

**Workshop on Digital Innovation Hubs
EC DG Connect
9 December 2016**



**Muriel Attané
Secretary General**

EARTO Vision: Technology for a Better World

EARTO Moto: Impact Delivered!



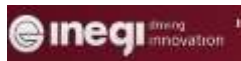
23 COUNTRIES



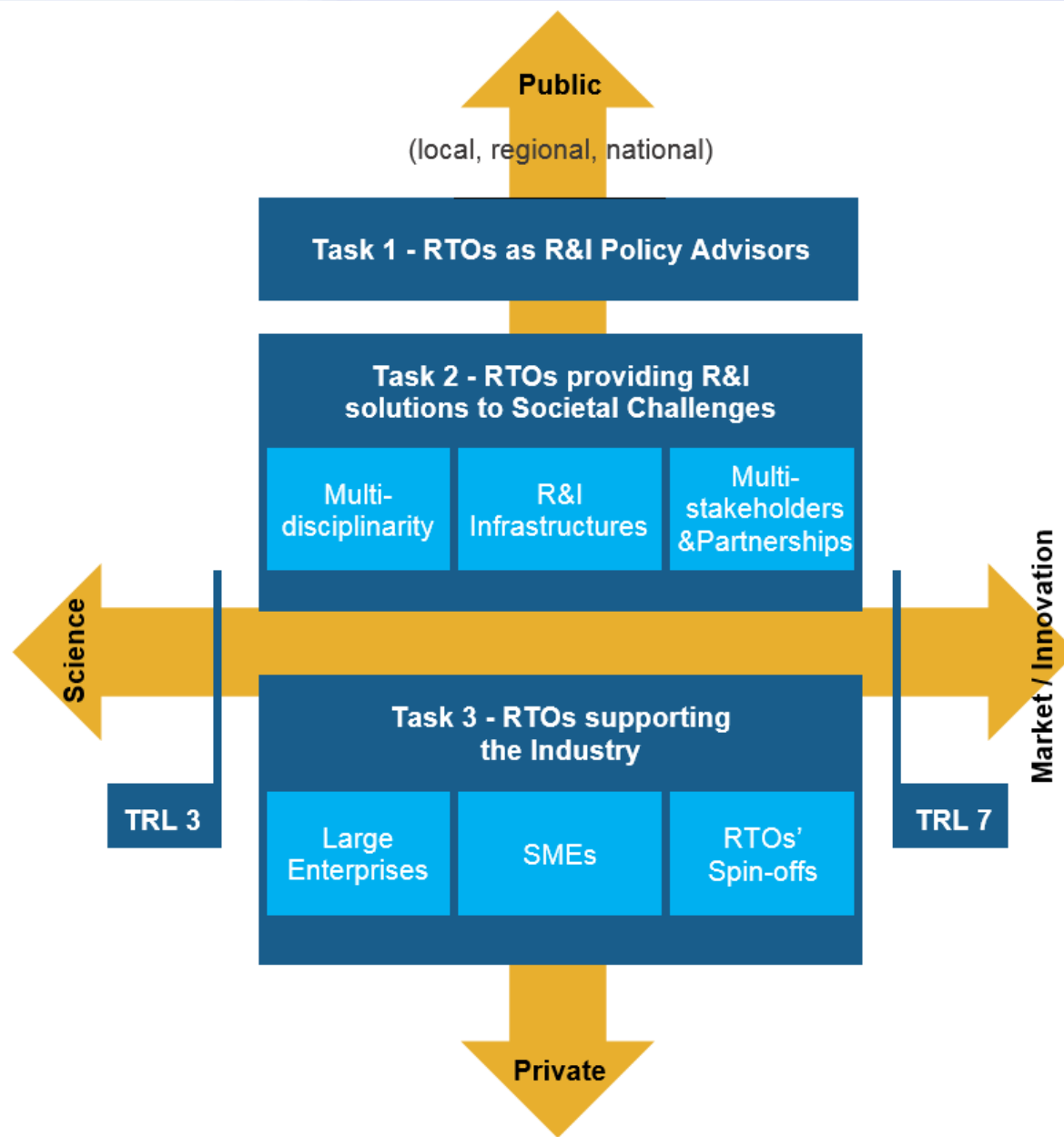
350 RTOs

150 000 RESEARCHERS ENGINEERS & TECHNICIANS

SHARING IDEAS & INFORMATION

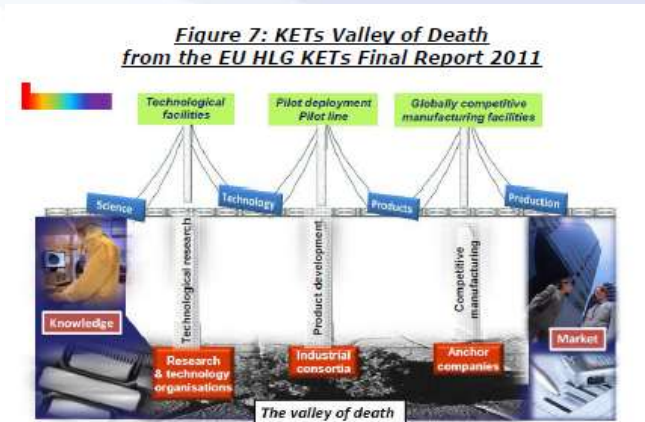


Understanding European RTOs



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
- **Improving bridging the valley of death** will require joint effort from RTOs & industry: **state-aid to support such efforts**
- **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



