Welcome to Brussels for the

Workshop
"Supporting the preparation of future European Partnerships"

Overall coherence of the Partnerships landscape and relevance for the political priorities of the New Commission
Angus Hunter, OPTIMAT

Requirements for European Partnerships – how to address Partnerships criteria in practice?
Joerg Niehoff, DG Research and Innovation

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Overall coherence of the Partnerships landscape and relevance for the political priorities of the New Commission

Angus Hunter, OPTIMAT

10.03.2020

Impact Assessment Study led and coordinated by Technopolis

1. Individual studies for each of the 13 candidate Institutionalised Partnerships
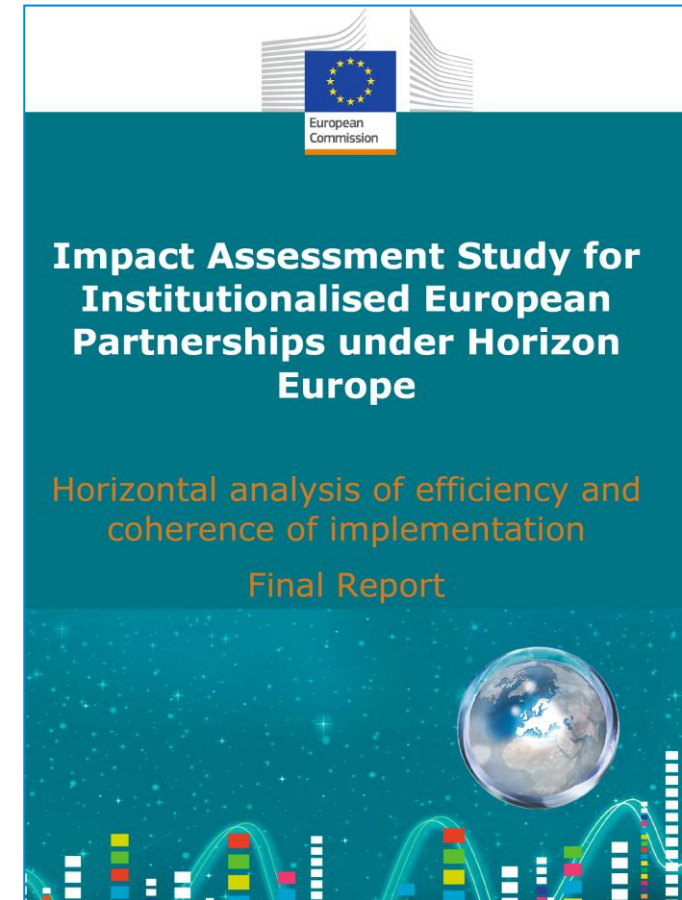
    Article 185s

    EU-Africa Global Health, Innovative SMEs, European Metrology

    Article 187s

    Innovative Health Initiative, High-Performance Computing, Key Digital Technologies, Smart Networks & Service, Transforming Europe's Rail, Integrated ATM, Clean Aviation, Clean Hydrogen, Safe and Automated Road Transport , Circular Bio-Based Europe

2. **Horizontal analysis of efficiency and coherence of implementation**

European Commission

Impact Assessment Study for Institutionalised European Partnerships under Horizon Europe

