European Commission

ERA LEARN

15 - 16 NOV. 2022

EUROPEAN PARTNERSHIPS STAKEHOLDER Forum

BLUE POINT | BRUSSELS

WELCOME AND OPENING

15.11.2022

Welcome and Opening

Signe Ratso
DG RTD, Acting Director General

Radka Wildová
Deputy Minister for Education, Youth and Sports, CZ

Keynote: European Partnerships – one-year review

Julien Guerrier
DG RTD, Director DIR G “Common Policy Centre”

Panel discussion/ High-level round-table:

How do European Partnerships contribute to EU political priorities

Melissa Verykios
Member of the Governing Board of Clean Hydrogen JU and of the Board of Hydrogen Europe

Yves Gigase
Executive Director ad interim of KDT JU

Daria Julkowska
Member of the Expert Group on support of the strategic coordinating process for partnerships (BMR)

Kerstin Rosenow
DG AGRI, Head of Unit F2 “Research and Innovation”, Mission Manager for Mission Soil

Irene Norstedt
DG RTD, Director DIR D “People”

Moderation:
Julien Guerrier, DG RTD, Director DIR G “Common Policy Centre”

European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

Success Stories with Q&A

Showcase 1:

Photonics (co-programmed European Partnership)

Jaap Lombaers, Vice President Photoncis21

Showcase 2:

PARC (co-funded European Partnerships)

Christophe Rousselle, Deputy Coordinator PARC

Moderation:

Julien Guerrier, DG RTD, Director DIR G “Common Policy Centre”

European Commission

ERA LEARN

15 - 16 NOV. 2022

EUROPEAN PARTNERSHIPS STAKEHOLDER Forum

BLUE POINT | BRUSSELS

THE PHOTONICS21 PARTNERSHIP

Harnessing light to create impact & technical sovereignty for Europe

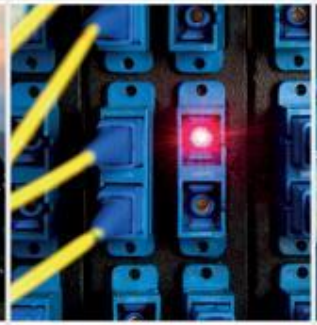
JAAP LOMBAERS
Photonics21 Vice President

Contents

- **Photonics – Deep Technology enabling many applications in multiple markets**
- How we prepared for the Photonics21 Partnership in Horizon Europe
- Key ambition: expanding our ecosystem
- Learnings and wishes

The impact of light

Photonics - cross-sectional deep technology with multiple applications in key markets

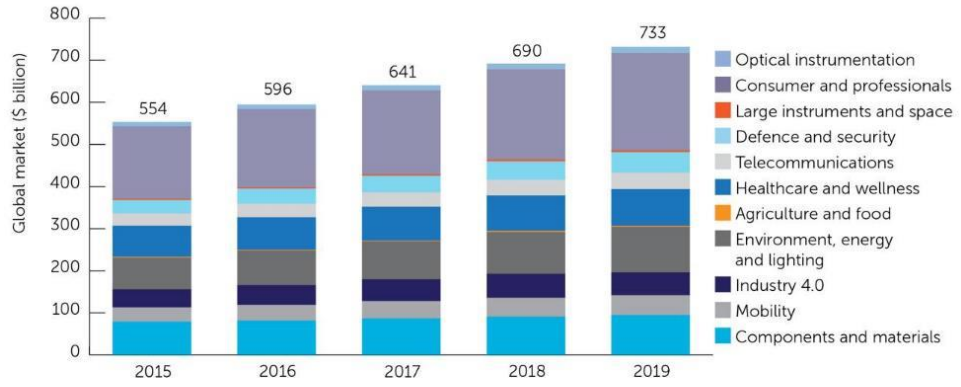
Types of Photonic Systems	Sensors & instruments	Camera & imaging systems	Communication systems	Screens, displays, projectors	LED, OLED, smart lighting	Photovoltaic systems	Laser & production systems
Photonic functions	Measure monitor	Acquire information	Transmit information	Deliver information	Provide light	Collect energy	Manufacture
Examples							
							

Top row images from left to right: © 4X-image, djedzura, Ceneri, Thomas-Soellner, Sakan Piriyapongsak, vlbentley, Phuchit / iStock.com
Second row images from left to right: © danlogan, atracurium_, BrianAJackson, pixdeluxe, lovelyday12, DiyanaDimitrova, tiero / iStock.com

