tools initiative. Applications from companies are evaluated by CECIMO. Overall, the initiative mobilizes a broad network of industry associations, companies and research institutes across Europe to pool resources, expertise and ideas in order to build-up a vision for a sustainable future for the European machine tool industry and for the entire European industrial base. ■

Blue Competence Machine Tools is a voluntary initiative and participating in the initiative does not imply compliance with any national or European regulation. Nevertheless it is in line with European policy objectives and it highlights the commitment of the industry to contribute to EU's climate and energy goals.



Operated by



[www.bluecompetence.net](http://www.bluecompetence.net)  
[www.cecimo.eu](http://www.cecimo.eu)



*"The machine tool industry is the first mechanical engineering sector to launch a common European initiative for sustainability. Blue Competence Machine Tools shows the ability and determination of the European machine tool industry to mobilise its own resources to work on common solutions which will be of benefit to sustainable development. We hope that this will be an exemplary action for other European sectors, helping spread good industry practices throughout the manufacturing value chain."*

**Filip Geerts**, Director General of CECIMO

*"Under the Blue Competence Machine Tools initiative, Tornos commits itself to optimize the use of energy and other resources to enable faster, better and higher quality manufacturing in end-user industries. This development enables our customers to improve their production economically, as well as environmentally."*

**Dr. Willi Nef**, Head of Sales, TORNOS S.A.



*"As a partner of Blue Competence Machine Tools, we can communicate our sustainable solutions on objective and transparent criteria to our customers. The society is more aware than ever of our commitment to contribute to the protection of the environment and the fight against climate change."*

**Dr. Frank Brinken**, CEO of StarragHeckert Group



*"The machine tool industry is a key enabling sector that has strong ties with other industries which are vital for the European economy, such as automotive, aerospace and general machinery. The Blue Competence Machine Tools initiative means that European machine tool builders are ready to cooperate with user industries on environmental subjects. This underlines the willingness of the industry to take a step forward towards a more sustainable manufacturing industry with a positive impact on the quality of life."*

**Martin Kapp**, President of CECIMO and Managing Partner, Kapp Group, Coburg



*"Our company recognizes that the Blue Competence Machine Tools initiative provides the sector with a coordinated European framework to act towards sustainability, including resource and energy efficiency."*

**Juha Mäkitalo**, President, FINN-POWER OY

# Three Cs of the CECIMO Statistical Toolbox: Concrete, Comprehensive, Convenient

*Are you interested in the economic trends of the investment goods? Is the machine tool industry of interest to you? Does the future performance of the sector affect you? Then the CECIMO Statistical Toolbox is the most reliable reference for your business.*

CECIMO Statistical Toolbox is a compilation of the most important economic indicators describing the machine tool industry. This short and to-the-point document updated on a monthly basis is a free of charge guide for all those who are interested in the future trends in the sector.

CECIMO closely follows economic and market trends which have an impact on the machine tool industry and provides market intelligence for European companies to help them adjust to economic cycles. The machine tool sector is more prone to downturns than any other sector. Therefore, the CECIMO Toolbox is of great help to firms which want to increase their resilience to fluctuations and to get timely information about potential investment opportunities when they arise. It is also a reliable source of information for financial actors and investors which plan to invest in the machine tool industry.

## A 'Concrete' picture of the European machine tool industry

The CECIMO Statistical Toolbox is a publication dedicated to and produced by the machine tool industry. It is the only place where the recent orders, production and trade figures of the European machine tool industry are published. The document comprises also the compilation of 10 key market indicators, such as the Business Confidence Index (BCI) or new orders in capital goods. These figures are highly important for the industry and there is

interdependence between them and the orders' intake.

The CECIMO Toolbox also includes a comprehensive summary of the monthly indicators, which explains the data and translates it into words. This introduction serves as an essential complement to the statistical information and makes it even more accessible to all interested stakeholders.

## A 'Comprehensive' source of information

In the CECIMO Toolbox, carefully selected indicators are presented, which shape the market environment not only of the machine tool industry but also of the investment goods manufacturers:

- **Bank Lending Survey** – a direct source of information on the willingness of the banking sector to lend money to the industry as well as the update on the demand from the industry for credit.
- **Official and market interest rates** – defines the cost of money on the market, hence defines the cost of investment projects.
- **Business Confidence Index** (by OECD) – measures the market sentiment in Europe, which is highly correlated with the machine tool bookings.
- **Foreign Exchange Rates** – price of the Euro expressed in other major currencies, which shape the relative prices in international trade; the European machine tool industry is very much export-oriented.
- **New Orders in Capital and Durable Consumer Goods** – early indicator of the demand in sectors which are the customers of machine tool producers.
- **Industrial Production in Manufacturing** – Industry in general and metal processors and consumers in particular are the primary group of customers for machine tool builders; the Industrial Production indicator is a primary measure of their combined output.







