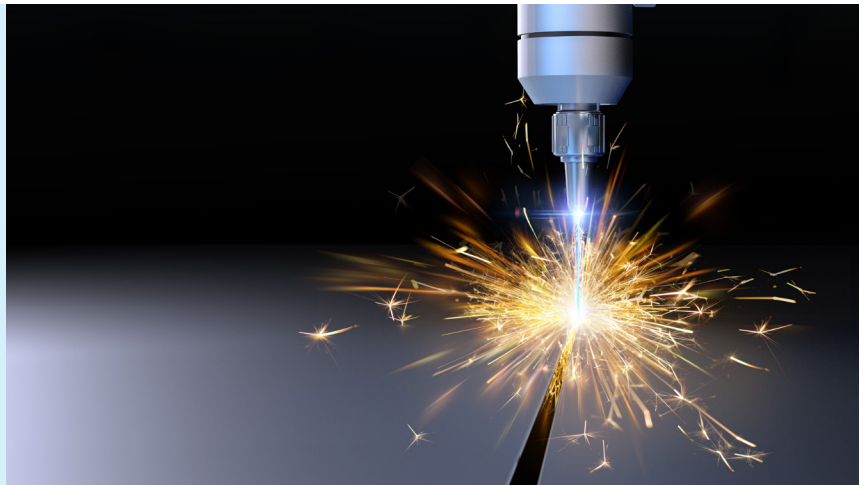


Factories of the Future PPP: towards competitive EU manufacturing

- Underpinning Europe's industrial competitiveness;
- Addressing global demand for affordable, personalised and eco-efficient products;
- Adapting manufacturing to a smart, green and inclusive economy;
- Reinforcing the role of manufacturing for growth and jobs.



What is the challenge?

Industrial production accounts for 16% of Europe's GDP and is a key driver for innovation, productivity, growth and job creation. Manufacturing employs around 30 million persons and twice as many in support activities such as logistics. In addition, 80% of the EU's exports are manufactured products. However, Europe's position as an industrial power house is eroding and its leadership in many important sectors is being challenged by global competitors, leading to a decline in employment in recent years.

What is the Factories of the Future (FoF) PPP?

The Factories of the Future Public-Private Partnership (PPP) initiative aims at helping EU manufacturing enterprises, in particular SMEs, to adapt to global competitive pressures by developing the necessary key enabling technologies across a broad range of sectors. It will help European industry to meet increasing global consumer demand for greener, more customised and higher quality products through the necessary transition to a demand-driven industry with less waste and a better use of resources.

What results and benefits do we expect?

The PPP will concentrate on increasing the technological basis of EU manufacturing through the development and

integration of enabling technologies, such as innovative technologies for adaptable machines, ICT for manufacturing, and novel industrial handling of advanced materials. These research and innovation activities will strengthen Europe's industrial competitiveness and sustainability.

Specific R&D objectives are:

- high-tech manufacturing processes, including 3D printing, nano- and microscale structuring;
- adaptive and smart manufacturing equipment and systems, including mechatronics, robotics, photonics;
- resource-efficient factory design, and data management for increased production performance;
- collaborative and mobile enterprises, networked factories linking dynamically supply chains to local production;
- human-centred manufacturing: designing the workplaces of the future;
- customer-focused manufacturing: linking products and processes to innovative services.

The initiative will further:

- help to address effectively new markets and consumer demands with customised products;
- facilitate optimum production with less resource use and waste;
- raise industrial investment in equipment and foster innovation;
- create attractive and safe workplaces and engage new talent;

- increase business R&D expenditure in manufacturing.

What is the budget?

The indicative budget foreseen within Horizon 2020 for the Factories of the Future contractual PPP amounts to EUR 1.15 billion over the seven-year period 2014-2020.

How will it be run?

The PPP research and innovation activities will be co-funded under Horizon 2020 and will be subject to the Framework Programme rules for participation and dissemination. PPP activities will be based on a continual stakeholder dialogue between the private and the public bodies involved in the initiative. The technological objectives are guided by a 2014-2020 multi-annual roadmap, developed by the research and industrial stakeholders and validated in a Europe-wide open consultation process. The European Commission ensures a fair, open and transparent implementation through annual calls for proposals and a rapid proposal-to-grant process under Horizon 2020.

The contractual Public-Private Partnership (PPP) on Factories of the Future will build on the successes of the Factories of the Future PPP initiative supported under the European Economic Recovery Plan. Under this initiative, 150 R&D projects were launched involving top industrial companies and research institutions. These projects covered the full spectrum of manufacturing: supply chain configurations, virtual factories, material processing and handling, programming and planning, customer-driven design, energy efficiency, emissions reductions, new processing technologies, new materials, upgrading of existing machines and technologies.

Useful links

Factories of the Future:

www.ec.europa.eu/research/industrial_technologies/factories-of-the-future_en.html

European Factories of the Future Research Association (EFFRA): www.effra.eu

Small but powerful

A new method for manufacturing microsystems and devices has shown that expensive large-scale infrastructures are not always required. Project FEMTOPRINT successfully developed and demonstrated a table-top printer that is capable of producing microsystems with nanoscale capability. Such printers are able to boost innovations in microsystems manufacturing and in particular provide affordable 3D printing capability to small companies.

FEMTOPRINT :
www.femtoprint.eu

