

Spring 2014 Issue #8



# **NEW SKILLS NEEDED**

to build a competitive future for Europe's machine tool industry.



The EU to give 'advanced manufacturing' a boost A new approach to industrial policy strategy



Jean-Camille Uring, new CECIMO President: "It is time to shift our attention from recovery strategies to post-crisis growth strategies."



The Transatlantic Trade and Investment Partnership agreement What's in in for the European machine tool industry

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# Skills: the essential building block for Europe's reindustrialisation



#### Dear readers,

The European Commission published, on 21 January this year, a Communication on industrial policy "For an Industrial Renaissance" urging Member States to recognize the central role of the manufacturing industry for economic growth and jobs. CECIMO welcomes it and joins the Commission's call on the European Council to make industrial policy a top priority. Moreover, CECIMO encourages Member States to embrace an even more ambitious strategy on manufacturing skills.

Given the knowledge and technology-intensive character of modern manufacturing, education and training form the central pillar of a successful industrial strategy. Skills will play an ever greater role for industrial competitiveness, thus enabling the re-industrialisation of Europe. Owing to recent advances in automation and the increased use of ICT in industry, today companies are able to shift their workforce from manual tasks to more sophisticated tasks such as research and development and design. This allows them to locate high value-added and IP-sensitive activities in Europe and to contribute to economic and social development. A well-trained workforce, whilst helping maintain manufacturing value added in Europe, can play an essential role in the internationalisation process of European SMEs, which is key to ensure sustainable business growth.

Developments in the European machine tool industry in the post-crisis era are illustrative in this sense. To cope with ever-increasing global competition, European machine tool (MT) builders have focused on innovation and productivity growth, increasing drastically the share of high value-added activities in their business. In addition to this, internationalisation efforts have allowed companies to boost their presence on global markets and tap into growth opportunities in emerging economies. The experience of our sector shows that only companies possessing the right skills – at management and production levels – can implement such strategies successfully. The sluggish domestic demand in Europe and booming investments in the developing world will compel all European MT companies to adapt to a globalized market structure sooner or later. More than ever before, the right skills should be at the disposal of industry to respond to a dramatic shift of markets outside Europe.

European MT builders have traditionally been a heavyweight investor in skills and training due to the stringent technical requirements of the sector. However, as confirmed in the "European Machine Tool Industry's Manifesto on Skills" published by CECIMO, the gap between the education world and industry is growing. Current challenges to the manufacturing workforce - including demographic trends, rapid technological change, rising costs of training and low interest from society in manufacturing - have become too complex for industry to overcome on its own. The skills deficit not only hampers the European industry's competitiveness, but it also discourages foreign investments.

It is, therefore, high time for the European Commission and Member States to join forces to design a common strategy that will unleash Europe's potential to deliver new manufacturing skills, which are required to build the future economy.

**Filip Geerts Director General** 

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## EMO Hannover 2013 – bigger than ever

The landmark exhibition reaffirms Europe's strength as provider of advanced metalworking technologies.

#### Visitors on the rise

EMO Hannover, the world's most important metalworking show held in the heart of Europe, took place from 16 to 21 September 2013. The success of this 20th EMO exhibition has proved once again that Europe is a world leader in production technology and offers state-of-the art solutions to developing and advanced countries across the globe.

Over 2,100 exhibitors from 43 countries presented their newest machine tools, parts and accessories for machines and latest process automation innovations. During the six days of EMO, the fair attracted 143,000 trade visitors of over 100 different nationalities.

One out of three visitors came from outside Germany. The gathering economic growth and improving confidence in Europe drove up the European interest in investing in manufacturing technology. Italy, Switzerland, Sweden, the Netherlands and Russia topped the attendance figures for the continent. The Asian region accounted for 17% of the foreign visitors. China proved its position as the biggest industrial force in the region, recording the largest number of visitors from Asia, followed by Japan, Taiwan and India. The most visitors from the North American region came from the United States, a market with high demand for advanced, top-end machine tools. The exhibition is an important channel for business deals. About 46% of visitors were responsible for management or manufacturing and production quality control and 20% had the authority to make purchasing decisions for their organizations. According to a visitor survey, one out of every five visitors reported placing an order at the show. A similar number, at 20%, intended to finalize purchases after the event, with the figure being double in the case of customers from abroad. Those intentions or already agreed orders reflect in CECIMO's orders index for the third and fourth quarter of 2013.

#### Foreign visitors by regions



Source: VDW/visitor registration data

"This part of European manufacturing is so dynamic, so vibrant – and indeed so united in its determination to succeed, even as you compete fiercely against each other. So I am encouraged to greet innovative entrepreneurs such as you who are working to finally turn the European economy around. [...] The aim of European trade policy is thus to put in place the most favourable conditions possible for firms like yours to compete at home and around the world."

Karel de Gucht, EU Commissioner for trade





#### A fair with many faces

This edition of EMO, held under the theme of 'Intelligence in Production,' showcased the latest solutions of the world's leading manufacturers in metalworking. Intelligence in production refers to capability to integrate ICT features in machinery. This integration allows to achieve higher manufacturing efficiency and precision, and responds to customers' increasing needs for mass-customisation in a globalized marketplace.

State-of-the art production solutions presented at EMO offered improved human-machine interaction enabling operators to handle complex tasks more easily. It also provided ways for operators to communicate with the supplier's service department, wherever their plant is located. Digitisation of manufacturing is a key to higher efficiency, quality, flexibility and availability. Moreover, it opens new windows of opportunities to save resources and energy during the production process, minimizing environmental impacts.

The German President Joachim Gauck, The Prime Minister of Lower Saxony Stephan Weil and Karel de Gucht, the European Commissioner for Trade took part in the splendid opening ceremony. Mr de Gucht declared: "[I am so] impressed with the scale of this event: with so many delegates, showing off so much innovation, all in one place - Hannover."

During the six-day show, CECIMO organized a series of meetings involving international machine tool associations and representatives of the European Commission to evaluate the latest economic, technological as well as regulatory and policy trends in global machine tool markets. A guided tour of the exhibition halls allowed EU policy-makers to interact with industrialists and learn about the latest opportunities and challenges facing the sector. Two conferences were organized for the dissemination of the results of the DEMAT and EMC2-Factory Projects, financed by the EU's 7th Framework Programme. These conferences brought together industrialists with researchers from Europe's leading research institutes and universities.

A major highlight of EMO 2013 was the Blue Competence Show, during which European member companies showcased their energy and resource-efficient production solutions in a special booth. Nearly 400 companies in 29 engineering sectors participate in this initiative to promote energy- and resource-efficient solutions. The machine tools section is operated by CECIMO at European level.

#### 'Let's build the future' in EMO Milano 2015

The machine tool builders had barely left the Hannover fairgrounds that the EMO Milano organising team was already at work to prepare the next exhibition. It will take place from 5 to 10 October 2015, during Expo Milano 2015, under the theme 'Let's build the future'. The prestige that has always distinguished EMO will make it, once again, a unique event in the sector's exhibition calendar thanks to its international profile and comprehensive offer. For more information, visit www.emo-milano.com.

"This year's EMO raised the bar in all areas. With more visitors, more business and more international drawing power, this EMO has proven even more successful than last time around, impressively underscoring the event's status as the world's premier trade fair for the international metalworking industry." Carl Martin Welcker, General Commissioner of EMO Hannover 2013



# **ENTE EASTPO** Shanghai 2014: A machine tool exhibition of European quality in the heart of Asia

Last July CECIMO announced, along with its partners MP International and EASTPO, the new machine tool exhibition EMTE-EASTPO. It will take place for the first time in Shanghai from 14 to 17 July 2014, at the new Shanghai exhibition center (SNIEC).



Shanghai is the place to be for European machine tool builders

It is no secret, the global machine tool industry's market is shifting towards Asia, more heavily towards China. With the EMTE-EASTPO exhibition, CECIMO's member national associations hope to establish a stronger footing on that continent for their companies, and tap into new business opportunities in these emerging economies. After all, it is one of CECIMO's core missions to promote the European machine tool industry worldwide.

Asia's share in global machine tool consumption amounts to just under 67% and demand in Asia is showing dynamic growth. Most machine tools worldwide were purchased in China, for €28.1 billion and representing a share of 45% in world consumption. China, South Korea, Japan, Taiwan and India collectively account for 65% of the global consumption for machine tools, and they are looking to buy European machine tools.

# At time of publication, 250 European companies have confirmed their participation in the EMTE exhibition.

Industrialising China has an insatiable appetite for advanced production solutions. Specialized in top-quality, highly advanced manufacturing equipment, European machine tool builders enjoy a leading position among China's suppliers. Shanghai presents the advantage to be in the close proximity of China's key industrial bases.

The 15 CECIMO member associations represent the interest of approximately 1,500 European companies, accountable for 99% of the European production of machine tools and 31% of the world production of machine tools.



"The EMTE-EASTPO exhibition represents a good platform for European machine tool companies to showcase their newest products in China, and it's going to be an interesting appointment to meet the important Chinese market. That's why UCIMU, Italian machine tool producers association, is giving strong support to the exhibition." Giancarlo Losma, Chairman of CECIMO Technical Committee and President of Losma S.p.A.

**CECIMO trade at a glance:** (in million € - data of 2012)

CECIMO top customers: China 3,786 (20% of CECIMO total exports) USA 1,813 Russia 1,003 India 539

CECIMO top suppliers: Japan 1,171 Taiwan 607 USA 385 China 356

The 15 CECIMO member associations represent the interest of approximately 1,500 European companies, accountable for 99% of the European production of machine tools and 31% of the world production of machine tools.



"We are happy that EMTE-EASTPO 2014 takes place in Shanghai, one of the fastest growing cities in China and a real manufacturing hub in the region. The timing of the exhibition – 14 to 17 July 2014 – is also perfect as it does not conflict with other major events in the machine tool industry. Last but not least, we trust it will offer visitors and exhibitors alike a European-guality experience."

Pascal Boillat, CECIMO Delegate (Switzerland) and President of GF Machining Solutions

#### An exhibition meeting European standards

This European Machine Tool Exhibition (EMTE) will respond to the European exhibitors and visitors' quality standards. Therefore, the CECIMO-EMTE Organising Team is comprised of people experienced in organizing national and international machine tool exhibitions, as well as national pavilions worldwide. As this initiative is founded and driven by the national machine tool builders' associations member of CECIMO, they have a perfect understanding of the market needs. However this expertise will be complemented by good local partners who have experience organizing international trade shows in Asia and specifically in Shanghai.

The organization and facilities put at the exhibitors' disposal during EMTE-EASTPO 2014 will be up to the standards of major European exhibitions, unlike some of Asian trade fairs. The new EMTE-EASTPO will also offer a "European exhibition" experience to its visitors, with strict exhibitor admission rules and new technologies, products, and services being showcased by product sector.

#### **CEO Summit**

To complement the display of the latest manufacturing technologies, a one-day CEO Summit will be held on the theme "Profitable growth through state-of-the-art manufacturing". This event will bring together some 300 leading machine tool makers and their buyers from China and the rest of Asia. They will have the chance to hear an international panel of speakers present and discuss on four main themes:

- State of the art manufacturing: global trends and China issues
- The voice of customers: perspectives from producers and suppliers
- Operational excellence: human resources, training, financing and services
- Innovative solutions: use of latest technologies for effective production operations

This summit contributes to add further value to the industrialists' participation as it will address issues that are important to them. It aims at spurring greater collaboration and networking between the two groups.

#### CECIMO's partners in the project:



Established in 1987, the MP International group specialises in organising exhibitions, conferences and special events. The group has organised and managed over 1,000 national, regional and international events, including the Asia-Pacific Economic Cooperation (APEC) 2009 Leaders' Week. It is a leading international organiser of trade exhibitions, including ITMA and ITMA ASIA. MP is headquartered in Singapore with a global footprint across Asia and Europe. For more

information, visit www.mpinetwork.com.

## E/STPO

Shanghai EASTPO Culture Development Co., Ltd is a leading exhibition company in China, specialising in providing quality platforms for trade and information exchange for the mechanical industries. It is the organiser of the Shanghai International Machine Tool Fair (EASTPO) since 1999. The show is well-known among machinery industry exhibitors and buyers. For more information please visit www.eastpo.net.



Filip Geerts (left), CECIMO Director General in conversation with James Chia, Chairman of MP International in July 2013



### economic report: The European machine tool industry holds its strong position

According to CECIMO statistics, in 2013 the European machine tool industry increased its share of the global production to 34%. Europe returns to modest growth optimism in 2014 despite slowing growth in China, its biggest market for exports.

### European machine tool sector optimistic about 2014

Following an 8% growth in 2012, the European machine tool sector forecasts a small contraction in the production in 2013. Exports have been the dominant source of expansion for European machine tool builders in 2011 and 2012. Trade flows to the Americas, Russia and other CIS countries and to Asia recorded two digit growth in 2012 and supported the recovery of the industry.

# The European machine tool industry is expected to contribute 10.6 million euros to the European trade balance in 2013.

The first signs of the EU and the euro area's return of growth leave room for cautious optimism in 2014. The economic recovery will lessen the uncertainty that has until now considerably depressed investments in capital goods and the domestic machine tool consumption. On the other hand, Asian countries also show a more modest performance. Slowing growth in the region, especially in China, and the transition towards a consumption-based economy, curbs the European machine tool industry's outlook for export growth. All that considered, the European machine tool market is expected to increase by 4.6% this year and outweigh the growth in several emerging Asian economies.

