



#InvestEUresearch



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

## BUILDING AN OPEN INNOVATION ECO-SYSTEM

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Materials for Tomorrow  
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EPPN Workshop  
San Sebastian, Spain  
5<sup>th</sup> November 2019

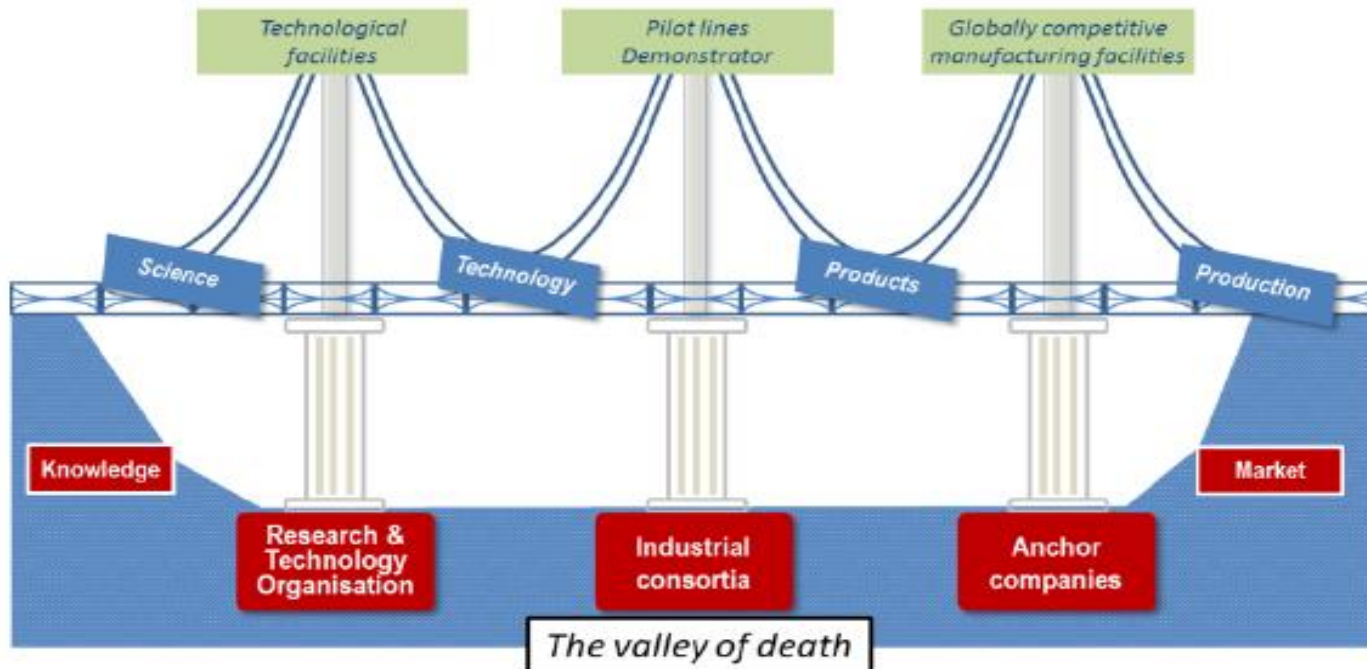
Research and  
Innovation

# RATIONALE

- **Testing** and **validation** of new technologies essential before **commercialisation**.
- **Speed** and **complexity** of innovation is increasing and **high capital investment** are needed → SMEs and industrial start-ups cannot afford investing in own infrastructures.

**Availability and access to state of the art technology infrastructures, whether public or private, is essential to accelerate technology diffusion and access to emerging markets**

# Crossing the valley of death



TRL	1	2	3	4	5	6	7	8	9
	Basic Principles Observed	Technology Concept Formulated	Experimental Proof of Concept	Technology Validation in lab	Tech valid. In relevant environment	Demonstration in relevant environment	Demonstration in operational environment	System complete and qualified	Successful mission operations



