



THE IMPORTANCE OF CONTINUING EDUCATION AND TRAINING IN THE METAL, ENGINEERING AND TECHNOLOGY-BASED INDUSTRIES

The metal, engineering and technology-based (MET) industry is a key driver of Europe's economy and skilled and motivated people are pivotal in keeping manufacturing innovative and competitive in a globalised market.

All in all, the European manufacturing industry accounts for over 75% of total European exports, 80% of all European R&D investment, and 16% of total EU employment.^{1 2} Further, it is estimated that every job in the manufacturing industry creates on average one additional job in the service sector. Within manufacturing, the MET sector represents by far the largest industry sector in terms of employment and value added.

With constant developments in innovation and technology, changing consumer demands, and global competition, companies in the MET industry are experiencing rapidly changing competence needs, invariably requiring greater levels of individual achievement. Taken together with economic and demographic trends, as well as current skills gaps and lack of investment in science, technology, engineering and

mathematics subjects, sourcing the right competence has become a pressing challenge for many companies in the MET industry. In fact, the absence of a sufficient number of skilled workers is now acting as a brake on growth at a time of ironically high unemployment.

Europe's future competitiveness depends on companies and individuals' capabilities to adapt to future competence needs as well as the education and training systems' ability to provide services that match labour market needs. It is therefore in the interest of all actors at all levels to ensure that the right framework conditions are in place for education and training providers to deliver required skills, knowledge and competence (SKC) development measures and for individuals to effectively engage in training.

Continuing education and training needs to support growth and jobs

CEEMET welcomes the efforts made to put focus on continuing education and training (CET) at European level through initiatives such as the ET 2020, the Bruges Communiqué and more recently the Resolution on a renewed European Agenda for Adult Learning as well as industry and labour-market oriented communications such as the Industrial Policy Flagship and the 2012 Employment and Education Packages. Continuing education and training is – and must be - a shared responsibility between employers, employees and policy makers. It requires motivation and commitment from all stakeholders. This motivation and commitment rests, in turn, on an understanding that lifelong learning optimally benefits both the company as well as the employee individually.

In terms of workplace learning, the MET industry believes that to be competitive both companies and employees need to invest in continuing training and learning for the competence needed in the company as well as the concerned professions. These investments will indeed

¹ European Commission (2010) *European Competitiveness Report*

² European Commission (2011) *Background on Sources of Growth*



contribute to individuals' employability in general as well. Making it possible to train and capturing the opportunities to study for general skills outside of company specific needs is, however, the responsibility of individuals and governments.

Impact of CET

While much of the discussion on CET centers on increasing uptake, we would like the debate to focus more on the *impact* of CET. It is absolutely essential that CET supports growth and jobs, and will only do so if better understood and targeted to the needs of the labour market and learners.

In this context it needs to be fully recognised that development of capabilities and competences and continuing education and training can take many different forms. CET does not necessarily involve going into a classroom or undertaking a separate course. In fact, CET often takes place on-the-job when learning, for example, how to operate a new machine or carry out a new task.

To improve the impact of CET, we would like to put emphasis on the following:

- **A better match between skills and labour market needs**
- **A policy environment and corporate culture that support effective and focussed lifelong educational processes**
- **Shared responsibility for lifelong learning and motivation to train**
- **A policy environment that makes Europe the most competitive place for companies to operate and invest in.**

A better match between skills and labour market needs

A lack of basic skills – both qualitatively and quantitatively - is a problem when it comes to the effective uptake of CET and is one of the determining factors hindering economic growth and innovation capacity in the MET industry, not least for small and medium-sized enterprises

(SMEs). Significant problems arise when large parts of the future MET workforce acquire their core competences in vocational education and training (VET) and academic education systems and these are not fully able to respond to labour market needs, thus creating a gap between the supply and demand of industry-relevant skills. Further, competence in science, technology, engineering and mathematics (STEM)-related subjects is decreasing as the investment in, and interest for undertaking, STEM studies falls in many EU member states. This development is detrimental to the MET industry as STEM skills are a precondition for many highly technical MET sector jobs and necessary in order to undertake continuing education and training in this area.

Recommendations to policy makers:

- Promote a culture of lifelong learning from primary school onwards, so that lifelong learning becomes a mindset.
- Promote a culture of practical learning in primary and lower secondary education to introduce pupils to STEM skills and their potential applications in different professions and VET early on.
- Focus on excellence and raising the general level of ambition for iVET and practice-oriented higher education programmes, not least through increased cooperation between education and training providers and the labour market. This can be done through, for example, enabling proper involvement of industry in school governance structures and curricula development.
- Establish high-quality, easily accessible guidance for pupils from an early age, involving both schools and industry. This can be done by, for instance, setting up independent career centres, ensuring high quality training (including industry experience) for counsellors and teachers, and capitalising on the possibilities



offered through web-based resources and social media.

- Ensure that the diversity and flexibility of national education systems – and their ability to adapt to changing circumstances - are not jeopardised by EU-level initiatives.