Horizontal analysis of efficiency and coherence of implementation

Final Report

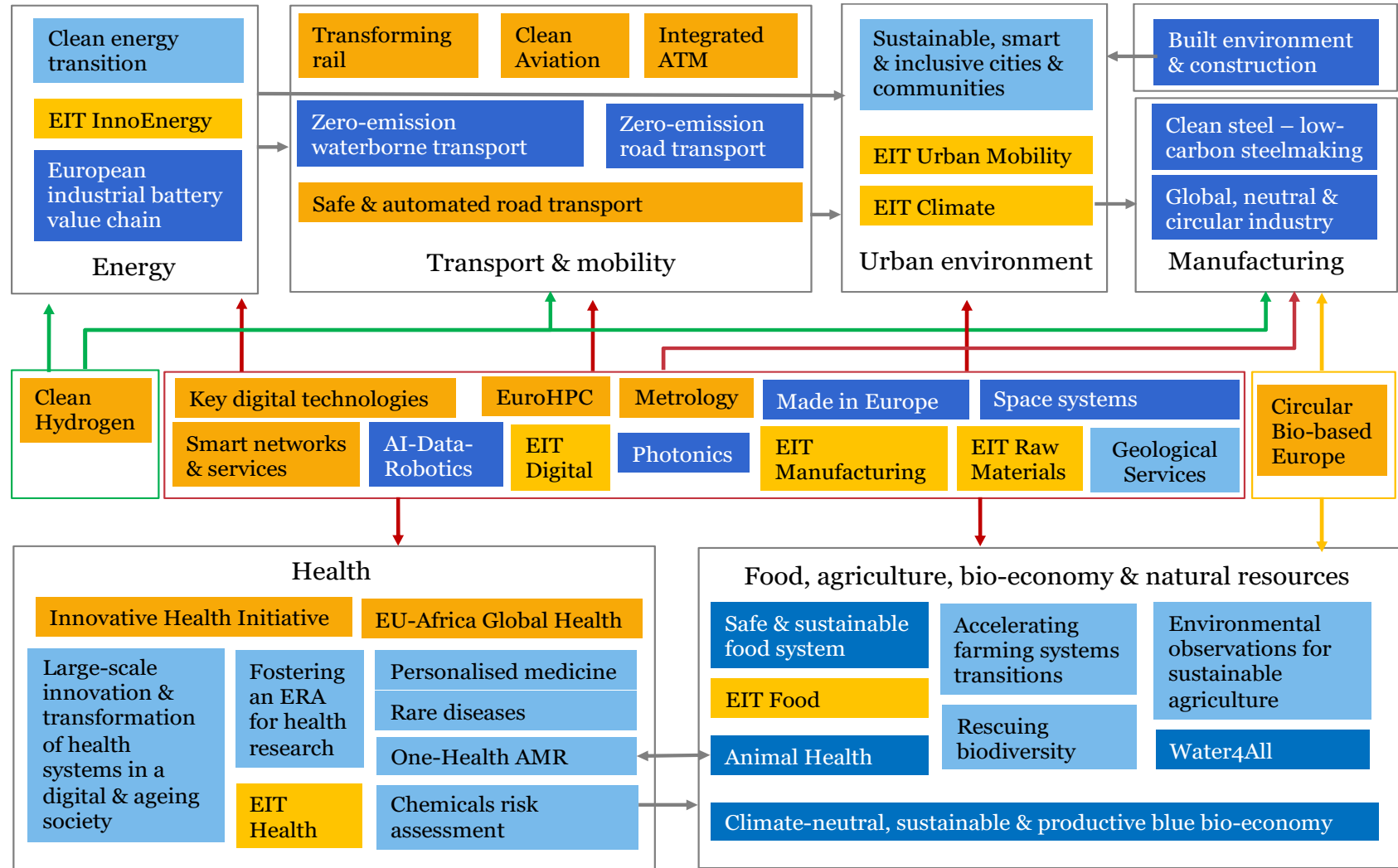ERA LEARN

Coherence of European Partnerships?

Horizon Europe orients R&I partnerships towards the achievement of objectives and policy impacts. The new approach to European Partnerships calls for different governance arrangements – both inside the partnerships as well as between them. A major difference is the expectation that they take a "*systemic approach in the achievement of the objectives*", including "*approaches to ensure flexibility of implementation and to adjust to changing policy, societal and/or market needs*". Horizon Europe legal base also stipulates that partnerships need to ensure coordination with other relevant R&I initiatives, including between themselves.

Definition of coherence - the quality of being logical and consistent, the quality of forming a unified whole.
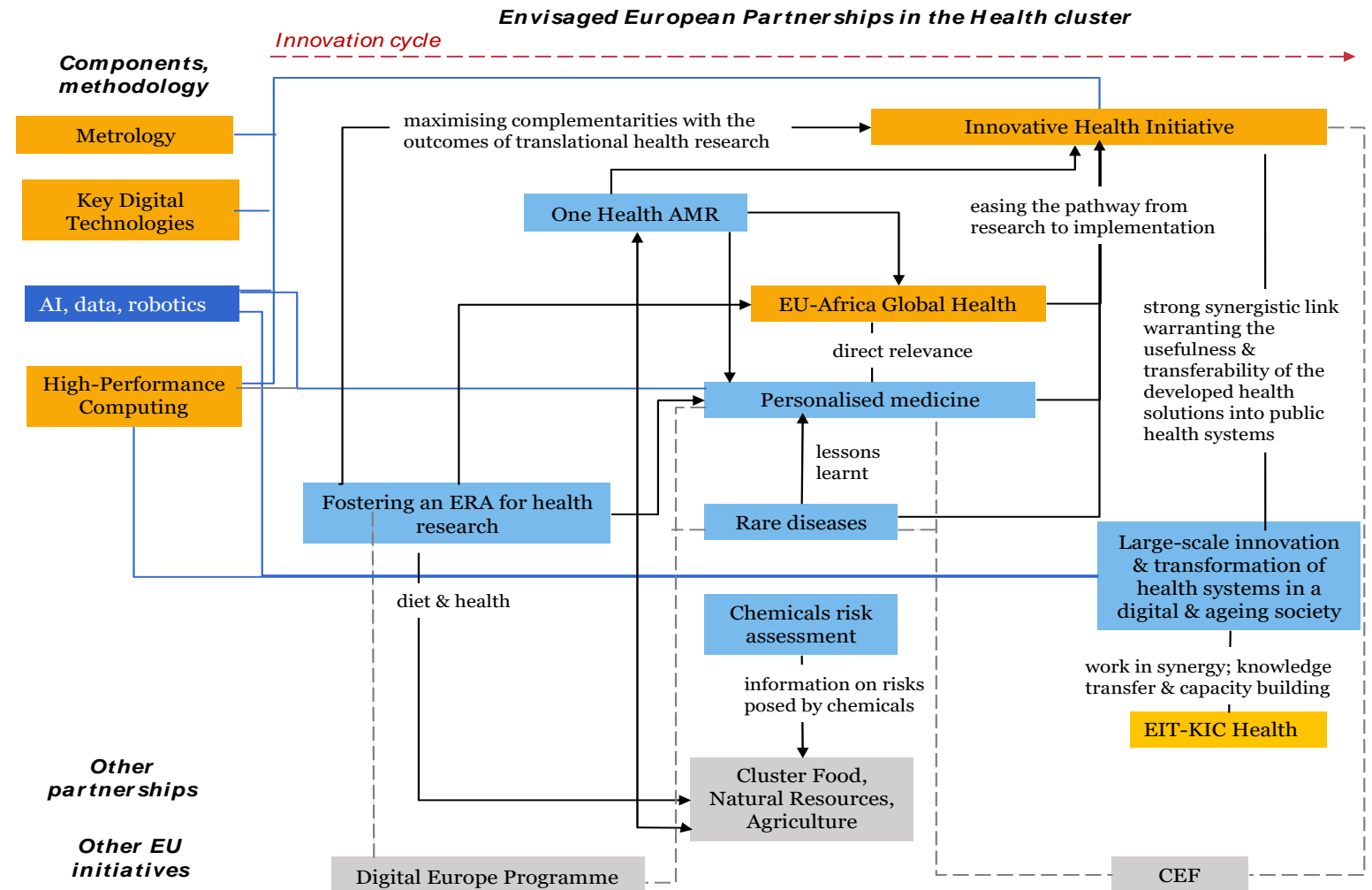
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Portfolio of possible European Partnership