# 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

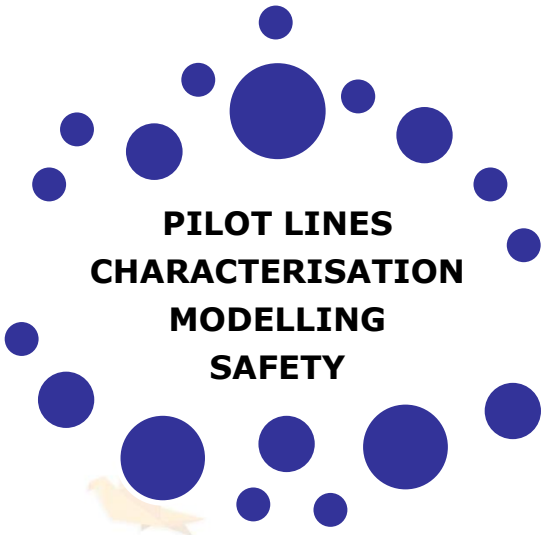
Characterisation

Modelling

Checking conformity with  
regulatory frame and  
standards

## Nanotechnology and Advanced Materials

# Open Innovation Test Beds



**PILOT LINES  
CHARACTERISATION  
MODELLING  
SAFETY**

**ACCELERATING  
INNOVATION  
for  
MATERIALS Industry**

In the two KETs:  
**Nanotechnologies and  
Advanced Materials**



**OPEN  
INNOVATION  
TEST BEDS**

**FP7-H2020**

**H2020-HE**

## Open Innovation Test Beds - Scope

Open access to facilities and services for design, development (prototyping), testing, and upscaling materials and nanotechnologies for new products

Demonstration in the relevant industrial environments

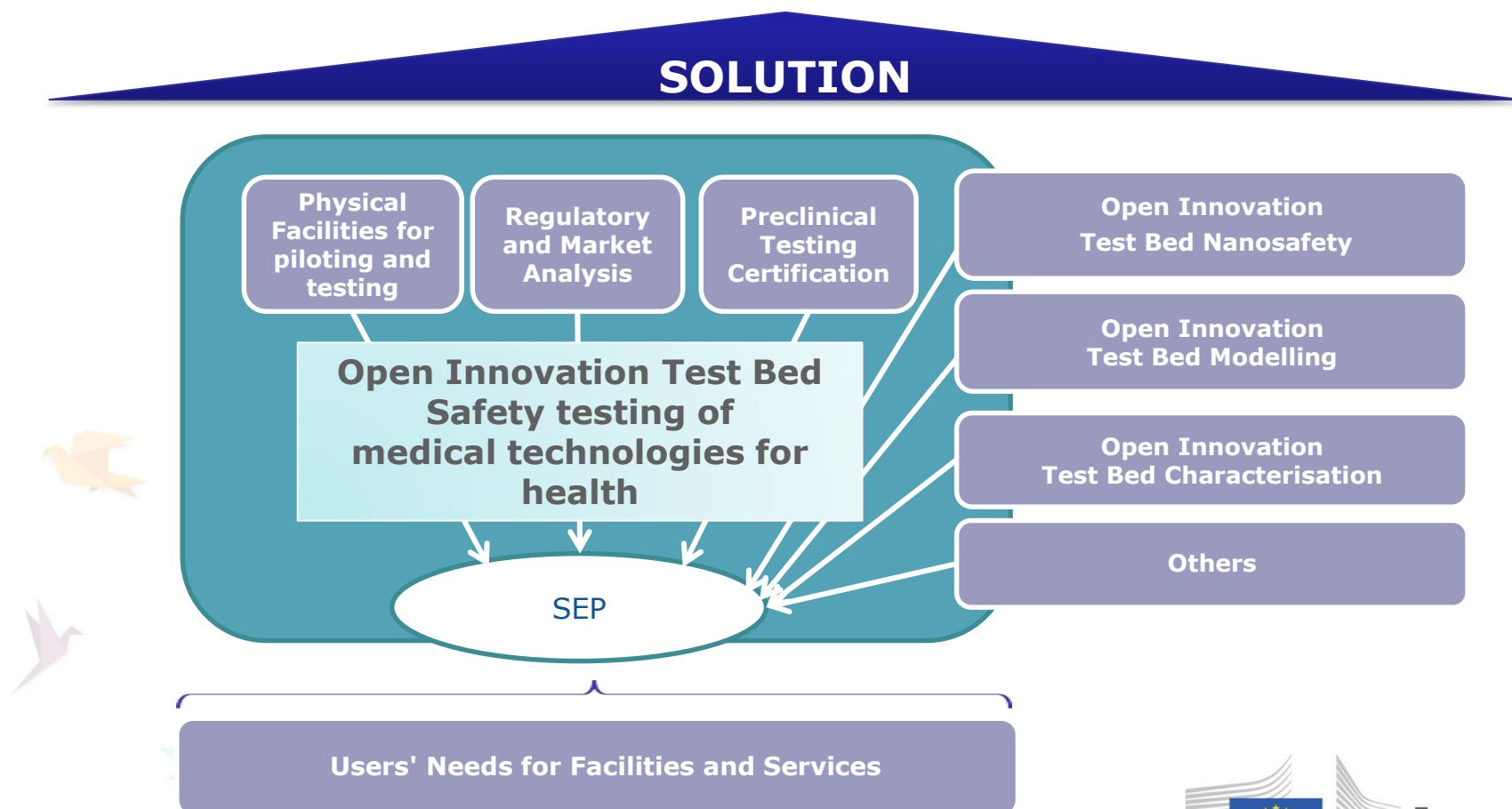
Show-casing technologies with user industry in cross border applications