A policy environment and corporate culture that support effective and focussed lifelong educational processes

In a competitive enterprise, business development, innovation and human resources development (HRD) go hand-in-hand. To define an HRD strategy, a company needs a business vision and a business development strategy. However, many companies, in particular SMEs, often lack sufficient business intelligence and have limited capacity and personnel to develop key features of an HRD and training strategy. Business development and innovation strategies which link up with HRD strategies help companies formulate their key skills requirements and competence needs. Such intertwined and future-oriented strategies should also increase the employees' motivation to train and to invest in their individual competitiveness.

Companies, employer organisations, and national and EU level policy makers all have a role to play in creating an environment that supports companies investing in strategic management and innovation management capabilities. The MET industry welcomes, for example, the Commission's announcement to strengthen the opportunity of industry to be more involved in the agenda setting of the EU's future funding programs such as the Horizon 2020. We also welcome the progress made so far by the EIT and the planned activities outlined in the EIT Strategic Innovation Agenda. We however disagree with a strict "first wave" and "second wave" approach. A Knowledge Innovation Community (KIC) on Added Value Manufacturing has been proposed, but is not envisioned to launch until 2018. We

consider that this KIC would present a real chance to enhance innovation and also educate a highly skilled workforce with a practical experience of industry and R&D. For this to be effective, the KIC should be brought into operation as soon as possible and well before 2018.

Recommendations to employer organisations:

- Facilitate setting up effective support services to help SMEs develop business strategies and bring the human resources and training strategies to the heart of business development, with adequate support to assess skills needs at enterprise (and sector) level and to show that well prepared and delivered continuing education and training is an investment and not simply a cost.
- Facilitate companies' pooling of resources through, for instance, jointly organised training facilities, networks or centres of excellence as well as support a more effective use of the possibilities enabled by ICT in networking for innovation and HRD strategies.
- Collect and disseminate successful examples of CET and the benefits of a long-term strategic approach to human resources development, so as to raise general awareness and to improve the CET culture among all companies. Experience from CEEMET members indicates that the availability of good practice examples as a reference tool greatly changes the perception of training as an investment rather than a cost to employers as companies can see a return on investment.

Recommendations to policy makers:

- Promote the participation of an increased number of SMEs in the EU cooperation programs in education, training and R&D&I.



- Give a high priority for establishment of a Value Added Manufacturing Knowledge and Innovation Community (KIC) of the European Institute of Innovation and Technology (EIT)

Shared responsibility for lifelong learning and motivation to train

The MET industry strongly believes that lifelong skill development, although a shared responsibility, is primarily an individual responsibility. Continuing education and training must support growth and jobs, and will only do so if better understood by, and targeted to, the needs of both employers and learners. Hence, course content, methods of learning, delivery of training, and impact assessment are very important, as well as understanding what one is training for. In many instances, training provided by training centres or public education and training institutions is delivered from the centre or institution's perspective, with a set catalogue of skills, and not according to the companies or employees' needs. Furthermore, focusing on training and learning methods is central, particularly for individuals who have not trained for a long time or who have negative experiences from traditional education environments. Measures to improve content and delivery should drive training providers to adapt the way they work to become more flexible in their approach and responsive to the needs of the labour market. However, companies also have to become better at putting training into context as well as communicating what they want and need, which requires a stronger focus on strategic thinking and business management.

Recommendations to companies:

- Build and actively develop partnerships and alliances for strategic HRD and competence development. For example, arrangements whereby big companies organise joint training and learning environments with SMEs, supporting the

suppliers in their value chain, would help everyone understand their role in the value chain and the skills and competence requirements. Motivation to train may be strengthened by actions that bring the value chain into context.

- Increase cooperation with external training providers to improve communication on competence needs and expectations in terms of the return on investment of different training needs.

Recommendations to education providers :

- Education and training providers must become more flexible in their approach to curricula as well as teaching methods in order to better meet company and learner needs in terms of content, delivery and timing and thereby ensuring that individual and needs-based learning paths become a generally adopted approach in the education and training system.
- Give high priority to introduction of innovative forms of learning (such as blended learning) that would meet the needs of companies as well as learners. New combinations of different training methods have been developed and introduced by successful MET companies based on assessment of their needs, and proven to be highly efficient.

Recommendations to social partners :

- Employer organisations and worker representatives have a greater role to play in improving career guidance and informing both companies and employees about possible training alternatives and how to access them as well as possible financing for HRD and training activities.



A policy environment that ensures a competitive Europe for companies to operate and invest in

Overall, the most important challenge at the national and European policy level is to ensure that the general framework conditions for a competitive industry are in place. Ensuring flexible labour markets, implementing the ‘better regulation’ agenda and ‘Small Business Act’ and improving policy coherence are all key in this respect. Specifically when it comes to education and training, replacement demand and skills shortages, policy makers have a role to play in:

- implementing lifelong learning
- encouraging their education institutions to be more involved in continuing education,
- improving VET and the responsiveness of education and training systems to labour market needs in general.

These actions all contribute to improving the access, uptake and impact of continuing education and training.

CEEMET and its members welcome the EU level emphasis on cooperation between industry and VET and university-business cooperation, as well as the work that is being done to reduce the administrative burden for SMEs. CEEMET and its members are committed to providing policy makers with evidence-based, sector-specific information and good practices to ensure a competitive and thriving MET industry in Europe over the years to come.

