

## Teaming up to unlock the technological innovation potential in European manufacturing

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*INTEGRADDE, Level-Up and DIMOFAC are three European-funded projects which have benefitted from the European Commission's Horizon Results Booster to carry out joint dissemination activities with the aim of promoting their technology solutions adapted to advanced manufacturing*



Manufacturing enables technological innovations to be applied in goods and services and is key to making new products affordable and accessible. The manufacturing industry is a strong asset of the European economy, accounting for 2 million enterprises and 33 million jobs. Europe's competitiveness is highly dependent on the ability of this sector to deliver high-quality innovative products using the latest advances in ICT, in order to help to make processes more efficient and to create more personalised, diversified and mass-produced high quality products, promptly responding to market changes.

As alleged in “*The European Task Force for Advanced Manufacturing*”<sup>1</sup>, the European Commission aims to increase the competitiveness of the EU's manufacturing industry by fostering the development and speeding up the uptake of advanced manufacturing technologies by European industry.

In order to promote sustainable industrial growth, it is essential to facilitate a strategic shift in Europe from cost-based manufacturing to an approach based on resource efficiency and the creation of high added value products and ICT-enabled intelligent and high-performance manufacturing in an integrated system. For this reason, the European Commission is financing a number of H2020 projects addressing sustainable industrial growth.

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<sup>1</sup> <https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/link/european-task-force-advanced-manufacturing>

With the support of the Horizon Results Booster (HRB), three of these projects have established a synergy with the aim of further promoting their results and collaborate through joint activities:



[INTEGRADDE](#) is developing a new manufacturing methodology capable of ensuring the manufacturability, reliability and quality of a target metal component from initial product design via direct energy deposition (DED) technologies, implementing a zero-defect manufacturing approach ensuring robustness, stability and repeatability of the process.



[LEVEL-UP](#) is creating an ascendable platform to deal with the entire lifecycle of the production process for the diagnosis and forecasting of the operation of physical assets and monitoring the restoration and repair procedures, with the aim of addressing Europe's manufacturers' need for new methods that permit a comprehensive, cost-affordable and integrated application of circular economy principles for the digital upgrade of the entire production system.



[DIMOFAC](#) is developing solutions for permanent production transformation, amelioration and adaptation that will reduce the time of production lines, through the integration of plug-and-produce modules in a 'closed-loop lifecycle management system', by securing continuous safe communication throughout the product lifecycle by making a digital twin of each module.

The main manufacturing solutions developed by the three projects rely on two concepts which are at the basis of digital transformation, facilitating the capture and analysis of operational data, which is then used to inform process adjustments meant to reduce costs while improving efficiency and business outcomes. The first one is **digital thread**, which allows the empowerment of more effective and secure communication and collaboration throughout engineering, supply-chain, manufacturing and field service operations based on data continuity. The second one is **digital twins**, transforming business by accelerating holistic understanding, optimal decision-making, and effective action.

The HRB has supported effective transfer of the research and innovation results of these projects to policy-makers, industry and society by creating a portfolio of results that are suitable for dissemination, mapping the relevant stakeholders/target audience for the project group and providing projects with dissemination materials, including a graphically appealing factsheet showcasing the projects' commonalities and the impact of their results on stakeholders, and a short animated video pill, focusing on the related domain and addressed challenges.

## What is the Horizon Results Booster?

The Horizon Results Booster is a new initiative backed by the European Commission which aims to maximise the impact of research projects funded by FP7, Horizon 2020 and HE. It provides expert support to disseminate effectively and boost the exploitation potential of European-funded projects' research results.

Find more information: <https://www.horizonresultsbooster.eu/>