



#InvestEUresearch



Horizon 2020 Work Programme for Research & Innovation 2018-2020

BUILDING AN OPEN INNOVATION ECO-SYSTEM

Søren BØWADT-Deputy Head of Unit
Advanced Materials and Nanotechnologies
DG Research & Innovation – Industrial Technologies

Research and
Innovation

EuroNanoForum,
Bucharest
13 June 2019

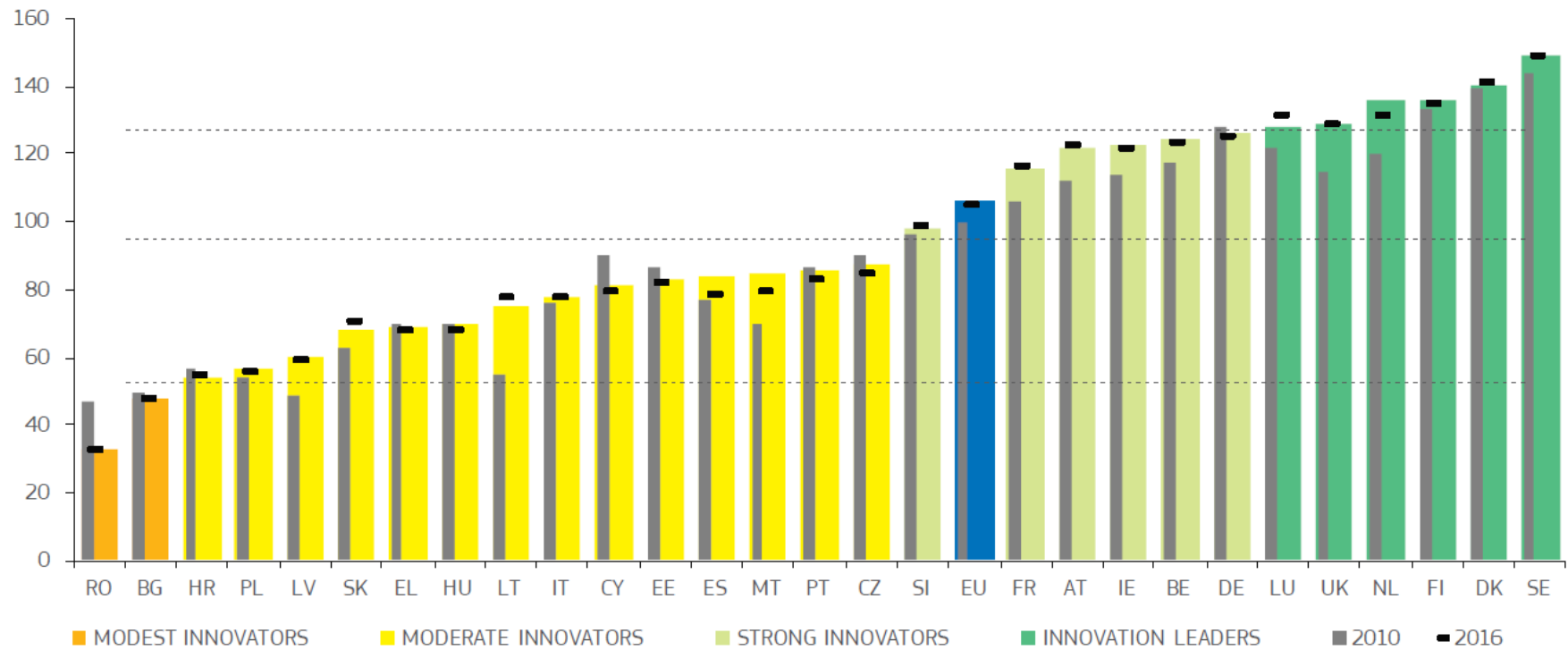
RATIONALE

- **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.