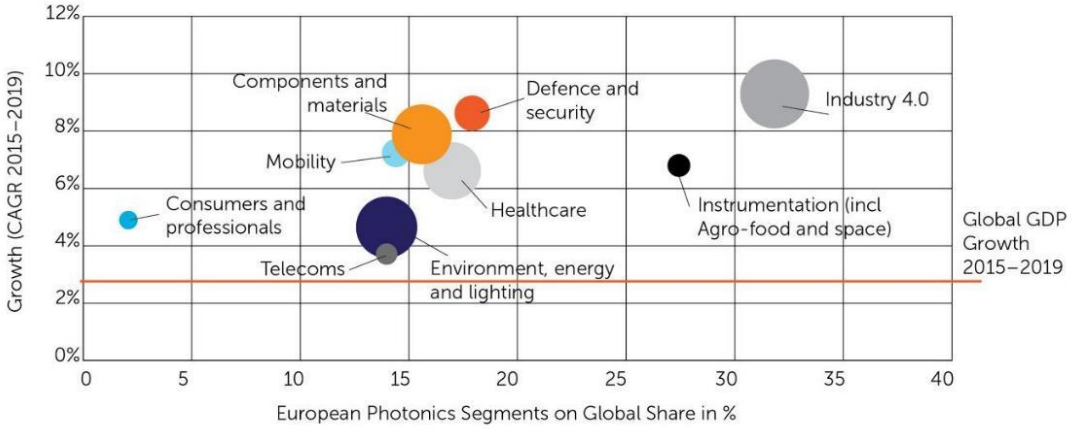
Photonics industry in EU

A 100 billion Industry serving Key Markets

Serving multiple markets

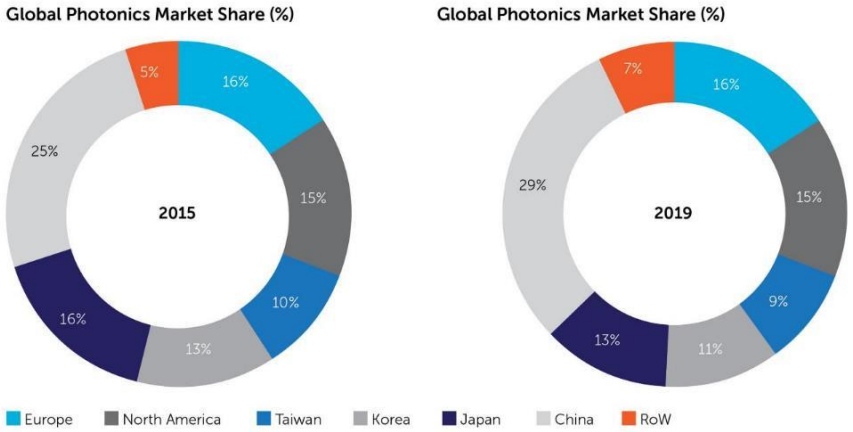


Outgrowing the GDP

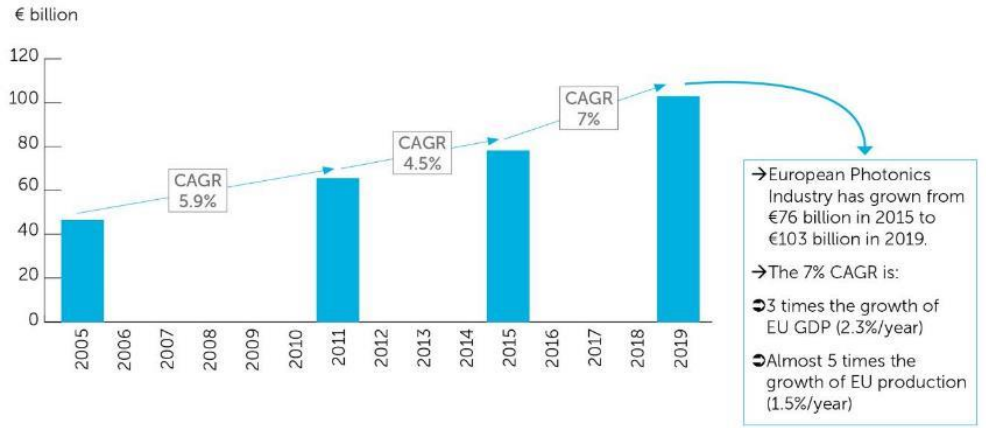


Note: the surface of the 'bubbles' is proportional to the size of the segment in $ billion

EU is #2 global player



Source: Photonics21 / TEMATYS, Market Study and Industry Report 2020

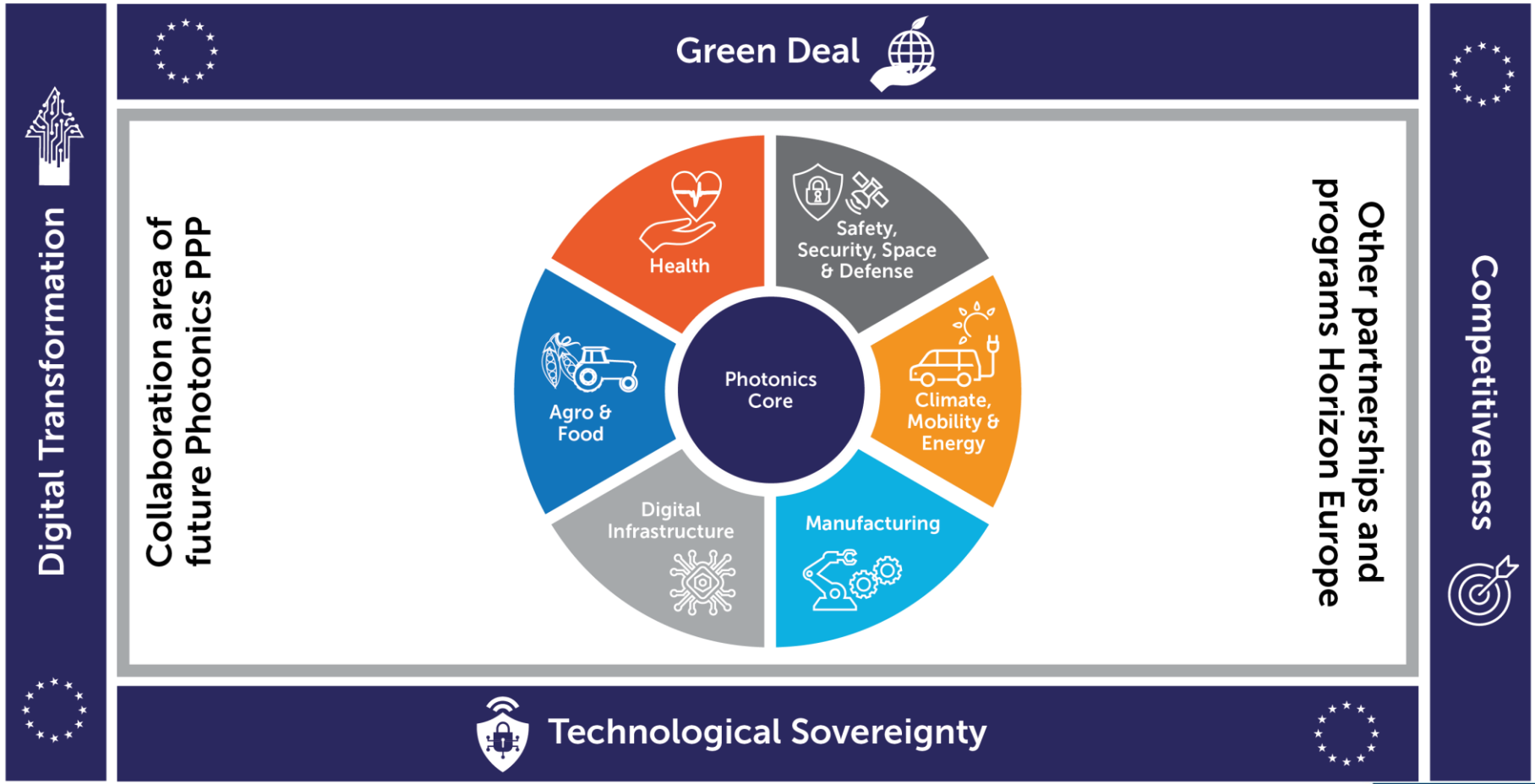


Contents

- Photonics – Deep Technology enabling many applications in multiple markets
- **How we prepared for the Photonics21 Partnership in Horizon Europe**
- Key ambition: expanding our ecosystem
- Learnings and wishes

Photonics21 Partnership restructured

Meeting the changed needs and objectives of Europe



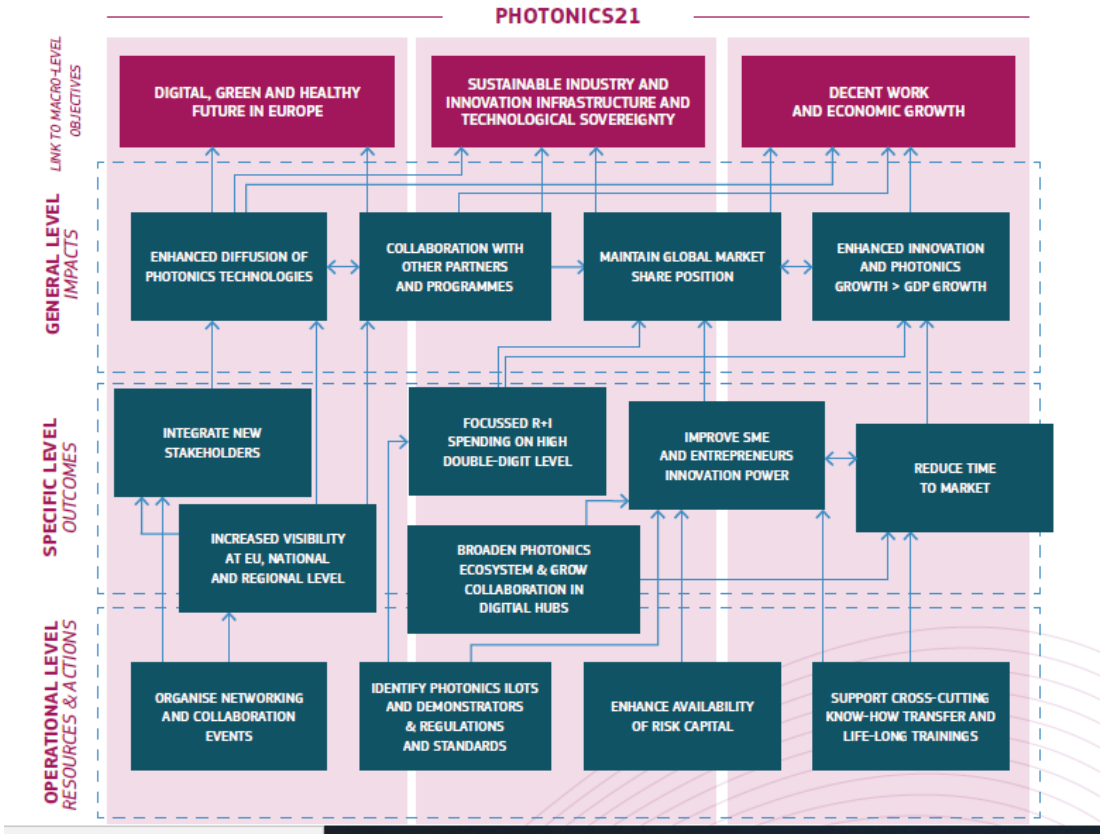
European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