- **Purchasing Managers' Index** – early indication of the industrial production in selected countries and regions.
- **Gross Domestic Product** – the primary gauge of the economic activity.
- **Gross Fixed Capital Formation** – shows the volume of investments in the economy; machine tools are investment goods provided to other investment goods manufacturers.
- **Capacity Utilization** – indicates the level of capacity in the industry as well as the level of its utilization.
- **MTIX** – a stock exchange based index tracking changes in market capitalization of world's most important machine tool manufacturers.

#### A 'Convenient', cost-free service

The indicators of the machine tool industry in Europe usually represent a high correlation with the broader market indices. For instance, there is a strong link between the Business

Confidence Index with 6-months time lag with the machine tool orders. This suggests that any current turning point in BCI should be followed by respective dynamics in CECIMO orders index.

As the orders intake statistics provide an early sign of the future trends in production and sales, CECIMO commissioned a professional forecast of this indicator. Every quarter a new, 6-quarters forecast by USP Consulting is released in the Toolbox.

CECIMO makes use of the expertise of governmental institutions too. Every time the European Commission updates its GDP forecast for the European Union, CECIMO Statistical Toolbox comprises a simulation of the machine tool orders, should the official forecast materialize. ■

#### Advantages for the user

CECIMO Statistical Toolbox is a free of charge publication, which means the user does not need to pay for it nor compile the statistics on his own. The document is updated every month and available on the CECIMO website ([www.cecimo.eu](http://www.cecimo.eu)). Upon request, the publication can be delivered by e-mail.



# Merger Within the Spanish Member Association of CECIMO



*CECIMO's Spanish member association, AFM (the Spanish Machine Tool Manufacturers' Association) and AMT (Spanish Association of Accessory, Component and Tool Manufacturers) decided to merge into one single association in December 2011. CECIMO interviewed the new President, Mr José Ignacio Torrecilla, and asked him about the motivation behind this decision.*

**Mr Torrecilla, could you tell us why these two associations have decided to join forces?** The main aim of the process has been to become a stronger association, better equipped to develop more services for our members and to help them become more competitive. We believe that this new step will help us generate more interesting opportunities for cooperation among our companies. We will also offer a more comprehensive range of products and services to the market thanks to approximately 150 members that we have with a potential turnover of € 1,500 million.

**Why did this not happen earlier? Were there any recent important changes which have enabled you to overcome previous obstacles to unification? Were there still any major challenges during the implementation of the decision?** There is a right time for every decision and this was the right time for our merger. The AFM and AMT have always had an open line of cooperation, but at the same time, both were individually viable even during crisis periods. This situation has permitted us to analyse the integration process without external pressure and thinking towards a win-win solution at the end of the day. During a conversation at dinner, we started talking about increasing mutual cooperation. Two years on we have become a single initiative for a sector as a whole: Advanced Manufacturing Technologies.

It is fair to say that the process has been much easier than expected. It is also true to say that the integration team has worked hard, but at the same time we have developed a personal dependability that has facilitated the decision-making process. We have been able to align strategies, build a very competent team and generate a new brand that keeps the best of our common history and which projects us into the future.

**Was your decision inspired by similar trends that we have seen in other countries in Europe and the rest of the world where two sectors join (or are going to join) forces in order to better defend their interests?** As I said, we started the merger process being fully convinced that the result would make us stronger and without looking at what others were doing. It is obvious that the move is completely logical and that this solution is already working well in other countries, but we have not mirrored them. Our specific history and situation made the merger interesting and viable at this precise time, and we went for it.

**Do you think there will be a similar evolution at European level (CECIMO level)? Are industries in the European machine tools and advanced manufacturing value chains**

**interested in uniting forces?**

We think that it would be good for the European machine tool industry and advanced manufacturing technology value chain to find a way of cooperating to become stronger as a whole by increasing its capacity to influence European industrial policies. By increasing the size of our industry we will have more opportunity to spread the word about the strategic nature of the machine tools sector that provides solutions and means of production for leading sectors in the economy, thereby helping to improve their productivity and competitiveness.