#### Machine tool production stable

Over the last two years, the European machine tool industry has seen stable production levels of above 22 million euros. Despite a modest contraction in production, CECIMO estimates a slight increase in its share of global production from 32% in 2012 to 34% in 2013. This share was 44% before 2008 but has dropped to 32% following the global economic downturn. In its aftermath, several machine tool consumers feel pressured by increasing production costs which compels them to pay more attention to productivity and efficiency. This creates important business opportunities for European leading-edge machine tools, as they can provide the solutions to everchanging customer needs.

Business investment has been a missing element in Europe's effort to find the path to growth. The European Central Bank has massively loosened monetary policy recording several rate cuts. Nevertheless, private companies do not feel that the



#### New in the CECIMO statistical toolbox

CECIMO publishes the highly appreciated monthly Statistical Toolbox, offering wealth of useful statistics about the machine tool industry. A machine tool builder suggested that CECIMO include in its toolbox subjective views of the industry, in addition to the objective data already provided. To that end, a business climate survey was prepared by CECIMO in cooperation with its member National Associations, who also are responsible to distribute it to their member companies. You can find the first CECIMO Business Climate Barometers in the November 2013 and February 2014 edition of the Statistical Toolbox, always available on **cecimo.eu**.



impact of policy measures penetrate fully into the real economy and they are concerned that the public sector-driven surge in demand will be temporary. As a result, they have been cautious about expanding their production capacity. CECIMO countries' consumption recorded 12.3 billion euro in 2012 and, for 2013, we estimate machine tool consumption to contract by 4%. However, increases in domestic order intake by 8% and 16% on quarterly and yearly basis respectively support the optimistic outlook for 2014.

#### The European machine tool business stays highly export oriented

European machine tools keep their good competitive stance in global markets. Their outstanding export performance is reflected in the 2012 record shipment level worth 18.8 billion euros. Yet, slowing growth in the most important emerging markets of the European machine tool sector influences the forecasts for 2013. The exports are estimated to have amounted 18.3 billion euros in 2013, which is still the second best result of all times.

The cautiousness of the European industry to invest in additional production capacity has brought down the estimated import volume by 8% in 2013. Nonetheless, combined machine tool exports and imports result in the estimated record trade balance. CECIMO experts expect the European machine tool industry to contribute 10.6 million euros to the European trade balance.

billion euros	2010	2011	2012	2013
	(% change)	(% change)	(% change)	(% change)
Production	16.6	21.0	22.6	22.4
	-2%	27%	8%	-1%
Export	12.6	16.6	18.8	18.4
	2%	31%	13%	-2%
Import	5.7	8.0	8.5	7.8
	-4%	40%	6%	-8%
Consumption	9.6	12.4	12.2	11.8
	-8%	28%	-1%	-4%

The European MT industry key figures



"While Asia remains an important market for European machine tool builders we are happy to see modest growth returning to Europe. Direct contacts with demanding domestic consumers provide the sector its innovative edge and global competitiveness."

Frank Brinken, Chairman of CECIMO Economic Committee and CEO of Starrag Group

### interview:

# Jean-Camille Uring, new CECIMO President

During the CECIMO General Assembly held in November 2013, Mr Jean-Camille Uring was elected as President of the European Association of the Machine Tool Industries (CECIMO) for a period of two years.

Mr Uring is Executive Board Member of Fives Group since 2006 and also has considerable experience in sectorial associations. He was re-elected as President of Symop, the French Association for Manufacturing Technologies, for a second 2-year term in 2013, where he works at uniting manufacturing technology businesses for a stronger and better collective action.

# How do you see the role of CECIMO in the European machine tool industry's landscape?

CECIMO brings together major stakeholders in the European machine tool industry to discuss, design and implement a long term strategic agenda for the sector. The major preoccupation of CECIMO is to create a growth-friendly business environment for the European machine tool industry worldwide.

CECIMO regularly monitors EU regulatory and policy initiatives, assesses their impact on the sector and communicates industry's feedback on policy proposals to the EU institutions. CECIMO secretariat in Brussels cooperates with an extensive network of industry experts from national associations and companies to this end. By connecting industry to the EU's policy-making level, CECIMO contributes to effective policy-making which underpins competitiveness, innovation and growth in our industry. In recent years, CECIMO has also been a pioneer in driving the strategic vision of the sector as regards sustainability and launched some important initiatives.

Another key role that CECIMO assumes is to promote the European excellence in metalworking technologies through EMO exhibitions and its new exhibition EMTE-EASTPO in Shanghai.

# What are the biggest challenges facing the European machine tool industry today?

The European Machine tool industry went through hard times during the economic crisis which resulted in a drop in output of 30%. A strong recovery followed during 2011 and 2012 and the sector saw its output level reach 22 billion euro, which is slightly below the 2008 peak level of 24 billion euro. Exports, particularly the ones destined to high-growth countries in Asia, have been the major driver of recovery. Today, domestic markets in Europe remain still far below pre-crisis levels and, due to the gloomy outlook for the Eurozone, show no sign of substantial recovery in the near future. Also, the slow-down of growth in emerging markets is putting a break to the growth of European exports. Whilst our companies will continue struggling with troubled demand in their traditional markets, they will be compelled to go out of Europe to grasp business opportunities, amidst growing international competition. Business internationalisation, innovation and technology issues, access to finance and a lack of qualified workforce appear as the biggest challenges to our companies within this context.

## What are the major opportunities for the sector?

The major opportunities for machine tool builders lie in the increasing international demand for advanced production equipment, offering flexible, automated and customized production solutions. This equipment will play a key role in meeting industrial customers' business new needs dictated by the shift towards a low carbon resource-efficient economy and grand societal challenges such as ageing society, sustainable mobility and climate change. Therefore, machine tool builders will be indispensable for building the future economy and securing high living standards for citizens.

#### What do you think are the most important achievements of CECIMO during the last two years?

Many valuable achievements have marked the presidency of Mr Martin Kapp, my predecessor. CECIMO made tremendous efforts in advocating for a European industrial strategy, which was rewarded by the launch of the European Commission's Industrial Policy Communication as well as a European Strategy for Key Enabling Technologies. Advanced manufacturing technologies have been recognized as a key driver of innovation across sectors. Accordingly, the new EU framework programme for research and innovation, structural funds and the European Investment Bank's financial instruments have been re-engineered for the new multiannual financial framework, taking into account the EU's industrial policy priorities.

Significant progress has been made in the development of a self-regulatory initiative (SRI) under the Eco-design Directive. CECIMO experts have ensured, through the provision of quality information regarding market figures and technological developments in the machine tool sector, that the European Commission's sectoral assessment studies reflect a fully realistic picture of the industry's conditions. CECIMO is in favour of implementing this Directive through self-regulation. Today, CECIMO's working group on energy efficiency is ready to present a sound and comprehensive methodology for SRI which is based on the principles of manufacturer's own assessment and self-declaration.

Last but not least, CECIMO has invested in major initiatives geared at improving non-price competitiveness of our industry. Blue Competence Machine Tools, launched at the start of 2012, has become the first sustainability initiative with a European coverage in a subsector of the mechanical engineering industry. Another important initiative is the creation of the EMTE-EASTPO exhibition, which will be held for the first time in 2014 in Shanghai. This new exhibition supported by CECIMO will provide a springboard to European businesses to expand to China and neighbouring Asian countries, thus facilitating market access and business cooperation.

### What are your priorities during your presidency?

Now that - after two consecutive years of recovery – the European output growth will stabilize, I believe that it is time to shift our attention from recovery strategies to post-crisis growth strategies. We plan to align our programme with the European Commission's Industrial Strategy announced in 2012 which builds on four pillars: investments in innovation, better market conditions, access to finance and capital, and human capital and skills.

Under the innovation pillar, CECIMO will be strongly engaged to maximize the benefits of EU research funding programmes for innovation activities in the machine tool sector. We will give full support to the follow-up of the Factories of the Future public private partnership, which has a major role in driving innovation investments in discrete manufacturing. In this post-crisis era marked by fierce global competition, we will only outpace our competitors through technological and business model innovation. Furthermore, we will use the full potential of the EMO exhibition and our new exhibition in Shanghai to showcase European excellence in metalworking technologies, providing our companies with a high visibility in global markets. Finally, the Blue Competence Machine Tools initiative will be a major driver of innovation in sustainable manufacturing.



Regarding market conditions, the second pillar, we will advocate for the adoption of the proposal of the Regulation on market surveillance and immediate implementation of new enhanced rules for enforcement, key for restoring a level playing field in the Single Market. As regards the Eco-design Directive, our objective is to get our enhanced self-regulatory initiative recognized by the EU as alternative to compulsory implementing measures. Outside Europe, high priorities for us are the removal of market access barriers, the establishment of fair competition, and the facilitation of strategic business and innovation partnerships between our companies and their foreign counterparts. The EU's free trade talks, in particular the ongoing talks with the US, will be the platform for us to advance our interests.

### Which priorities govern the remaining two pillars of your work programme?

The third pillar is access to finance. We have record low levels of machine tool consumption in the Single Market which is 30% lower compared to 2008. On one hand, banks remain very cautious and reluctant for lending to the real sector and, on the other hand, investors are dreading to put money in equipment upgrade before they see real prospects of European recovery. Innovation finance is also hampered because of the low level of investments and troubled public budgets. Therefore, we will be actively engaged in discussions within EU institutions for the conceptualization of European initiatives which can increase the supply of finance to industry supporting both innovation and growth.

Under the pillar 'human capital', we will focus on securing the future skilled workforce for our industry by raising new skills and adapting the existing workforce to changing market requirements. We need the right skills not only for innovation but also for the internationalisation process of our companies. CECIMO has already prepared a manifesto and a roadmap to address the skills challenge. My focus will be on the implementation of this strategic action plan and promoting the priorities detailed in our manifesto in the political arena.

### What is your most important message?

Manufacturing should remain on top of the EU's political agenda. This is a major message that we communicate in Brussels and, through our member associations, in national capitals. Advanced manufacturing technologies will be at the forefront of the transition to a new industrial era marked by a high level of digitization and automation. Investing in advanced manufacturing will, therefore, provide the EU with the means to produce future products in a cost-effective and resource efficient way, generating significant benefits in terms of economic growth, employment, quality of life and the environment. We will continue communicating this fact to public and private stakeholders and seek their support to make Europe a centre of engineering excellence, innovative ideas and top quality production.



## Market surveillance Regulation: CECIMO deplores the delay caused by disputes over country-of-origin labeling

Market surveillance in the EU has shown a lack of effectiveness in stopping products which do not comply with EU's product legislation from undermining competition. Therefore, the EU machinery industry alliance\* welcomed the European Commission's proposal for Product Safety and Market Surveillance Package issued in February last year, which demonstrated a clear willingness to address this problem. Nevertheless, at time of writing this article the legislative process had come to a stalemate due to disagreements between Member States on the country-of-origin labeling. The adoption of the dossier will probably be seriously delayed due to approaching European Parliament elections.

> On 13 February 2013, the Commission submitted to the Council and the European Parliament a legislative package consisting of two proposals for a Regulation on market surveillance (MSR) and a Regulation on consumer product safety (CPSR). The package also includes a multi-annual plan for the surveillance of products in the Union which details non-legislative actions that the Commission will undertake to ensure an effective enforcement of EU product legislations.

The Commission announces the objective of the proposal of simplifying and consolidating the legal framework governing product safety rules and market surveillance in the EU in order to increase the level of product safety and conformity with applicable EU regulations. CECIMO strongly backed the proposal due to its potential to finally provide a common and consistent European response to the proliferation of non-compliant



Jarmo Hyvönen, Chairman of the CECIMO Communication and Advocacy Committee and Senior Advisor at Fastem OY AB products in the Single Market.

The Single Market is designed in such a way that EU product legislations are made in Brussels but the policing role is left to the Member States. Currently, market surveillance in the Single Market is fragmented and ineffective because of strong divergences in the Member States' practices and a lack of comprehensive control at the EU's external borders.

The proposed new rules clarify minimum obligations and duties of Member States in order to achieve a higher degree of cooperation and uniformity of operation between competent national

authorities. Moreover, the Commission proposal obliges member states to establish conformity controls on products crossing the EU's external borders and it strengthens EU-wide coordination, especially through the creation of a European Market Surveillance Forum. Despite the fact that the European Parliament's Internal Market Committee voted its report on the Commission's proposal in October last year, a political deadlock emerged during negotiations in the Council: Member states strongly disagree on a single provision in the CPSR proposal, on the country-of-origin labels. The CPSR proposal introduces a highly controversial compulsory EU-wide origin marking scheme for consumer products, which polarised two groups of Member States along a north-south divide. Before the CECIMO magazine went to press, European machinery associations, acting collectively as the EU machinery alliance, published a press release expressing their regret to see Member States' inability to come to a solution.

Since the MSR and CPSR proposals are bundled in one single legislative package, the destiny of the MSR depends on the conclusion of a deal between Member States on the 'origin marking' issue. If Member States could overcome their disagreements in the Council then the next step, informal talks (trilogue negotiations) between the Council, members of the European Parliament and the Commission, would kick-off. However, at the time of drafting this article, this looked very unlikely.