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:



1 job in these RTOs, 3 jobs were created elsewhere

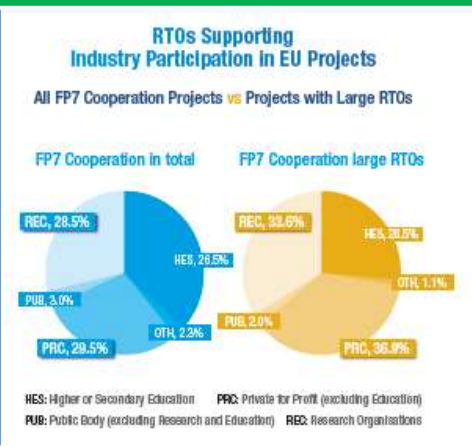


€1 invested in these RTOs', €3,8 returns flew back to governments

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

RTOs in EU FPs (grants)=

- Fund research
- Large H2020 beneficiaries
- 8 RTOs in top 10 H2020 Indus. Leadership



ESIF (grants/lower rates than FPs)=

- RIS3 ex-ante conditionality
- RTOs active at Regional level
- Growing focus on innovation having a complex reality: RTOs role

EIB Financial Tools(loans & advise) EIF/EFSI=

- RTOs: maintain & create RTD infra & platforms open to all industries (large & SMEs)
- Require new business models matching both side



Access to finance for RTOs & partners

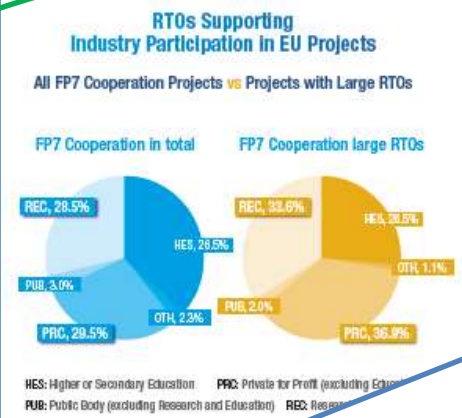


JRC RIS3 Policy Brief on RTOs role for regions SSSs

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- ... is on ... ing a ... y: RTOs role

Instruments & Coherence needed

EIB Financial Tools EIF/EFSI=

- RTOs: ma ... & platform ... (large & S ...)
- Require new ... models matching bo ... side



JRC RIS3 Policy Brief on RTOs role for regions SSSs

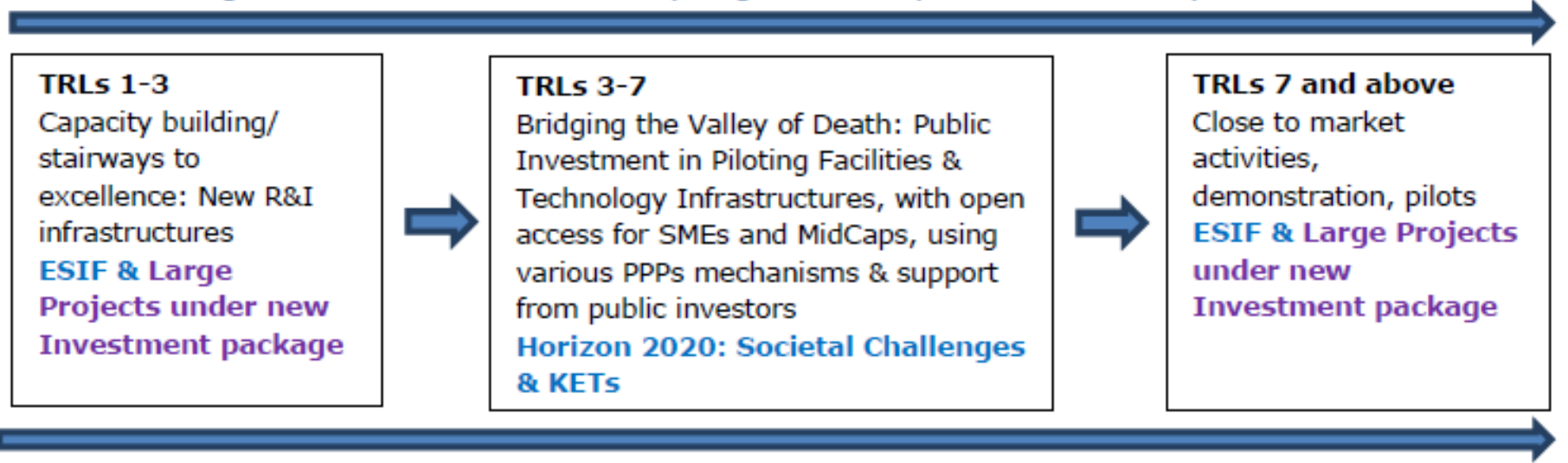


Access to finance for RTOs & partners

**RTOs Research Development & Innovation
Infrastructures:
Structural Funds**

RTOs as Tools to support RIS3 Strategies

Addressing whole value chain - Funds synergies at ecosystem level - Ecosystem maturation



Innovation Ecosystems Maturation – Along the Technology Readiness Levels (TRLs)

**ESIF: PART 1 -
capital building**

**ESIF: Part 2 -
revenue funds
(tech
transfer/SMEs)**

Different funding tools coming in at different TRLs level & different timing: need coherence, require time & understanding bringing risk sharing between R&I actors & policy-makers