**The new structure of AFM covers a large proportion of suppliers in the machine tool value chain. How do you see the supply chain relations within advanced manufacturing sectors in the face of globalisation?**

Basically, what we have now within the association is a new group of companies, all of them manufacturers and related to manufacturing technologies. We do not assess our new situation in terms of client-supplier dynamics, but as another challenge to create greater cooperation capabilities to generate solutions for common clients. This is what is happening internally.

If we look outside, it is evident that supply chain relationships have changed and will have to keep changing in the future. For high cost and high added-value industries such as ours in Europe, productive innovation and services are our two main challenges. Having a global presence while interacting locally with our customers is increasingly possible and this is because of radical changes within the value chain.

**The new association describes itself as the representative of 'advanced manufacturing technologies'. What is the reason for choosing this name?**

We are really involved in defending advanced industry or manufacturing technologies as a top priority for any advanced and competitive economy. Machine tools, accessories, component parts, tools and all other machines, and manufacturing and process automation systems are industrial products with high added-value that generate and retain knowledge and competitive capacity. The industrial activity generates advanced services in its area. The machine tool industry provides other industries with efficient productive methods that minimise resource usage. For example, it is at the heart of the development of more efficient vehicles, or the ingenuity to use renewable energy.

On the other hand, within the integration process we aimed to keep the origins and values of the merged associations. AFM, Advanced Manufacturing Technologies, retains and expresses our past and perfectly projects our future. ■



# Market Surveillance

Industry's Support Platform

## Watching over safe and compliant machinery on the EU market.

European machinery makers rely on **effective market surveillance** which guarantees fair competition in the Internal Market to maintain their competitiveness. European trade associations representing machinery industries have launched an **online resource database** to provide public and private actors with technical documentation to assist them in conformity checks.

[www.machinery-surveillance.eu](http://www.machinery-surveillance.eu)



### CECIMO Noticeboard

#### Upcoming Events

**CECIMO's Spring General Assembly**  
9-12 June 2012 - Ghent, Belgium

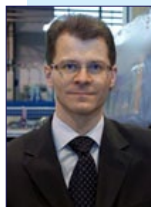
**European Forum for Manufacture (EFM)**  
19 September 2012 - Brussels, Belgium