Key Performance Indicators (KPIs) along PSIPs

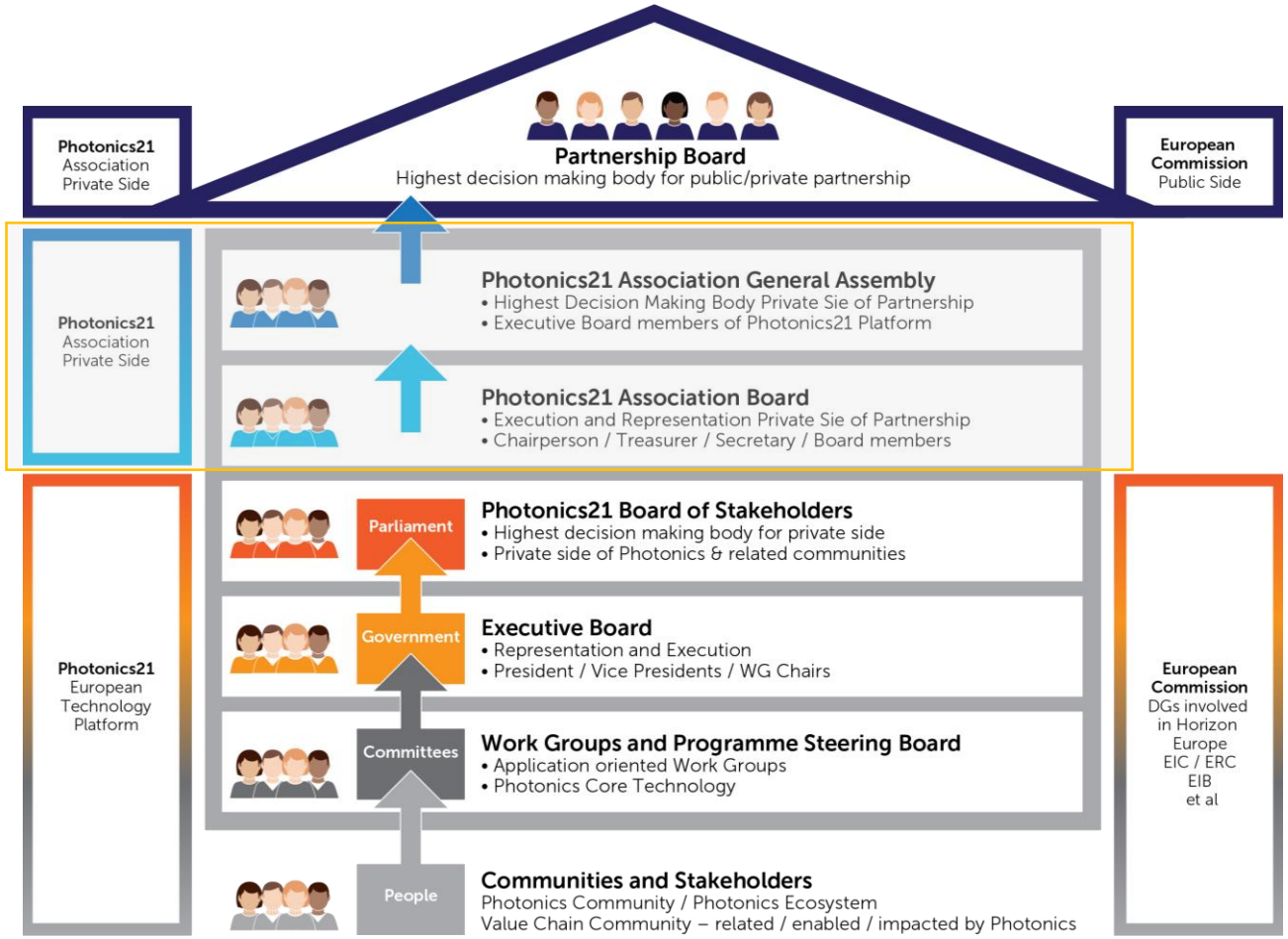
Rapid diffusion, expanding ecosystem and increased competitiveness



KPI NAME	UNIT OF MEASUREMENT	BASELINE
RESOURCES (INPUT), PROCES		
SME Innovation support	Development of digital and photon hubs	TBD
Rapid diffusion	# of end-user workshops	2/year
Industry participation	% Industry in Horizon Europe calls	50%
OUTCOME		
Stakeholder integration upstream/downstream	# new workshop attendees	New
Collaboration and synergies other programmes	# collaborations	New
Cross-cutting digital innovation hubs	# common events and actions	New
Access to risk capital	Satisfaction rate	EIB study
IMPACTS		
Photonics gross added-value growth (GDP)	GDP multiple	2x in 2019
Employment growth	CAGR% growth	2% (vs 1% Industry)
EU global market share	% market share EU	#2
More detailed information on the partnership's activities, performance and here Photonics Downloads | Photonics21		

Proven governance model sustained

Open, transparent and bottom-up decisions involving >3000 individual members



European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

Contents

- Photonics – Deep Technology enabling many applications in multiple markets
- How we prepared for the Photonics21 Partnership in Horizon Europe
- **Key ambition: expanding our ecosystem**
- Learnings and wishes

Expanding our Ecosystem:

Collaboration, Leveraging Synergies and Financing

Further expand collaboration with

- Other partnerships
- Other programs – such as Quantum Flagship, KDT and Chips JU, Health Area
- Member States
- The EU Missions
- End-Users / End-User Workshops

Financing Deep Technologies and Foster Start-up’s and Entrepreneurs in close cooperation with

- EIC and EIB
- Private Equity
- European Photonics Venture Forum together with Photon Hub

