



Smart Industry

After the steam engine, the assembly line and the success of digital technology, we are witnessing the 4th industrial revolution: the merging of real and virtual worlds. So Smart Industry is naturally one of our main challenges in ITEA. How do we cope with consumer demand for highly individualised products that are available fast, cheaply and with high-quality specs? What opportunities exist to integrate and effectively manage horizontal and vertical value chains? Where can digitalisation and connectivity be the allies of manufacturing and generate additional revenues? Just think of all the newly emerging, often disruptive, digital business models offering customers tailor-made solutions. If industrial software is the lubricant of Smart Industry, what are the smart innovations we need to secure a competitive and successful manufacturing industry in Europe?

Some facts and figures



- › Manufacturing is very important all around the world:
 - Between 1990 and 2011, manufacturing value added saw robust growth, up to around EUR 6,577 billion. Over that period, the traditional industrialised countries saw their average manufacturing value added increase by 17%, while this figure was 179% in emerging industrial countries, which now represent 40% of the total manufacturing value added worldwide. [5]
 - Manufacturing is a hefty contributor to trade, R&D and productivity, generating 70% of exports in major manufacturing economies – both advanced and emerging – and up to 90% of business R&D spending. Driven by global competition in many subsectors, manufacturing's share of productivity growth is twice its share of employment in the EU-15 nations and three times its share of US employment. [6]
- › Data is often referred to as the raw material of the 21st century. Indeed, the amount of data available to businesses is expected to double every 1.2 years. [5]
- › The market for 3D printers and related services rose to EUR 1.6 billion in 2012, and is estimated to rise by about EUR 4.4 billion annually through to 2017. [5]
- › The Siemens Amberg Electronics Plant Showcase: production is largely automated. Machines and computers handle 75% of the value chain on their own; a quarter of the work is done by people. Production volumes are up eightfold and production quality at EWA is at 99.9988 percent. [7]

Imagine ...

Imagine being the master of software development and continuously improving the efficiency, knowing we can forecast the user needs on the basis of his present pain points. Imagine a team of developers from different countries working cooperatively 24/7 creating substantial software with continuous integration that allows automatic testing every day and deployment in the hand of the end users and getting immediate feedback from these end users every week. Being able to continuously adapt the specifications on the basis of actual user feedback. A secure, resilient world of engineering that enables the engineer to concentrate on the engineering challenge without worrying about the operational issues of using the various engineering tools and the interfaces between them.

Imagine what is possible when we dare to dream, when we reach for the stars in a galaxy full of opportunities ...