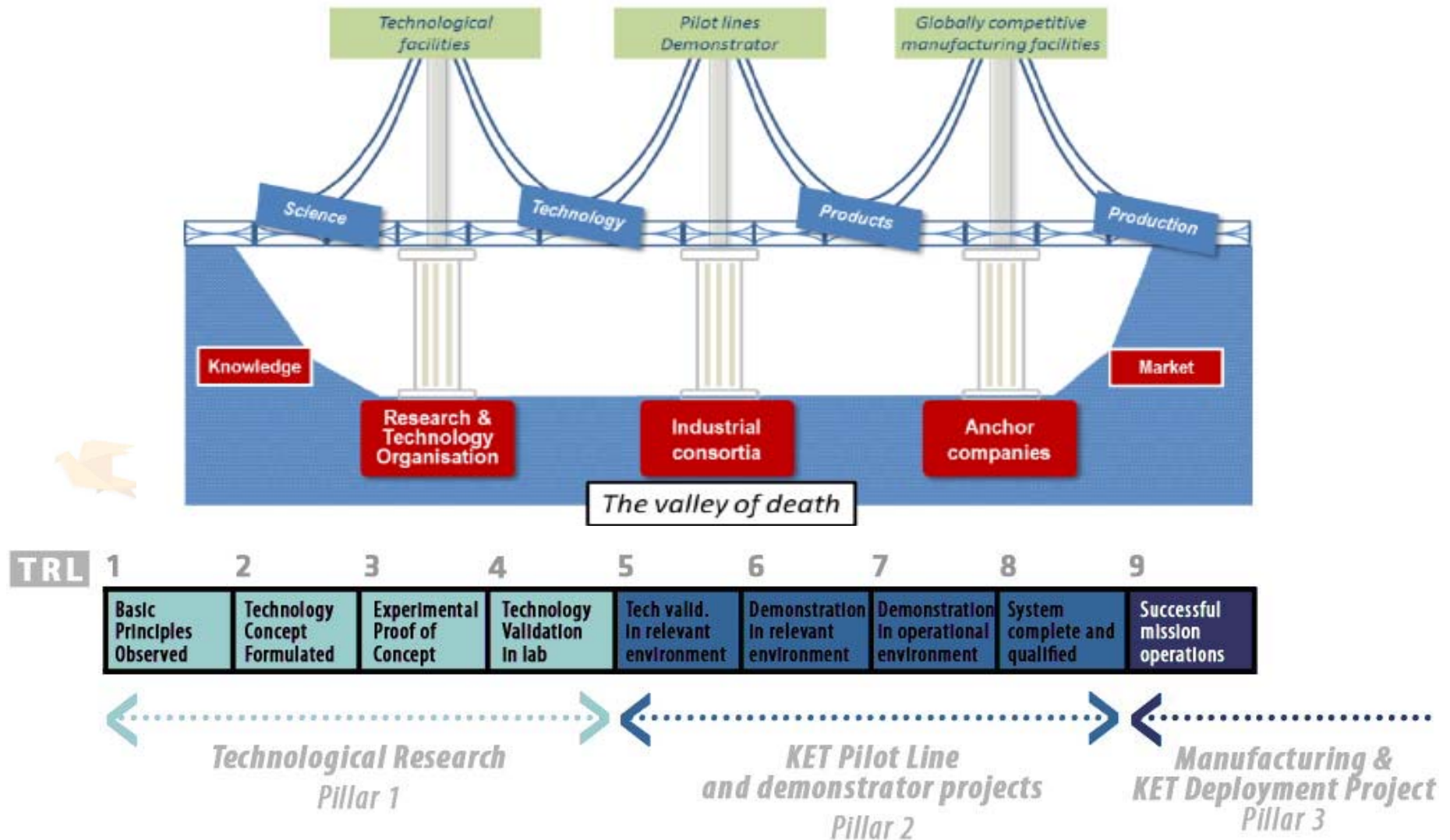
Availability and access to state of the art technology infrastructures, whether public or private, is essential to accelerate technology diffusion and access to emerging markets