The European Parliament is expected to vote on the dossier in plenary before it dissolves in April, even if the informal talks do not take place. Nonetheless, the Council would still need to agree on the Parliament's position, at the final stage, for the legislative act to be adopted. Trilogue negotiations are essential for the two co-legislators to reconcile their clashing views on a number of difficult issues and reach a prior agreement on the dossier. Otherwise, there is little chance that the Member States can agree on the European Parliament's position at once on such a controversial file. Under these circumstances, given the approaching European Parliament elections in May and the arrival of the new Commission in October, the adoption of the file will be deferred to the end of this year in the best case.

The EU machinery alliance deplores the blockage of the MSR proposal in the legislative pipeline due to an issue which is not related to market surveillance. "This is an unacceptable situation, especially since it comes only days after European Commission's Communication on an Industrial Renaissance (published on 22 January 2014) which called on Member States to make industrial competitiveness a top EU priority" stated, Filip Geerts, CECIMO Director General. The delay in the adoption of enhanced enforcement rules for EU product legislation on safety, health, environment and energy not only holds back industry's growth potential, but it also undermines consumer safety, the environment as well as progress in achieving the EU's energy and climate targets.

CECIMO and the machinery alliance partners reiterate that the status quo is detrimental to industrial competitiveness. Jarmo Hyvönen, Chairman of the CECIMO Communication and Advocacy Committee states: "The uncontrollable proliferation of non-compliant products in the Single Market creates unfair competition. More effective market surveillance is vital to ensure that manufacturers can compete in equal conditions. Despite the growing number of EU product regulations which apply on machines, the policing activity is not carried out in an effective way. This gives an unfair advantage to economic operators trading machines below the EU's safety and environmental standards over those who abide by the rules." He underlines that a level playing field is needed to shift from price competition to competition based on quality and innovation, which emerges as a pre-requisite to encourage the growth of high value-added industries in the EU.

\* The EU machinery alliance comprises: CECIMO, the European Association of the Machine Tool Industries; CECE, the Committee for European Construction Equipment; CEMA, the European association representing agricultural machinery; EUROMAP, Europe's Association for plastics and rubber machinery manufacturers, FEM, the European Materials Handling Federation.



Roundtable discussion organised by the European Forum for Manufacturing at the European Parliament in March 2013



## World economic powers - the EU and the US joining forces

*Thursday 13 February 2013 marked a turnaround in history when the European Union and the United States launched negotiations for Transatlantic Trade and Investment Partnership agreement (TTIP).* 

#### **Benefits of TTIP**

In an era in which the global trade system records modest progress, bilateral agreements increasingly gather importance. However, bringing together two big economic powers is an exceptional event even within this context. The EU and the US together account for 47% of world GDP and 30% of global trade and, if the TTIP was concluded it would create the world's largest free trade area.

# CECIMO's exports to the USA grew at an average rate of 53% per year over the last two years.

The US is the second most important foreign market for European machine tool builders. The US government helped the American manufacturing sector recover quickly from the 2009 crisis, and it reflected in CECIMO's exports to the USA : the average yearly growth has been of 53% for the last two years. In 2012, the value of European machine tool exports reached 1.8 billion euro.

An independent study<sup>\*</sup> estimates that, in case of the conclusion of the EU-US trade deal, EU total exports to the US would go up by 28%, equivalent to an additional €187 billion worth of exports of EU goods and services. European machine tool exporters already face low import tariffs (2.2-5.8% of FOB value) in the US market, and 'freer' trade could improve the sector's outlook and widen business opportunities.

And that is not all! According to the above-mentioned study, EU exports would increase in almost all sectors - including metal products (+12%), other manufactured goods (+6%), and other transport equipment (+6%) - that are important client industries to the machine tool sector. By far, the biggest relative increase in trade would take



place in the motor vehicles sector. In this sector, EU exports to the rest of the world are expected to go up by nearly 42% and to the US by an impressive rate of 149%. This increase in trade of motor vehicles would translate into an expansion in the sector's output (+1.5%) in the EU. Therefore, the TTIP has an even bigger potential to increase demand for European machine tools indirectly, via boosting local consumption.

#### More than just tariffs

The TTIP will aim to go beyond just removing tariffs and opening markets for investment, services and public procurement. In addition, it will focus on aligning rules and technical product standards which currently form the most important barrier to transatlantic trade (see the box "What will TTIP look like?" on page 16).

Studies show that the additional cost burden due to such regulatory differences is equivalent to a tariff of more than 10%, and even 20% for some sectors, whereas classical tariffs are at around 4%. Therefore, reducing non-tariff barriers (NTBs) is of major importance for the realisation of the TTIP's benefits. According to the study, as much as 80% of the total potential gains could come from cutting costs imposed by duplicative bureaucracy.

However, NTBs are not easy to tackle during trade talks and they make up the biggest challenge for governments. Such regulations' primary goal is to protect people from risks – whether to their health, safety, financial security or environment. Therefore authorities on both sides of the Atlantic share a conservative position on change. The success of the TTIP depends on the willingness of the parties to solve the regulatory issues that businesses face in their export transactions.

#### The next steps

In February 2014, EU Trade Commissioner Karel De Gucht and United States Trade Representative Ambassador Michael Froman will meet in Washington D.C. to take stock of the negotiations to date. Mr De Gucht and Mr Froman will assess the progress made after the first three rounds of negotiations and their meeting should provide further guidance to the chief negotiators from both sides on how best to take forward the negotiations.

European machine tool exporters face already low import tariffs in the US market. TTIP could lower costs deriving from non-tariff barriers, improve the sector's outlook and widen business opportunities.

The fourth round of the TTIP negotiations will take place in Brussels from 10th to 14th March. Meanwhile the experts have started discussing the wording of provisions designed to facilitate compliance with each other's existing rules, and to enable regulators to work together more closely in the future when drafting new rules. These provisions will also cover technical regulations, product standards, as well as testing and certification procedures that are of great interest for European machine tool industry.

\* 'Reducing Transatlantic Barriers to Trade and Investment: An Economic Assessment', Centre for Economic Policy Research, London



"Fewer barriers to trade mean lower procurement costs. The EU-US agreement could boost productive investments in end-user sectors, contributing to the manufacturing renaissance on both sides of the Atlantic. A more integrated transatlantic marketplace could also trigger closer cooperation in innovation between EU and US manufacturers. The impact on the overall industrial development will be significant. Martin Kapp, CECIMO Board Member (Germany) and Managing director and Partner at Kapp-Niles.

## What will the TTIP look like?

The agreement will consist of three parts: a) market access; b) regulatory issues and non-tariff barriers; and c) rules, principles, and new modes of cooperation to address shared global trade challenges and opportunities.

#### A) Market Access

**Tariffs:** The declared goal of the agreement is to get as close as possible to the removal of all duties on transatlantic trade in industrial and agricultural products. Services: Both sides want to open their services sectors at least as much as they have achieved in other trade agreements to date and seek also possibilities to open new sectors.

**Investment:** The aim is to achieve the highest levels of liberalisation and investment protection that both sides have negotiated to date in other trade deals. Procurement: New business opportunities can be created by opening up access to government procurement markets at all levels of government without discrimination for European companies.

#### B) Regulatory Issues and Non-Tariff Barriers: towards a more integrated transatlantic marketplace

In today's transatlantic trade relationship, the most significant trade barriers are so-called "behind-the-border" obstacles to trade, such as, for example, different safety or environmental standards. The goal of this trade deal is to reduce unnecessary costs and delays for companies, while maintaining high levels of health, safety, consumer and environmental protection.

# C) Addressing Shared Global Trade Challenges and Opportunities in the 21st century

In the light of the size and impact of the transatlantic partnership on global trade flows, the negotiators will address areas that go beyond bilateral trade and also contribute to the strengthening of the multilateral trading system.

**Intellectual Property Rights:** Both the EU and the United States are committed to maintaining and promoting a high level of intellectual property protection, including enforcement.

**Trade and Sustainable Development:** Both sides intend to work together on social and environmental aspects of trade and sustainable development, based on what each side has already developed in existing trade agreements.

**Other Globally Relevant Challenges and Opportunities:** In order to make this a truly "21st century" agreement taking into account the intertwining of economies, both sides are keen to tackle trade-related aspects of customs and trade facilitation, competition and state-owned enterprises, raw materials and energy, smalland medium-sized enterprises and transparency.

Source: European Commission, DG Trade.



# The EU to give 'advanced manufacturing' a boost

The European Commission Communication (2012) "A Stronger European Industry for Growth" and Economic Recovery" identified advanced manufacturing as one of the six priority areas that will drive innovation and competitiveness in the manufacturing industry. A Task Force was set up and worked closely over the past year with Member States and industry to identify policy measures that would accelerate the market up-take and adoption of advanced manufacturing technologies in the EU.

Industrial policy is not a competence of the EU, meaning that the EU does not have the mandate to implement an industrial policy. However, several EU policies such as the Single Market policy, science and technology policy, regional policy or trade policy already include measures and initiatives aimed at supporting industrial competitiveness. The founders of the Single Market Project had assumed that in an environment of open and free competition, market forces would compel industries to optimize their operations and to boost productivity, resulting in higher levels of competitiveness. However, because of the devastating consequences of the global economic crisis on European manufacturing and the heavy competitive pressure coming from emerging economies, Member States agreed in 2010 on the proposal of the European Commission to launch a flagship initiative on industrial policy within the framework for the Europe 2020 Strategy.

#### A refreshed approach to industrial policy

The launch of the Europe 2020 flagship "An industrial policy for the globalisation era" was followed by three communications issued in 2010, 2012 and finally on 22 January 2014, laying down the foundations of an integrated approach to industrial policy. Not to disturb competition, the EU's flagship initiative does not employ traditional industry policy instruments such as the subsidisation of individual companies, known as cherry-picking. It rather aims at coordinating EU and national policies to secure framework conditions favourable to industrial competitiveness. Therefore, it concentrates among other things on facilitating access to finance, optimizing the use of public funds for research to support industrial innovation, facilitating business cooperation between enterprises, reducing the burden of Single Market regulations on SMEs and removing market access barriers to European manufacturers in third countries.

The EU has thus committed itself to develop a com-

mon strategic vision on industrial development. The three major blocks of this strategy are: a governance model based on coordinated and consistent policy actions at all levels, targeted support for strategic industries (not companies) and a focus on regional specialization building on research and innovation. 'Advanced manufacturing technologies for clean production' have been identified in this new policy as one of the strategic forward-looking industries which have the greatest potential to boost innovation and productivity across sectors, with important benefits for growth, employment and sustainable development.

The new governance model proposed for the EU industrial policy emphasizes the need to involve industry stakeholders in the design of industrial policy measures. Therefore, the Commission launched a Task Force on advanced manufacturing technologies (AMT) to collect information and input from stakeholders. A series of public hearings and workshops were organized throughout 2013, providing the Commission with feedback from industry on what is needed to foster the deployment and the adoption of AMT in Europe. The report of the Task Force is expected to be published in the first quarter of this year.

### Advanced manufacturing technologies a strategic priority

The designation of AMT as a key priority area comes after the recognition of AMT's role in enhancing the competitiveness of Europe's manufacturing base amidst global competition. Adopting the most advanced manufacturing technologies will increase European industries' productivity, agility and flexibility. This is a pre-requisite to outrun competitors in emerging countries, who are rapidly moving from low-end to high-end production capabilities and are reinforcing their position in global markets. Relying on imports of AMT is not an option. Due to intrinsic links between research, innovation and production and in a context of highly increasing pace of technological change and societal needs, Europe needs to accommodate the entire value chain within its territories to be able to benefit from first-mover advantages.

#### The EU has adopted a new approach to Industrial Policy strategy which pays greater attention to strategic future-looking industries.

A foresight study by the European Commission depicts the industrial landscape in 2025, highlighting that the world will be fully globalized. Companies will create global manufacturing structures that operate collaboratively around the world, thanks to vastly improved ICT technologies. Moreover, environmental and social pressures will boost demand for manufacturing technologies which help minimize energy and resource use. Geoff Lloyd, CECIMO Board Member (UK) and Managing Director, Heller Machine Tools Ltd. states: "Companies having strong business models adapted to a globalized market, that are supported by state-of-the art production capacity and multi-skilled human power will be the winners of the future." The industrial landscape is going through an obviously significant transformation. It is high time Europe decided to act to invest in key technologies that will underpin the industrial transformation and in the skills of the workforce who will drive it forward.

### Targeted support for innovation and investment

The EU intends to act in two major areas to support advanced manufacturing: the supply side, by helping economic and research actors to bring new technologies to the market and the demand side, through the promotion of clean manufacturing technologies and by facilitating their adoption by users. Measures that will be implemented at European, national and regional level will focus on the most important challenges facing companies in this field: innovation, internationalization, financing or human capital development. Various policy instruments will be used to this end.