RTOs Experiences with ESIF

Extremely diverse:

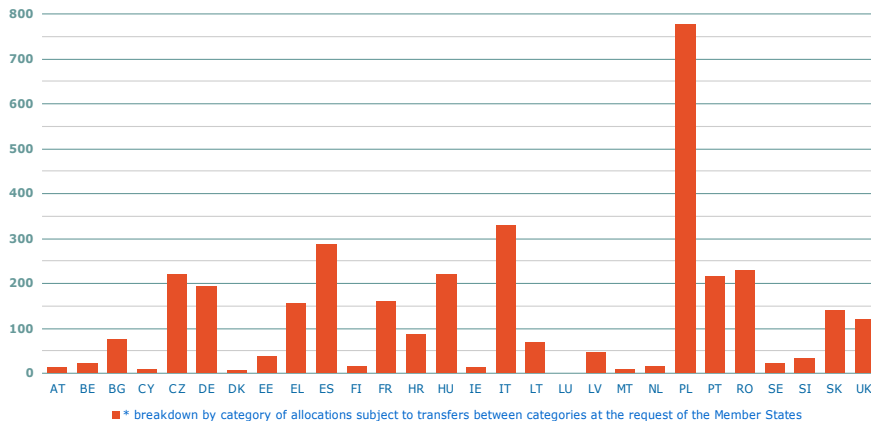
- **Generally RTOs no big direct beneficiaries:**
 - **So it takes extra time to get organised**
 - **Require good partnering at regional level**
- **When successful will have worked hand in hand with city or regions (e.g. Fraunhofer with German landers)**
- **More used for mortar & bricks to build new technology infrastructures:**
 - **i.e. not supporting R&D developments**
- **Used for some technology transfer activities towards SMEs but very limited while great opportunities are waiting**
- **Some very few cases of support to RTOs spin-offs**

Synergies of Funds

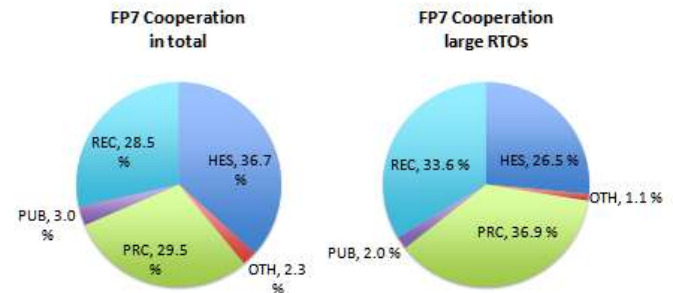
Two Different Realities ESIF & H2020:

- Synergies YES but HOW needs careful considerations & actors involvement
- Seal of Excellence an elegant solution for ERC, Marie-Curie grants & SME instrument i.e. single grant holders: but what the rest?

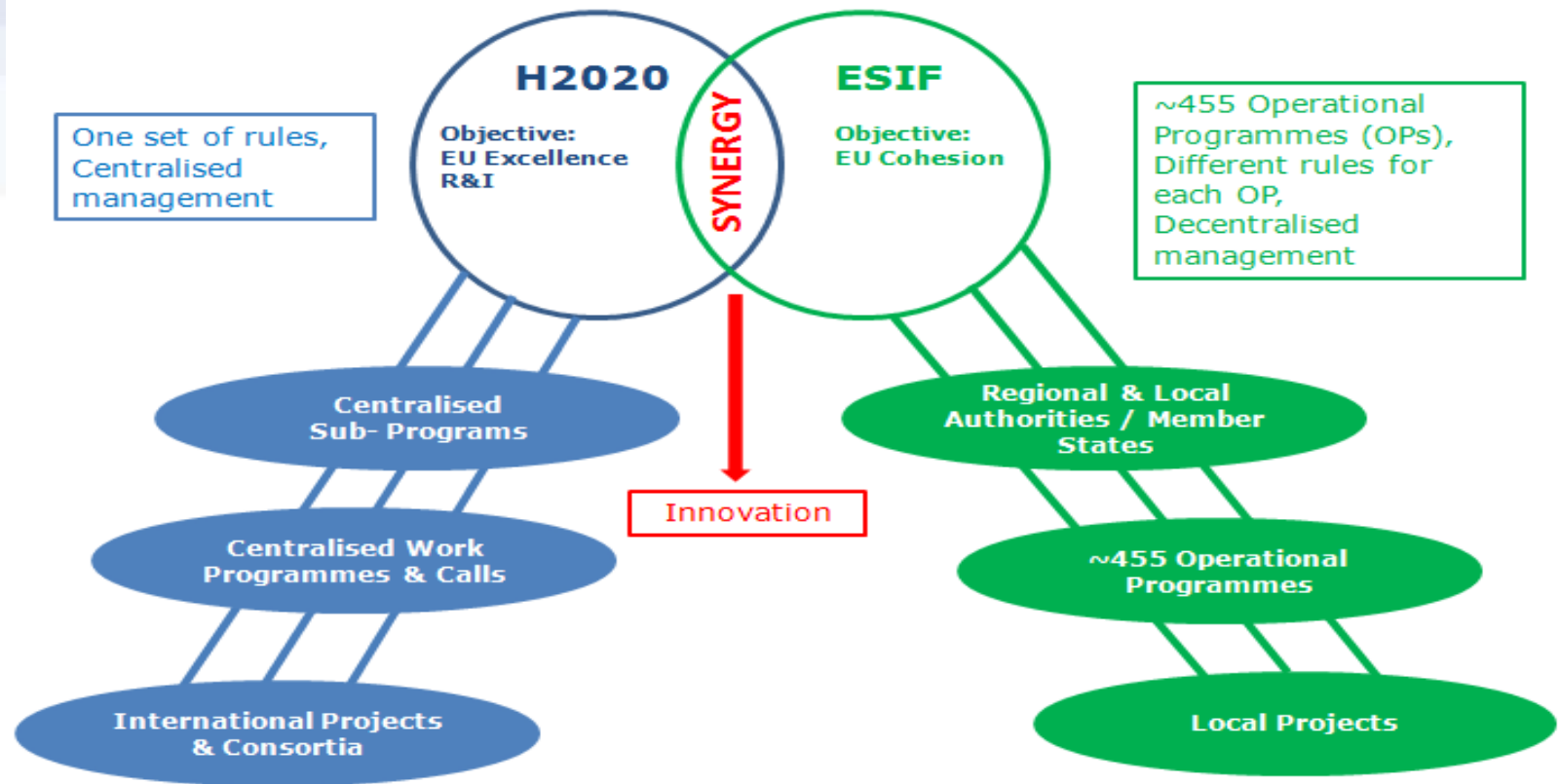
Total EU allocations of cohesion policy 2014-2020* (billion €, current prices)