European Innovation Scoreboard 2018

Summary Innovation Index



Crossing the valley of death



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

Characteris
ation

Modelling

Checking conformity with
regulatory frame and
standards

Nanotechnology and Advanced Materials

Open Innovation Test Beds



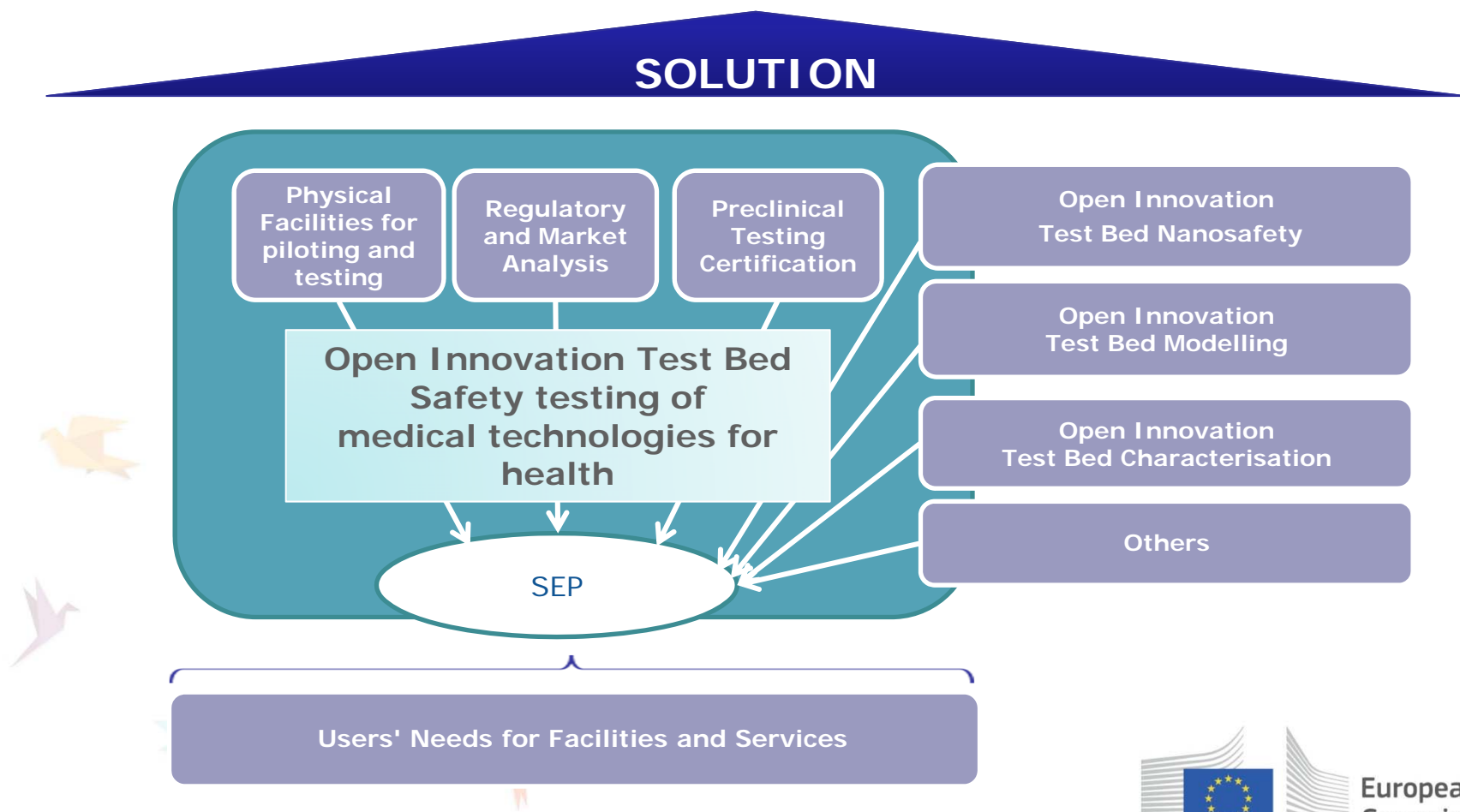
FP7-H2020

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

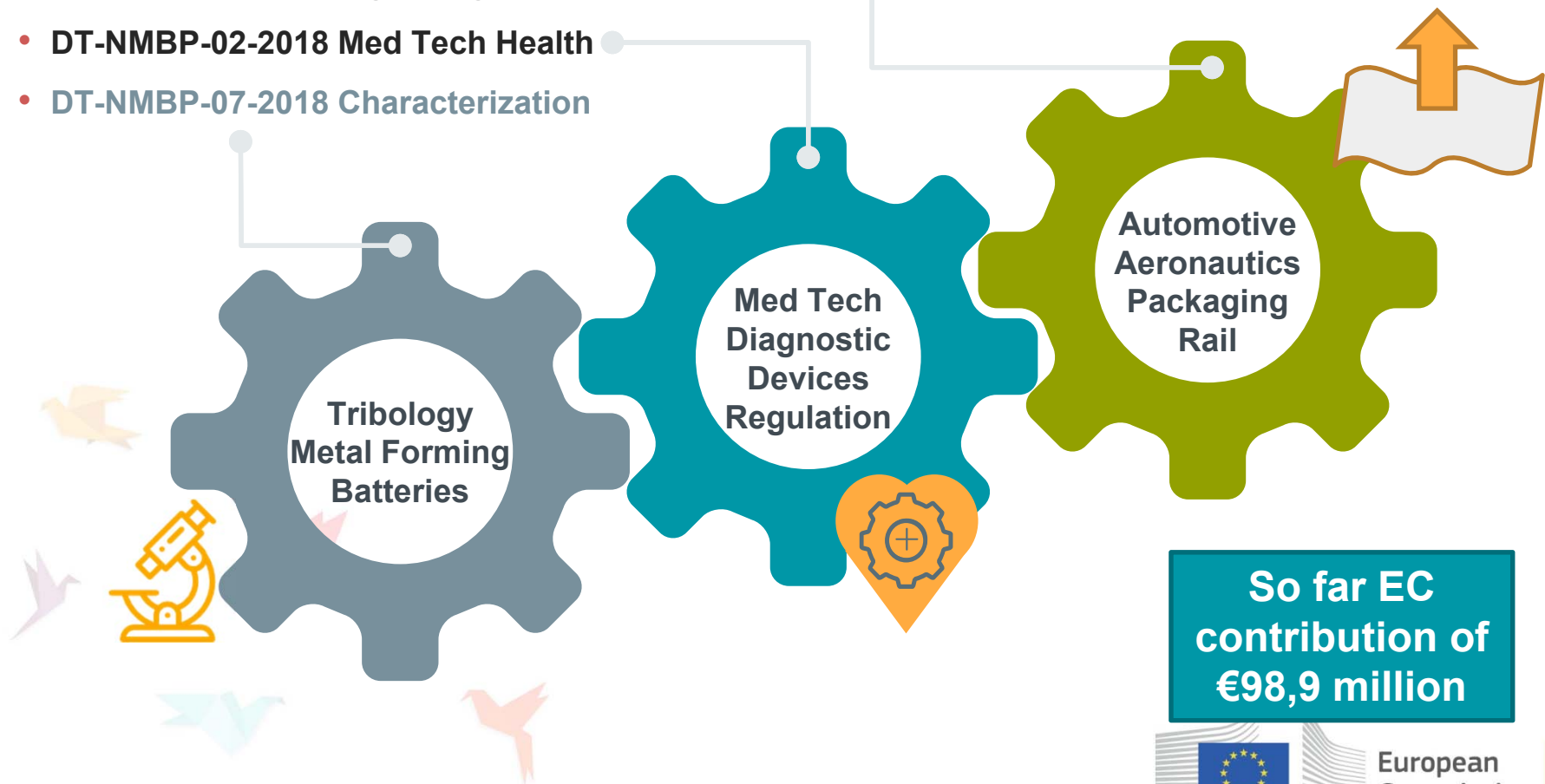
Accelerated innovation in the specific domain

