

TENEMOS
MUCHO
QUE HACER
JUNTOS

How join the RTOs to Platform on Industrial Modernisation

Kick-off Event of the Smart Specialisation
Platform on Industrial Modernisation
16 th November Barcelona
Nerea Anacabe



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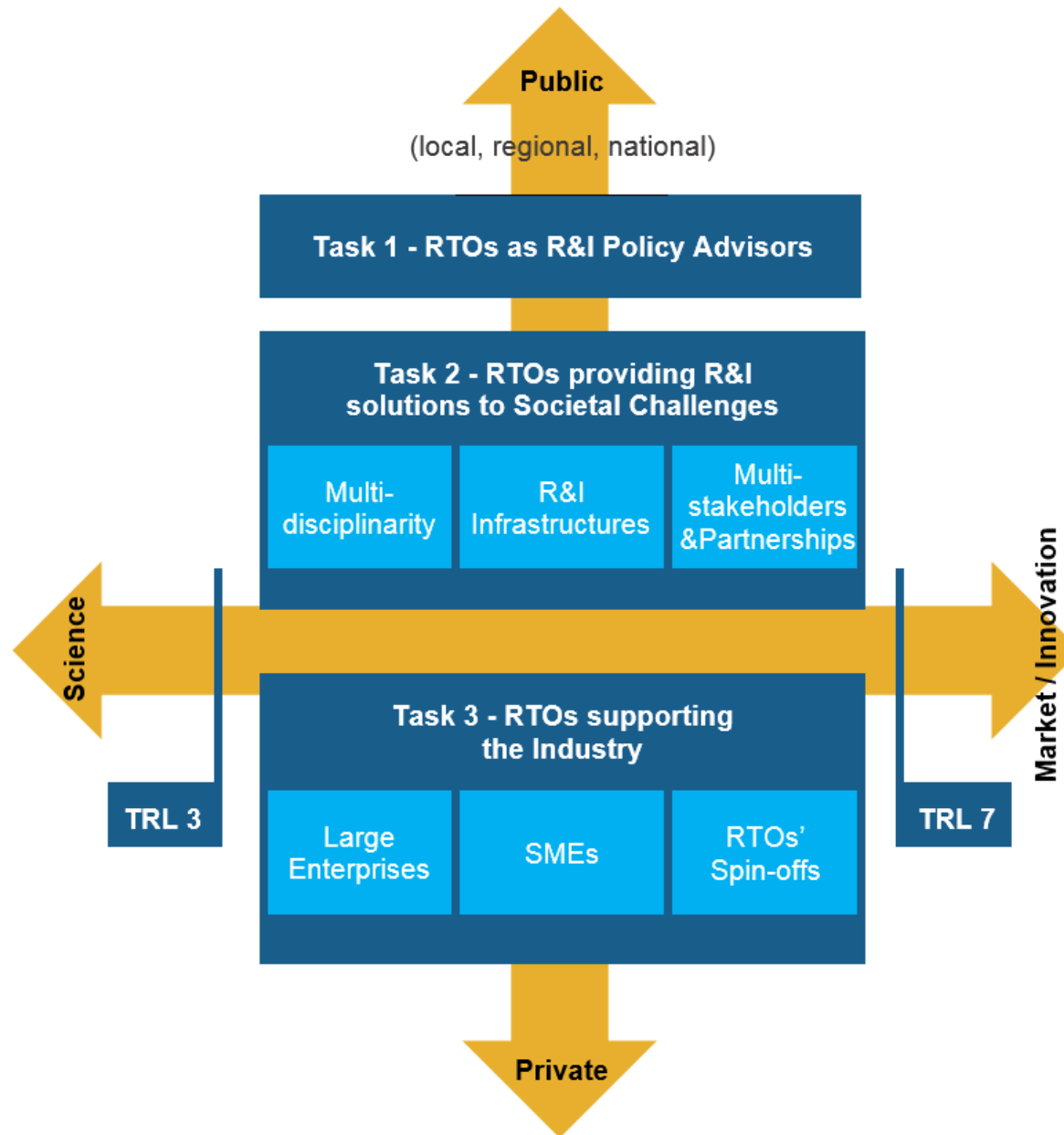
EARTO Figures