On the supply side, improving the involvement of industry players in publicly funded research programmes such as Horizon 2020 is a priority, and this is done through the simplification of rules for participation. Public-private partnerships (PPPs) will be used to facilitate the commercial deployment of research. Besides the existing Factories of the Future PPP focusing on discrete manufacturing, the Commission announced its intention to launch new PPPs in process manufacturing, robotics and photonics. In addition, strong emphasis will be placed on the validation and dissemination of research results in order to bridge research with the market. Targeted support for piloting, prototyping and large scale demonstration activities, will be provided through Horizon 2020 or structural funds. Last but not least, the new Competitiveness and SME (COSME) programme and the European Investment Bank funds will be mobilized to correct market failures in equity and debt markets for financing research, innovation and growth. The

policy instrument deployed by the EU covers the entire life cycle of innovation: whilst Horizon 2020 concentrates on business start-ups, COSME focuses on financing their growth.

Furthermore, Member States will have the possibility to use EU regional development funds (ERDF), within the new multiannual financial framework (2014-2020), to support advanced manufacturing capabilities as well as first production facilities in "key enabling technologies", provided that they have included AMT in their "regional innovation strategies for smart specialization" as a priority. The European Commission's state aid modernisation programme, adopted in 2012, recognizes that Member States could use state aid, which is permitted under EU rules, in an effective way to support the deployment of industrial technologies which contribute to regional competitiveness and growth. The Community Framework for state aid for R&D&I expired at the end of 2013 and is being renewed taking into account industrial policy priorities with regards to innovation.

On the demand side, the Commission plans to stimulate investments in equipment by facilitating the access of manufacturing companies to finance and by undertaking initiatives which will promote industrial awareness and investments in advanced and clean manufacturing technologies. There are also plans to reengineer the EIB's financial instruments to create liquidity for investments in new energy-efficient production technologies. A stakeholder dialogue is planned to discuss the way forward.

Finally, the EU support for manufacturing skills will be revamped, which will have a positive impact both on the demand and the supply side. Upgrading the skills of the existing and the new workforce will boost the innovation capacity of AMT supplier companies whereas training the workforce in end-user industries will increase the capacity of companies to adopt new production technologies. Funding available for the Erasmus+ programme will be used to facilitate partnerships between industry, academia and relevant stakeholders to draw up education curricula, to develop innovative methods for education and training as well as to build instruments that will help anticipate future skills (read more on page 30-31).

#### **Measuring success**

The success of EU plans to boost the European advanced manufacturing base will be measured against two policy objectives: increasing investment in terms of gross capital fixed formation from 18.6% of EU GDP in 2011 to 23% and increasing investment in equipment from 6% to 9% of GDP by 2020. The EU's ultimate goal is to increase the share of manufacturing in the EU GDP from 15.6% to 20% by 2020. CECIMO welcomes the EU's concrete targets to upgrade the European industrial capabilities. Geoff Lloyd affirms: "The real success of the EU's industrial strategy will be measured by how well the European industry outplays its international competitors in innovation, market share and in creating highly skilled jobs at home."



Geoff Lloyd, CECIMO Board Member (U.K.) and Managing Director at Heller Machine Tools Ltd.

# **CECIMO** Where manufacturing begins

On 28 January 2014, CECIMO distributed the following to the media:

### CECIMO welcomes the EC Communication on Industrial Renaissance

### The European Council should endorse the 2020 manufacturing target

Brussels, 28 January 2014 - CECIMO welcomes the Commission Communication "For a European Industrial Renaissance", published 22 January 2014, urging Member States to recognize the central role of the manufacturing industry for economic growth and jobs. Now, it is up to Member States to endorse at the European Council in March the target of increasing the share of manufacturing in EU GDP to 20% by 2020 and adopt the policy priorities set by this Communication.

CECIMO believes that having concrete targets for manufacturing set at the European Commission's level has given the EU's industrial policy strategy credibility in the eyes of businesses. But the industrial upturn is not there yet. The Communication points out serious gaps between Member States in business conditions and competitiveness. This negatively affects the performance of manufacturing value chains in Europe and the overall attractiveness of the EU for investments. Filip Geerts, CECIMO Director General, shares the Commission's view that Member States should be more engaged: "The next logical step should be to set up an agreement between Member States to guide, monitor and benchmark national measures in a more systematic manner against European targets. Therefore, we fully support the Commission's call to the European Council to pay more attention to industrial policy and drive it forward."

The Commission has implemented an integrated industrial policy approach since 2010 which has a positive impact on stabilizing the EU economy. However, the share of manufacturing in GDP has fallen from 15.4% in 2008 to 15.1% last year. Despite the outstanding performance of some EU sectors in global markets, the EU's industrial productivity lags behind major competitors. Moreover, it is noted that the EU is losing its attractiveness for investments due to, inter alia, low internal demand, high energy prices, and unfavorable regulatory and business environment in comparison to industry-friendly conditions in major competing regions. The Communication offers a spot-on response to these challenges that builds on two strands: improving conditions for investment in the EU and supporting strategic areas that boost competitiveness across sectors. Filip Geerts states: "The Commission recognizes once more the key role of advanced manufacturing technologies in the economy and their multiplier effect on competitiveness." He adds: "Over the last two years, our industry has shown phenomenal export performance outside Europe contributing to industrialization across the globe, but more should be done to ensure the transfer of new production technologies to industrial users in the EU."

After being hit by the 2008-09 economic meltdown, the machine tool consumption in Europe has hardly recovered and today, it still remains 30% below pre-crisis levels. This is a sign that some factories have disappeared from Europe whereas others have suspended equipment investments which are key to achieving productivity growth. Investments in advanced manufacturing systems provide a good indicator when carrying a health-check of manufacturing. "More than ever, it is urgent to invest in manufacturing if Europe wants to get serious about achieving the reindustrialization objective." concludes Filip Geerts.



## Ecodesign of machine tools – state of play

An inquiry conducted for CECIMO among machine tool manufacturers sheds light on the readiness and capabilities of the industry to embrace eco-design measures foreseen by the Ecodesign Directive (2009/125/EC).

Ecodesign is a strategic issue for long-term business sustainability in the machine tool industry. The EU legislation in this area plays a positive role by fostering competition around environmental performance energy efficiency. Overall, the objective of the Ecodesign Directive (or ErP Directive) is to remove low-energy-performing products from the market and to promote innovation.

Nevertheless, because of the complex nature of machine tools, a one-size-fits-all approach to ecodesign rules proves to be ineffective and in some cases counter-productive. To ensure that the machine tool industry reaps the benefits of the ecodesign legislation, CECIMO has put forward a Self-Regulatory Initiative (SRI) offering a flexible and cost-effective way of reaching the environmental performance targets laid down by the Ecodesign Directive.

An inquiry was conducted in the first half of 2013 to prepare the implementation of the SRI proposed by CECIMO to the European Commission to replace yet-to-be-drafted ecodesign implementing measures on machine tools. It aimed at:

- measuring the level of manufacturers' awareness on the ErP Directive and SRI,
- identifying the state-of-the-art in ecodesign of machine tools,
- investigating manufacturers' ecodesign capability,
- measuring manufacturers' commitment to continue the work further (e.g. by technical measures).

Figure 1. Ecodesign awareness Manufacturers selected for the interview covered a wide range of machine tool types and technologies used. There were 56% of SMEs and 44% of



large companies (of more than 250 employees), from 11 countries.

#### A high awareness rate

The inquiry unveils that companies are well aware of the ErP Directive (2009/125/EC). This fact is confirmed by 92% of respondents from both SMEs and large companies. Manufacturers' awareness results in specific actions, be it a particular project (71%) or the assignment of a dedicated staff or unit to deal with ecodesign (59%). However, large companies are proportionally more likely to take action than SMEs. (see Figure 1)

More than half of large companies and 30% of SMEs state that they already have to comply with their customers' specific needs with regards to energy efficiency. (see Figure 2) The inquiry has revealed that only a very small portion of customers ask for labels the products comply with. Nonetheless, even if the market demand for energy-efficient products is currently limited, machine tool manufacturers know that, as in other sectors, it will soon become a topic of great importance and they must get ready for it.

Today, energy efficiency is primarily seen by machine tool builders as a technical issue, to which they search for solutions internally or together with their suppliers. The top four measures that come under the focus of companies are, in order of importance: i) minimization of energy consumption in 'stand-by mode', ii) improvement of the main machining function, iii) improvement of the manufacturing strategy, iv) optimisation of secondary process functions for lubrication and cooling.

#### A widespread ecodesign capability

The investigation on the improvement potential reveals that most machine tools are already energy efficient. Fourty-six percent of the respondents indicate that the remaining potential for improvement, compared to the business-as-usual scenario, stands at less than 5% (Figure 3).

Moreover, the transition to energy efficient products, as planned by the European legislation, will not happen overnight. When taking into account the full implementation of energy efficiency as a target, 77% manufacturers claim that their

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companies (not products) will be ready for it within two years. As soon as this happens, some products will immediately comply with ecodesign rules, as others will have to be re-designed. In general, the introduction of full eco-design capacity and its application to all products can take up to five years.

#### **Down-to-earth solutions**

In response to market demand for higher productivity, machine tool manufacturers have done a lot to improve their products' energy and resource efficiency by, among other things, implementing state-of the-art technologies. However, the European machine tool industry is a heterogeneous structure featuring a large diversity of companies, product structures and application scenarios, and requirements related to the ecodesign legislation have to be flexible enough to accommodate it.

The inquiry confirms the need for flexible and tailored voluntary agreement models suiting the needs and the reality of manufacturers. After conducting in-depth investigations and discussions with industry experts, CECIMO has drawn up an updated self-regulation model. This model will be implemented through self-declaration, based on a scheme of acknowledged base cases identified and certified through a central SRI administration. "The concept we propose follows very much the same logic applied in the implementation of the Machinery Directive. It is based on a conformity assessment by the manufacturer, who makes an analysis of the machine's energy efficiency during the design phase and issues a self-declaration. This approach fully integrates the technological solutions already applied by manufacturers into the implementation of ecodesign rules, and it respects the freedom of innovation," says Luigi Galdabini, CECIMO board member (Italy) and Managing Director, Cesare Galdabini S.p.A.

Mr. Galdabini highlights that suitable standards must be developed to create a level playing field, to build market confidence on solutions applied by manufacturers, and to secure the broadbased uptake of ecodesigned machine tools. "We therefore look forward to see the results of ISO Technical Committee 39, which is working on a standard on the environmental evaluation of machine tools with a focus on the evaluation of energy consumption", he adds.



Luigi Galdabini, CECIMO board member (Italy) and Managing Director, Cesare Galdabini S.p.A.



#### CECIMO's SRI – What's next?

After the evaluation and interpretation of responses obtained through the inquiry, the results were presented as a sectorial input to the European Commission (DG Enterprise and Industry) and Bio Intelligence, the Commission's consultant responsible for preparing a report on the Impact Assessment Study on Machine Tools.

Building on the inquiry outcome, the CECIMO Energy Efficiency Working Group further developed the SRI concept that was supposed to be presented at the Ecodesign Consultation Forum in autumn last year. The Forum was postponed, which resulted in additional individual meetings with the Commission and consultant where CECIMO refined its SRI project.

At the time of writing, the EC is preparing the future work schedule. According to the latest information available, we can expect the following milestones in the preparatory phase:

- May 2014: Ecodesign Consultation Forum on machine tools and related machinery
- July 2014: Bio Intelligence issues its final Impact Assessment Report
- July/August 2014: the EC issues its final formal Impact Assessment Report
- The adoption phase is foreseen between autumn 2014 and winter 2015.

In the meantime, CECIMO's Energy Efficiency Working Group will elaborate the SRI's transparent monitoring and reporting system, as required by the Ecodesign Directive. If CECIMO's proposal for a voluntary agreement is recognized as a valid alternative to the regulatory measures, it will come into effect according to a schedule yet to be agreed on.

**Appointment in Milan.** Italy will host the 2015 edition of EMO. Promoted by CECIMO, European Association of the Machine Tool Industries, the world machine tool exhibition that runs every two years in Hannover and Milan alternatively, will take place at the prestigious exhibition centre of fieramilano.

**Machines to build the future.** Cutting-edge solutions that give the possibility of achieving what mankind has imagined, and technologies on which the improvement of the quality of life depends.

**Highly qualified visitors.** EMO MILANO 2015 is the ideal occasion for all manufacturing operators interested in assessing and planning new investments in production machinery.

**The organisers.** The organisation of EMO MILANO 2015 has been entrusted by CECIMO to the operating structures of UCIMU-SISTEMI PER PRODUBRE, the association of Italian manufacturers of machine tools, robots, and automation systems.

PER PRODURRE, the association of Italian manufacturers of machine tools, robots, and automation systems. Competence, enthusiasm and dynamicity are the distinguishing factors that make the EMOstaff a reliable and winning team, capable of assisting exhibitors, visitors, journalists, and all those that will take part in EMO MILANO 2015, and of ensuring that the event will fully meet expectations. With an experience spanning over many decades, thanks to the organisation of the five previous editions of this world travelling show (1979, 1987, 1995, 2003, 2009), and of BI-MU, the main event of even years with a heritage spanning over half a century, the team is already working in the definition of all those initiatives that will contribute to making EMO MILANO 2015 a one of its kind event, also thanks to the fact that it will take place in parallel with EXPO 2015.