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

Open Innovation Test Beds – 10 projects started early 2019

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

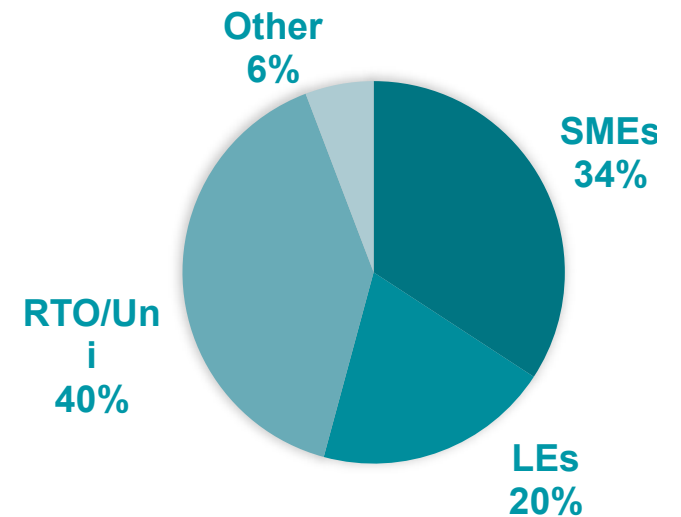


So far EC
contribution of
€98,9 million

Open Innovation Test Beds – 10 projects starting early 2019

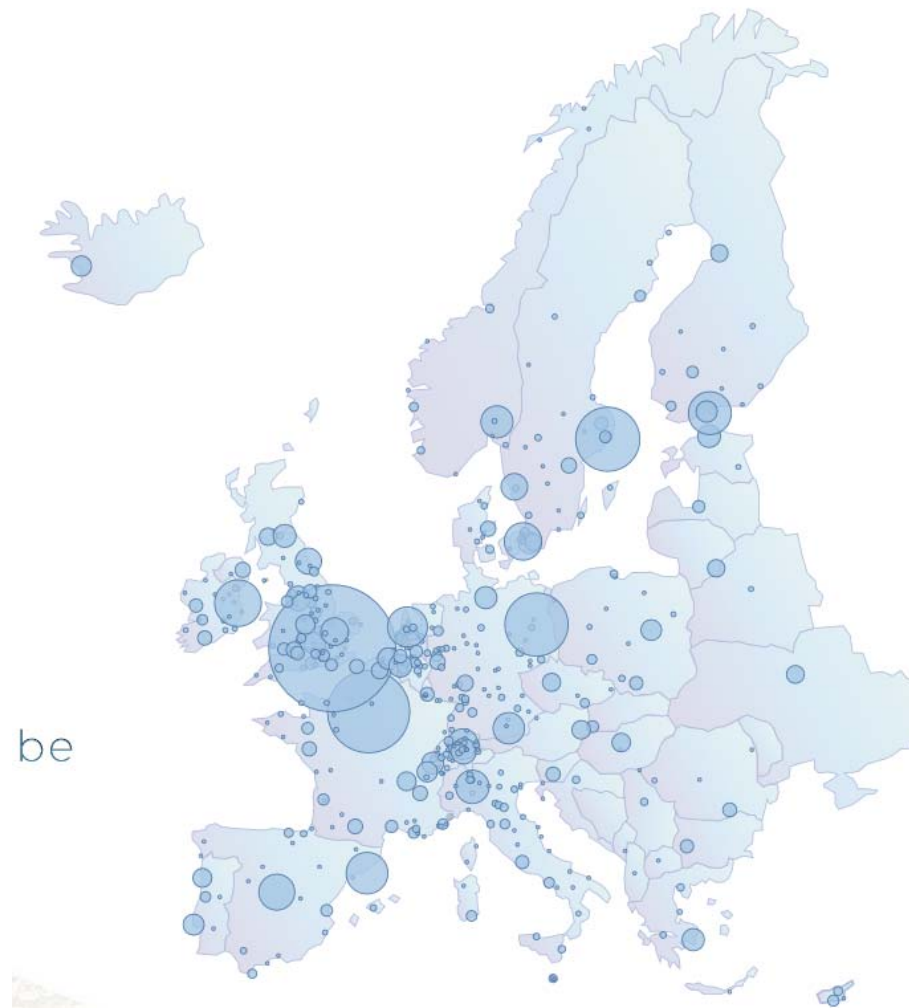
Current participation reflects offers from most of Europe...

...but services open to all of Europe!



% of Participants by Type

European tech ecosystems are rich but can only reach their full potential if better interconnected