All FP7 Cooperation Projects vs Projects with Large RTOS



Two Different Strategies, Objectives and Implementation Mechanisms



State Aid Exception

State Aid Rules

- Synergies done by actors at regional level: e.g ERRIN & EARTO members working on pilot projects within VANGUARD
- Synergies at programme level more than at project level
- Synergies not to become an eligibility criteria under H2020
- Synergies = also in simplification efforts DG R&I and DG REGIO

What to look for Post-2020?

- **Interregional collaboration:**
 - need new thinking in post2020,
 - how to get the Vanguard pilots started: seems no real tool today for those,
 - at the base of networks of innovation hubs: thematic platforms DG REGIO to be looked at
- **Stat-aid rules**
- **Simplification:**
 - EARTO paper on this
 - + EARTO Paper on EU Auditing Policy

EC Auditing Policy

- **ERDF: 100% audit , 2 layers of audits, re-sending same information to 2 levels, 2 possible opposite conclusions**
 - **Proportionality principle to be applied**
 - **sample audit as option**
- **EARTO working with European Court of auditors (ECA):**
 - **Advise the HLG to connect with ECA Member Alex Brenninkmeijer and his Cabinet on such issue**

Summary: Different layers of beneficiaries' issues with rules and auditing

Setting of Rules

Rules are not completely available / defined at the start

As the setting of rules evolves over time, it can turn out that rules become to be unclear or partly inconsistent

Rules are modified / added over time

Interpretation of Rules

Annotations and examples offer no reliable interpretation of rules

Interpretations offered by various EU services can have different focus and can therefore lead to inconsistencies

Interpretations offered change over time

Auditing of Rules

Audit process and focus should be shifted to a more principle based notion putting more focus on project

Different EU audit services with different findings / changing findings over time

