



Advanced manufacturing & ICT
Third public hearing on advanced manufacturing
Thursday, 10 July 2014

MINUTES

The main objective of this public hearing was to gather relevant stakeholders to discuss the challenges and new opportunities that are created by the integration of ICT into manufacturing industries and the appropriate exploitation of data for the development of new innovative services.

140 people, including policy makers, company managers, as well as representatives of industrial associations and academia, discussed possible policy measures and actions that could be launched in the coming period 2014-2020 to leverage national and regional efforts aiming at speeding up the modernisation of the European industry. The hearing was moderated by Bonifacio Garcia Porras, Head of Unit B3 "Innovation Policy for Growth" in DG Enterprise & Industry.

1. General picture

Daniel Calleja, Director General of DG Enterprise & Industry, recalled the importance of industry for employment, R&D, trade and overall economic situation. To help European companies lead the new industrial revolution, urgent action and clear strategy are needed. Strong partnership between the EU, Member States, regions and industry is necessary.

Paul Hofheinz, President of the Lisbon Council, underlined that advanced manufacturing doesn't mean more tech companies, but the adoption of ICT by existing industry: this will allow mass customisation and new business models. With a negative growth of total factor productivity at the moment, the EU has a lower growth path than the US. Investment is not the biggest problem: the main difference with the US is a lower share of ICT in investment. The leading EU Member States (Germany, Austria) are on a par with global leaders and Central European countries are well integrated in the Germany-led value chain. Network effects are the biggest driver of productivity. A digital single market is necessary to drive demand, to stimulate innovation, to increase productivity and to strengthen growth and jobs.

Khalil Rouhana, Director at DG Communications Networks, Content & Technology: embedding ICT leads to a convergence of product and process innovation. 55% of business R&D in machinery and 38% in automotive are on embedded ICT. Importance of the value chain: the EU is leading in automotive electronics due to the strong position of the EU automotive industry. Cyber-physical systems, robotics, laser-based manufacturing, computer-aided everything (digital factory) are key areas of ICT-based manufacturing. €300 million for industrial robotics, €100 m for laser-based



applications in photonics; all together more than €1 billion of investment in Horizon 2020 is foreseen to support inclusion of ICT into manufacturing.

2. National and regional approaches

- importance of collaborative environment / bringing people together (e.g. ICT suppliers and ICT users);
- clear EU role for facilitating platforms, sharing experiences & benchmarking, standards, regulatory framework and funding;
- [Vanguard Initiative for New Growth through Smart Specialisation](#) shows that regions can collaborate through matching strategic roadmaps, aligning strategic investments, upgrading regional partnerships and clusters with global potential;
- need for a value-chain approach, including logistics and creative industries;
- awareness raising and support to SMEs;
- lack of support for ADMA could reduce employment, while new opportunities related to new technologies will create employment; there could be however negative effects on certain jobs in the short term.

3. Business perspective

- there is a need for standards, but they need to be developed fast; national initiatives could lead to various *de facto* standards; the European Commission can foster negotiations on standards on Advanced Manufacturing;
- the main concern of the process industry is to gain competitiveness not through more ICT but through lower energy prices in Europe, at least in short and medium terms; in the longer term the industry could envisage resorting to waste and bio-products as new resources;
- integration of ICT in the process industry is easier in new plants; therefore, the lack of new investment in Europe creates a competitive disadvantage;
- SMEs do not have in-house capacities, but require specific service providers; SMEs will only take up solutions which effectiveness has been demonstrated; therefore unavailability of demonstrators is a barrier in convincing business;
- regional initiatives and SME intermediaries are gateways for SMEs;
- business leaders often lack the ability to manage change;



- unavailability of skilled personnel: education has difficulties in following the pace of technology developments.

4. Main conclusions and fields for possible action:

Participants pointed out the necessary action for the uptake of ICT and big data by industry:

support to SMEs	upgrade of skills	Finance	regulation, e.g. data security
standards & interfaces	adaptation of business models to the new industrial reality	alignment of business strategies	social-cultural aspects

5 potential avenues should be further explored in the frame of the future manufacturing strategy:

- better collection and analysis of economic data on advanced manufacturing;
- identification of barriers for the uptake of advanced technologies;
- facilitation of technology transfer;
- support for the regional efforts and networks of clusters;
- raising the awareness about the benefits and implications of advanced manufacturing.