Industry-orientated 'vertical' partnerships

Energy
- Clean energy transition
- EIT InnoEnergy
- European industrial battery value chain

Transport & mobility
- Transforming rail
- Clean Aviation
- Integrated ATM
- Zero-emission waterborne transport
- Zero-emission road transport
- Safe & automated road transport

Urban environment
- Sustainable, smart & inclusive cities & communities
- EIT Urban Mobility
- EIT Climate

Manufacturing
- Built environment & construction
- Clean steel – low-carbon steelmaking
- Global, neutral & circular industry

'Horizontal' partnerships

- Clean Hydrogen
- Key digital technologies
- EuroHPC
- Metrology
- Made in Europe
- Space systems
- Smart networks & services
- AI-Data-Robotics
- EIT Digital
- Photonics
- EIT Manufacturing
- EIT Raw Materials
- Geological Services
- Circular Bio-based Europe

Vertical partnerships in the societal application areas

Health
- Innovative Health Initiative
- EU-Africa Global Health
- Large-scale innovation & transformation of health systems in a digital & ageing society
- Fostering an ERA for health research
- Personalised medicine
- Rare diseases
- One-Health AMR
- Chemicals risk assessment
- EIT Health

Food, agriculture, bio-economy & natural resources
- Safe & sustainable food system
- Accelerating farming systems transitions
- Environmental observations for sustainable agriculture
- EIT Food
- Animal Health
- Rescuing biodiversity
- Water4All
- Climate-neutral, sustainable & productive blue bio-economy

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Legend:
- Candidate Institutionalised Partnerships
- EIT KIC
- Co-Programmed
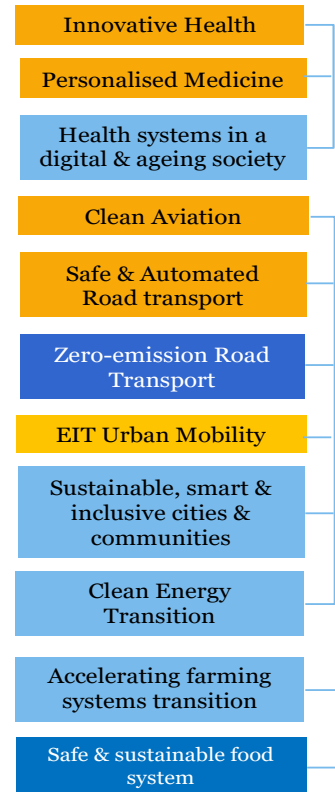- Co-Funded
- CPP or CFP

- 9 candidate Partnerships

- Most are Co-funded type

- Pronounced focus on R&I orientation related to 'tackling diseases and reducing the disease burden'

- IHI could offer pathways from research to exploitation for other partnerships

- Important potential contributions from digital and metrology partnerships

Envisaged European Partnerships in the Health cluster

Innovation cycle

Components, methodology

- Metrology
- Key Digital Technologies
- AI, data, robotics
- High-Performance Computing

maximising complementarities with the outcomes of translational health research

Innovative Health Initiative

One Health AMR

easing the pathway from research to implementation

EU-Africa Global Health

direct relevance

strong synergistic link warranting the usefulness & transferability of the developed health solutions into public health systems

Personalised medicine

lessons learnt

Fostering an ERA for health research

Rare diseases

Large-scale innovation & transformation of health systems in a digital & ageing society