Audit findings communicated and sanctioned late in the programme

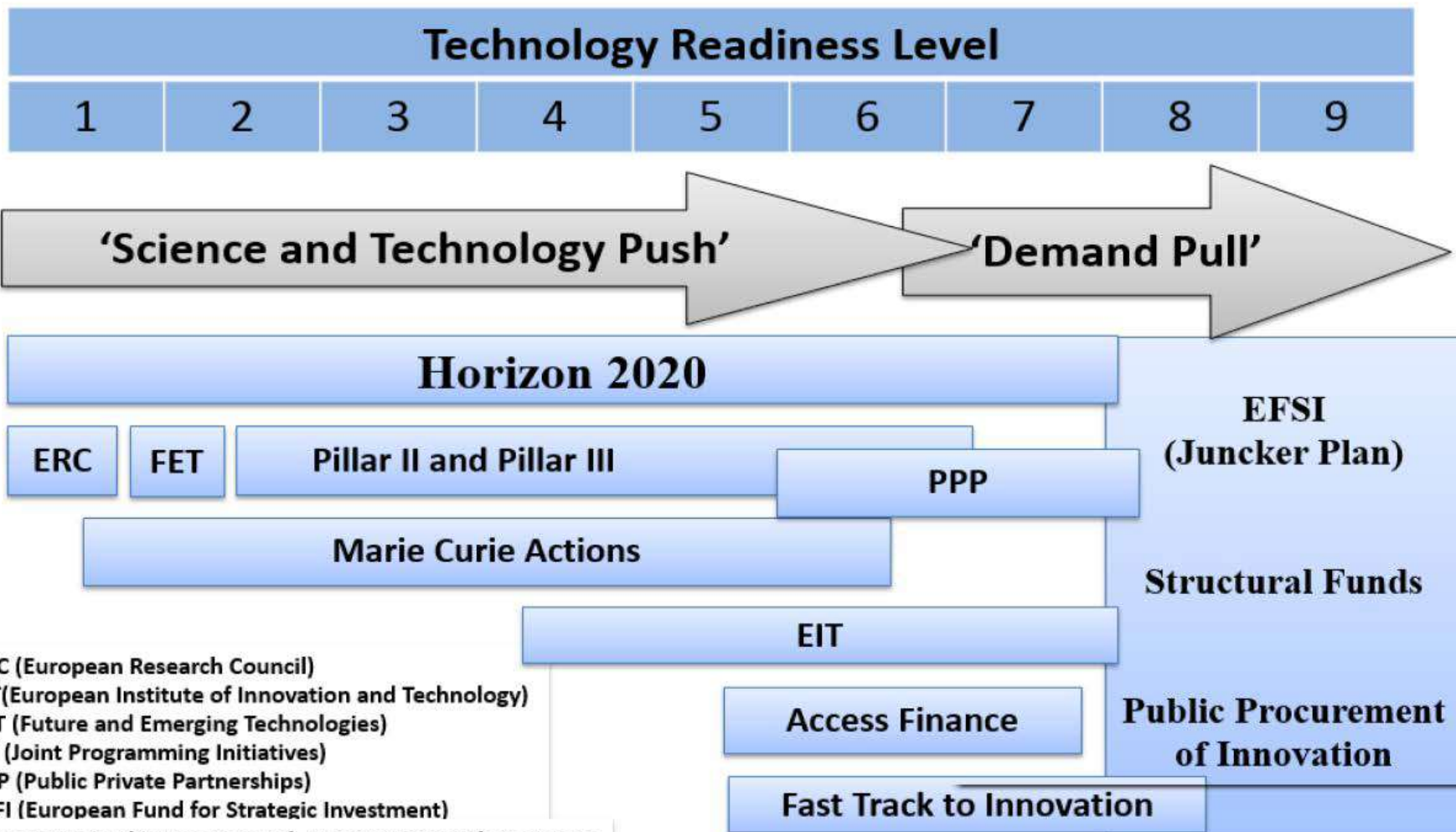


EUROPEAN COURT OF AUDITORS

Guardians of the EU finances

**RTOs Research Development & Innovation
Infrastructures:
H2020**

H2020 Instruments



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)
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EARTO Members' Participation to H2020

Data from EC eCorda database from June 2016

1. EARTO Members Strongly Contributing to H2020

- They represent only 1% of the number of participants but received **7,7%** of all H2020 EC funding so far.

2. EARTO Members Strongly Supporting EU Industrial Leadership

- **8 of the top 10 participants** in terms of EC contribution in the Industrial Leadership pillar are EARTO members.
- Average industrial involvement in H2020 projects **increases to 31,2%** when EARTO members are involved in the project (25,7% when they are not in consortium)

3. EARTO Members Contributing to Tackling Societal Challenges

- **24%** of the projects under the Societal Challenges Pillar include at least one EARTO member.

4. EARTO Members Involved in H2020 Large Multi-stakeholders Collaborative Projects

- H2020 projects with EARTO members count **12 partners** per project on average, much above the total H2020 average of 3 partners per project.

Towards FP9: The EARTO Perspective

EARTO papers published:

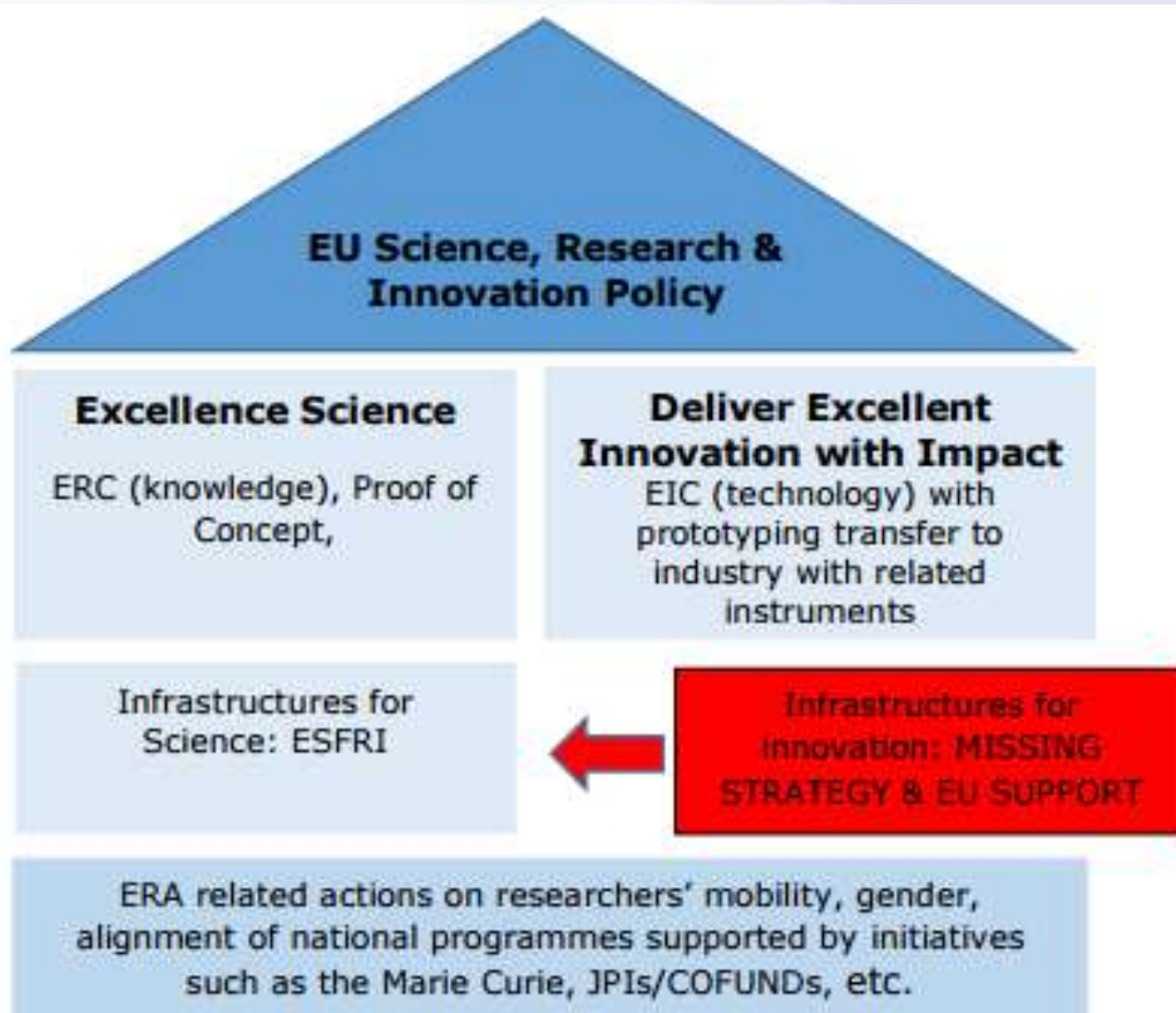
- EARTO paper on First Thinking Towards FP9 – September 2016 - [link](#)
- EARTO Paper on Horizon 2020 Funding Model – September 2016 - [link](#)
- EARTO Feedback for Horizon 2020's Mid-term Review September 2016 - [link](#)
- EARTO Response to EC Consultation on the Financial Regulation - May 2016 - [link](#)
- EARTO Recommendations for a European Innovation Council Pilot – April 2016 - [link](#)
- EARTO Paper on How to Boost Pre-Commercial Procurement in Horizon 2020 - April 2016 – [link](#)
- EARTO Paper - The European Innovation Council - A New Framework for EU Innovation Policy - October 2015 - [link](#)