EARTO Vision: Technology for a Better World

tecnalia Inspiring Business



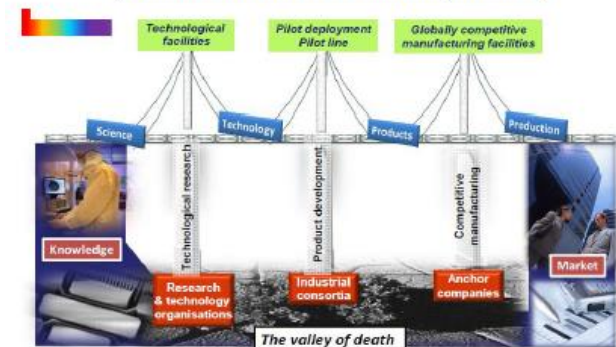
Understanding European RTOs



EU RTOs Bridging the Valley of Death

- Currently EU appears to suffer from a **slow process** for transferring excellent R&D results into innovative solutions for the markets
- **Bridging the valley of death** will require joint effort from RTOs & industry:
- **RTOs have key role in developing new infrastructures allowing piloting new technologies**
- **Bridging the valley of death also means solving societal challenges:**
RTOs core activities are based on trans-disciplinary and user-centric approaches

*Figure 7: KETs Valley of Death
from the EU HLG KETs Final Report 2011*

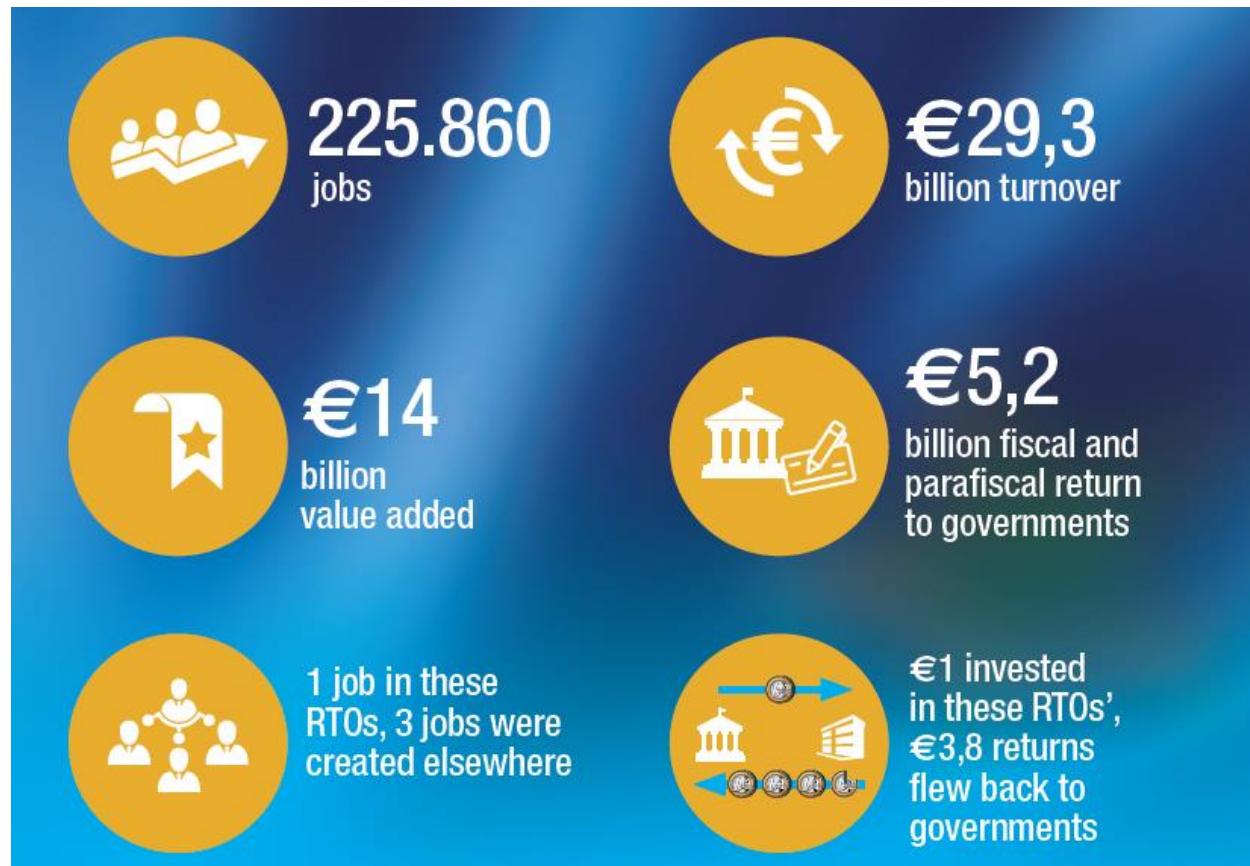


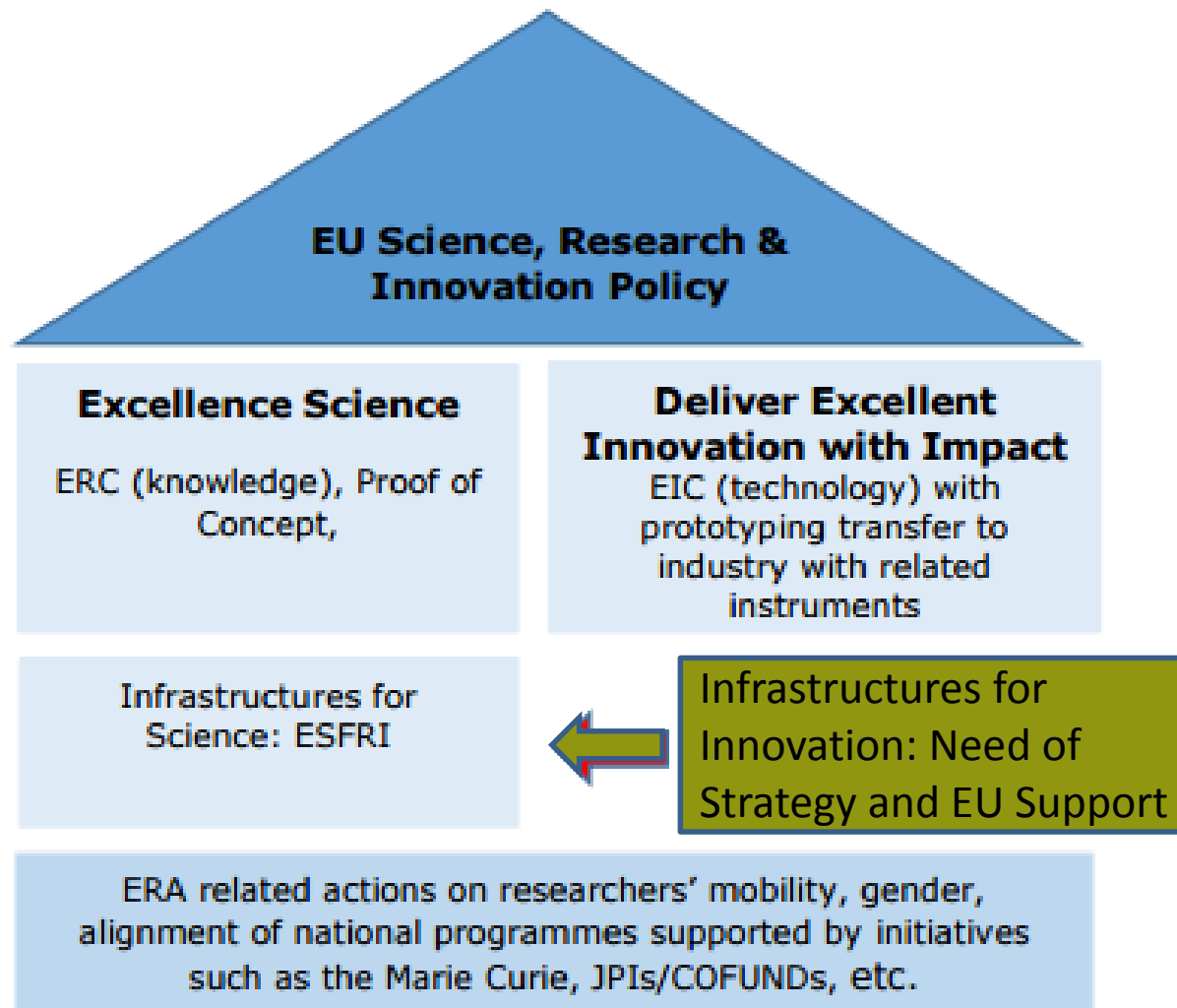
H2020 Societal challenges:

- Health, demographic change and wellbeing;
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy;
- Secure, clean and efficient energy;
- Smart, green and integrated transport;
- Climate action, environment, resource efficiency and raw materials;
- Europe in a changing world - inclusive, innovative and reflective societies;
- Secure societies - protecting freedom and security of Europe and its citizens.