diet & health

Chemicals risk assessment

work in synergy; knowledge transfer & capacity building

EIT-KIC Health

information on risks posed by chemicals

Other partnerships

Other EU initiatives

Cluster Food, Natural Resources, Agriculture

Digital Europe Programme

CEF

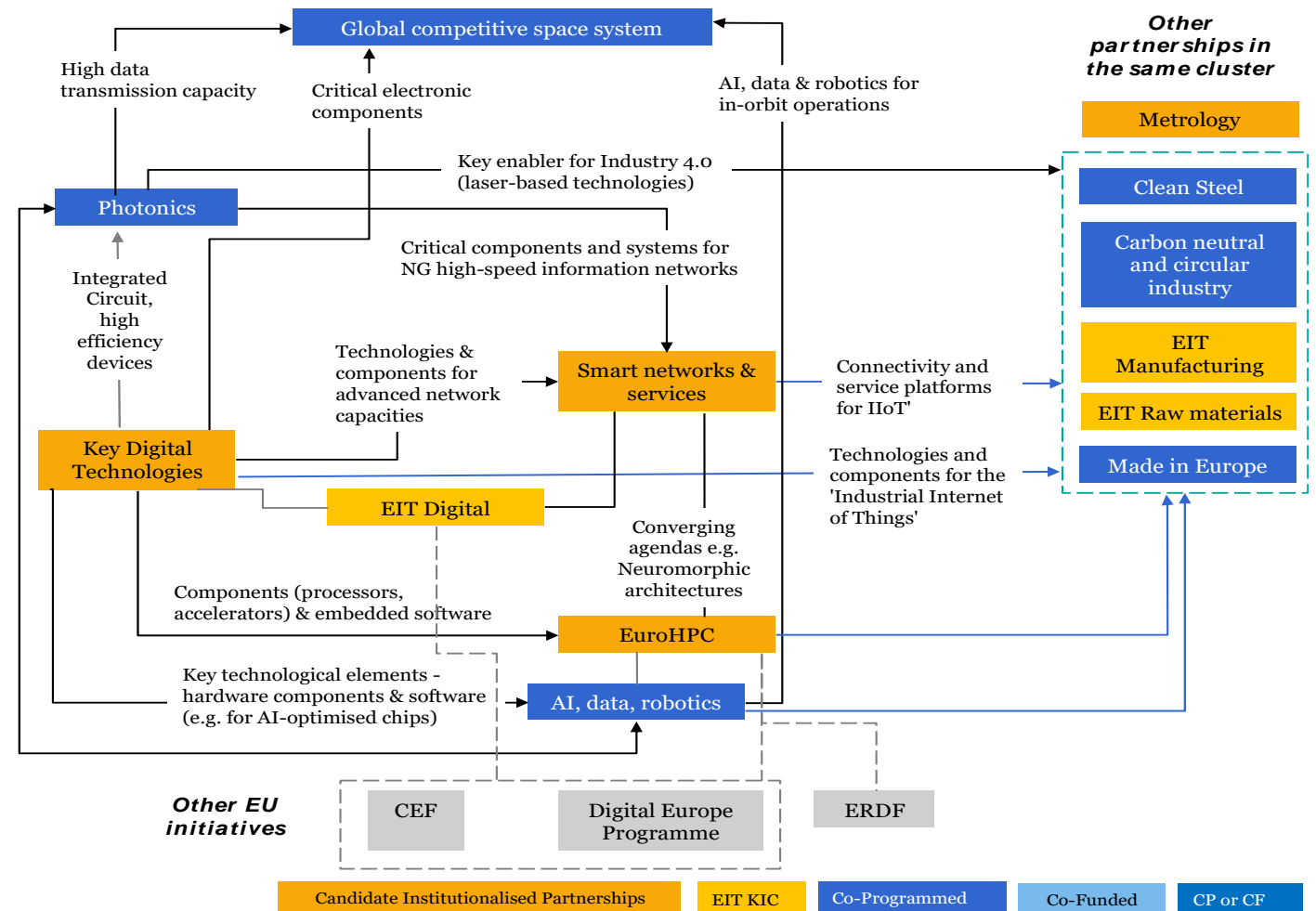Candidate Institutionalised Partnerships | EIT KIC | Co-Programmed | Co-Funded

- 14 candidate Partnerships

- Most are A187 or Co-programmed

- Most focus on the R&I orientation related to 'enabling technologies ensuring European leadership and autonomy'