H2020: What to look for Post-2020?

- **Grants:** still needed, what FP9 budget?, position of applied collaborative research?, position of large industry?
- **Societal Challenges's future:** Definitely needed but may need prioritisation and adaptation to new developments
- **Industrial Leadership Pillar's future:**
 - **Key for innovation hubs!**
 - New OECD STI report yesterday pointing out 40 key KETs and focusing on 10 of those, are those the future of the Industrial Leadership pillar?
- **Strategy around RTOs research and innovation infrastructures:**
 - **Key for innovation hubs!**
 - next slide

Post-H2020: What about the EIC?



Post2020: EU Strategy on RD&I Infrastructures

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.



Create a critical mass of specific activities.

Share (costs of) infrastructure and risk.

Share research capacity (human and technical resources).

Gain expertise on scale-up/valorisation (technological and non-technological).

Create/improve the innovation ecosystem.

Bridge the gap between needs and sources.

**RTOs Research Development & Innovation
Infrastructures:
EIB Tools**

Next slides source: EIB, InnovFin

Key areas

□ EFSI Targeting strategic investment

- **infrastructure**, including transport, energy and digital
- education and training, health, research, development and **innovation**
- expansion of **renewable energy** and energy and resource efficiency
- projects in the **environmental**, urban development and social fields
- support for **SMEs** and midcaps