**CECIMO's Fall General Assembly**  
23-24 November 2012 - Izmir, Turkey

#### New Delegates in CECIMO



**Ms Åsa Hansson**  
Sweden General Manager, MTAS



**Mr Juha Mäkitalo**  
Finland Delegate  
President, FINN POWER OY



**Ms Chantal Baas**  
The Netherlands Branche Manager,  
VIMAG



**Mr Andoitz Korta**  
Spain Delegate  
General Manager, KORTA Group



### CECIMO Study on the Competitiveness of the European Machine Tool Industry

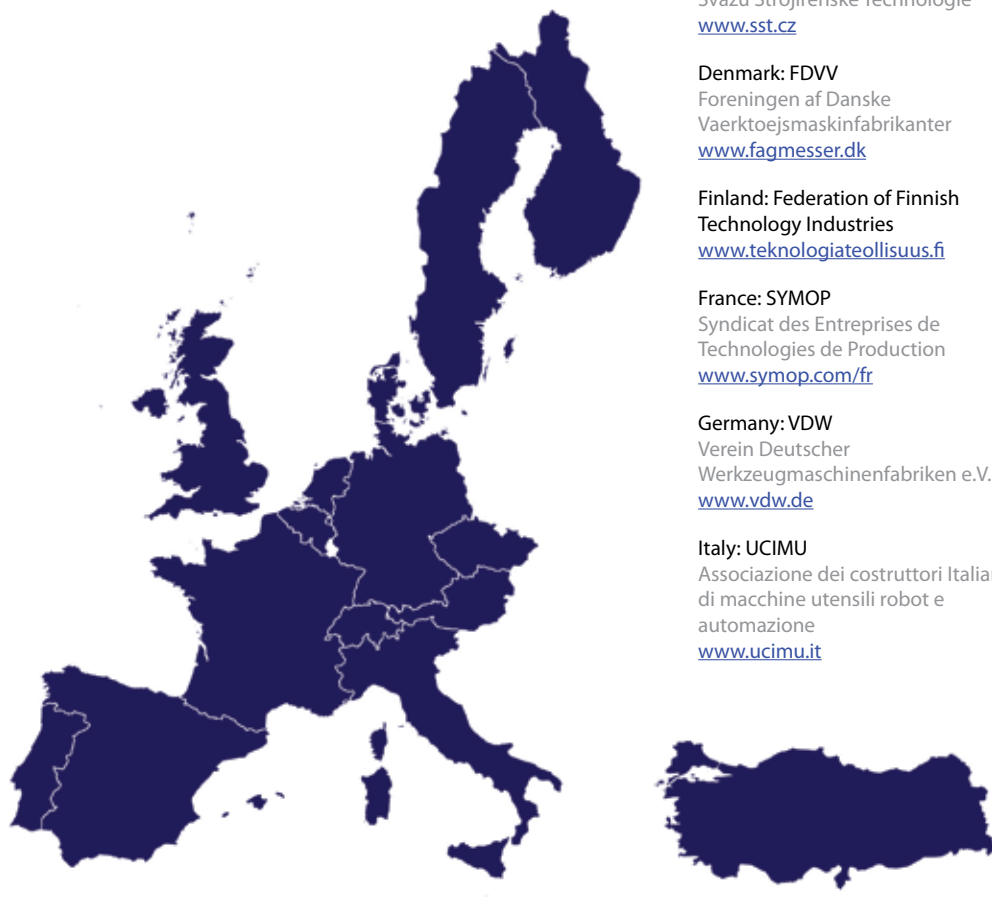
“ A new report calls on EU policymakers to develop a "long-term" and "visionary" industrial strategy for Europe's manufacturing sector. ”

- Brian Johnson, Managing Editor, The Parliament Magazine

Free online edition available on the CECIMO website:  
[www.cecimo.eu](http://www.cecimo.eu)



# CECIMO Member Associations

**Austria: FMMI**

Fachverband Maschinen &  
Metallwaren Industrie  
[www.fmmi.at](http://www.fmmi.at)

**Belgium: AGORIA**

Federatie van de Technologische  
Industrie  
[www.agoria.be](http://www.agoria.be)

**Czech Republic: SST**

Svazu Strojírenské Technologie  
[www.sst.cz](http://www.sst.cz)

**Denmark: FDVV**

Foreningen af Danske  
Vaerktoejsmaskinfabrikanter  
[www.fagmesser.dk](http://www.fagmesser.dk)

**Finland: Federation of Finnish  
Technology Industries**

[www.teknologiateollisuus.fi](http://www.teknologiateollisuus.fi)

**France: SYMOP**

Syndicat des Entreprises de  
Technologies de Production  
[www.symop.com/fr](http://www.symop.com/fr)

**Germany: VDW**

Verein Deutscher  
Werkzeugmaschinenfabriken e.V.  
[www.vdw.de](http://www.vdw.de)

**Italy: UCIMU**

Associazione dei costruttori Italiani  
di macchine utensili robot e  
automazione  
[www.ucimu.it](http://www.ucimu.it)

**Netherlands: VIMAG**

Federatie Productie Technologie /  
Sectie VIMAG  
[www.vimag.nl](http://www.vimag.nl)

**Portugal: AIMMAP**

Associação dos Industriais  
Metalúrgicos, Metalomecânicos e  
Afins de Portugal  
[www.aimmap.pt](http://www.aimmap.pt)

**Spain: AFM - Advanced  
Manufacturing Technologies**

Asociación española de fabricantes  
de máquinas-herramienta, accesorios,  
componentes y herramientas  
[www.afm.es](http://www.afm.es)

**Sweden: MTAS**

Machine and Tool Association of  
Sweden  
[www.mtas.se](http://www.mtas.se)

**Switzerland: SWISSMEM**

Die Schweizer Maschinen-, Elektro-  
und Metall-Industrie  
[www.swissmem.ch](http://www.swissmem.ch)

**Turkey: MIB**

Makina Imalatçileri Birliği  
[www.mib.org.tr](http://www.mib.org.tr)

**United Kingdom: MTA**

The Manufacturing Technologies  
Association  
[www.mta.org.uk](http://www.mta.org.uk)

**cecimo** is the European Association representing the common interests of the Machine Tool Industries globally and at EU level. 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. CECIMO assumes a key role in determining the strategic direction of the European machine tool industry and promotes the development of the sector in the fields of economy, technology and science.

\*Europe = EU + EFTA + Turkey

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