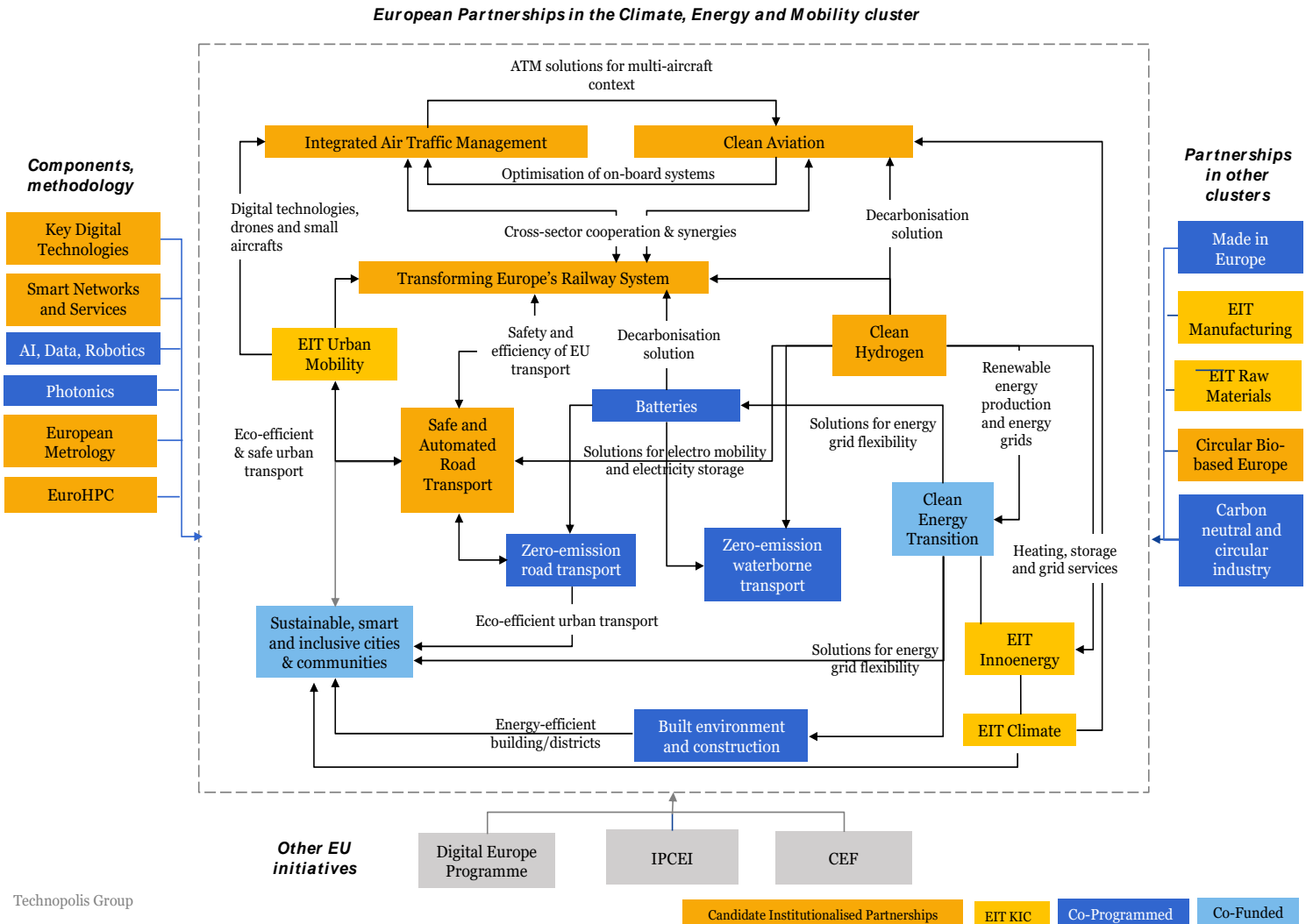- Multiple synergies and potential connection both within the cluster and with partnerships in other clusters

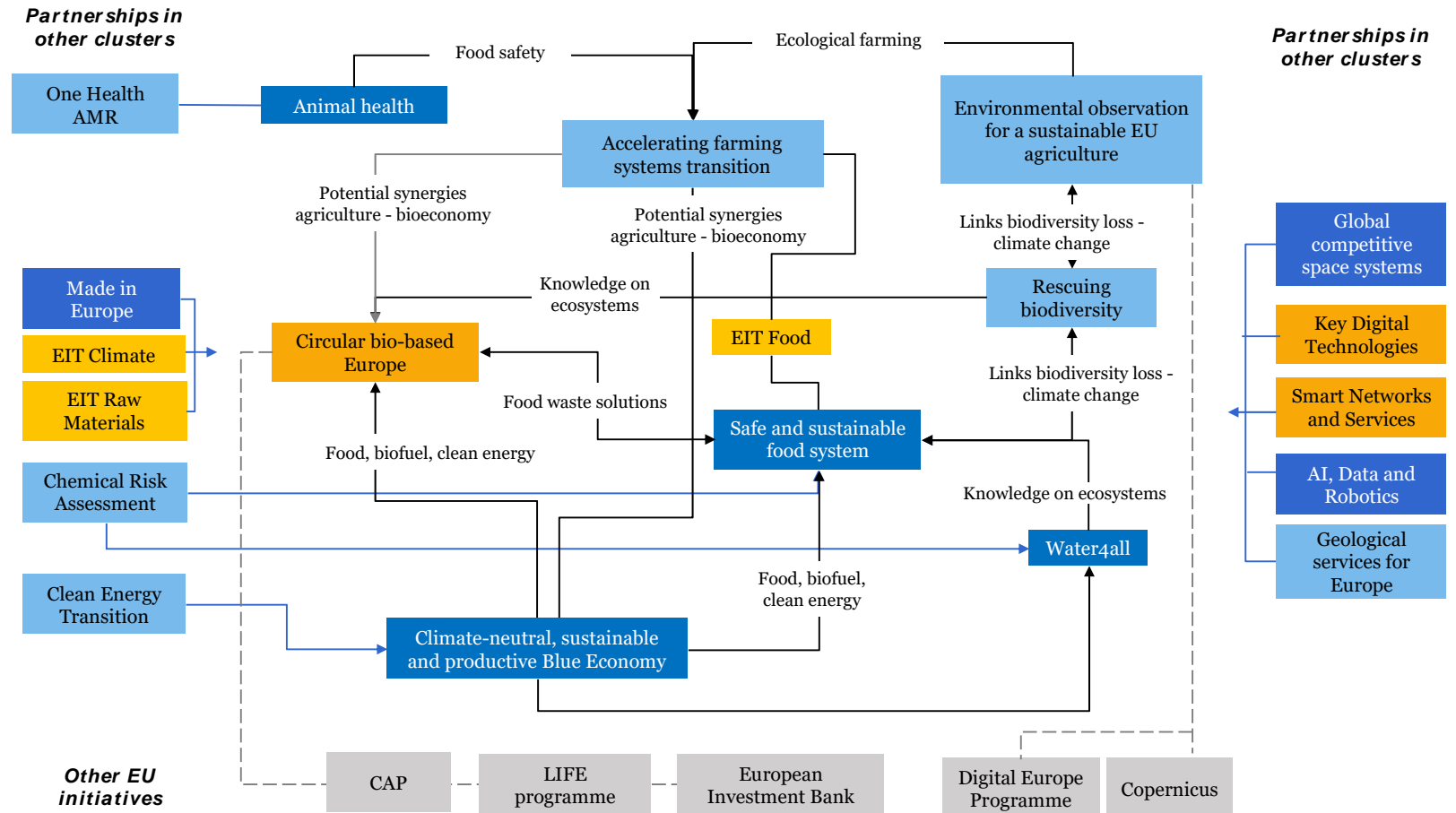*Envisaged European Partnerships in the Digital, Space & industry cluster*