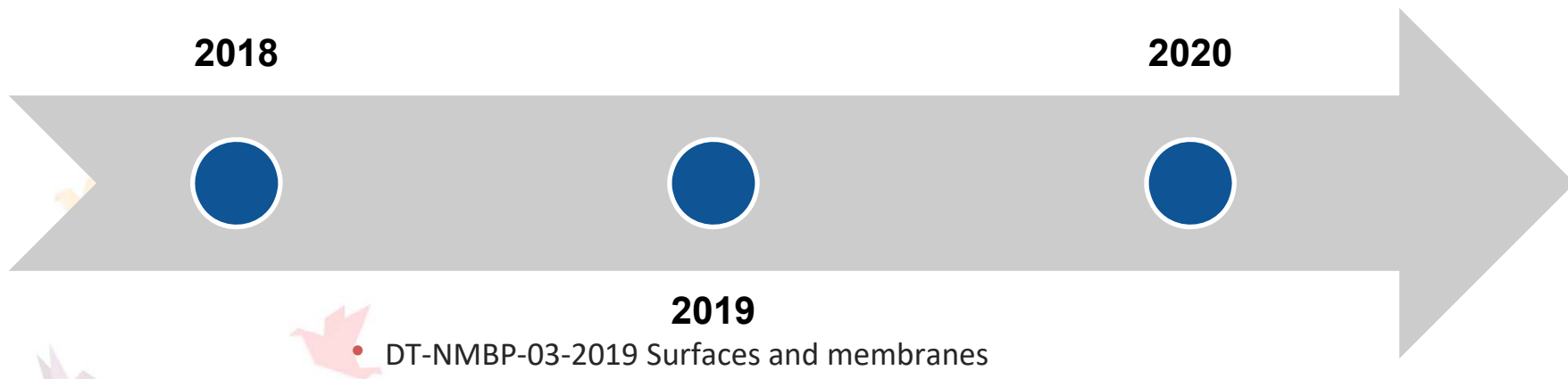
Map of the 476 European cities with at least one scale-up company, Startup Europe "Startup City Hubs in Europe" 2018 report



Open Innovation Test Beds – Future Calls

EUR 215 million is planned over NMBP WP2018-2020

- 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



For more info:

http://ec.europa.eu/research/participants/data/ref/h2020/other/guides_for_applicants/h2020-im-ac-innotestbeds-18-20_en.pdf

Latest developments for Horizon Europe related to Open Innovation test-beds

- [Proposal for Broad lines of activities under Advanced Materials by the Presidency – Status 15 March 2019:](#)
- *“An EU innovation ecosystem of technology infrastructures#, networked and accessible to all relevant stakeholders, identified and prioritised in agreement with Member States, which provide services to accelerate technological transformation and uptake by EU industry, notably by SMEs; this will cover all key technologies necessary to enable innovations in the field of materials;”*
- *#These are public or private facilities that provide resources and services primarily for the European industry to test, validate and demonstrate key enabling technologies and products. Such infrastructures may be single sited, virtual or distributed, and must be registered in a Member State or a third country associated to the Programme.*

Latest developments for Horizon Europe related to Open Innovation test-beds

Staff Working Document:

- After extensive discussions and consultation with stakeholders and member states, the SWD is now in the final form of the inter-service consultation.
- The SDW was published on the 9 April and will get hard copies within the next couple of weeks.

Key findings and Main Challenges:

- Investing in technology infrastructures is key for supporting the translation of research results into innovations.
- **Main Challenges:**
 - 1) Visibility
 - 2) Prioritisation
 - 3) Accessibility
 - 4) Network