Facilitate access of European SMEs along product value 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 Facilities & Service in House and Provided by External Entities



## 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**

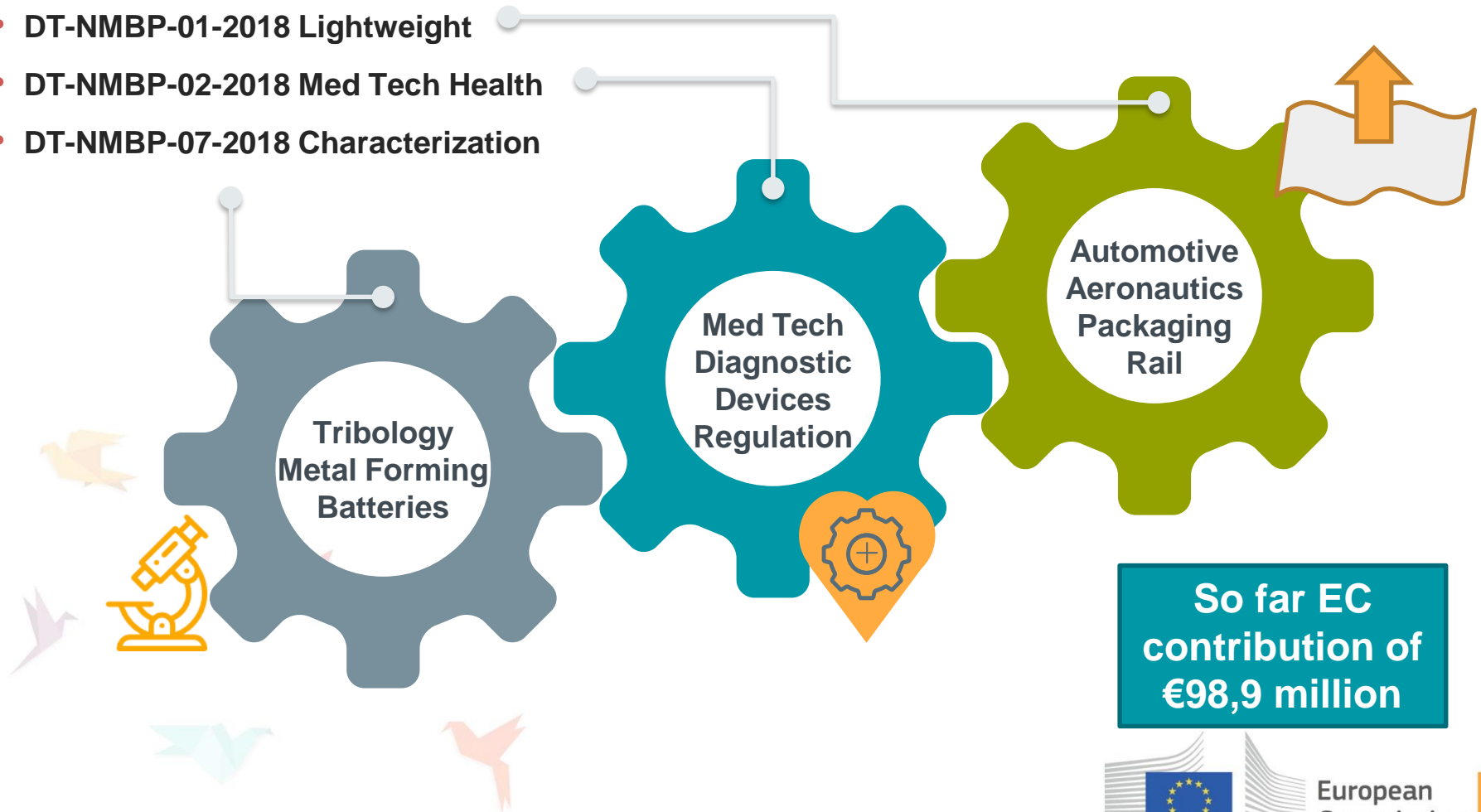
**Increased access to finance (for SMEs in particular) for investing in these materials or in applications using them**