Organiser: EFIM-ENTE FIERE ITALIANE MACCHINE viale Fulvio Testi 128, 20092 Cinisello Balsamo MI (Milan, Italy) For information: EMO MILANO 2015 c/o CEU-CENTRO ESPOSIZIONI UCIMU SPA viale Fulvio Testi 128, 20092 Cinisello Balsamo MI (Milan, Italy) tel. +39 0226 255 860/861, fax +39 0226 255 882, info@emo-milan.com



# Let's build the future

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# Horizon 2020: the EU's new framework programme for research and innovation

Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly  $\in$  80 billion of funding available over 7 years (2014 to 2020), not counting the private investment this money will attract. The new programme seeks to simplify the rules to access to funding, to boost the participation of SMEs and to bring research results closer to the market in order to contribute to the EU's growth agenda.

As the EU financial framework for 2007-2013 has ended, the European Commission's 7th Framework Programme for Research and Innovation also came to an end. The new Framework Programme is called Horizon 2020 - a name chosen through an online public contest – and started as of 2014. It is the European Commission's most powerful instrument to implement the EU's science and technology policy. The budget for Horizon 2020 represents a remarkable increased compared to the €50 billion budget allocated to the previous programme. Horizon 2020 is designed to make the utmost contribution to Europe 2020 Strategy goals for smart, sustainable and inclusive growth.





Technology is evolving at the speed of light, and so is the role of technology policy. Today's society relies more than ever on research and innovation to tackle the economic, environmental and social challenges facing us. Horizon 2020 is tailored to support the achievement of three major policy objectives: responding to the economic crisis to invest in future jobs and growth, addressing people's concerns about their livelihoods, safety and environment, and strengthening the EU's global position in research, innovation and technology.

In this new approach, the European Commission recognizes that industry, universities and the research community remain the 'principal authors' of innovations that will provide a response to current challenges. The role of the framework programme is to lay down necessary framework conditions to foster successful partnerships and to support excellence in research and innovation. The authors of Horizon 2020 paid particular attention to improving the accessibility of the programme, by simplifying rules and reducing bureaucratic burden on participants, and to increasing the market relevance of the programme, by granting a high priority to the commercialization of research results. These reforms will hopefully lead to an increased responsiveness of research and innovation to difficulties Europe is facing.

Horizon 2020 has a simple structure which stands on three pillars: 1) Excellence in science, 2) Industrial leadership, 3) Societal challenges. This should allow participants to easily identify funding opportunities which suit them within different components of the programme. Funding under the first pillar will be used to support scientific research by individuals and through collaborative schemes. The second pillar is focused on industrial innovation covering the entire value chain, notably in key enabling technologies such as advanced manufacturing technologies or nanotechnology. Finally, the third pillar will provide funding for research programmes that aim to tackle one or many of these seven major societal challenges: health, climate, energy, food, transport, societies and security.

The new framework programme has been elaborated by taking into account experiences from the previous programme and the views of stakeholders. One major change is that it brings together the 7th **Research Framework Programme** (FP7), Competitiveness and Innovation Framework Programme (CIP) and the **European Innovation Technology** Institute, which were separate under the previous programme. The objective of this consolidation is to exploit synergies and complementarities between those latter in order to support ideas throughout the innovation value chain, from research to technology development and to commercialization. For instance, at the early stages of the innovation cycle, companies will be able to benefit from research grants and, within the same framework, they will have access to financing through facilitated access to debt and equity financial instruments once they reach the commercialization stage.

The Commission aims to simplify the programme by adopting a single set of rules and a simplified reimbursement model for all components of Horizon 2020. Time to grant is being reduced from approximately one year in the previous programme to eight months. Another objective pursued in Horizon 2020 is the reduction of administrative burden on participants. A very concrete and promising improvement in this direction will be the (eventual) use of average personnel costs and the reduced number of certificates on the financial statements submitted throughout the project. The limitation of the period for ex-post

"Amidst restricted budgets and increased global competitive pressures, it is very important for machine tool builders to secure the return of their investments in innovation. To achieve this, you need to cooperate closely with customers and suppliers, which is key to understand and address real market needs. Moreover, you need to improve time to market.

We therefore welcome the strong focus of the Horizon 2020 programme on promoting innovation along the value chain and its emphasis on close-to-market research. We also appreciate simplified rules and procedures which will help companies participating in European research projects shift their efforts from administrative tasks to real value added activities."



Roland Feichtl, CECIMO Board Member (Austria) and Chairman of the Board of Management, KRAUSECO Werkzeugmaschinen GmbH

audits from five to two years (after the payment of the balance) will also save some participants the record-keeping costs. Furthermore, the participation of SMEs will be strongly encouraged by the introduction of an SME Instrument.

#### SMEs will benefit from a reimbursement rate of 100% in collaborative R&D projects.

The SME instrument, which will receive approximately €3 billion from Horizon 2020, will allow highly innovative SMEs with a strong business plan to apply for funding in one of the key technology areas or one of the societal challenge categories. Calls will be open all year long, allowing a single enterprise or a few industrial partners to bring innovative ideas up to the commercialization stage, by enjoying a large flexibility to use their in-house capacity or external cooperation by subcontracting tasks. Funding will be provided in three stages of the innovation value chain, namely the concept and feasibility assessment; R&D, demonstration and market replication: and commercialization. Successful completion of one stage will allow an SME to move on to the next. A similar bottom-up approach will be used under the scheme called "Fast Track to Innovation" which will encourage and facilitate the participation of SMEs in full scale pilot actions. Horizon 2020 provides tremendous advantages to SMEs when it comes to funding rates.

According to rules for participation, SMEs will benefit from a reimbursement rate of 70% for close-to-market activities, whilst in collaborative R&D projects the reimbursement rate will be as high as 100%.

Finally, the Factories of the Future Public-Private Partnership (PPP), which emerged as part of the European Economic Recovery Plan (EERP) in 2008, will continue running under the Horizon 2020 Programme. The PPP will be based on a contractual agreement between the European Commission and the Factories of the Future Research Association (representing the private side), supported by a budget over € 1 billion. The private sector will match this budget by providing an equal amount of contribution. The programme will continue providing support to close-to-market research in innovative technologies in discrete manufacturing based on the multiannual roadmap drawn up by industry and research stakeholders.

Most of the first calls for projects from the 2014 budget were issued at the time of writing this article. The new portal of the European Commission provides vast information on calls, funding opportunities and funding priorities for the next two years.

Visit http://ec.europa.eu/ research/participants/portal/ desktop/en/home.html

# **CECIMO** sets out to tackle the skills challenge

Skills were treated as a top priority issue during CECIMO's 2013 General Assemblies in Villasimius and Vienna. Panels and workshops were organized for CECIMO delegates (representatives of machine tool companies who sit at the CECIMO General Assembly) who discussed the skills challenge inside-out with experts from government, academia, training institutes and the EU institutions.

The outcome of the CECIMO General Assemblies' discussions were compiled in two reports: the 'CECIMO Manifesto on Skills in the Machine Tool Industry' which puts forward a set of recommendations addressing actors in the governmentacademia-industry triangle, and the 'CECIMO Roadmap and Action Plan for Skills' which sets out actions that will be taken by industry led by CECIMO to address common challenges.

#### The CECIMO Skills Manifesto

The European machine tool industry is a strategic 'enabling' industry which provides production equipment and solutions to other manufacturing sectors. It is a global heavyweight generating one third of the world's machine tool outputs. The strength of the machine tool (MT) industry lies in the density and richness of the resources available in the European industrial eco-system. A strong skills base is a major factor underlying the competitiveness of the sector worldwide.

Nevertheless, the ageing European society and shrinking of its active population put the supply of talent at risk. Moreover, skills requirements in manufacturing industries have considerably increased over the last decade, owing to globalization and technological change. Unfortunately, education and training systems in Europe have proven to be unprepared to respond to this challenge.

The growing gap between skills demanded by industry and those provided in formal education hampers the competitiveness of European manufacturing vis-à-vis new competitors from emerging markets. The narrowing down of the skills pipeline in Europe locks up the innovation potential and future growth. There is an urgent need to conceive comprehensive policy strategies which address these diverse and complex problems.

#### The CECIMO Skills Roadmap and Action Plan

Raising the manufacturing skills of 21st century cannot be left only to education institutions or industry. National governments, regional authorities, schools, training centres and companies all have a distinct and important role to play. Industry is ready to take its responsibilities and be a part of the 'solution'. To that end, companies and national associations meeting at CECIMO General Assemblies have drawn up a Skills Roadmap and Action Plan defining the actions the sector will initiate under the leadership of CECIMO. This Action Plan is complementary to a myriad of activities undertaken by CECIMO national associations and their member companies at local level.

#### The Action Plan in short

- Analysis of the current situation: CECIMO has made an in-depth analysis of the skills challenge during the General Assemblies held in 2013 through panels and workshops with the participation of experts. It also aims to carry out a research study within the framework of a European project under the Erasmus+ programme.
- The implementation of the DESIGN-MTS project: This is a European project dedicated to promoting best practices in corporate social responsibility throughout the value chain of the machine tool industry (see page 34). The project has a strong focus on disseminating best training practices across Europe.
- Awareness raising among EU decision-makers: CECIMO is committed to intensify its activity with policy-makers in Brussels to their increase awareness about the skills challenge in the MT industry and to disseminate the manifesto's policy recommendations.
- Applying for an EU project under the Erasmus+ Programme: CECIMO will evaluate the opportunities under the Sector Skills Alliance funding scheme to carry out a European project which will focus on developing joint curricula and innovative methods for vocational training activities.
- Improving networking opportunities between young professionals: CECIMO will investigate the possibility of establishing meeting platforms where young professionals in the sector can exchange ideas and organize joint activities which can help them prepare for skills-related challenges at the next stages of their career. Improve the links between the industry and young people.
- Establishing a working group for skills within CECIMO: to this expert group will monitor the skill-related actions undertaken by CECIMO members and facilitate the exchange of information between them.



"In a globalized marketplace, skills in languages, information processing, communication, problem solving, leadership and teamwork are becoming important. During the 2013 CECIMO General Assemblies, the 'required' profile of workforce in the machine tool sector

was defined as technically-skilled, ICT litterate, multi-lingual, international minded and highly mobile."

Tomas Hedenborg, CECIMO Treasurer (Finland) and Group CEO, Fastems Oy Ab



"At times when competitiveness was contingent upon technical innovation, the industry was able to raise in-house the skills required on the shopfloor. However, due to a high level of technology integration and globalisation, today, skills requirements have

changed drastically. The new multi-disciplinary qualifications are acquired at different stages of education and training and they need to be updated throughout the employee's professional life. Cooperation between academia, government and industry is key to establish the right framework for raising these skills"

Robert Nefkens, CECIMO Delegate (Netherlands) and Managing Director, Hembrug B.V



"Due to technological progress and new patterns of workplace organisation, there is a significant rise in skills requirements forjobs in the machine tool industry. This is not only valid for engineers, but also for blue collars. The job

executed at production level is not an ordinary and repetitive task anymore, as some might still picture it. Today's production staff works with computers and automation, they need to understand mechanical, electrical and electronic systems."

René Panczuk, CECIMO Delegate (France) and President, Dufieux Industrie

## THE SKILLS MANIFESTO

The CECIMO manifesto calls on European, national and regional authorities to help industry build occupational and transversal skills to respond to the 21st century needs. The recommendations are regrouped under five titles:

#### I. Improve the image of manufacturing

Recognize the strategic importance of the machine tool industry at political level. Increase joint activities with education institutions, employment agencies, trade unions and industry to promote STEM studies and manufacturing jobs.

#### II. Ensure the security of skills supply

Set policy targets accompanied by concrete and consistent national and European strategies to match the number of STEM graduates to rising needs of the industry. Increase the productivity of STEM education and shorten the time needed by students to reach the job market. Encourage the participation of women and under-represented social groups in manufacturing employment.

#### **III. Bridge the gap between education and production** Reform education systems and vocational education & training (VET) programmes to increase their quality, efficiency and market relevance. Promote apprenticeships and update regularly these programmes based on feedback from industry. Facilitate partnerships between the education & training world and industry for skills anticipation and joint curricula design. Encourage the creation of innovative models of financing for vocational education and training as well as life-long learning.

#### **IV. Build manufacturing skills of the 21st century** Ensure that transversal competences (entrepreneurship, negotiation, problem solving, inter-cultural and language skills, etc.) are acquired by young people during compulsory education. Provide support to companies to implement life-long learning programmes which will help the adult workforce to build soft skills, digital skills, and also basic skills in science and maths where necessary. Support the continued development of education and training providers through professional profiles, standards and competence frameworks. Develop quality assurance systems in training and education.

#### V. Use the full potential of the EU

Step up cooperation between the EU, Member States and industry stakeholders for the promotion of apprenticeships across Europe through the "European Alliance for Apprenticeships". Increase the transparency and comparability of qualifications EU-wide. Encourage the mobility of employees and VET students in the field of machine tools through the Erasmus+ programme and help them improve their language skills. Take into full account the needs and recommendations of the MT industry in the Knowledge and Innovation Community (KIC) in value added manufacturing, foreseen to be launched in 2016. Promote the use of structural funds for education and training of the manufacturing workforce.



# How to train the 21st century workforce in the machine tool industry?



By Professor Luigi Serio, lecturer in Business Policy at the Faculty of Economics of the Catholic University, Milan and scientific coordinator of Piattaforma India, project promoted and sponsored by UCIMU\* to foster the presence of Italian companies in India market.