Teaming up

With value chain partners and other deep-tech initiatives

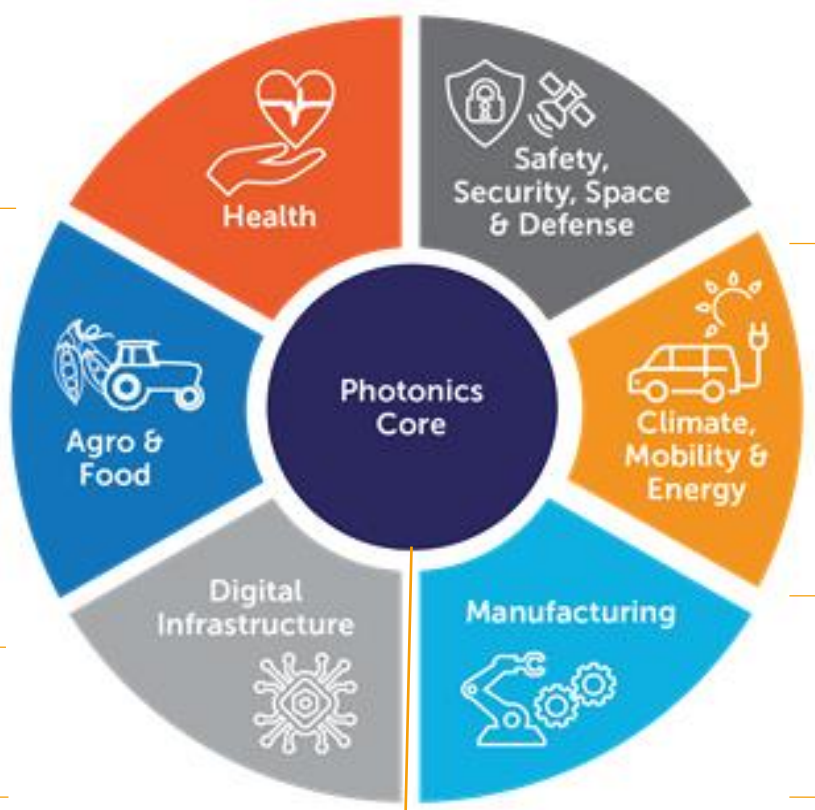
EU MISSIONS CANCER

EU MISSIONS SOIL DEAL FOR EUROPE

EU MISSIONS RESTORE OUR OCEAN & WATERS

Partnership **Farming Systems Transition**

6GSNS



Partnership **Globally Competitive Space Systems**

CCAM CONNECTED, COOPERATIVE & AUTOMATED MOBILITY

EU MISSIONS CLIMATE-NEUTRAL & SMART CITIES

MADE IN EUROPE

The European Chips Act

KDT JU KEY DIGITAL TECHNOLOGIES JOINT UNDERTAKING

QUANTUM FLAGSHIP

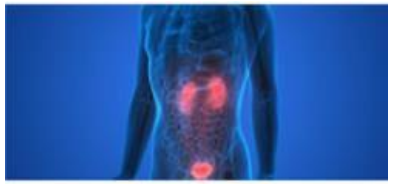
Live longer, feel better
Photonics in life sciences and healthcare

Photonics21
Tuesday, 24 August 2021

New imaging system to detect bowel cancer at the earliest stages using photonics

Photonics21
Tuesday, 10 March 2020

Breast screening breakthrough to end unnecessary biopsies



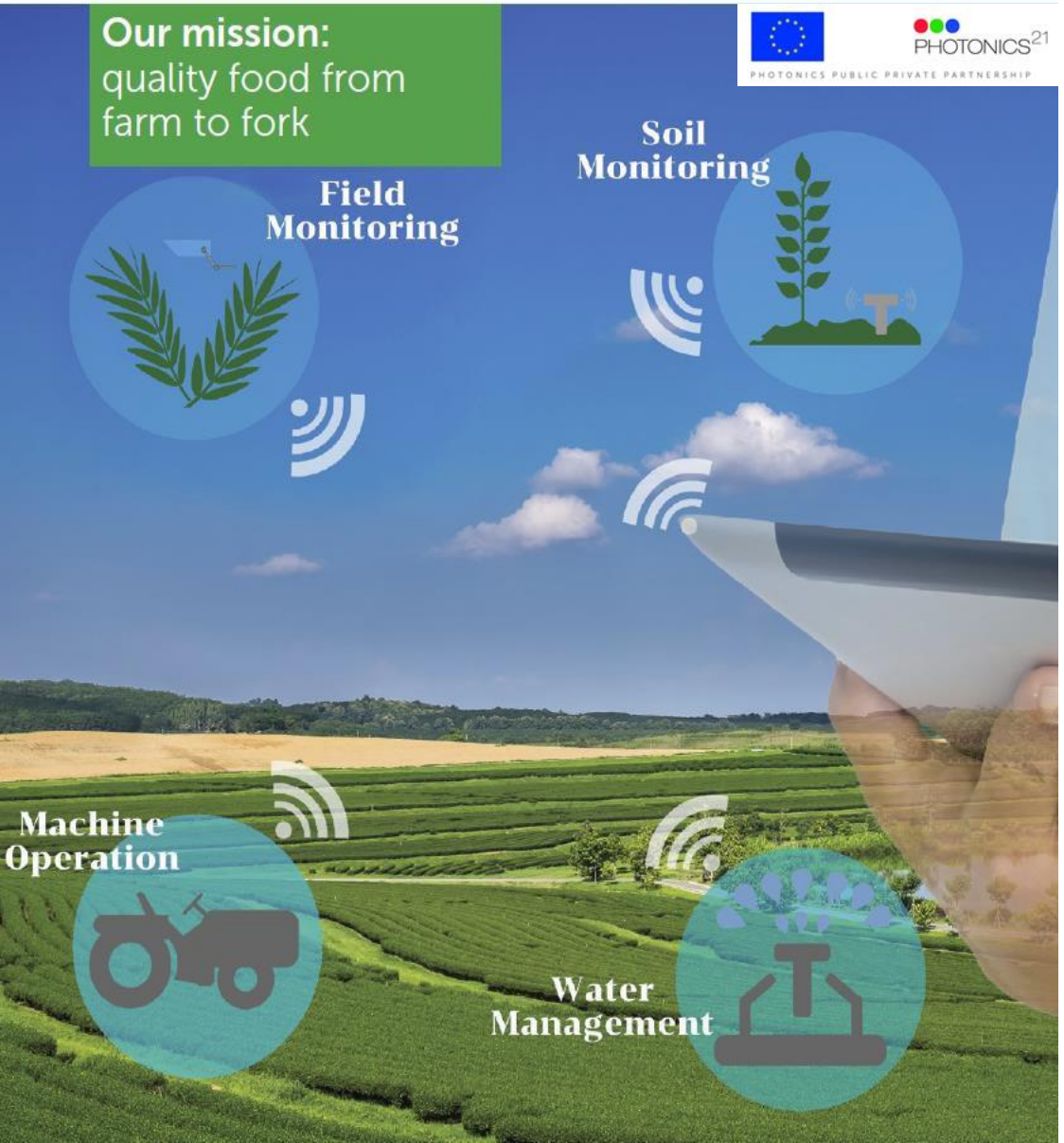
Photonics21
Wednesday, 01 July 2020

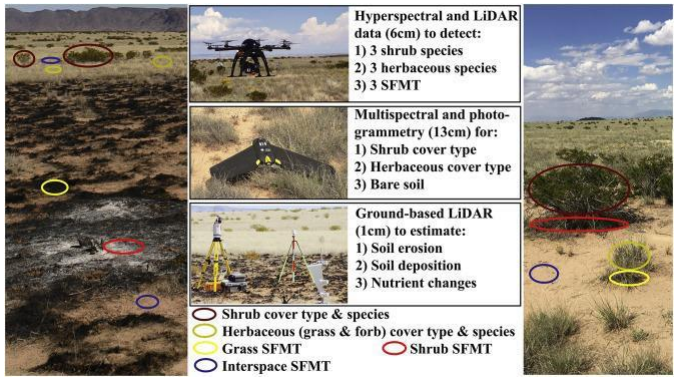
Instant bladder cancer scan could save thousands of lives