Economic Footprint of 9 EARTO members in one year (2014)

The aggregated economic effect of 9 European RTOs (CEA, DTI, Fraunhofer, IMEC, SINTEF, SP, Tecnalia, TNO, VTT) from their Core-Activities and generated through Contract Research and Spin-offs resulted in 2014 in:



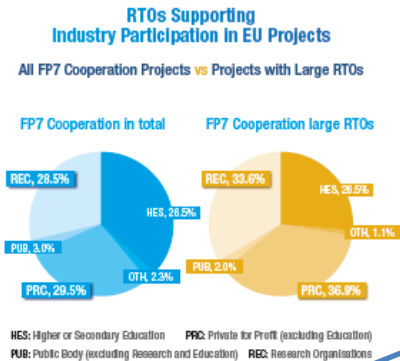


Combination of Funds

RTOs: EU Financial Engineers to maintain & create EU innovation infrastructures

RTOs in EU FPS (grants)=

- 1/3 beneficiaries in FP7
- 14 RTOs in top 50 in FP7



EIB Financial Tools/EFSI/Juncker Plan =

- Based on loans & advice
- Many but not always well known RTOs
- Require to further business what needs for improving

Instruments & Coherence needed

ESIF (grants/lower FPS)=

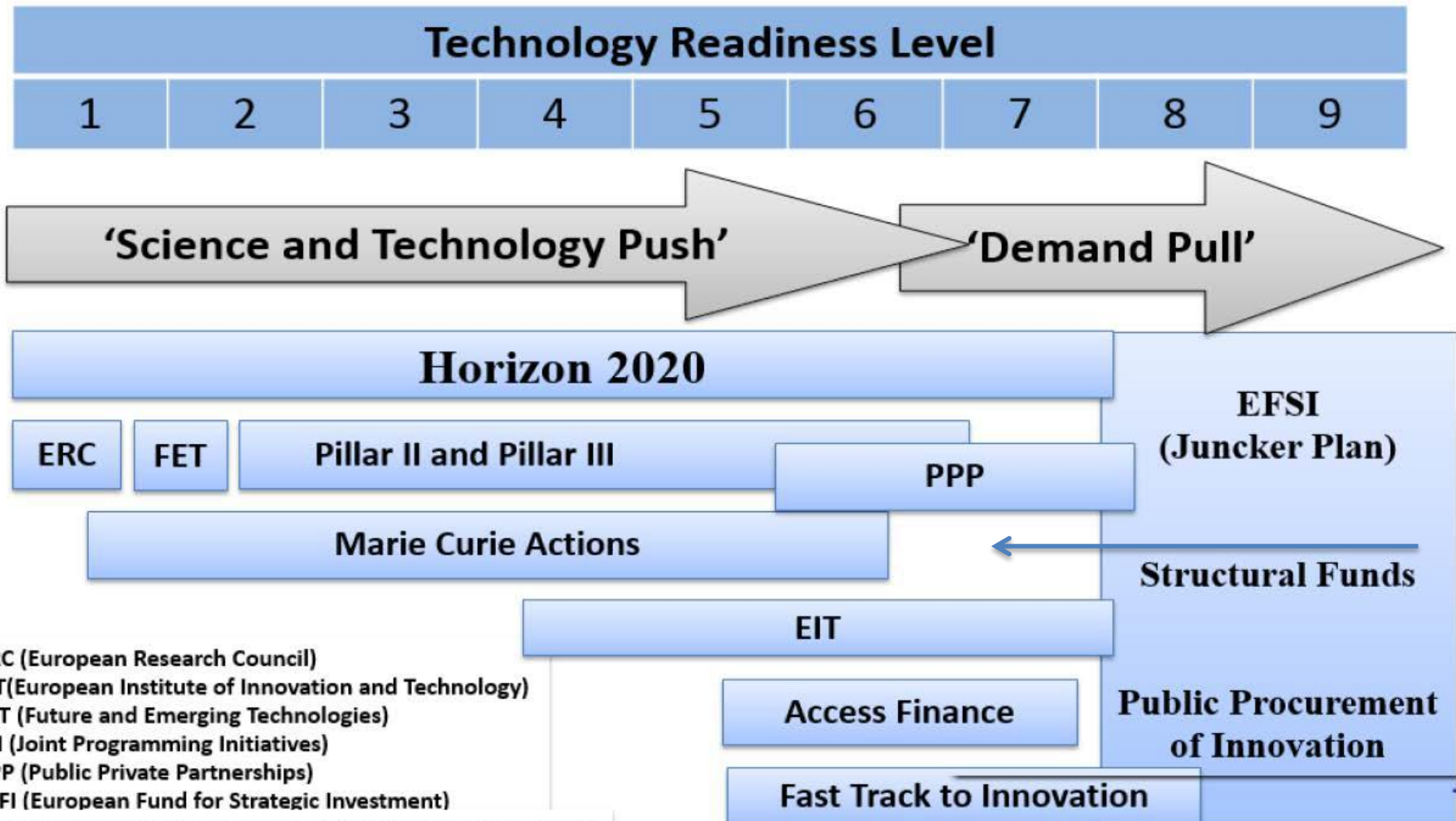
- RIS3 ex-a
- Growing in
- RTOs active



JRC Policy Brief



Joint EARTO-EIB Working Group set up under InnovFin Advisory Services

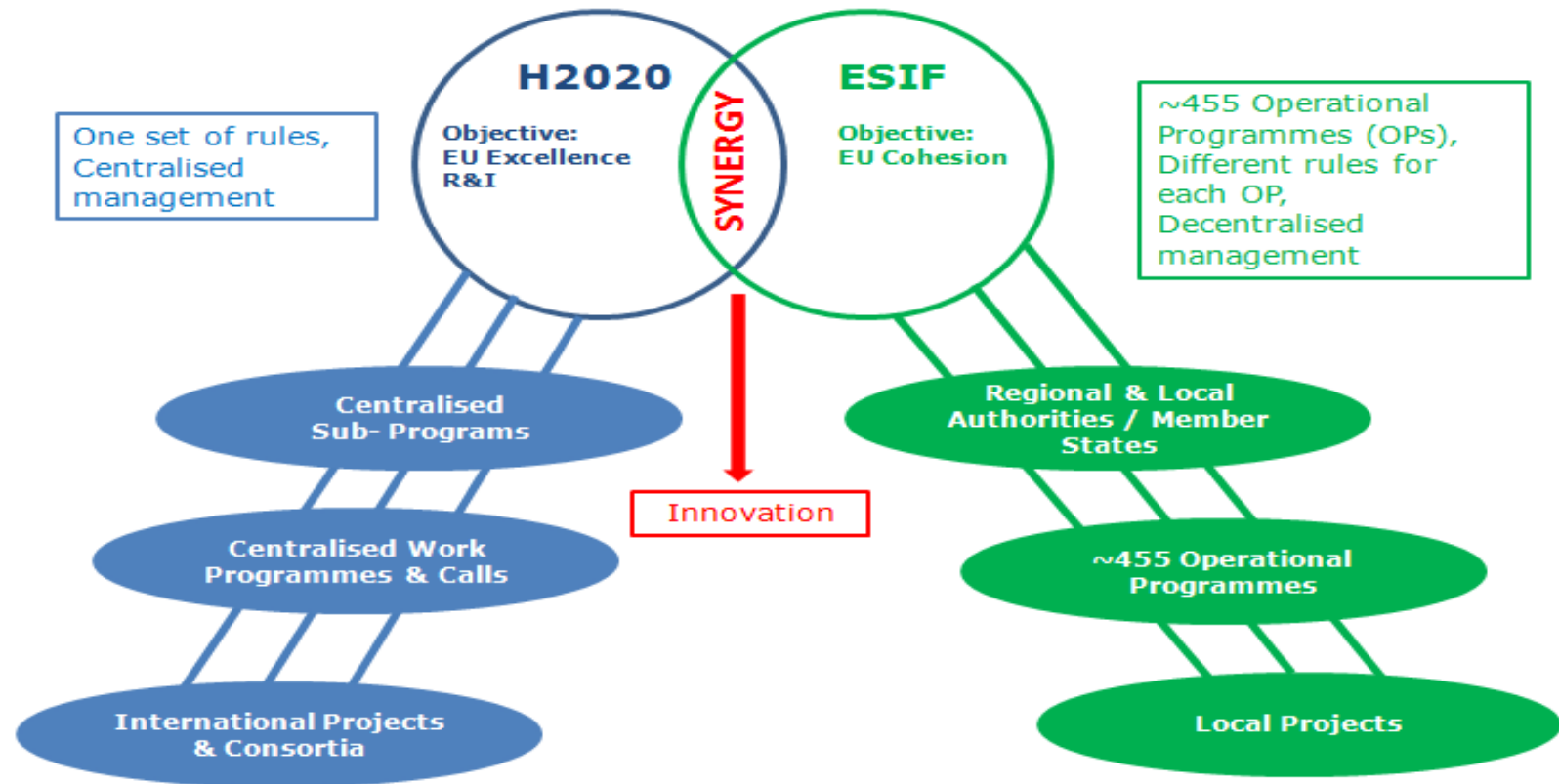


ERC (European Research Council)
 EIT (European Institute of Innovation and Technology)
 FET (Future and Emerging Technologies)
 JPI (Joint Programming Initiatives)
 PPP (Public Private Partnerships)
 ESFI (European Fund for Strategic Investment)
 © Sean McCarthy Hyperion Ltd, May 2015 www.hyperion.ie

Source: van den Bosch, 2016 (citando a Hyperion Ltd. 2015)
https://ec.europa.eu/research/eic/pdf/workshop/eic_workshop_anne_van_den_bosch.pdf#view=fit&pagemode=none