The most recent analyses, conducted either at European or at national level, show that SMEs in the machine tool sector base their competitive advantage on the technological, intellectual and social capital of entrepreneurs and on local and institutional systems they interact with. The specific factors that have allowed these companies to maintain a competitive advantage, even during the economic crisis, have been:

- the quality and reliability of products and after-sale services;
- continuous innovation;
- the ability to offer integrated solutions;
- the ability to customize the offer according to specific needs of each client.

Globalization and the breaking of market boundaries have strongly affected the dynamics and priorities of the industry and put the issue of international competitiveness at the core of the strategic agenda of these firms. Studies on SMEs' internationalization, not only in the machine tool sector, highlight that economic variables are often insufficient to explain (un)successful experiences in this field. The theories starting to prevail argue that, in the internationalisation process, the firms able to overcome the limitations caused specifically by their small size are focusing on social and intellectual capital.

#### Training will play a key role in marrying the successful European SME model with new business organisation and management patterns adapted to globalisation.

In order to maximize the value of these intangible assets both on the local and global markets, companies should focus on the development of competencies that enable to:

- maintain and improve the technical distinctiveness of the production;
- manage increasing complexity;
- integrate international and increasingly diversified workforce;
- build innovation activities around different and open models.

The importance of intangible assets in maintaining a competitive advantage will make training a real key issue in the future.

## In this light, we can underline three main drivers of success for SMEs in the 21st century:

#### First driver: shift from single organisational units to a networks/platform-like organisational model

The organisation of the future is part of a network, both internal and external. It is a hybrid combination of the family-company model's entrepreneurial spirit and professional management allowing to develop long-term strategies while taking into account the business evolution. A variety of horizontal networks, in Europe and overseas, are becoming key tools for small organisations to compete on the global market without losing flexibility and span of control. Training will play a key role in marrying the successful European SME model with new business organisation and management patterns adapted to globalised supply chains and markets.

#### Second driver: maintain and develop professional profiles suitable for global competition

As several studies have shown, knowledge in machine tools industries is developed and reinforced inside 'communities of practices' (groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly), that generate and nourish the know-how. This knowledge crosses the boundaries of the company and is transmitted to clusters where customers, suppliers and producers become the principal actors of a process of knowledge and innovation transfer. A qualified workforce and relevant know-how have so far been key assets to compete successfully at European level. Following the same logic, nurturing the ability to build communities of practices in the global value chain is an essential task of training activities in the 21st century.

#### Third driver: become a point of reference for innovation in industry, act as a pivot to attract and retain the most innovative knowledge

Linked to the previous point, we witness the emergence of a knowledge-sharing model, a "half-half model" which is based on:

- an internal hub for innovation activities, interacting mainly with the design and the research & development departments;
- an external hub where the relation with universities and research centres underpin a knowledge network that help to remain

competitive, especially by acting as a source of solutions to global customers.

Training experiences are usually developed and take place in companies. Nonetheless, more virtual or physical spaces need to be conceived to serve as networking centres for multiple stakeholders, which could support firms' competitiveness: companies, associations, vocational schools, universities, R&D departments and firms, employees, new ventures, financial operators, students, public authorities, public and private donors. The diverse strategies, competences and capabilities in such networks are great asset to build and maintain competitive advantage.

These hubs and innovation networks are also the main building blocks of a project on skills, designed and proposed by UCIMU (CECIMO's Italian member Association), taking into consideration the framework elaborated by CECIMO in the recently published "Skills Manifesto" and "Skill Roadmap and Action Plan". This project, currently in its conception phase aims to develop and capitalize knowledge and know-how (which are functional to production and sales) while becoming a point of reference for technological, strategic and market innovation for associated companies. The objective of this initiative is to provide support for the development of collaboration and multi-stakeholder partnerships within the European machine tool industry, which will contribute to realizing European machine tool builder's ambition to maintain and improve their leadership around the world.

\* UCIMU - SISTEMI PER PRODURRE, the Italian machine tool, robots, automation systems and ancillary products manufacturers' association, is a member of CECIMO. The association is presented more in details on page 42.

## Getting the skills mix right!

By Professor Aviana Bulgarelli, Research Director at ISFOL, the National Research Institute for the Development of Vocational Training, is an internationally well known expert in employment, skills and VET policy. She is a member of the OECD Advisory group on the OECD Skills Strategy and of the EU Network of observatories on skills needs and mismatches.

The identification of the right skills mix needed in the Machine Tool (MT) industry has to be consistent with the sector specific characteristics and trends, and with future skills needs created by foreseeable future requirements and sector developments. The MT industry is the backbone of modern manufacturing, innovations introduced within the sector have a multiplier effect on other industries. With 50% production exported out of Europe, innovations become a strong driver for the growth of the European MT industry worldwide.

Innovation is driven by knowledge and skills. Within the sector, occupations are shifting from semi skilled manual jobs, based on routines, to knowledge and skills intensive jobs, based on small scale production targeted to a wide range of customers' specific needs. Strong technical and engineering skills are becoming integrated into foundation and transversal skills needs.

Several international surveys and statistics show how information processing skills are the necessary foundation to access and understand specific domains of knowledge and skills of transversal nature, as well as of sector/job specific nature . 'Information processing skills' mean the capacity to manage information and solve problems in technology rich environments: to access, analyse, use and communicate information also through digital devices and applications. A high individual performance in information processing skills is positively correlated with productivity and growth. In the MT industry, such skills are key to produce innovation and are embedded in each specific job. A good command of literacy, numeracy and problem solving (the three components of information processing skills) allow managers, skilled metal workers, technicians, engineers, etc. to perform better and to bring new solutions to their tasks.

#### Information processing skills, meaning the capacity to manage information and solve problems in technology rich environments, are becoming increasingly important

More than foundation skills, the transversal skills considered most on demand by companies in the mechanical engineering sector, which includes the MT sector, are teamwork and cooperation, communication and negotiation, self-organisation, entrepreneurship, curiosity for further learning, communication in another language (English) and, obviously, ICT skills. ICT is pervasive as computerization and digital control systems become more important in production equipment.

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The capacity to communicate in English and other languages (especially for managers, engineers, finance and trade professionals dealing with customers) is also relevant in the MT industry, as the sector is a leader in the global market, and as one of its strengths is to provide solutions to customers specific needs in a range of alternative forms and materials.

The capacity to effectively communicate with customers in the global market is strengthened by the acquisition of intercultural skills, thus the ability to understand and manage different cultural codes and ways of communication and negotiation. The MT industry's skills needs require a sound mix between foundation, transversal and specific office and technical specialization. Workers with traditional skills, like tool makers, machine operators and maintainers now need more technical competences as well as good understanding and problem-solving skills.

#### ICT skills are pervasive as the importance of computerization and digital control systems become more important in production equipment.

#### But how to get the right skills mix?

Information processing skills, transversal and job specific skills are "learnable" and, therefore, subject to the influence of management policy and practices, and of public policy.

Quality education and training, at initial and lifelong learning levels, is the key source of skills formation, but the role of learning in the workplace should not be underestimated. These two examples give a clear picture of it:

- young people in their mid-20s who are in education and work simultaneously have better information processing skills. Employed adults perform better than inactive and unemployed ones, even after controlling for other variables like age and education;
- surveys show that employers prefer to recruit workers who already have acquired their skills by working or through vocational education and training and tertiary level education pathways with a large component of internship in their curricula. At tertiary education level, companies consider education not sufficient to gain an adequate skills level, so their hiring preferences go to young people who already had a work experience.

The workplace allows to develop hard specific skills and transversal skills, especially teamwork and cooperation, communication and negotiation, self-organizing and problem solving. Countries' experiences show that the best outcomes are reached when apprenticeship and in-company periods of learning are developed during the education pathways, as education establishments and companies/sectors have a better opportunity to work together and build curricula and pedagogies more suited to the needs of industry.

Bundles of HR management practices are also linked to skills formation and innovation performance. In-company training alone is the simplest part of a work performance system, it is more relevant in low- and medium technology industries. When it is integrated as a component of the HR management practice bundles, like cross functional teams, multitasking and flexibility, delegation of responsibility and performance-based pay, it enhances skills and innovation.

# EU acts to bridge skills gap

#### By Gelu Călăcean, Policy Co-ordinator DG Education and Culture

First the good news. In spite of the lukewarm economic situation we are experiencing, there is a consistent trend of job creation in the area of science, technology, engineering and maths (STEM), particularly in the mechanical engineering sector. Employment of STEM professionals and associate professionals is expected to grow by 12.7% and 4.9% respectively by 2020, as opposed to 3.2% for employment in general, according to the latest skills forecasts published by the European Centre for the Development of Vocational Training.

The downside is that about 1.5 million jobs are expected to disappear in the EU for metal, machinery and related trades workers between 2010 and 2020, In the last four years, almost 8% of manufacturing employment has been lost in the EU. As collective redundancies affecting industry make the headlines repeatedly, it is harder to attract young talents towards STEM careers.

Few young people decide to study in a STEM field, even fewer graduate and among those, not all choose to pursue a STEM career. Clearly, young people making crucial choices about their education and careers do not perceive the same bright spots as European labour market data does.

#### A joint voice for the sector

This is where the role of industry is most important. By building stable partnerships with schools, vocational institutions and career guidance centres, it can easily make the case for STEM as a prime pathway to tomorrow's job market.

Such a strong message must be based on "'skills intelligence". This requires a long-term investment, cooperation among employers and the support of trade unions and state authorities, particularly public employment services. Together, they can identify as clearly as possible current skills bottlenecks and future needs, CECIMO's skills manifesto is a much welcome step in this direction.

Precisely to support such initiatives, the European Commission has developed the 'European Skills Panorama', a gateway to a wide range of tools and intelligence sources to better align education and employment policies. The European Sector Skills Councils also provide a platform to better coordinate the activities of social partners with the education and training sector.

Of course, collecting good data on skills needs and shortages is only a first step. Skills intelligence then needs to be translated into concrete measures - curricular reforms, promotion of apprenticeships and traineeships in fields in high demand, and adjustment of teaching methods - to come as close as possible to the realities and needs of industry. The new Erasmus+ programme offers financial support for establishing 'Sector Skills Alliances' and 'Knowledge Alliances', to develop concrete projects with impact at sectoral level.

Business collaboration in developing competency profiles, career charting, tools for screening skills, industry certifications and training solutions can provide key enablers for better functioning of our labour markets and facing restructuring and mobility challenges.

#### **Boosting mobility**

Good local or regional partnerships between industry and education and training providers are the backbone of employer engagement in skills. However, the local, proximity labour market cannot on its own meet all the recruitment needs. Even for SMEs, finding the right candidates often implies looking further afield, at national or European level.

The reform of the network of European Public Employment Services (EURES) aims to give actual and real time access to employment opportunities and contribute to effective matching between labour supply and demand across Europe. To this end, EURES should become more effective and enable the Member States to offer mobility services in a flexible demanddriven way, in line with the needs of their own labour markets. Another goal of the reform is to move the service up-market, enhancing its vacancy market share and making it more relevant to the sectors that often avoid the Public Employment Services.

#### Supporting youth

It is not just employers who need the right kind of tailored support in the short term. Jobseekers, young ones in particular, need it too. The 'Youth Guarantee' entails a quality employment offer, further education and apprenticeship or traineeship for all young people up to the age of 25, within 4 months of becoming unemployed or leaving education. In order to successfully deliver such a guarantee, partnerships with employers and businesses are of crucial importance to boost employment, apprenticeship and traineeship opportunities.

Strong business-education cooperation is also crucial for the success of the 'European Alliance for Apprenticeships' which was launched last summer. However, forms of work-based learning can only exist if companies buy into the concept, offer apprenticeship places and cooperate with VET schools. This is yet another area where a strong commitment of industry is needed, a point clearly stated in CECIMO's Manifesto on skills.

It is not easy to put all the pieces of the skills puzzle in place. The central piece is certainly cooperation, first and foremost among businesses, who should speak in a clear, single voice and act on their skills needs, and secondly with policy actors. Encouraging a good policy environment for such collaboration is one of the main goals of EU skills instruments.

A long term agenda, without doubt. However, looking at the way the skills issue is growing in importance at national and at local levels, there are good reasons to be enthusiastic about it.



For more information on all the programs listed above, please visit: EU Skills Panorama: http://euskillspanorama.ec.europa.eu/ Youth Guarantee: http://ec.europa.eu/social/main.jsp?catld=1079 Sector Skills Alliances: http://ec.europa.eu/education/policy/vocational-policy/sector-skills\_en.htm European Alliance for Apprenticeships: http://ec.europa.eu/education/policy/vocational-policy/vocational-policy/alliance\_en.htm EURES: https://ec.europa.eu/eures/



## Present and future of Europe's manufacturing



#### A very new world...

We have the good fortune to live in a completely new world, a world that has never existed in the past. Manufactured goods have been mobile and therefore tradable (you can import and export them) for many centuries. However, a practice has spread over the last twenty years where the factories themselves have also by Professor Giacomo E. Vaciago become "tradable" or, in other words, where advanced Catholic University of Milan countries export them and emerging countries import

and Chairman of REF Ricerche them. The result of all this is an increase in the overall growth of the world economy and a radical transformation in the way of producing things.

> Three essential concepts are needed to interpret this new world (in which the radical change is not yet well represented even by the necessary statistical data).

Each company must continuously decide whether to continue to increase its production, and how much of it to increase, either in the country in which it is already located or in another country. What is really new here is the idea of "growthelsewhere".

