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Overcoming the Challenge of Upscaling: Reduction of Technological Risk & attract investments

Market

- Energy, Construction, Health... (Industrial Sectors)
- Lightweight materials, Surfaces and Membranes, Bio-Based... (Cross-Cutting Technologies)

Engineering & upscaling (TRL 4 to 7)

- Pilots
- Characterisation
- Modelling
- Checking conformity with regulatory frame and standards

Nanotechnology and Advanced Materials
Open Innovation Test Beds

ACCELERATING INNOVATION for MATERIALS Industry

In the two KETs: Nanotechnologies and Advanced Materials

FP7-H2020

H2020-FP9
Enablers for Innovation Ecosystems

• **Industry Pilot Facilities**

83 Pilot Facilities and Demonstrators, mostly with industry:

![Graph showing the distribution of pilot facilities and their funding by category: Private, Research, Universities, Others.](image-url)
Open Innovation Test Beds - Tasks

- Open access to facilities and services for design, development (prototyping), testing, and upscaling of materials and nanotechnologies for new products
- Demonstration in the relevant industrial environments
- Show-casing technologies with user industry in cross border applications
- Facilitate access of European SMEs along product supply chains
- Identification and assessment of potential regulatory, economic and technical barriers
- Engagement of stakeholders across the EU and the Associated Countries
Example of Test Bed with Own Facilities and Services

**SOLUTION**

**Open Innovation Test Bed on**
**Lightweight nano-enabled multifunctional composite materials and components**

- Physical Facilities for piloting and testing
- Characterisation
- Modelling
- Nanosafety
- Regulation & Standardisation
- Business/Marketing Services

**Users' Needs for Facilities and Services**
Open Innovation Test Beds – Expected Impact

- Open and upgraded facilities at the EU level
- Reduced services access costs for companies using the test beds
- Improved industrial productivity
- Accelerated innovation in the specific domain
- Increased access to finance (for SMEs in particular) for investing in these materials or in applications using them
- ~20% increase in SMEs access to hubs' services and increased access to finance for investing in materials or in the applications using them.
For upscaling nanotechnology and materials, Open Innovation Test Beds will be funded in 6 technology domains, plus Characterisation and Modelling.

**2018**
- DT-NMBP-01-2018 Lightweight
- DT-NMBP-02-2018 Med-tech Health
- DT-NMBP-07-2018 Characterization

**2019**
- DT-NMBP-03-2019 Surfaces and Membranes

**2020**
- DT-NMBP-04-2020: Bio-based
- DT-NMBP-05-2020: Building Envelopes
- DT-NMBP-06-2020: Nano-pharmaceuticals
- DT-NMBP-11-2020: Modelling

- EMMC - European Materials Modelling Council
- EPPN - European Pilot Production Network
- Nanosafety Cluster
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About Horizon 2020
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