Partnerships in other clusters

- Innovative Health
- Personalised Medicine
- Health systems in a digital & ageing society
- Clean Aviation
- Safe & Automated Road transport
- Zero-emission Road Transport
- EIT Urban Mobility
- Sustainable, smart & inclusive cities & communities
- Clean Energy Transition
- Accelerating farming systems transition
- Safe & sustainable food system

Other partnerships in the same cluster

- Metrology
- Clean Steel
- Carbon neutral and circular industry
- EIT Manufacturing
- EIT Raw materials
- Made in Europe

Global competitive space system

High data transmission capacity

Critical electronic components

AI, data & robotics for in-orbit operations

Photonics

Key enabler for Industry 4.0 (laser-based technologies)

Integrated Circuit, high efficiency devices

Critical components and systems for NG high-speed information networks

Technologies & components for advanced network capacities

Smart networks & services

Connectivity and service platforms for IIoT'

Key Digital Technologies

EIT Digital

Technologies and components for the 'Industrial Internet of Things'

Converging agendas e.g. Neuromorphic architectures

EuroHPC

Components (processors, accelerators) & embedded software

Key technological elements - hardware components & software (e.g. for AI-optimised chips)

AI, data, robotics

Other EU initiatives

CEF

Digital Europe Programme

ERDF

Candidate Institutionalised Partnerships | EIT KIC | Co-Programmed | Co-Funded | CP or CF

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Climate, Energy and Mobility cluster

- 14 candidate Partnerships

- No A185 and only two Co-funded

- Strong orientation towards the mobility area

- Twin challenges of decarbonisation and digitisation indicate synergies with digital/industry cluster

- Central role of hydrogen and batteries in this cluster

- Three KICs and SSI cities & communities partnerships could help enable inter-cooperation

European Partnerships in the Climate, Energy and Mobility cluster

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Food, Bioeconomy, Natural Resources, Agriculture and Environment cluster

- 9 candidate Partnerships

- Quite diverse in terms of partnership types (all except A185)

- All but one contribute to R&I orientation related to the 'development of food systems'

- Partnership on 'safe and sustainable food systems' seems to be at the core

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Candidate Institutionalised Partnerships | EIT KIC | Co-Programmed | Co-Funded | CP or CF

Contribution to the new Commission priorities

#	Partnership	A European Green Deal	An economy that works for people	A Europe fit for the Digital Age
1	EU-Africa Global Health			○
2	Innovative Health Initiative		○	
3	Chemical Risk Assessment	●		
4	ERA Health			
5	Large-scale innovation and transformation of health systems			○
6	Personalised Medicine			
7	Rare Diseases			
8	One Health/AMR			
9	High Performance Computing	○	○	●
10	Key Digital Technologies	○	○	●
11	Smart Networks and Services	○	○	●
12	AI, data and robotics	○	○	●
13	Photonics Europe	○	○	●
14	Clean Steel	●	○	
15	European Metrology	●	○	●
16	Made in Europe	●	●	●
17	Carbon Neutral and Circular Industries	●	○	
18	Global competitive space systems		○	○
19	Geological Service for Europe	●		
20	Transforming Europe's rail system	●	○	
21	Integrated Air Traffic Management	●	○	
22	Clean Aviation	●	○	
23	Clean Hydrogen	●	○	
24	Built environment and construction	●	○	
25	Towards zero-emission road transport	●	○	
26	Mobility & Safety for automated road transport	●	○	○
27	Zero-emission waterborne transport	●	○	
28	Batteries	●	○	
29	Clean Energy Transition	●		
30	Sustainable, Smart and Inclusive Cities and Communities	●		
31	Accelerating farming systems	●		
32	Animal health	●		
33	Environmental Observations for a sustainable EU agriculture	●		
34	Rescuing biodiversity to safeguard life on Earth	●		
35	A climate neutral, sustainable and productive Blue Economy	●		
36	Safe and Sustainable Food System	●		
37	Circular bio-based Europe	●	○	
38	Water4All	●		
39	Innovative SMEs		●	●
40	European Science Cloud			○
41	EIT Climate-KIC	○	○	○
42	EIT InnoEnergy-KIC	○	○	○
43	EIT Digital-KIC	○	○	○
44	EIT Health-KIC		○	○
45	EIT Food-KIC	○	○	○
46	EIT Manufacturing-KIC	○	○	○
47	EIT Raw Materials-KIC	○	○	○
48	EIT Urban Mobility-KIC	○	○	○
49	EIT Cultural and Creative Industries-KIC		○	○