Optical imaging improves minimally invasive endoscopy for colorectal cancer

Feed the world

Photonics for safe, nutritious and affordable food





Monitoring and quantifying plant-soil-nutrient health with LIDAR

Photonics detection and elimination of defects and toxins in food streams

Zero emission, less waste

Photonics for sustainability and a clean environment

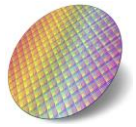
Photonics vital to microelectronics

A key enabler both in production and in products

Production: e.g. chip manufacturing

Wafer Fab

- *Wafer diameter and flatness measurement*
- *Particle removal by ionization using special light sources*
- *Unpatterned wafer default optical inspection*
- *Wafer (and Package) marking*



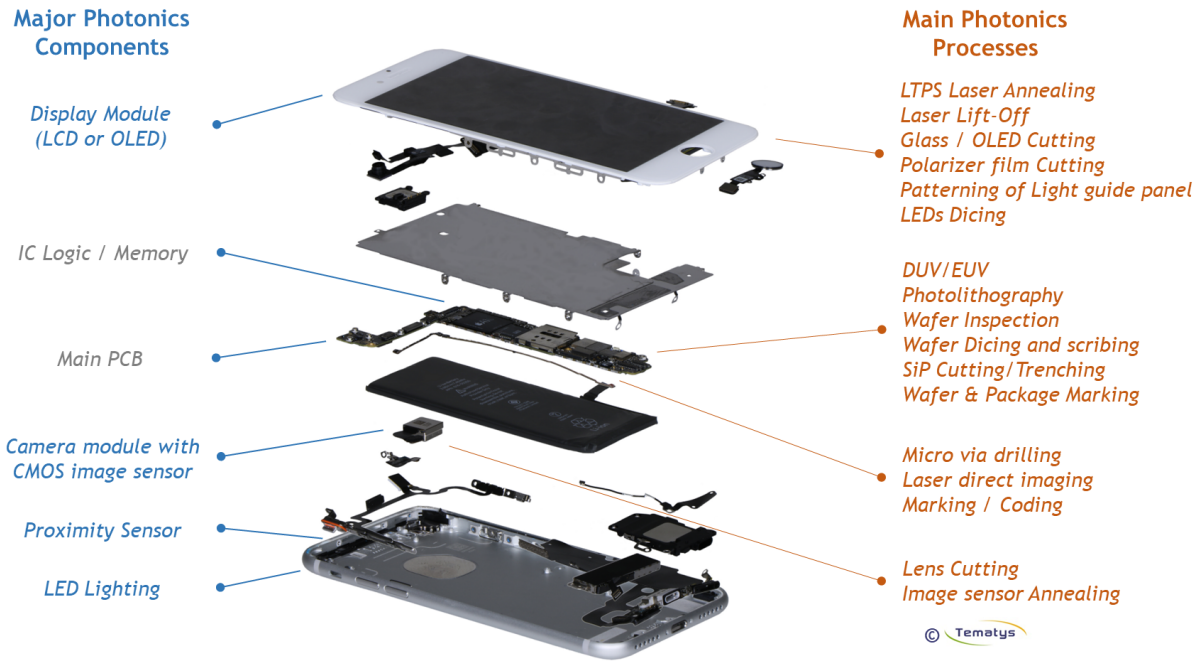
Front End

- *DUV/EUV Photolithography*
- *Wafer and mask optical inspection*
- *Lithography quality assessment*
- *Wafer annealing by laser*

Back End

- *Laser wafer dicing and scribing*
- *Substrate structuring and drilling*
- *Laser direct imaging*
- *Laser-based failure analysis systems*

Products: e.g. smartphones



European Commission

ERA LEARN

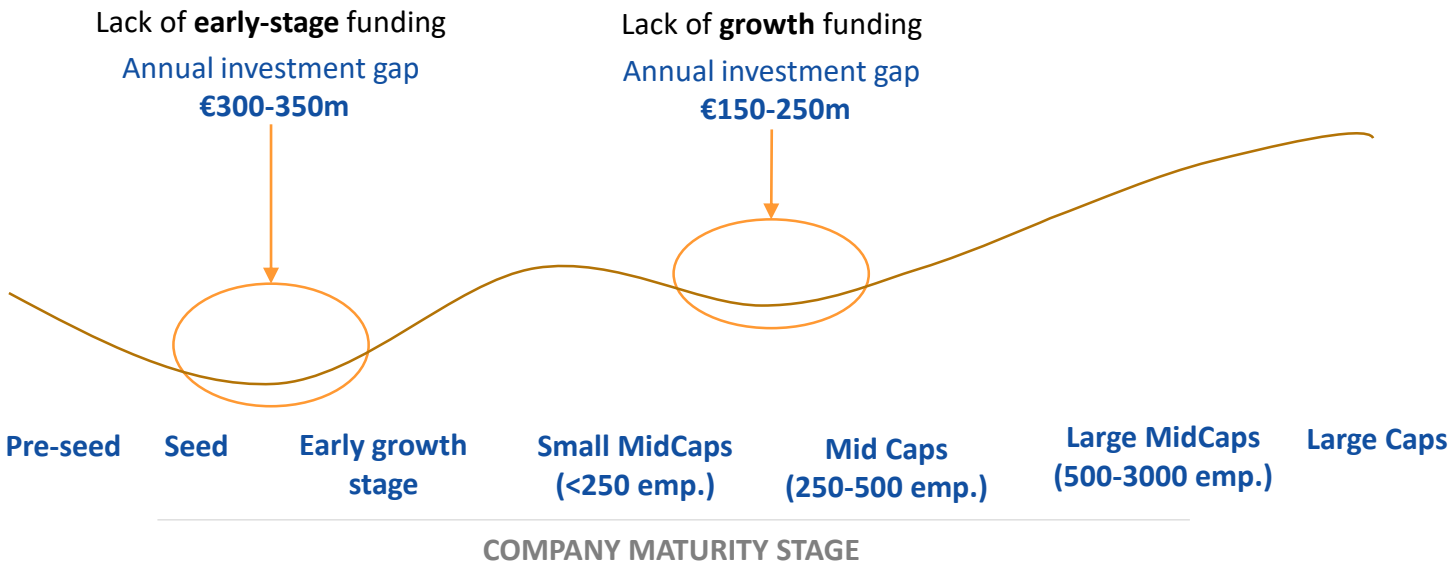
© 2022 copyright TEMATYS SARL, All rights reserved

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

Investor involvement addressing funding gaps

EIB Photonics Study points to key funding needs

Availability of funding for photonics companies



- **Lack of early-stage capital** to commercialize the prototypes and fund the first stages of business development
- **Growth is the second confirmed funding gap** driven by the lack of investors with both the expertise needed to invest in scaling the photonics businesses and significant resources associated with such investments
- The funding gap is more apparent in **equity funding** (as opposed to debt)

Source: Presentation by Brendan McDonagh, EIB Advisory Services at the Photonics21 Annual Meeting 2022

European Investment Bank The EU bank · EIF · INVESTEU ADVISORY HUB · Consultant Consortia · PLANET · in cooperation with · CIVITTA · Tematys Exploration of photonics markets · European Commission · ERA LEARN · EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

Contents

- Photonics – Deep Technology enabling many applications in multiple markets
- How we prepared for the Photonics21 Partnership in Horizon Europe
- Key ambition: expanding our ecosystem
- **Learnings and wishes**

Learnings and Wishes

- Close cooperation with EU Commission to get to cross-DG joint calls, pursuing synergies
- More opportunities to combine and link various instruments/programs
  - Different instruments: Regional and structural funds, Missions, EIC / EIB efforts, Digital Europe
  - Addressing different readiness levels (TRL's)
  - Dealing with different procedures and programmatic timelines
- Shorter lead time towards new calls: in pace with a faster changing world
- Secure sufficient financing for Deep Technologies
  - In Photonics domain: above all for SME's and start-ups

THANK YOU

Contact: secretariat@photonics21.org
Website: www.photonics21.org
Twitter / LinkedIn: Photonics21

CC BY

European Commission

ERA LEARN

15 - 16 NOV. 2022

EUROPEAN PARTNERSHIPS STAKEHOLDER Forum

BLUE POINT | BRUSSELS

PARC:

EUROPEAN PARTNERSHIP FOR THE ASSESSMENT OF RISKS FROM CHEMICALS

CHRISTOPHE ROUSSELLE

Deputy Coordinator / Anses

PARC in a Nutshell

Status: Co-funded European Partnership for Assessment of Risks from Chemical under Horizon Europe. Public partnership with almost 200 Institutions from 28 Countries.

