

“We’ve had an industrial revolution. We’ve had a digital revolution. Now is the time for a digital industrial revolution”

Within Diginova, Digital Fabrication is defined as a new kind of industry that uses computer-controlled tools and processes to transform digital designs directly into useful physical products. 3D printing is a prime example of Digital Fabrication and it is expected by many to revolutionize the manufacturing industry. Development of well matched combinations of advanced new material deposition tools and materials is considered a key success factor for Digital Fabrication.

The purpose of the Diginova coordinating work is to determine the current status and assess and promote the expected potential of Digital Fabrication for the future of manufacturing and materials research in Europe.

We will map key material innovation and application domains, identify key technology challenges and new business opportunities. We will identify and connect main stakeholders and establish networks centred around promising business opportunities, to determine the added value and feasible routes to commercialization. Our findings will result in a Digital Fabrication roadmap that will point out directions for innovation in Digital Fabrication and materials and describe how this will contribute to transform EU industries from their 20th century analogue roots to their 21st century digital future.

Work package 2: Charting Innovation Landscape

The overall goal of WP2 is to identify the most promising market opportunities for the European manufacturing and related materials industry in ten and twenty years including where a shift to Digital Fabrication is expected to add the most value. This will be done through an evaluation of different sectors/domains and a subsequent systematic ranking based on defined criteria (like sustainability, market potential, etc). This will result in an easy to view “business and technology map” aligned with a vision on how Digital Fabrication will fuel future growth in the manufacturing industry in Europe. The outcome of work package 2 aims to provide focus to the Diginova project and the Digital Fabrication roadmap.

Work package 3: Identifying stakeholders & establish innovation networks

The main goal of work package 3 is to identify key stakeholders and to establish innovation networks in the field of Digital Fabrication. To reach this goal the following objectives are defined:

- Identifying stakeholders and their business areas and giving an executive summary of their vision and targets on the key application fields as defined by WP2;
- Organizing network events and workshops;
- Creating a network of information on Digital Fabrication and the implementation of Digital Fabrication into the European industry;
- Creating an expectation paper which summarizes the vision, value chains, targets and today’s actions of the stakeholders in the key application fields defined by WP2.

Work package 4: Key Technology Challenges

The main goal for work package 4 is to define and describe the key technology challenges (KTC's) connected to digital fabrication and the identification of business drivers. To reach this goal the following objectives are defined:

- Determination of a methodology to identify and catalogue key technology challenges towards the technology and business implementation, promoting European industrial competitiveness, productivity and profitability to 2030 and beyond;
- Involvement of European businesses of various sizes to identify business drivers relating to 2D and 3D digital fabrication technologies, taking into account the complete value creation chain;
- Provide input for the Digital Fabrication road mapping activities in work package 5 by identifying future themes for business and technology research, and thereby informing national and EU level research programmes.

Work package 5: Roadmap for Digital Fabrication

The overall objective of Work Package 5 is to create a technology roadmap for Digital Fabrication, which will clearly show the vision of the industry and the steps required to transform the vision into reality. More specifically, the work package will identify and review relevant roadmaps from industrial sectors that are likely to be stakeholders in the Digital Fabrication agenda, and evaluate their connection, relevance and contribution to an overall Digital Fabrication roadmap. The outcomes and findings of work done in the other work packages will be first transformed into elements of a draft roadmap, which will be used to gather feedback from a wide range of stakeholders outside the Diginova consortium. Towards the end of the project, all work done in other work packages combined with the external feedback will be used to finalize and publish the Digital Fabrication roadmap.

Work package 6: Dissemination

The main objective of the dissemination activities is to create awareness of the Diginova project objectives, its activities and results and the dissemination thereof. Input of the other work packages will be collected and collated to disseminate the results of the project as a whole throughout the projects duration. Three routes for dissemination are used:

- The project website: www.diginova-eu.org
- participation in conferences, tradeshow and exhibitions;
- Organisation of dedicated seminars and workshops to discuss Digital Fabrication, the Diginova vision and its findings with (new) stakeholder communities.