- **Many will also contribute to Promoting our European way of life (Health) or enable global leadership and thus contribute to the 'stronger Europe in the world' priority**
- **All European Partnerships are highly relevant for Member States in addressing common challenges (also confirmed by the MS consultation)**

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Contribution to the UN Sustainable Development Goals

SDG2: Zero hunger

SDG3: Good health & well-being

SDG6: Clean water and sanitation

SDG7: Affordable and clean energy

SDG8: Decent work and economic growth

SDG9: Industry, innovation and infrastructure

SDG10: Reduces inequalities

SDG11: Sustainable cities and communities

SDG12: Responsible consumption & production

SDG13: Climate action

SDG14: Life below water

SDG15: Life on land

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Technopolis Report conclusions

Our mapping and analysis of the European Partnerships portfolio showed that the partnerships are geared towards playing a pivotal role in tackling the complex economic and societal challenges that constitute the R&I priorities of the Horizon Europe Pillar II. They address in particular the overarching EU policy priorities of the European Green Deal, a people-centred economy, the fit for the Digital Age, and a stronger Europe in the world

A key feature that distinguishes European Partnerships from other collaborative research instruments is the focus on the development of Strategic Research and Innovation Agendas (SRIA) that are shared and committed to by all partners in the partnership. It places European Partnerships in a unique position to address transformational failures. Addressing directionality failures through the development of shared visions on the goal and direction of the required system transformation process is at the core of the European Partnership policy instrument. All of the European Partnerships also find their rationales in addressing systemic failures. They aim at reducing the fragmentation in specific fields and technological systems and at integrating further nascent and disarticulated value chains in order to accelerate the development and diffusion of innovations.

Multiple potential interconnections and synergies exist between the candidate European Partnerships within the clusters. There are, however, only a few potential interconnections across the clusters. In other words, clusters still act as silos. Exceptions to the rule are the technology- and methodology-oriented partnerships.

We see a critical role for the European Commission services in enhancing collaboration and bridging the gaps between the industry- and member states-led partnerships. The creation of a platform to facilitate networking and knowledge exchange opportunities between these partnerships, grouped in cross-cluster 'partnership focus areas', could be beneficial from this perspective.

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Thank you!

Comments? Questions?

Criteria for European Partnerships – where are they defined?

- Horizon Europe Regulation specifies in Annex III detailed criteria for the selection, implementation, monitoring, evaluation, phasing-out and renewal

- A draft <u>Criteria Framework</u> aims at providing a better understanding of

  ➢ the meaning of the criteria and how they need to be addressed along the lifecycle of a European Partnership;

  ➢ the form of European Partnerships that might be best suited to achieve particular objectives;

  ➢ essential elements that need to be developed in preparation of a proposal for a European Partnership.

  ➔ **The document will be updated and revised, on the basis of the experience collected in the preparation of the first wave of European Partnerships (2021)**

Important to build a clear intervention logic

When? In the partnership proposals that are currently developed / revised

1. **Problem definition:** What is the problem the European Partnerships is set to address? What are problem drivers and/or strategic opportunities, underlying research, innovation, deployment or systemic bottlenecks and/or market failures?

2. Develop a clear definition of **objectives and expected impacts**

   ▪ Define (a) general, (b) specific and (c) operational objectives

   ▪ In particular the specific objectives need to be SMART (specific, measurable, achievable, realistic and, timely or time-bound);

   ▪ Link objectives to Horizon Europe objectives, broader EU policy objectives, in particular priorities set by the new Commission (A European Green Deal, An economy that works for people, and A Europe fit for the Digital Age), and with relevant global strategies;

   ▪ Make clear what should be achieved by 2030, with the R&I investment from the partnership.

3. **Develop and describe an ambitious set of activities** that convincingly demonstrate that the objectives and expected impacts can be achieved by the partnerships.

Intervention logic: example (Metrology)

Problem drivers

- Fragmented nature of the metrology system in Europe
- Increasing demand for metrology capabilities to meet needs of emerging technologies & societal challenges in all countries
- Low awareness and understanding of the metrology system throughout the innovation system

Problems

- Lack of ability to create centres of excellence in metrology at European level
- Under-investment in metrology research and skills to meet new demands and opportunities
- Metrology system not sufficiently embedded within the innovation and policy-making systems

Specific objectives

- **SCIENTIFIC**: Establish and support **sustainable European Metrology Networks by 2030** that bring together the metrology value-chain to coordinate research resources and high-quality research activities to create state-of-the-art metrology capabilities aligned with current and future user needs
- **ECONOMIC**: By 2030, Support sales of new INNOVATIVE PRODUCTS AND SERVICES through use and adoption of the new metrology capabilities created in: key emerging technologies; digitized products, processes and services; low carbon technologies; healthcare technologies
- **SOCIETAL**: By 2030, contribute to the effective design and implementation of specific REGULATION and STANDARDS that underpin public policies addressing societal challenges

General objectives

- **SCIENTIFIC**: Establish, by 2030, a sustainable coordinated world-class metrology system based on high-quality science, open access and industrial and societal needs
- **ECONOMIC**: Increase and accelerate the development and deployment of INNOVATION in Europe through effective use of metrology capabilities
- **SOCIETAL**: Increase the contribution of metrology to the design and implementation of STANDARDS and REGULATION that underpin public policies addressing societal challenges

Necessity test for the European Partnership

Why is the European Partnership is more effective in achieving objectives than traditional Horizon Europe calls?