#### Manufactured goods have been mobile and therefore tradable for many centuries. However, over the last twenty years factories themselves have also become 'tradable'.

The specialisation of companies also changes as they gradually become multinationals. In fact the new principle in operation of the global economy is that of vertical specialisation (VS) along multinational-supply-chains (MSC). Each product (whether it is an automobile or an iPad) is no longer "made in ... a country", as it once was, but is now "made in ... several countries" and perhaps assembled in yet another country.

This all requires not only the development of appropriate logistics, but also, if one may use the term, a corresponding "financial logistics". This is needed both in the credit field, to finance production and trade, and also in the field of equity and asset management necessary for the corresponding ownership structure.

#### **World Industrial Production**



#### ... after the crisis

When the financial sector goes out of control (too many speculative bubbles and too much "useless" debt), then industry suffers too. That is what we have learnt (but we should have known, because the expression "too big to fail" was already in common use!) from the collapse of Lehman Brothers on 15 September 2008. In the months that followed the manufacturing output of the entire world dropped sharply by over 20% (see Chart 1). As can be seen, the recovery in industrial production in the quarters that followed was equally rapid and intense.

From a financial viewpoint, however, the problems have not yet been solved. We are sitting on a mountain of debt which is only sustainable because of its high level of monetisation, which is to say the proportion of it held in the portfolios of central banks. However, from a real viewpoint, and therefore with regard above all to manufacturing, the world is hardly standing still. The growth trajectory for global industrial production is slower than the exceptional growth seen between 2003 and 2008, but one can hardly speak of a recession (or, as some do, of a depression) occurring over the last four years.



#### Now: real interdependence and financial fragility

Many lessons have to be learnt from this grave crisis. The first is that we need to know more about what is happening in the world surrounding us in order to set policies and decide on reforms.

We still lack the necessary statistics on the new world in which we live! We know that the interdependence between countries has increased greatly and that as a result of this and other things, finance is more fragile than in the past. But we have yet to learn how to manage these two "logistics" – that of the real economy and that of finance, which are partly complementary. We have empirical evidence of two apparently contradictory phenomena:

- trends for industry, and therefore long-term trends, are totally different (Chart 2) for advanced and emerging countries;
- cyclical covariance (Chart 3), or in other words short-term movements dictated by macroeconomic conditions, is on the other hand incredibly high;
- an equally pronounced contradiction is being generated within the eurozone:

1- an essentially unique business cycle: recession and recovery are moving together for all countries in the monetary union;

2- a large gap in industrial output between "core" countries like Germany and "peripheral" countries for which Italy represents a sort

World Industry Advanced Emerging 4,0 Chart 3 0.0 -4.0 -8.0 00 02 04 08 10 12 06 % changes from trend of benchmark (Chart 4).

Nevertheless, here too a note of caution is necessary. In the presence of a process of integration which in the case of industry is moving more rapidly and intensely and which, considering multinational supply chains, is still not measured with appropriate statistics, it is clear that conventional data on individual countries is inadequate. Precisely because manufacturing is influenced less by the policies of national governments and because more depends (in terms of specialisation and the corresponding logistics) on the advantages of the relative markets, it is clear that this corresponds to an equivalent reduction in "national sovereignty".



Statistics which reflect the past do not help us to understand the present let alone the future! Research by Richard Baldwin at the WTO and the first dedicated analysis conducted by the International Monetary Fund (like that published in October 2013 entitled Germany – Central European Supply Chain), show us a manufacturing platform centred on Germany as a hub, which is the real new development to occur in recent years (all occurring unknown to governments).

# **DESIGN-MTS**

DESIGN-MTS is a European project which aims at encouraging and enabling European machine tools builders and actors in its supply chain to take a strategic approach to corporate social responsibility.

## Corporate social responsibility: a 21st century essential

In the midst of globalization in the late 1980s, many manufacturers have diversified their suppliers to gain a competitive advantage and reduce their costs through global sourcing. Although this process has added considerable value to the business of companies, it also added complexity to the supply relations and has raised questions on the social and environmental sustainability of global supply chains.

Nowadays, manufacturers pay more attention to the environmental and social performance of their business, not only to address societal concerns but also to boost the efficiency and competitiveness of their business. In that spirit, many manufacturers have developed and implemented codes of conduct ensuring that they fully match minimum established international standards in their supply chain practices. For instance in the automotive and aerospace sectors, two major machine-tool-user sectors, producers increasingly try to integrate corporate social responsibility principles into their supply chain management. They strongly commit to ensure that their business and production practices are in line with international standards set by several guidelines, including ISO 26000, UN Global Compact and OECD Guidelines for Multinational Enterprises.

#### DESIGN-MTS aims to create a multistakeholder platform enabling effective dialogue between machine tool builders, suppliers and customers on the issue of corporate social responsibility.

The European machine tool industry is already renowned for delivering products and manufacturing solutions that offer high social and environmental performance. To maintain this momentum and, ultimately, to better meet customer demands, it is continuously making further improvements. CECIMO is convinced that the machine tool industry and its value chain would benefit from developing a strategic and integrated approach to sustainability and corporate social responsibility. An effective and early dialogue between actors in the value chain on CSR requirements would allow a mutual understanding of such requirements and a more effective cooperation.

## DESIGN-MTS: a visionary initiative for the European machine tool industry

To foster this dialogue, CECIMO developed with a consortium of academic and industry partners the DESIGN-MTS (Defining Social Responsibility Interventions for Grounded Networking in Machine Tools Sector) project. DESIGN-MTS focuses on four key areas: employability and skills, demographic change and active aging, workplace challenges and environmental issues. The objective is to create a multi-stakeholder platform that will enable the development of effective dialogue channels between machine tool builders, suppliers and customers on the issues of sustainability and corporate social responsibility. It is a voluntary and flexible platform which is tailored to the reality and specific needs of the sector.

DESIGN-MTS will serve as a communication platform pooling information about sustainability and CSR practices along the machine tool industry's value chain. An important function of the multi-stakeholder platform will be to provide valuable information to SMEs who want to benefit from best practices that meet higher social and environmental performance criteria. Integrating these practices can ultimately help SMEs expand their business to global customers which have demanding requirements in their supply chain practices. Communications made through this platform will also reach customers and stakeholders beyond European borders, thus contributing to the promotion of European standards and practices worldwide.



The project was launched in July 2013 and is partly funded by the European Commission. It brings together the University of Macerata (project coordinator), CECIMO, CSR-Europe, the University of Nottingham, the Central European Initiative, and the Economic and Social Research Institute in Italy.

#### **Preliminary results**

Over the initial phases of the project, partners have been working on producing two comprehensive reports. The first report, 'Existing situation analysis', gives an overview of the European machine tool companies' understanding of corporate social responsibility and sustainability. The second one, 'Identification of best European practices', provides an analysis of best CSR practices implemented across the sector's value chain, in each of the four identified key areas.

In the following months, dissemination and outreach activities will be conducted, to ensure the project results reach the target stakeholders. To that end, CECIMO and other consortium partners will organize two dissemination events, in May 2014 at the Lamiera exhibition in Bologna, and in October 2014 at the Bi-Mu exhibition in Milan, to further communicate the project goals and the results achieved so far.

The project ends in December 2014. For further information please visit: **www.designmts.eu**.



"In the European machine tool industry, many practices aimed at improving social and environmental performance are already put in place by companies, such as the integration of environmental considerations in products and services or the organisation of training for the young and elderly workforce. DESIGN-MTS offers to machine tool companies an instrument to help turn their relevant activities into business and social value. This project will develop a voluntary and flexible approach for the use of companies who are keen to learn from the experience of others and who want to highlight their socially and environmentally valuable practices in their communication.

We witness that the role of communication in CSR is growing as customers are becoming increasingly demanding in their supply chain practices and citizens, especially young people, are eager to work for sectors which contribute to improving the quality of life in the society.

We expect that the impact of DESIGN-MTS on competitiveness and on the image of the sector will be a positive one."

Filip Geerts, CECIMO Director General



## Towards clean and competitive factories in Europe: The EMC2-Factory European Project

It aims at enabling selected European manufacturing industries to overachieve Europe 2020 programme goals by developing a breakthrough paradigm for cost-effective, highly productive, energyefficient and sustainable production systems.

> According to the International Energy Agency, manufacturing industries are among the largest energy consumers and CO2 producers. In fact, it is responsible for approximately 37% of the global primary energy consumption. European manufacturers, therefore, have to review their current manufacturing systems to take a significant step towards new resource- and energy-efficient and sustainable factories in line with the Europe 2020 goals. The EMC2-Factory project, launched in October 2011, has the ambition to become a key driver of this paradigm shift and help industry overreach Europe 2020 targets.

> The EMC2-Factory project partnership has included small, medium and large manufacturers, highly-recognized research centres and universities, and a European trade association. The 17 project partners across Europe are working on the improvement and implementation of new technologies and processes to create economical and ecologic factories. The research work has focused on main energy intensive processes within the most relevant industrial sectors in Europe, namely automotive, rail, and aerospace, to foster the development of tangible and industry-relevant results that can easily be implemented in crosssectorial manufacturing environments.

EMC2-Factory regards eco-factories of the future in a holistic way, which helps ensure that global optimization can easily be achieved, taking into account multiple dimensions (cost, time, quality, flexibility, energy- and resource-efficiency) and their interrelations.

Since its launch, the partners have worked precisely on the improvement of the physical elements of an ideal factory, which includes production machines, handling systems, warehouses, auxiliary equipment, technical building systems and building shell. In addition, assessments of environmental operations have been carried out for new buildings and already existing buildings.

It is expected that, upon its completion in the last quarter of 2014, the results of the EMC2-Factory project will also be beneficial for stakeholders beyond the project consortium. This is a desirable outcome because, after all, clean and competitive manufacturing goals such as reducing greenhouse gas emissions, energy consumption, waste generation and consumption of materials in manufacturing are crucially important for Europe's future.

CECIMO, as a project partner, is involved in the dissemination of project concept and results among industrialists, researchers and policymakers in Europe. For further information on the EMC2-Factory Project, please visit http://www.emc2-factory.eu or contact the Project Coordinator Amit Eytan at amit.eytan@crf.it.

The EMC2-Factory project is funded by the European Commission's Seventh Framework Programme.

# New research and innovation projects launch: INTEFIX, EXPLORE and THERMACO

CECIMO has traditionally been an active participant in EU-level research and innovation programmes, primarily as a dissemination partner of the latest technologies developed in its projects. In the second half of 2013, three new projects were launched by CECIMO and its partners: EXPLORE, INTEFIX and THERMACO.

Globally and across manufacturing sectors, the machine tools industry plays a central role in promoting the newest production technologies and related services. It has a direct impact on productivity, product innovation and competitiveness. Recognizing this, the European Commission Research and Innovation Programmes allocate an important share of their funding opportunities to the machine tool industry along with other manufacturing sectors supplying production technologies. CECIMO encourages and promotes the participation of European machine tool builders in cross-border projects, contributing to knowledge and innovation partnerships across European industry. CECIMO actively takes part projects, it sees as strategic and of high value for the sector. Through targeted and industry-oriented dissemination activities, CECIMO facilitates the access of small and medium sized companies to state-of-the art research results.



Coordinated by INESC-Porto, the EXPLORE (Extended Exploitation of European Research Projects' Knowledge and Results) project enables synergies between 14 research organizations and associations to reach the following goals:

- Enable the industrial exploitation of existing results from European R&D projects focusing on production technologies,
- Test these results using a selected group of 10 industrial sectors and 10 European regions,
- Promote cross-fertilization, training and standardization, and generate recommendations for future projects and activities.

In order to reach these goals, the project partnership will involve more than 50 regional authorities, associations and companies who have already expressed their interest in EXPLORE and are committed to play an active role in reaching project goals. Further information about the EXPLORE project can be found on www.explore-fp7.eu



The INTEFIX (INTElligent FIXtures for the manufacturing of low rigidity components) project coordinated by IK4-Teknier, Spain, brings together 21 partners across Europe and aims to increase the performance of the machining processes by using intelligent fixture systems. Some industrial objectives:

- Reduction of time: 50% reduction in the development time of fixtures for complex components
- Flexibility: Development of intelligent and adaptable fixtures, able to respond against undesirable forces, vibrations and displacements coming from material removal process related changes
- Reliability: Improved reliability of the machining operation thanks to the active control of vibrations, deflections and distortions, leading to a reduction of rejections of 70-90%.
- Performance: Improvement of 15% of machining performance thanks to the avoidance of vibrations and chatter imposed limitations.

INTEFIX is a project under the Commission's I4MS (ICT innovation for Manufacturing SMEs) initiative created to enable manufacturing SMEs to benefit from the newest advances in information and communication technologies. The programme helps connect innovators across value chains in manufacturing and engineering. Seventyseven million euro of EU funding is allocated to support experiments that test existing innovative technologies in production-like conditions. The I4MS initiative intends to facilitate the industrial validation and market uptake of existing manufacturing technologies (not commercially available or already prototyped) and to reduce the risks linked to being early adopters of these technologies for industrial users.

