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# Horizon 2020 Work Programme for Research & Innovation 2018-2020

**From PILOT LINES  
to OPEN INNOVATION TEST BEDS  
In Nanotech and Advanced Materials**

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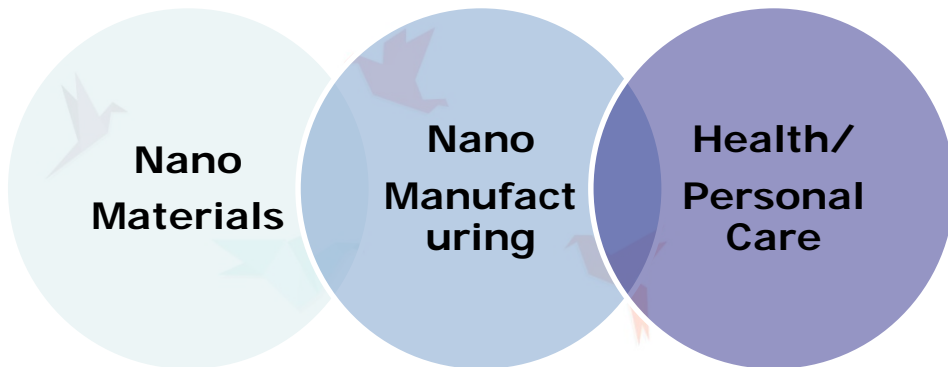
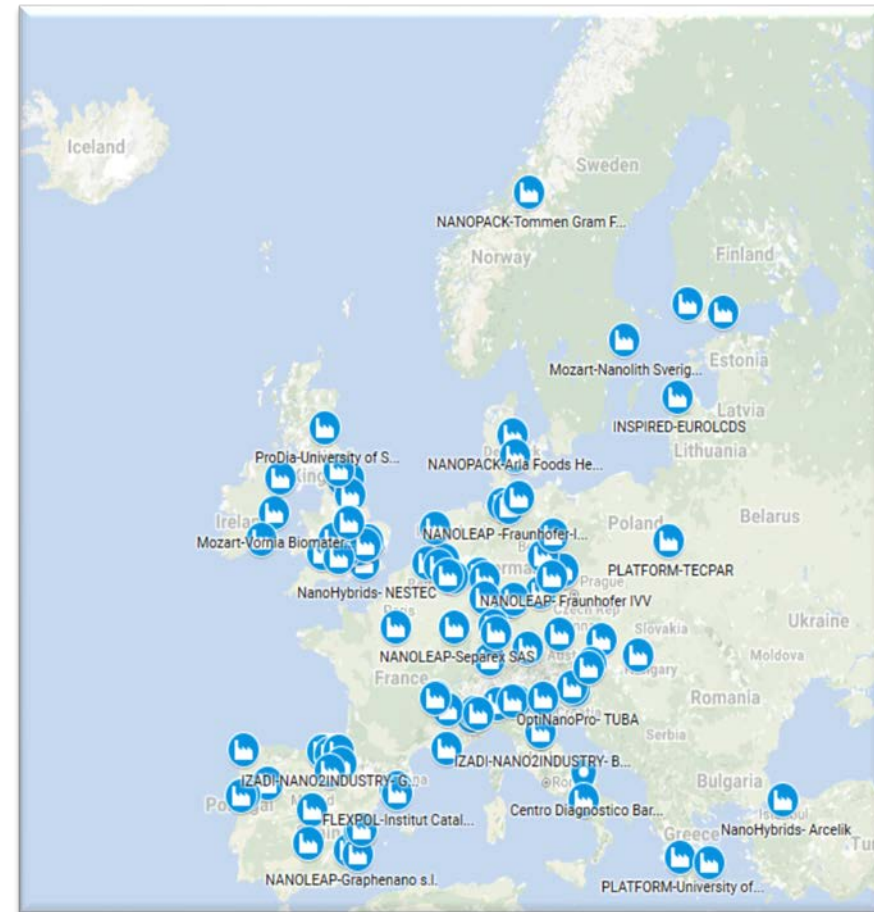
# Pilot Lines funded under the 2014-17 Calls



# H2020/NMBP sofar:

## Pilot Facilities (2014-17)

- 210 M€ EU contribution in
- 37 Pilot Line Projects in
- 25 Countries.
- >90 Pilot Lines created
- 55% IND & 30% RTO based
- >30 Regions involved.
- >10000 EU jobs and
- >600 m€ income by 2026.