Main lines of argumentation:

- **Directionality:** The need to ensure that efforts of partners and the union go into the same direction, towards agreed objectives and expected impacts via the SRIA&R)

- **Additionality:** For the success of the initiative, it is required that partners bring in additional resources, investment, commitments that the framework programme cannot provide.

When to address? In the partnership proposals that are currently developed / revised

- Demonstrate convincingly that the envisaged Partnership will be more effective in achieving the related objectives and expected impacts by e.g.:

  - ➢ extending cooperation well beyond collaborative R&I projects;

  - ➢ supporting more systematic innovative solutions / systemic transformation.

- Demonstrate a meaningful collaboration relevant national/regional authorities and their respective commitments to reach higher level of impacts, beyond the narrow scope of the partnerships activities.

Openness and transparency

A partnership will maximise its impacts by involving all relevant partners and stakeholders beyond the narrow composition of core partners and remaining open during its lifetime, serving the interests of all relevant stakeholders. Consequently, the implementation of the partnership via its work plans should include regular activities that allow new players to enter, participate in and benefit from its activities, and add value to the partnership without compromising ownership and commitment from the partners.

Need to develop measures and a governance that ensure

- Partnership is established with a broad, open and transparent approach towards different sectors and geographical areas including international partners when relevant;

- Open and transparent processes for consulting all relevant stakeholders for the identification of its priorities and the design of its activities (including for the preparation of Annual Work Programmes);

- Involvement of new partners in the partnerships, including open policy to membership and member services in private associations;

- Appropriate level of openness in implementation, in particular for participation in its calls for proposals;

- Communication and dissemination - broadly and through various channels to ensure the necessary information is available to all possible stakeholders, all along its life time.

Long term commitment

A partnership will only be successful, if all partners are and remain committed and provide and maintain binding commitments for the necessary financial and/or in-kind contributions necessary to achieve the objectives. In addition, to support the idea of 'directionality, indications on the share of overall investments coordinated through the partnership are expected.

All partnership proposals need to include clear commitments from all partners other than the EU

When will they be formalised:

- **Co-programmed**
  Signature of the "MoUs" (before adopting Annual Work Programme Horizon Europe).

- **Co-funded**

  ➢ At the moment of including the topic for the Programme-co-fund action supporting the Partnerships in the draft Annual Work Programme Horizon Europe.

  ➢ Confirmation with the submission of proposals and signature of Grant Agreement.

- **Article 185/187**: adoption of COM proposal (basic act).

Systemic approach ensuring achievement of impacts

The 'systemic' refers to the underlying intervention logic and links up the research and innovation measures of the partnerships. The partnership should be able to deploy the necessary broad range of activities and adjust them to its needs over time, going beyond the classical calls for R&I proposals, including those related to market, regulatory, societal or policy uptake.

- Objectives, expected impacts, contributions etc. to be defined ex-ante for each partnership (in the MoU, Grant Agreement, Basic Act)

- Overall targets for the partnership are outlined in the **Strategic Research and Innovation Agenda** and in annual **work plans** specifying intermediate steps, expected outcomes, deliverables, milestones;

- A **broad range of activities** including calls for R&I proposals, up to demonstration and validation, as well as joint activities beyond joint calls that effectively support achieving its objectives.

- Mechanisms are in place that ensure **complementarity of activities** and avoid unnecessary duplications with other relevant initiatives of Horizon Europe (including partnerships and missions).

- The partnership takes early on into account relevant standardisation, regulation and certification issues to maximize the impact of its actions and **ensure market, regulatory or policy uptake**.

Exit strategy and measures for phasing-out from the Framework Programme funding

While legally speaking, there has always been a time limit on partnerships by being part of the MFF, the reality is that most partnerships do not prepare themselves for a phasing-out and expect continued funding from the next Framework Programme. Future partnerships should include activities allowing for an orderly phasing-out or exit from Framework Programme funding.

- Identify in your proposal a credible exit-strategy (or sustainability strategy without EU funding), with measures for preparing and implementing its winding down at the end of its expected mandate, or once it reached its objectives, whichever comes first, including a time limit for the activities of the partnership.

- Include appropriate timelines, measures and conditions to decide its phasing out and/or the phasing out of Framework Programme funding. This shall be without prejudice to other national or Union programmes, which might continue to fund initiatives;

- Introduce a realistic business plan for winding down operation or continuation outside the scope of Framework Programme support. This has to ensure among others the continuity of exploitation and dissemination activities beyond the duration of the Union participation.

Thank you!

Comments? Questions?

Parallel sessions, plenary and data workshop day 2

10h00 – 11h30

Studio 311   E: Financial management of co-funded European Partnerships

Studio 312   A: Governance of and coherence among European Partnerships

Studio 314   F: Creating synergies between different funding sources at regional, national and European level

Studio 316   C: Implementation of joint calls for transnational R&I projects

11.30 – 12:00   **Coffee break/ Networking - The Arc Foyer**

12:00 – 13:00   **Plenary session: Results of parallel sessions**

13:00 – 14:00   **Light lunch - The Arc Foyer**

14:00 – 16:30   **Workshop Monitoring of European Partnerships:** how to ensure complete data on proposals, projects and results for all calls under European Partnerships? **Plenary, all partnerships requested to participate!**

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Coffee break/ Networking