For further information visit www.intefix.eu



"Today's manufacturing needs are complex and technology-intensive, and they are often driven by societal needs. Therefore, machine tool companies need multi-disciplinary expertise to develop integrated solutions: modern machines need to be multitasking and offer ever-increasing performance. They have to work with new and sophisticated materials. Whilst doing this, they must consume less energy and resources and provide ease-of-use. Finally, we need to combine them with high value-added services such as remote maintenance systems using ICT.

European projects allow our companies to bring together capabilities from across Europe in machine tool technology, materials science, software and other areas. CECIMO appreciates the added value of European research. We encourage machine tool builders to participate in cross-border research and we take active part in projects to disseminate research results for the benefit of the entire sector."

Jean-Camille Uring, CECIMO President and Member of the Managing Board of the FIVES Group

# **Thermaco**

THERMACO intends to provide manufacturing technologies with extremely efficient solutions in heat evacuation based on Aluminium Metal Matrix Composites (AI-MMC) with Graphene-based inserts, applicable in many key technologies and products bolstering several sectors in Europe.

Due to their improved properties compared to traditional metals or polymers, composite materials are now used in several technologically advanced products. The project THERMACO's (Smart Thermal Conductive Aluminium Metal-Matrix Composites by Casting) focus is on heat evacuation applications in fields such as power microelectronics, e-mobility or (renewable) energy generation as well as highest performance combustion engines.

In recent years, carbon-based materials have started being widely used in these sectors which, despite delivering extremely good thermal properties, do not usually have a structural value in terms of mechanical properties, hindering standalone applications. However, when enclosed in metal envelopes, they could be used to form metal matrix composite (MMC) parts which are significantly more durable and strong, delivering thus a breakthrough solution in this context. Nevertheless, due to the lack of satisfactory machining and manufacturing technologies, MMC parts cannot yet be implemented.

THERMACO intends to provide manufacturing technologies with extremely efficient solutions in heat evacuation based on Aluminium Metal Matrix Composites (Al-MMC) with Graphene-based inserts, applicable in many key technologies and products bolstering several sectors in Europe. The project started in September 2013 and is coordinated by Technische Universität Chemnitz (Germany) and brings together 11 partners from various sectors across Europe.

Some of the THERMACO objectives are as follows:

- Deliver knowledge-based design/layout guidelines for extremely efficient
- Al-MMC parts with integrated carbon-based thermal highways,
- Develop design definitions for surface micro structures to ensure an optimal heat transfer from the heat source to the thermal highways,
- Develop optimal manufacturing processes for precision finish machining and surface structuring of Al-MMC parts with carbonbased thermal highways including:
- Precision cutting processes (milling, vibration assisted turning, turn-milling),
- Electrochemical machining (ECM) processes to selectively uncover the thermal highways on the surface for optimized connection to the heat source,
- Electro erosive machining (EDM) processes to force-free machine surface microstructures for increased thermal conductivity.
- Deliver life cycle analysis and environmental impact information on novel Al-MMCs with integrated carbon-based thermal highways,
- Secure and exploit intellectual property from generated knowledge to bolster competitiveness and market strength of the consortium partners and European industry.

For further information please visit www.thermaco.eu

In all three projects, CECIMO will be a key dissemination partner and ensure that European machine tool builders benefit from project results. CECIMO will regularly update its member associations at national level and their member companies on project developments using CECIMO communication channels and activities, including workshops, seminars and events at trade shows.

All three projects, EXPLORE, INTEFIX and THERMACO, are partly funded by the European Commission's FP7 Programme. ■







# Sustainability that pays off.

















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# Blue Competence Machine Tools: Success Stories

The Blue Competence Machine Tools initiative enables Alliance Members to effectively communicate their latest technologies and energy-efficient solutions. Company-specific Success Stories are one of the instrumental tools used by Alliance Members to inform their stakeholders about the improvements they have made.

Machine tools are vital to ecological improvements in manufacturing industries and the European machine tool builders are intensively working on ensuring that their products and processes can be designed, manufactured and operated with maximum energy-efficiency. Nevertheless, machine tool builders also need to ensure that their customers are aware of the technologies and solutions they offer. Most of them being SMEs, they increasingly need to develop and implement effective communications and marketing campaigns to reach customers.

In line with this, one of the main goals of the Blue Competence Machine Tools initiative is to increase the capacity of machine tool companies to communicate their energy-efficiency solutions via company-specific communication materials, such as Success Stories. In fact, since the launch of the initiative at European level by CECIMO, Success Stories published by Alliance Members in several languages have been an attraction point of the Blue Competence communication and promotion activities such as online platforms and exhibition booths. The primary goal of Success Stories is to help Alliance Members showcase customers how energy-efficient solutions are delivered with specifications on energy saving facts and figures.

Success Stories also prove how machine tool builders can reach high environmental performances in various ways through diversified and customised technologies depending on customer needs. What is common to all the Alliance Members is that there isn't one single measure that offers the best solution for achieving energyefficiency. On the contrary, the crucial consideration point of Alliance Member is to do the right thing at the right stage of production, be it in development and design, manufacture, operation, and refurbishment or recycling. Just to give a few examples, some methodologies showcased through Success Stories include mass reduction ensuring less energy consumption for the acceleration of functions; heat recovery systems enabling waste heat to be available for pre-warming; and, intelligent monitoring systems supporting the machine's operator to systematically improve the energy-efficiency of the processes involved.

#### The Blue Competence Machine Tools initiative boosts the capacity of companies to communicate their energy-efficiency solutions to customers.

On the CECIMO website, the section dedicated to the Blue Competence Machine Tools initiative showcases the Success Stories produced by Alliance Members in English. Find them here: http:// www.cecimo.eu/site/blue-competence-mt/

Many Alliance Members are to showcase their Success Stories also at the Blue Competence booth (Halle 16; Stand-No: 16H39) at the METAV Trade Fair in Dusseldorf from 11 to 15 March 2014, where the latest metalworking technologies will be presented. For further information on the Blue Competence booth at METAV, please contact Emir Demircan, Project Manager, CECIMO at emir.demircan@cecimo.eu.



"Our Blue Competence Success Story gives examples of energy- and resourceefficiency savings, highlighting how SORALUCE's ecological, economic and social values translate in the manufacturing of sustainable products and processes in milling and boring technologies. With our Success Story, we aim to reach our customers across the world that are interested in increasing their competitiveness through sustainability." Eleazar Raya, Commercial Director from SORALUCE

### Inside CECIMO:



#### UCIMU-SISTEMI PER PRODURRE

UCIMU-SISTEMI PER PRODURRE, the Association of Italian manufacturers of machine tools, robots, automation systems and ancillary products, was founded in 1945 with the objective to advance the interests of the Italian industry. The members of the Association produce around 70% of the industry's output in Italy and UCIMU-SISTEMI PER PRODURRE provides them, together with its subsidiaries, expert's support for all aspects of their corporate activities. It promotes growth and spreads an entrepreneurial culture by supplying services that are constantly updated to meet their members' needs.

In addition, as the official representative of the industry, the Association acts as a worldwide ambassador for some of the latest technologies developed in Italy. UCIMU-SISTEMI PER PRODURRE is always there to foster co-operation between its members and to help them offer products that are the result of the rapid adaptation of Italian manufacturing companies to changes in demand. This flexibility is due to the members' commitment to research, marketing, and optimization of their after-sales service.

The Association demonstrates firm determination to fully satisfy the requirements of the machinery and equipment industry's supply and demand sides, in this context of rapid developments in the design, production and marketing of products. To that end, UCIMU-SISTEMI PER PRODURRE promotes trade fairs aimed at encouraging business between users and manufacturers, and also at showcasing innovative designs: BI-MU/SFORTEC and Lamiera (to take place this year) and EMO MILANO. EMO MILANO's next edition will be held from 5 to 10 October 2015.

## An upward trend forecasted for the Italian industry in 2014

The Italian machine tools sector's exceptional skills make it the technological partner preferred by users from all over the world. The manufacturing solutions developed by Italian manufacturers, unlike those of any competitor, combine technological know-how with creativity and are characterised by quality, flexibility, reliability and personalisation. As a result, the Italian machine tools, robots, automation and auxiliary products manufacturing industry is among the international sector leaders.

With 400 companies and 33,000 employees, the Italian machine tool industry is at the top of world rankings. In 2012, in the context of a global economy slowdown, the industry posted a growth of +3%, which was less than in 2011 (+3.9%). In the sector, Italy has maintained its third

position in the ranking of exporting countries but has dropped a position among the producers, falling to the fifth place. After a stable 2013, production will increase by 4.6% in 2014, reaching 5 billion euros, according to the forecasts. With a 4.6% increase, exports will register a new record of 3.780 million euros. The export/production ratio will remain stable at 75.6%. The Italian deliveries on the domestic market will show a positive trend: thanks to a 4.7% increase, they will reach 1.220 million euros. The deliveries on the domestic market are driven by the recovery in Italian consumption, which will reach 2.145 million euros in 2014, 4.4% more than in 2013. Imports will also benefit, although at a lower level, from the increase in demand from Italian users, reaching 925 million euros, a 3.9% increase when compared with 2013.

Luigi Galdabini, president of UCIMU-SISTEMI PER PRO-DURRE, stated: "The most striking data is without doubt the increase in domestic consumption, which, after years of stagnation, seems to show a positive trend. In other words, demand is there and, according to Oxford Economics data, it will be better and better in 2014 and 2015. Good news for next trade fairs!"

#### EMO MILANO 2015, 'Let's build the future'

With still two years to go before the beginning of the show, the EMO MILANO 2015 team has already started the preparations to ensure the exhibition retains its distinctive prestige. EMO is a unique event in the world of metalworking thanks to its international standing and the width of its offer, and it is expected to attract once again hundreds of thousands of visitors from all over the world.

"Machines to build the future, cutting-edge solutions that give the possibility of achieving what mankind has imagined, and technologies on which the improvement of the quality of life depends on: this and much more will be EMO MILANO 2015" stated Pier Luigi Streparava, the exhibition's General Commissioner. Recalling the success of the last edition of EMO Milano, he adds: "EMO MILANO 2009 was visited by a total of 124,660 people, 41% of international visitor, from 99 countries. Almost 400 credited journalists followed the event, where the main stars were the 1,400 exhibitors representing 39 countries".

The EMO exhibition is alternatively hosted by Hannover in Germany and Milan, in Italy. The Italian organizer is EFIM (Ente Fiere Italiane Macchine) and the exhibition is promoted by UCIMU-SISTEMI PER PRODURRE.







#### New people in CECIMO:



Pascal Boillat Swiss Delegate CEO, Agie Charmilles Management



Sean Fitzgerald Coard General Manager DAAM - Danish Association for Advanced Manufacturing



César Garbalena Spanish Delegate General Manager, LOIRE S.A.F.E.



CEO, Bystronic Laser AG

**Michael Merkle** 

Swiss Delegate



**Therese Premler-Andersson** General Secretary MTAS



Jef Seghers Business development manager -Production Technology & Mechatronics AGORIA



Stephan Hansch Austrian Delegate CEO, Emco Maier GmbH



**Miloslav Kafka** Czech Delegate Director General, Kovosvit MAS



Manager Technical Regulations CECIMO



Kamila Slupek

#### **Upcoming Events:**

**CECIMO General Managers' Meeting** 9 May 2014 - Brussels, Belgium

**DESIGN-MTS Conference** 14 May 2014 - Bologna, Italy

**CECIMO's 2014 Spring General Assembly** 21-24 June 2014 Prague, Czech Republic

EMTE-EASTPO machine tool exhibition 2014 14-17 July 2014 - Shanghai, China

**CECIMO General Managers' Meeting** 17 October 2014 - Porto, Portugal

**CECIMO's 2014 Fall General Assembly** 3-4 December 2014 - Brussels, Belgium



# CECIMO Member Associations



Austria: FMMI Fachverband Maschinen & Metallwaren Industrie www.fmmi.at

Belgium: AGORIA Federatie van de Technologische Industrie www.agoria.be

Czech Republic: SST Svazu Strojírenské Technologie www.sst.cz

Denmark: DAAM Danish Association for Advanced Manufacturing www.daam.dk

Finland: Federation of Finnish **Technology Industries** www.teknologiateollisuus.fi

France: SYMOP Syndicat des Entreprises de Technologies de Production www.symop.com/fr

Germany: VDW Verein Deutscher Werkzeugmaschinenfabriken e.V. www.vdw.de

Italy: UCIMU Associazione dei costruttori Italiani di macchine utensili robot e automazione www.ucimu.it



Netherlands: VIMAG Federatie Productie Technologie / Sectie VIMAG www.vimag.nl

Portugal: AIMMAP Associação dos Industriais Metalúrgicos, Metalomecãnicos e Afins de Portugal www.aimmap.pt

Spain: AFM - Advanced Manufacturing Technologies Asociación española de fabricantes de máquinas-herramienta, accesorios, componentes y herramientas www.afm.es

Sweden: MTAS Machine and Tool Association of Sweden www.mtas.se

Switzerland: SWISSMEM Die Schweizer Maschinen-, Elektround Metall-Industrie www.swissmem.ch

Turkey: MIB Makina Imalatcilari Birligi www.mib.org.tr

United Kingdom: MTA The Manufacturing Technologies Association 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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#### **CECIMO** aisbl

Avenue Louise 66, 1050 Brussels, Belgium Tel: +32 (0)2 502 70 90 Fax: +32 (0)2 502 60 82 www.cecimo.eu