Horizon 2020 & ESIF

Two Different Strategies, Objectives and Implementation Mechanisms



State Aid Exception

State Aid Rules

Some EXAMPLES



Previous Examples



Recent Examples



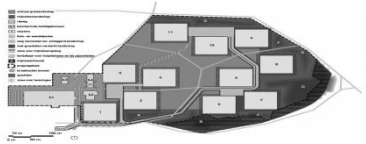
Future Example

PREVIOUS EXAMPLES

National Composites Centre, High Value Manufacturing Catapult

tecnalia Inspiring Business

CATAPULT
High Value Manufacturing



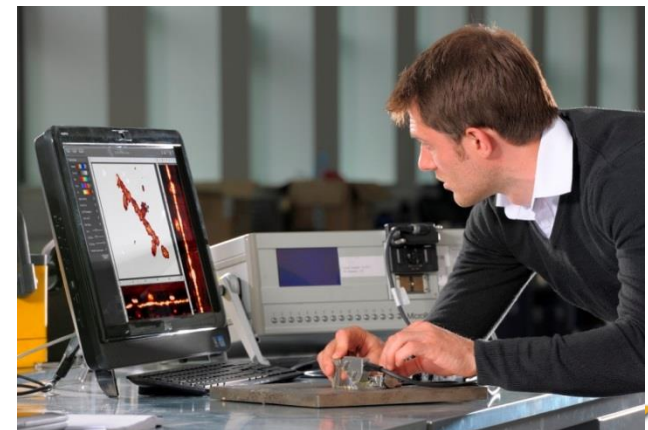
- A £25m project to establish the National Composites Centre
- An open access innovation centre to deliver world class innovation in the design and rapid manufacture of composites and facilitates their widespread industrial exploitation



- The Centre provides industrial scale facilities, combining academic and business strengths to progress from laboratory to design to factory and into new products.

EARTO
IMPACT
DELIVERED

Specialising in the development and application of state of the art non-destructive testing (NDT) methods.



- Built on a previous nationally and regionally funded CEA project: PRINTRONICS (2005-2009)
 - PICTIC R&D platform (2010 to 2012, administrated by CEA) gathers materials and equipment
 - **Aims:**
 - Develop printing technologies
 - Address the new generation of electronic components (circuits and sensors) on large flexible surfaces.
 - Develop new smart objects on conformable plastic, paper or textile substrates at a reduced cost.
 - Shaping a value chain which can benefit to industrial companies
- Platform used by several companies: Trixell, Suez Environnement, Aludec, Dassault and **ISORG (start-up based on CEA printing processes – 20 permanent employees)**.
- Four H2020 CEA projects accepted in 2014, based on PICTIC knowhow, among which two are pilot lines using PICTIC