InnovFin Advisory

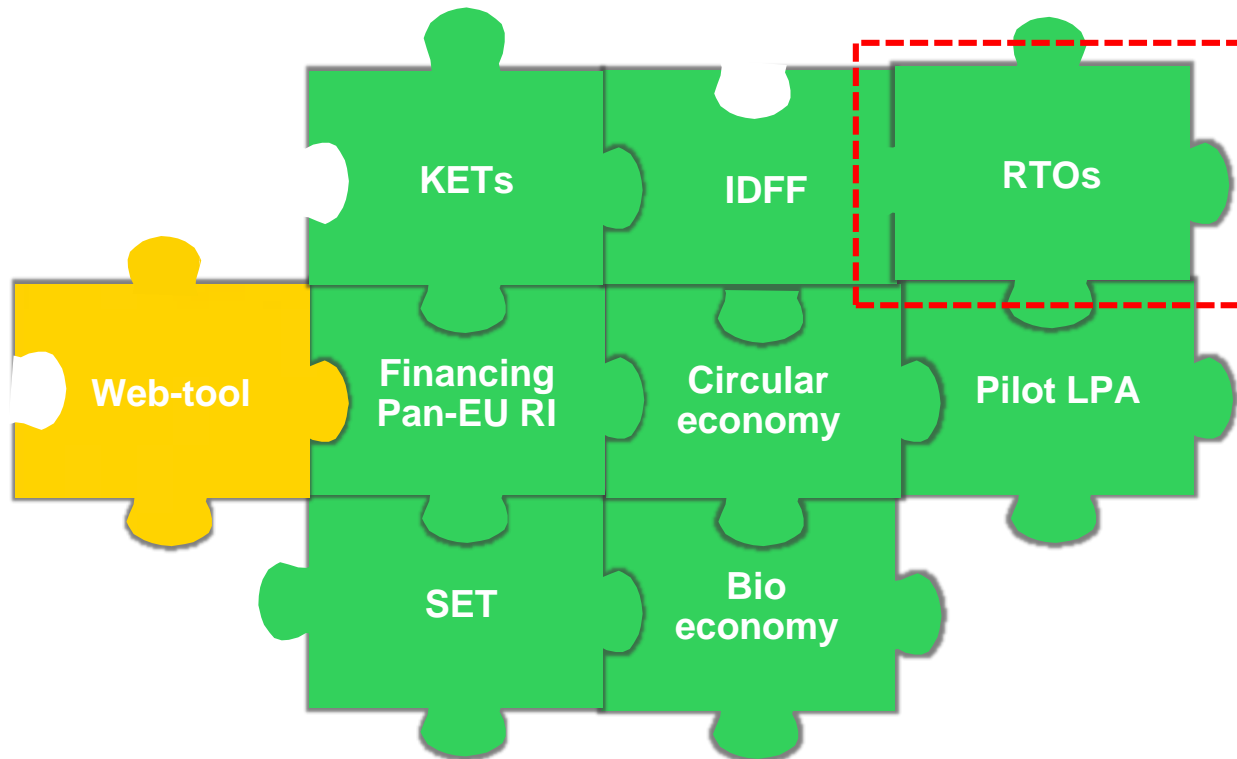


SMEs	Midcaps	Large Caps	Thematic Finance	Advisory
InnovFin SME Guarantee	InnovFin MidCap Guarantee	InnovFin Large Projects	InnovFin Energy Demo Projects	InnovFin Advisory
InnovFin SME Venture Capital	InnovFin MidCap Growth Finance		InnovFin Infectious Diseases	<ul style="list-style-type: none"> • Project advisory & LPA • Horizontal Activity
SMEs and small Mid-Caps < 500 Employees	Mid-Caps < 3,000 Employees	Large Caps Typically > 3,000 Employees	SPV, Mid-Caps and Large Caps	Public and Private Sector Promoters
Intermediated SME/Mid-Cap Financing	Intermediated and/or direct Corporate lending	Direct Corporate Lending	Project Finance and/or Direct Corporate Lending	Financial Advisory

direct products

indirect products

Current portfolio of Horizontal Activities



Scope of work

1

Assess investment and funding needs as well as access-to-finance conditions for different RTOs and their academic and industrial partners

2

Assess the extent to which existing EIB products, including InnovFin products, are fit for purpose