Started: 1st of May 2022 for 7 years – Focus on components of Chemical Risk Assessment .

Vision: To establish a Science to Policy dialogue and interface to apply the long term visions of European policies (notably the Chemical Stategy for Sustainability) and to establish a hub of excellence en enabling the transition to the Next Generation Risk Assessment.

European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

PARC in a Nutshell

A public-public **Co-Funded European partnership**

Under **Horizon Europe** Pillar II – Global challenges and Industrial Competitiveness Cluster 1 – **Health**

Nearly **200 organisations** from **28 countries**
and **3 EU agencies:** EEA, EFSA, ECHA

Coordinated by **ANSES (France)**

Estimated budget of over **400M€**

European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

PARC Environment

H2020 Clusters

Projects

Regulatory environment
National/EU Agencies

Economic impact

Scientific impact

Data
Methods
Knowledge
Capacities

Policy/societal impact

PARC

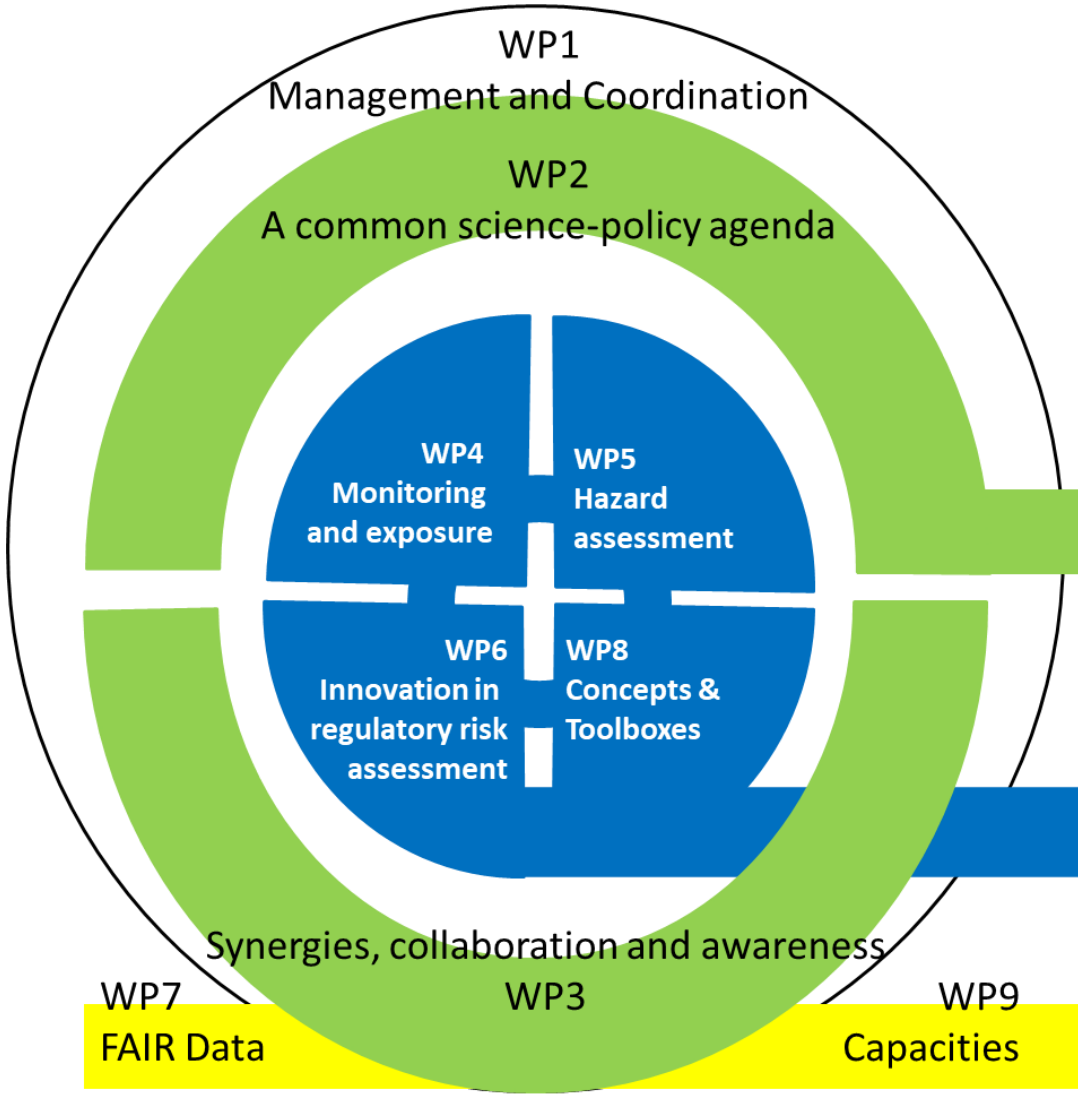
Hazard
Risk
Exposure
Questions

European Green Deal
EU Chemicals Strategy for Sustainability - Towards a toxic-free Environment
Zero pollution action plan

European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM



PARC Objectives

Our general objective is to **consolidate and strengthen** the EU's Research and innovation capacity for chemical Risk Assessment to **protect human health and the environment**