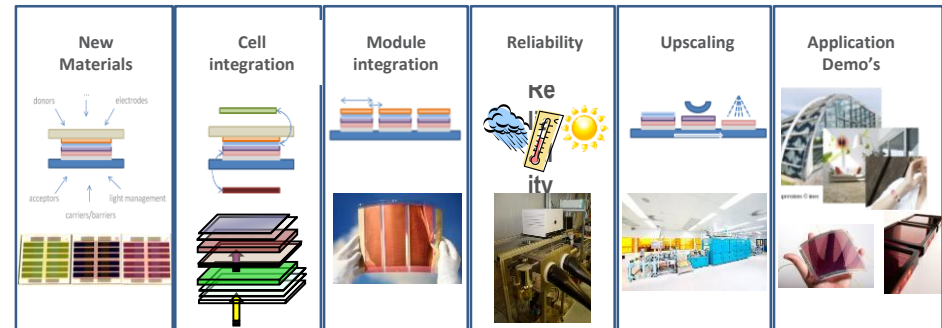


Successful Cluster Development



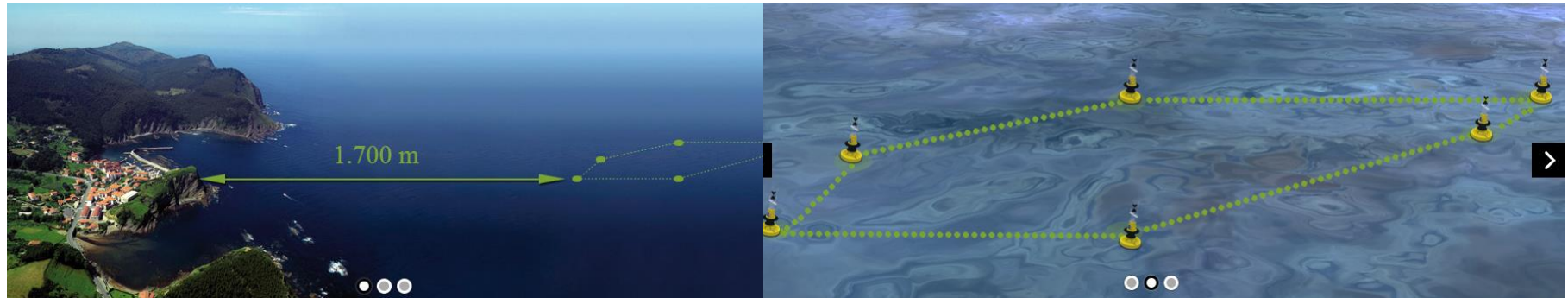
- Bringing together all the thin film PV R&D in the Netherlands, Belgium and part of Germany
- Create critical mass in order to stay significant in the global market, building on assets of being a strong materials and equipment supplier
- Be a world player in thin-film PV R&D in the areas of fabrication technology *and materials* by maximizing the synergy between the industry, the institutes and the universities in the ELAT region, covering the whole value chain.

Roll-to-Roll (R2R) production of FLEXIBLE solar modules with maximum module EFFICIENCY and maximum operational LIFETIME, produced at LOW COST



TNO innovation for life

Testing and demonstrating prototype devices for harnessing ocean energy



bimep provides manufacturers of ocean energy devices to install their equipment in open sea conditions for demonstration and operational (power generation). It is place in the **Bay of Biscay**. Testing the effectiveness of **new wave energy** devices and technologies.



Facilities

bimep provides WEC manufacturers with the opportunity to install their equipment in open sea conditions



Services

WEC manufacturers with the facilities and necessary infrastructure to test their equipment andfor research, demonstration and operation of demonstrate its potential to harness ocean energy.

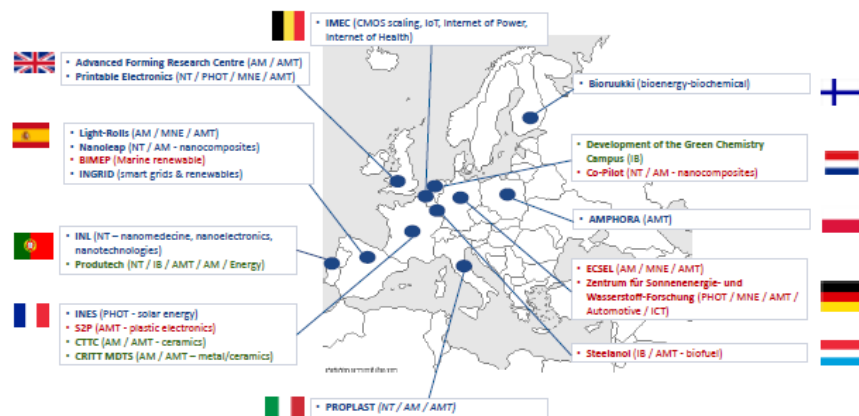


Infographics

Find out more about bimep, an ocean infrastructure offshore Marine Renewable Energy Devices (MRED)



Examples of Existing LSI from the Public Consultation



6 Industry/SME
11 RTOs / University / Higher Education Institute
4 Cluster / business incubator / Non-profit associations / others
(KETs or other activities involved)

LSIs are...

Industry and application driven, long-term, broad (open) access, multi-stakeholder partnerships.

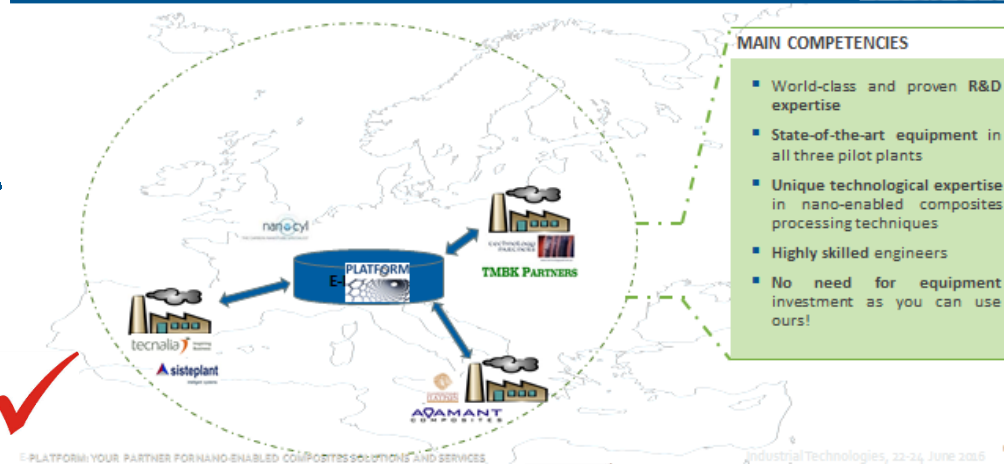
Strategically targeting large-scale research, development and innovation activities using a combination of different funds.