## **NanoMaterials:**

1. Open access pilot lines for cost-effective nanocomposites
2. Integration of novel nanomaterials into existing production lines
3. Manufacturing and control of nanoporous materials
4. Industrial-scale production of nanomaterials for printing applications
5. Man. of materials with customized thermal/electrical conductivity properties

## **NanoManufacturing:**

1. High definition printing of multifunctional materials
2. Additive manufacturing for table-top nanofactories
3. Man. of Nanotextured surfaces with mechanically enhanced prop's
4. 3D printed and/or injection moulded polymeric or ceramic microfluidic MEMS
5. Paper-based electronics

## **Health/Personal Care:**

1. Scale-up of nanopharmaceuticals production
2. Novel nanomatrices and nanocapsules
3. Nanostructured Antimicrobial Surfaces using Advanced Nanosurface Functionalization Technologies

# Open Innovation Test Beds – 2018-20 Topics:

- **Lightweight nano-enabled multifunctional materials and components (2018)**
- **Safety Testing of Medical Technologies for Health (2018)**
- **Nano-enabled surfaces and membranes (2019)**
- **Bio-based nano-materials and solutions (2020)**
- **Functional materials for building envelopes (2020)**
- **Nano-pharmaceuticals production (2020)**

Supported by horizontal topics:

- **Open Innovation Test Beds in Characterisation (2018) and**
- **Modelling (2020) as well as topics in the domain of NanoSafety.**

# The European Pilot Production Network "EPPN"

[www.eppn.eu](http://www.eppn.eu)

# EUROPEAN PILOT PRODUCTION NETWORK (EPPN)

- 2015 Pilot projects (2014 call) networking, business plan pitching training
- 2016 Pilot projects (2015 call) - same
- 2017 ENF2017 Conference pitching session
- 2017 June start of the EPPN CSA
- 2017 November 1st EPPN Workshop



# EUROPEAN PILOT PRODUCTION NETWORK (EPPN)

- Focus on **upscaling and market deployment** of nanotechnologies and advanced materials.
- **Support** an enhanced materials' **innovation ecosystem** and an attractive **business environment**.
- *Create a **dynamic network of pilot lines to form a complete pilot upscaling ecosystem** for key industrial value chains.*
- *Offer an **operational map** and **virtual marketplace** for open pilot facilities and services in Europe.*
  - Connect technology owners, -users and investors
  - Provide a digital marketplace linking owners and users.
  - Support technology and business implementation.
  - Network National and Regional resources and initiatives
  - Network public and private investors
  - Creating European and National Innovation Hubs across Europe



## EPPN CSA Scope

- Create an operational map of all European open pilot facilities and services for upscaling of nanotechnologies and advanced materials.
- Connect technology owners, users, innovation policy and programme managers and investors through a Virtual Hub.
- Establish an enhanced materials' innovation ecosystem and attractive business environment for these.
- Fully exploit the business potential and improve the opportunities for technology uptake, demonstration and market deployment.
- Provide technical and business planning and dissemination support to facility owners and technology users.
- Network National and Regional resources and initiatives
- Network public and private investors.

- European Parliament
- PPPs
- EU, National, regional and local authorities/policy makers
- Funding/development Agencies

**Government Funding Agencies & Policy Makers**

- Supporting projects that pass through pilot lines
- Supporting pilot lines facilities

**Investors**

- Industries' Associations
- Technology platforms
- Clusters
- Councils
- Hubs
- ...

**Networks and associations**

- Nanomaterials' suppliers
- Equipment suppliers
- ...

**Pilot Production Suppliers**

- Pilot Projects (all funded projects, from FP7 to H2020)
- Organisations with open access pilot production facilities

**Pilot Production Facilities**

- Startups
- SMEs
- Large Companies

**End User Companies**

- Research Centers
- Technology Centers
- Universities
- ...

**Research and technology Institutions**

- Modelling
- Safety
- Standards
- ...

**Associated Service providers**

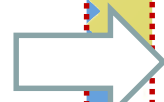
**Society**

**EPP**  
Pilots' Ecosystem

**Actors**

**Actors**

**Actors**



# Thank you!

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[www.ec.europa.eu/research](http://www.ec.europa.eu/research)