**20% increase in SMEs access to test beds' services and increased access to finance for investing in these materials or in applications using them**



# OITBs – 10 projects started early 2019

- DT-NMBP-01-2018 Lightweight
- DT-NMBP-02-2018 Med Tech Health
- DT-NMBP-07-2018 Characterization

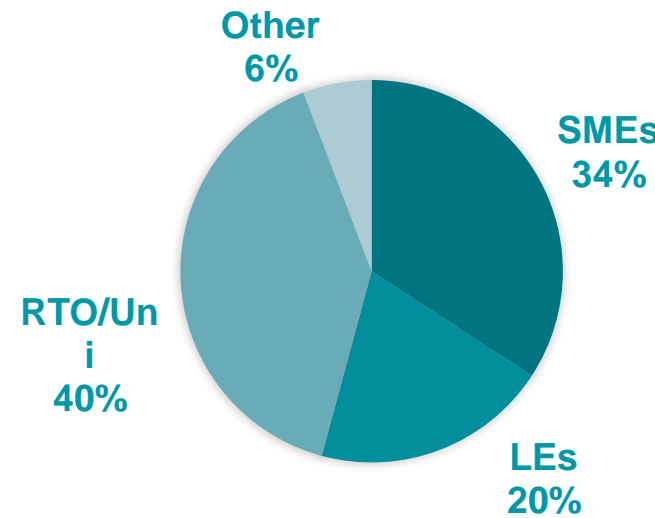


**So far EC  
contribution of  
€98,9 million**

# OITBs – 10 projects started early 2019

Current participation reflects offers from most of Europe...

...but services open to all of Europe!



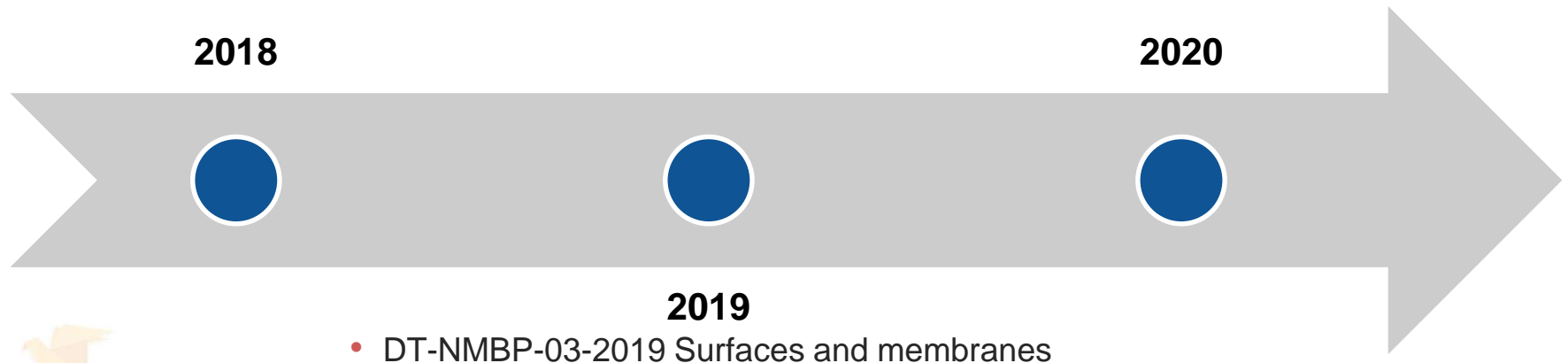
% of Participants by Type

# Workshop "Open Innovation Test Beds – Introduction, Solutions and Networking" - 2nd April 2019

- 1<sup>st</sup> each Test Beds provided a general overview of its activities
- 2<sup>nd</sup> participants were invited to discuss the following issues:
- **Sustainable operation of an OITB:**
  - SEP – legal and operational basis
  - Technical (inter-) OITB collaboration (access conditions, IPR, Pricing etc.)
- **Client Engagement:**
  - OITB PR activities
  - Engaging with European networks, Regional contacts etc.
- **Challenges in providing services:**
  - How to provide both technical and other services;
  - Identifying and developing the needed skills;
  - Addressing issues related safety, standards, regulatory etc.