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>



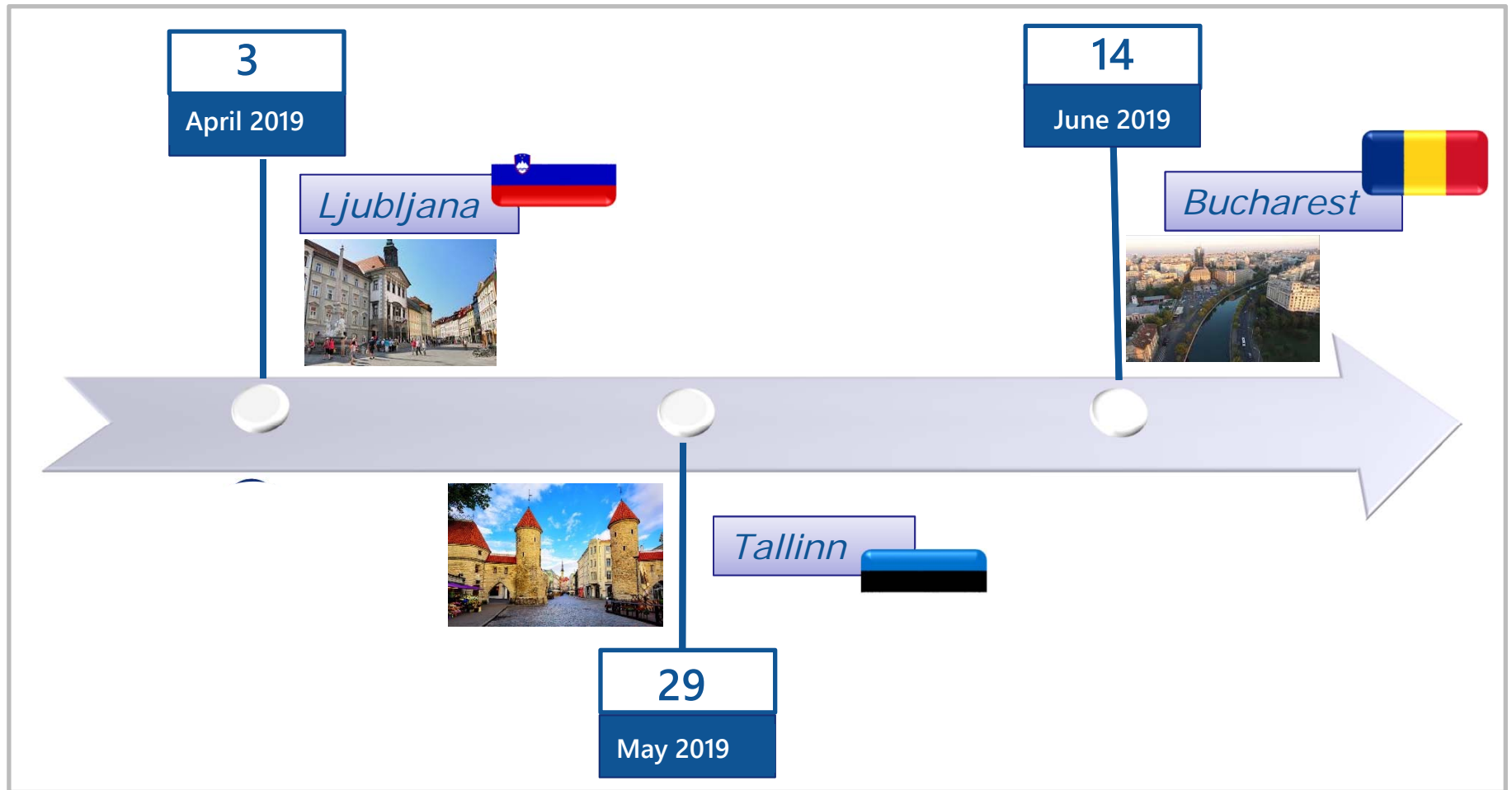
Boosting Innovation for EU industry

- What?
- The "Boosting Innovation for EU industry" tour is a series of 3-4 events in different locations in Europe to raise awareness on the opportunities for researchers and innovators in the member states and reach out to local citizens/communities.
- Occasion to discuss Open Innovation Test Beds, Digital Innovation Hubs, Centers for Key Enabling Technologies (KETs and regional centers) and more.
- Why?
- Transition from Horizon2020 to Horizon Europe.
- Encourage local innovation or technology transfer nodes to attract new actors, increase networking opportunities and deploy best practices in attracting newcomers.

Objectives

- **Discuss future actions** for a pan-European industrial ecosystem **with local players and all Directorate General concerned (RTD, REGIO, GROW, CNECT and JRC)**
- **Inform and present** different EU national and regional **initiatives** to support innovation, access to industrial infrastructures, financial support to boost innovation beyond 2020
- Showcase several **excellent examples** of innovation support with special emphasis on the target country and discuss the needs of the local industry.
- **Networking and matchmaking**

Events Timeline



EUROPEAN RESEARCH & INNOVATION DAYS

24 → 26
SEPTEMBER

20
19

KANAL  CENTRE POMPIDOU
Brussels, BELGIUM

#RiDaysEU
@EUScienceInnov



Soren BOWADT
Deputy Head of Unit

European Commission
DG Research & Innovation
Advanced Materials and
Nanotechnology

COV2 05/105
1049 Brussels/Belgium
+32 229-94203
[**soren.bowadt@ec.europa.eu**](mailto:soren.bowadt@ec.europa.eu)

About Horizon 2020

[**http://ec.europa.eu/research/horizon2020/**](http://ec.europa.eu/research/horizon2020/)

*Research and
Innovation*



Further information

Horizon 2020: http://ec.europa.eu/research/horizon2020/index_en.cfm

Key Enabling Technologies, R&I website :

http://ec.europa.eu/research/industrial_technologies/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

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