



**VANGUARD INITIATIVE**  
New growth through smart specialisation

# High Performance Production through 3D Printing

## A Vanguard Initiative Pilot Project



Image: ©Shutterstock

### **Vision**

3D Printing technologies are one of the most promising production technologies. Their potential for smart production and efficient processes opens up a wide range of new perspectives. Europe possesses great potential to become a world leader in the development and deployment of these technologies. However, the uptake of 3D Printing solutions by companies still must be further developed. In this view, this pilot project seeks to connect existing regional initiatives starting from identified complementarities.

### **Pilot project added value**

Participating in the 3D Printing Pilot project offers the possibility to be part of a network of interregional demonstrators which would, among other things, ease the access to infrastructures located in other EU regions. Moreover, the development of demonstration projects, in cooperation with other companies and supported by regional actors, will allow reaching critical mass, sharing knowledge and leveraging financing for projects that would hardly be developed by a single entity.

### Demo cases currently under development

- 3D printed hybrid components
- Additive Subtractive Platform High Precision & High Finish Production
- 3D printed automotive components for large, medium, and small complex parts
- Machinery, tooling and complex shapes
- 3D Printed Customized Components for Orthosis, Exoskeleton and Exoprosthesis (Healthcare)
- Mass-customised 3DP consumer products
- 3DP in Textile

### Achievements

In the area of hybrid components, two industrial projects were recently launched in the context of the demo case.

In the context of the 'Additive and subtractive' platform, 20 very concrete user cases from industrial companies from different regions and different sectors (Aerospace, Automotive, Machinery & Tooling, Packaging, electronic equipment) have now been identified.

Several entities are working together to speed up certification processes in the area of '3DP for Healthcare' and a European training scheme project is currently in development.

### Vanguard Initiative

Vanguard Initiative is a European network of industrial regions that seeks to speed up the market uptake of new technologies

through the establishment of industry-led, cross regional joint-demonstration platforms. The network has initiated five thematic pilot projects to explore opportunities for developing interregional joint-demonstration.

Besides the pilot project on 3D-printing, the other four pilot projects are:

- Advanced Manufacturing for Energy Applications in harsh environments
- Bioeconomy - Interregional cooperation on innovative use of non-food Biomass
- Efficient and Sustainable Manufacturing
- New Nano-Enabled products

### Contact details

Dr. Vincent Duchêne (IDEA Consult)  
vincent.duchene@ideaconsult.be  
3D Printing Pilot Network Manager

#### Flanders

Elie Verstraeten  
elien.verstraeten@ewi.vlaanderen.be

Barbara Cattoor  
Barbara.Cattoor@ewi.vlaanderen.be

#### South-Netherlands

Wim De Kinderen  
w.dekinderen@brainportdevelopment.nl

#### Norte

Pedro Rocha  
pedro.rocha@produtech.org