Aiming at accelerating the commercialization of technology, boosting competitiveness of companies and renewing industrial ecosystems towards sustainable economic growth and well-being of society.





THREE PILOT PLANTS LINKED BY AN E-PLATFORM



H2020 Grant Agreement ✓

E-PLATFORM: PRODUCTS & SERVICES

One-stop shop: Not just another composites material company

Intermediate products: based on three of the most promising semi-finished products using carbon nanotubes.

R&D Services: Our engineers and specialist will deploy their R&D skills and knowledge to answer to SMEs' needs

Renting Facilities: SMEs will have access to any of the three pilot lines, so as to integrate the nano-enabled products in their materials, manufacturing processes and/or products

E-learning seminars and workshops: devoted to those SMEs that may want to become one nano-enabled product producer

E-PLATFORM: YOUR PARTNER FOR NANO-ENABLED COMPOSITES SOLUTIONS AND SERVICES

Industrial Technologies, 22-24, June 2015

✓ **Engaging in strategic interregional cooperation**

Pilot Plants managed by RTOs ✓

R&D and DEMO activities ✓

✓ **Non Commercial Activities**



HOW CONTINUE AFTER ENDING H2020

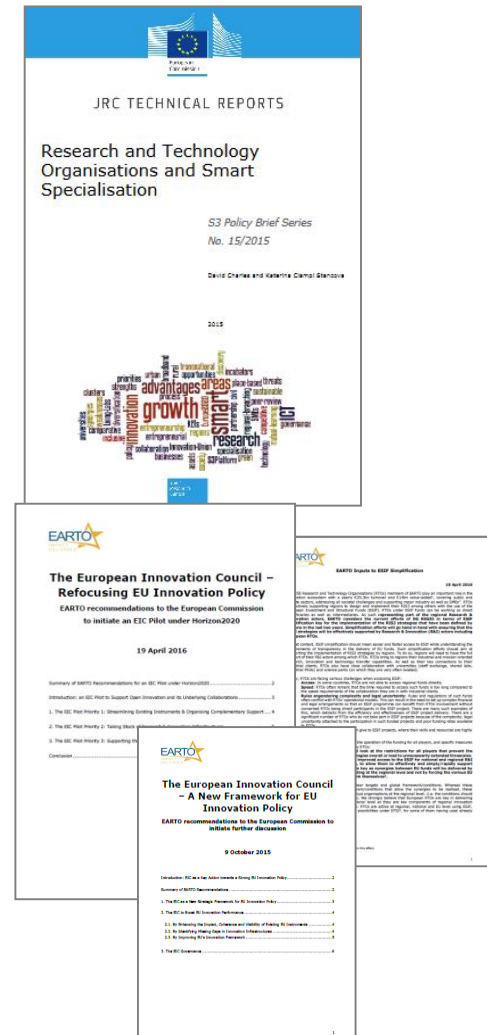


Some Conclusions

- **High impact results can be achieved from a well defined Regional Development Strategy.**
- **Coherence over time is a key success factor in deploying Strategy.**
- **The RTOs can promote and participate actively in new inter-regional R&D infrastructures, Managing Research & Demonstration Facilities**
- **If the activity is focused on NON commercial activities or the beneficiaries are RTO and Universities, the implementation of this type of initiatives could be done.**
- **The rules on state aid in R & D and innovation activities are an obstacle if we want these initiatives to be leaded by the industry.**

References: EARTO papers

- EARTO Inputs to ESIF Simplification – 19 April 2016 – [link](#)
- EARTO Recommendations for a European Innovation Council Pilot - 19 April 2016 – [link](#)
- JRC Policy Brief on RTOs and Smart Specialisation – October 2015 – [link](#)
- EARTO Paper - The European Innovation Council – A New Framework for EU Innovation Policy - 9 October 2015 – [link](#)
- ERRIN-EARTO Comments on "Enabling synergies between ESIF, Horizon 2020 and other R&I related Union programmes" - 1 July 2014 - [link](#)



HOW CAN WE CONTINUE?

Thank you very much for your attention!!!



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<http://blogs.tecnalia.com/inspiring-blog/>



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