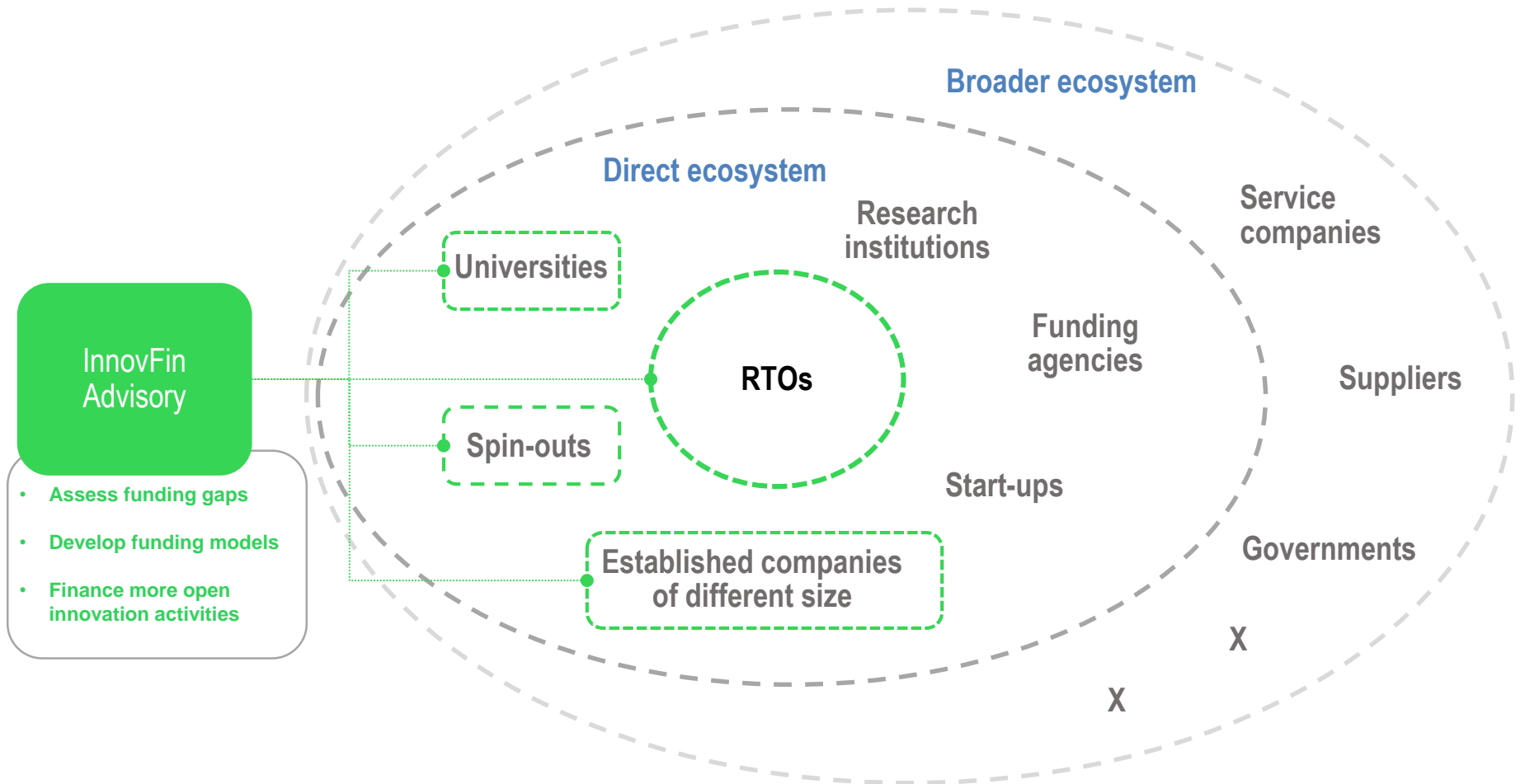
3

Provide recommendations and derive policy options, potentially involving the development of new financial instruments, to remove the identified funding

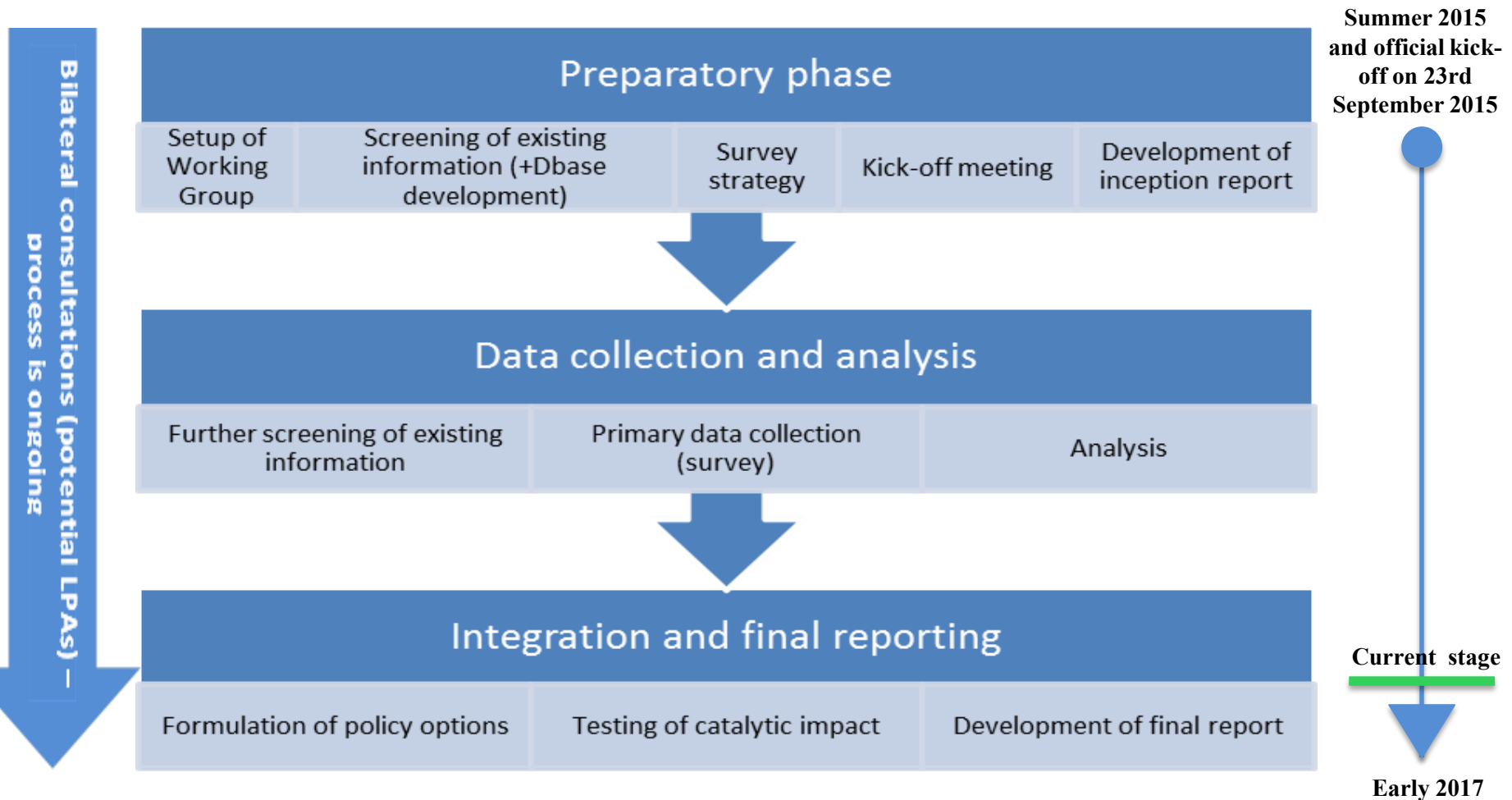
4

Awareness creation, dissemination and outreach

Taking an open 'ecosystem' perspective



Implementation plan



EARTO Annual Conference 2017

29-30 March 2017

Munich, Germany

Save the Date!



hosted by:



Fraunhofer

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**EARTO Group on LinkedIn:
"Horizon 2020 – News &
Views"**



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