# OITBs WP2018-2020 FUTURE CALLS

- DT-NMBP-01-2018 Lightweight
- DT-NMBP-02-2018 Med Tech Health
- DT-NMBP-07-2018 Characterization
- DT-NMBP-04-2020: Bio-based
- DT-NMBP-05-2020: Building envelopes
- DT-NMBP-06-2020: Nano-pharmaceuticals



**EUR 215 million is planned over NMBP WP2018-2020**

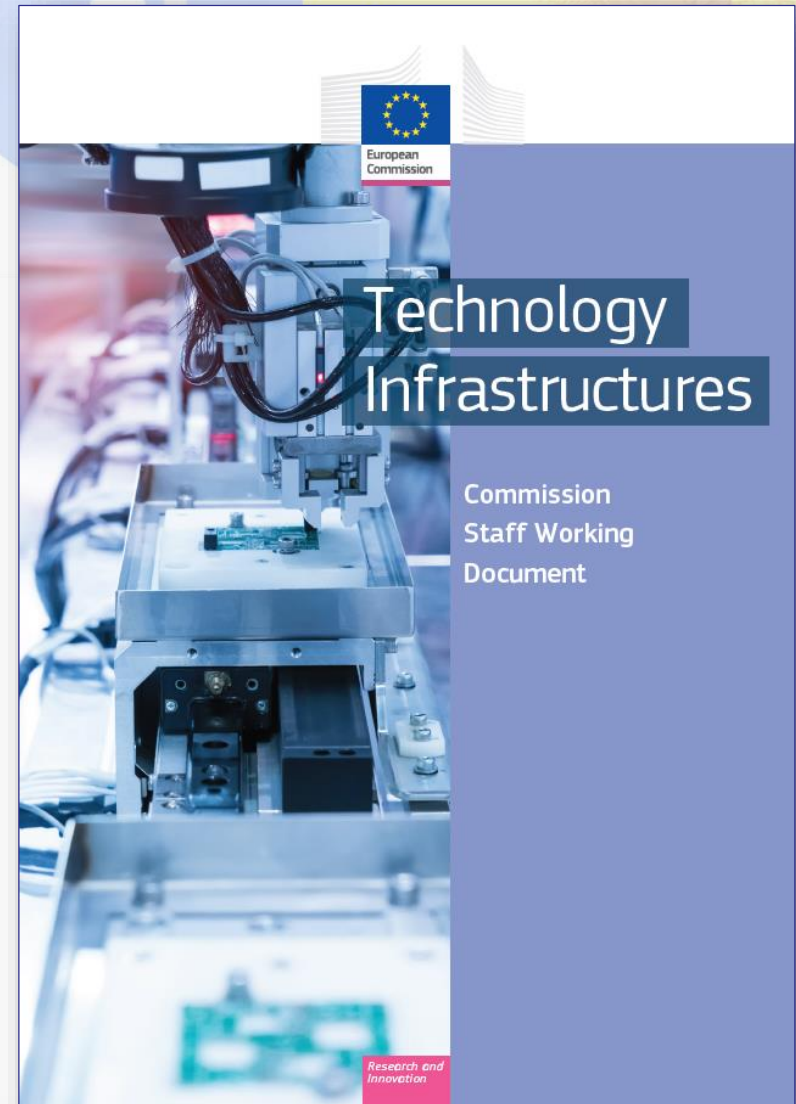
## H2020 Programme - Explanatory Notes on Open Innovation Test Beds

[https://ec.europa.eu/research/participants/data/ref/h2020/other/guides\\_f\\_or\\_applicants/h2020-supp-info-innotestbeds-18-20\\_en.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/other/guides_f_or_applicants/h2020-supp-info-innotestbeds-18-20_en.pdf)

# Publication of Staff Working Document on Technology Infrastructures

- April 2019

<https://publications.europa.eu/en/publication-detail/-/publication/0df85f8b-7b72-11e9-9f05-01aa75ed71a1/language-en>



# Further information

**Horizon 2020:** [http://ec.europa.eu/research/horizon2020/index\\_en.cfm](http://ec.europa.eu/research/horizon2020/index_en.cfm)

**Participant Portal** - Funding Opportunities and support services :  
<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

**National Contact Points in your country (NMP)**  
[http://ec.europa.eu/research/participants/portal/desktop/en/support/national\\_contact\\_points.html#c,contact=country/sbg//1/1/0&+person.last\\_name/desc](http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html#c,contact=country/sbg//1/1/0&+person.last_name/desc)

**National Contact Points website** - webinars, presentations, guidance :  
<http://www.nmpteam.eu/>

**Research Enquiry Service:**  
<http://ec.europa.eu/research/index.cfm?pg=enquiries>

**CORDIS database with EU funded research projects :**  
[http://cordis.europa.eu/projects/home\\_en.html](http://cordis.europa.eu/projects/home_en.html)