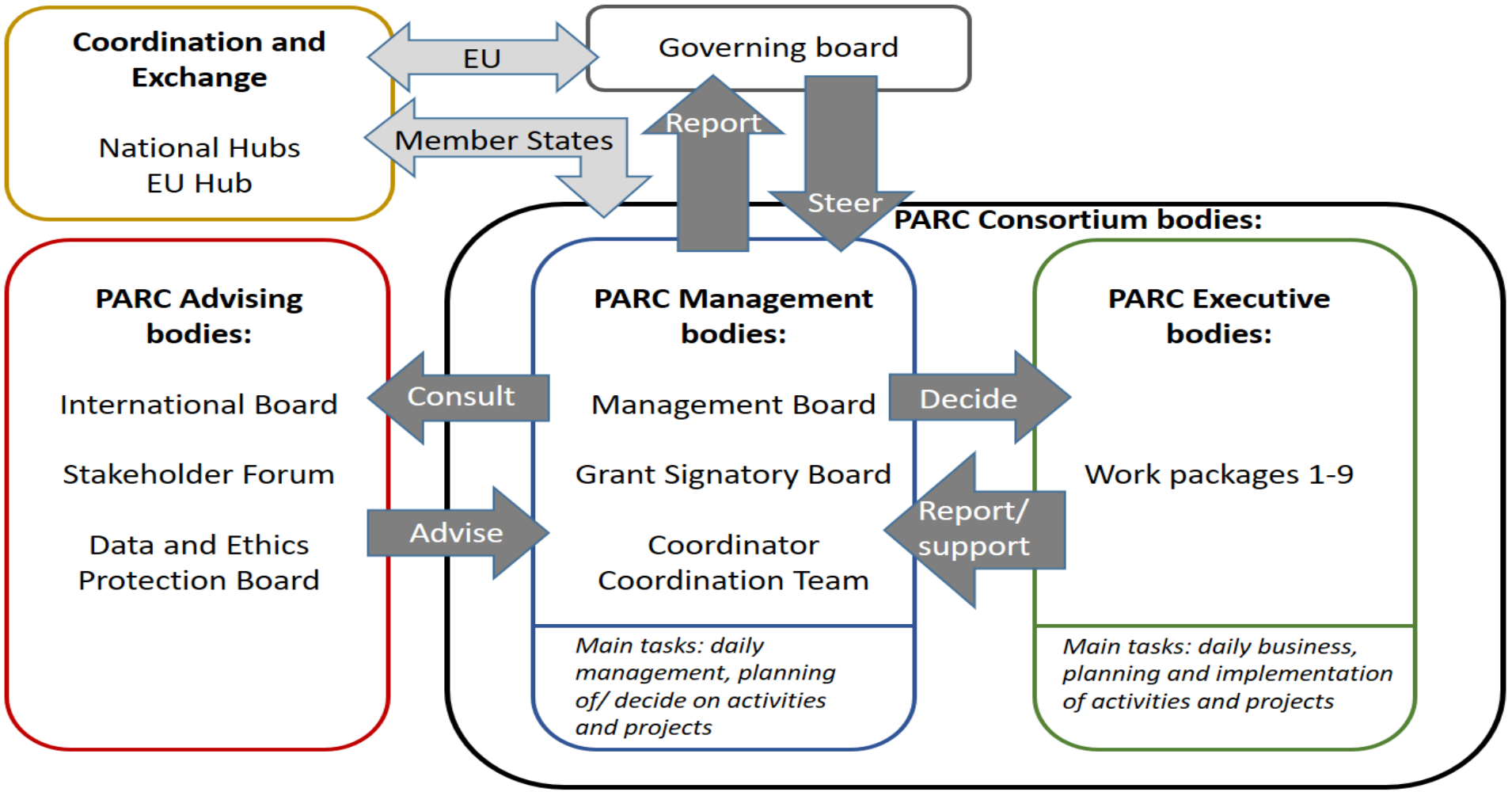
1. High level network for regulatory science interface
2. Research & Innovation towards Next Generation Risk Assessment
3. Capacities and Platforms

European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

PARC GOVERNANCE



Governing Board

- Strategic role
- Taking into account the relative weight (PMs)of the countries
- Veto rights
- Integration of the EC

Grant Signatory Board

- Contractual management role
- Taking into account the relative weight (PMs)of the participating countries
- Opt out and Veto rights

National Hubs

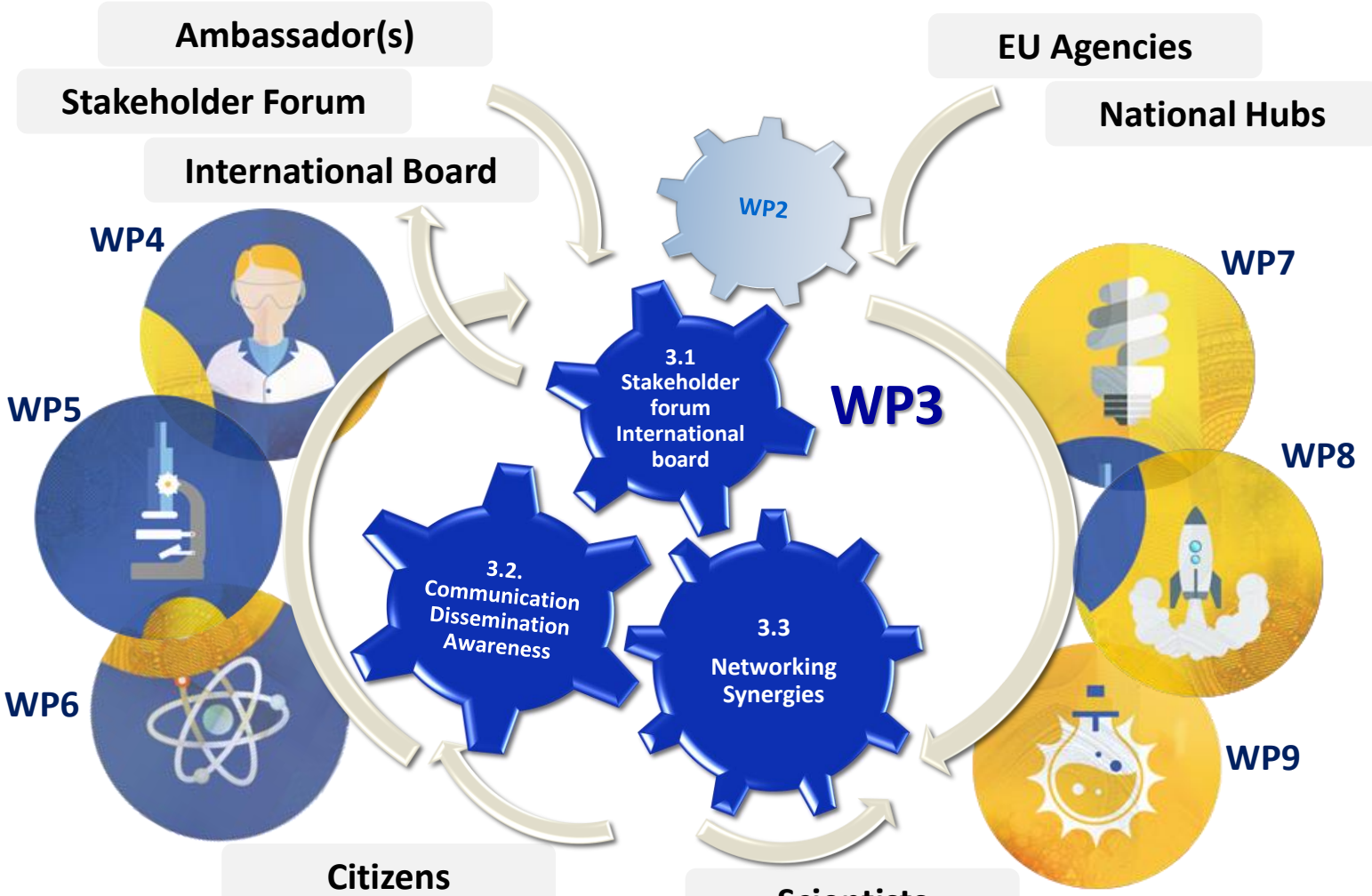
- Input role
- NHCPs in each country
- 2 NH co-coordinators
- Resources allocated to NHCPs and NHC

