

## WHAT IS AN OPEN INNOVATION TEST BED ?

An Open Innovation Test Bed (OITB) is a set of entities providing common access to physical facilities, capabilities and services required for the development, testing and upscaling of nanotechnology and advanced materials in industrial environments. The objective of the OITB is to bring nanotechnologies and advanced materials within the reach of companies and users in order to advance from validation in a laboratory to prototypes in industrial environments.

This ecosystem shall provide users an easy access to holistic innovation boosting services through a Single Entry Point company. Through this company, the customer can gain access to services from partners in more than 10 different EU countries in either its native language or English. Integrating services to a complete offer will substantially reduce the time and cost to progress from an idea to a successful product.

### PROJECT WORKPLAN

**2024:** Sustainable FlexFunction2Sustain OITB Operation

**December 2021 and 2022:** Competitive Calls for pre-commercial pilot projects

**2022:** Pilot lines upgraded for biodegradable plastics and increased productivity and reliability

**Early 2021:** Single Entry Point company operational and FlexFunction2Sustain Consortium Member

**2020:** OITB Member Pilot Facilities accessible for Customers (direct contracts)

## PARTNERSHIP



### AMIRÉS

FlexFunction2Sustain will establish an Open Innovation Test Bed (OITB) for nano-functionalised flexible plastic and paper surfaces and membranes. Such an OITB will support innovative SMEs and industries by drastically reducing time and effort for proceeding through the innovation chain from a product idea to market success. The OITB will provide holistic technical and business services including material and process design, development, upscaling, pilot production, application verification and access to networks, finance, markets and clients.

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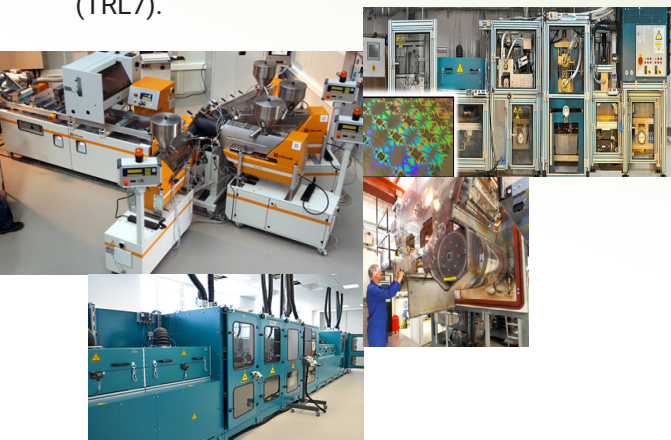
## OPEN INNOVATION ECOSYSTEM SUSTAINABLE NANO-FUNCTIONALIZED PLASTIC & PAPER SURFACES & MEMBRANES



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## UPGRADE OF TECHNICAL FACILITIES

FlexFunction2Sustain will upgrade its facilities to provide access to each individual nanosurface /membrane processing technique at all four relevant TRL (4-7) levels. This allows us to offer services for advancing new surface and membrane functionalities from laboratory validation (TRL4) to validation in an operational/ industrial environment (TRL7).



# FLEX FUNCTION 2 SUSTAIN

The FlexFunction2Sustain project aims at creating an Open Innovation Test Bed for nano-functionalisation technologies that enable sustainable and smart plastics and paper based products. The ecosystem will support innovative SMEs and industries by drastically reducing the time-to-market for novel concepts, ideas and products.

## INDUSTRIAL VALIDATION

- Relevant industrial use cases will validate and demonstrate the performance of the novel nano-functionalised plastic, paper and membrane surfaces and processes:
- Marine-degradable shampoo sachets
- Paper-based fresh food packaging
- Biodegradable security label
- Recyclable mono-polymer drink pouches
- Innovative plastic surfaces in cars
- Selective and switchable water filter membranes

## PRE-COMMERCIAL BUSINESS CASES

In order to accelerate the uptake of the FlexFunction2Sustain OITB services, two open calls will be organized for the interested external companies. Following a competitive selection process, up to 20 pre-commercial business cases (pilot cases) will be selected.

The FlexFunction2Sustain OITB will create a holistic integrated **service portfolio** to support its customers in material and product design, in process and product development, in product verification and certification, with pilot and small series production services and with accessing new markets and business opportunities.