European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

PARC Synergies

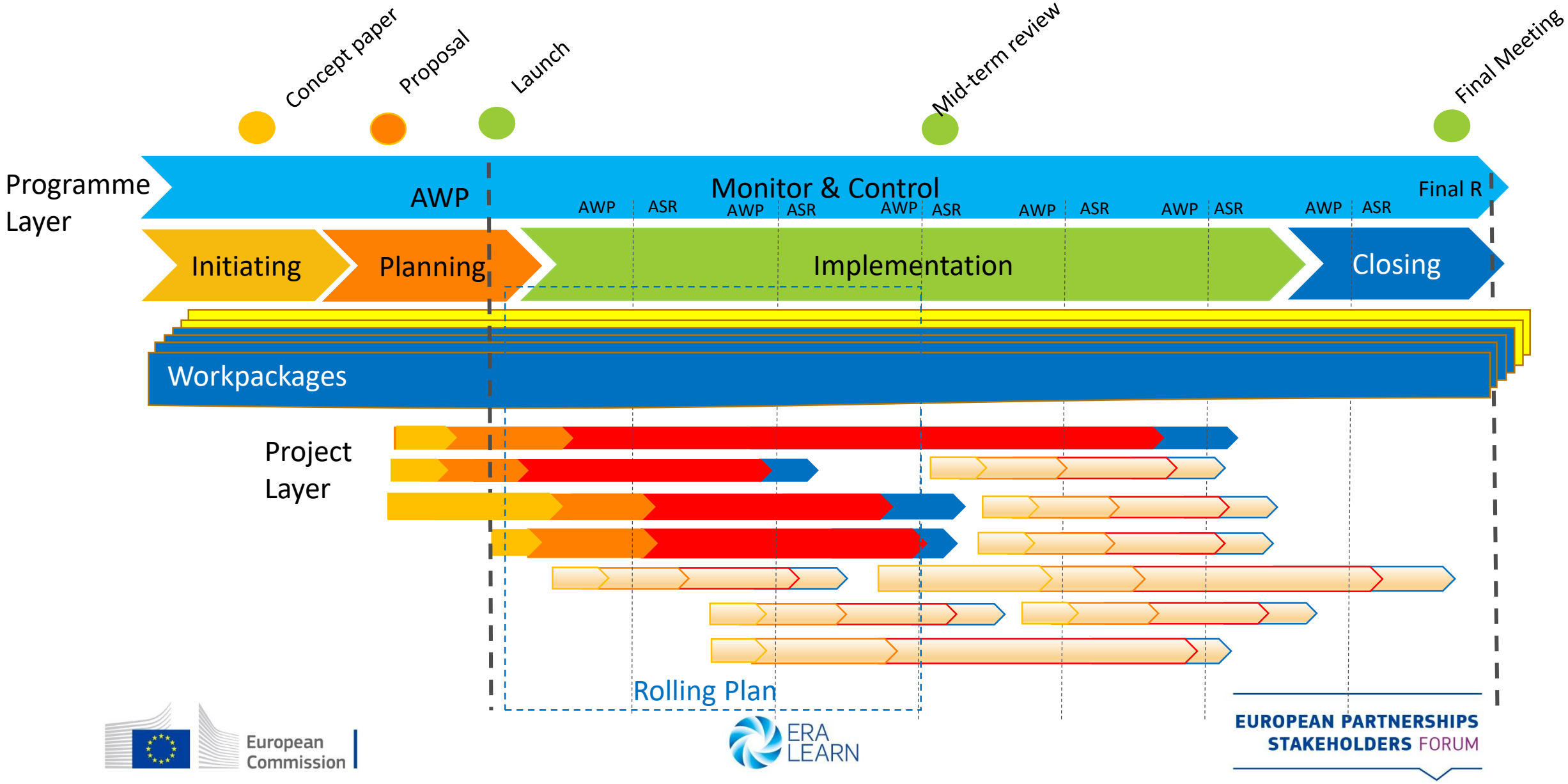


European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

PARC Strategic Research and Innovation Agenda

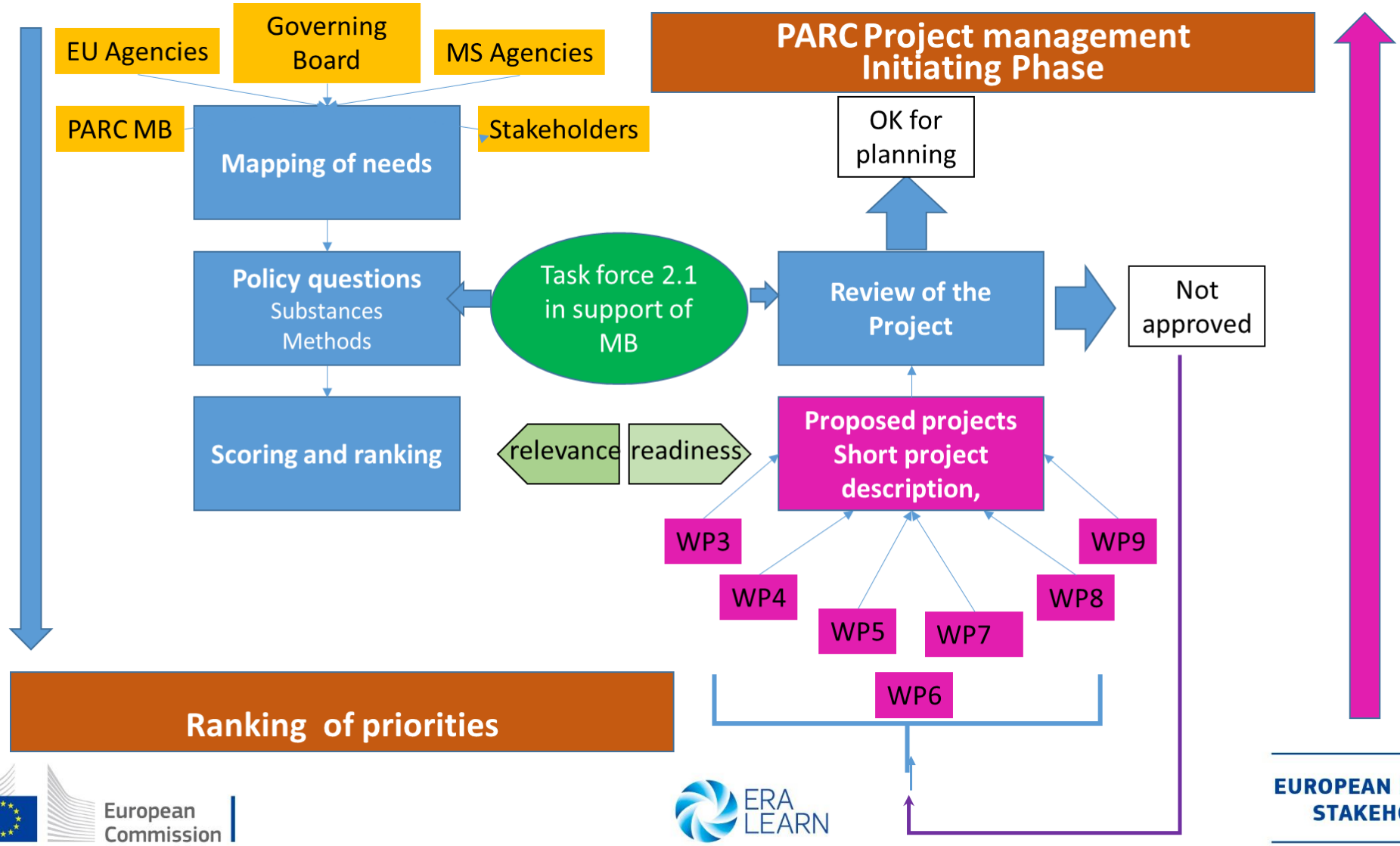


European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

PARC activities: Priorisation Process

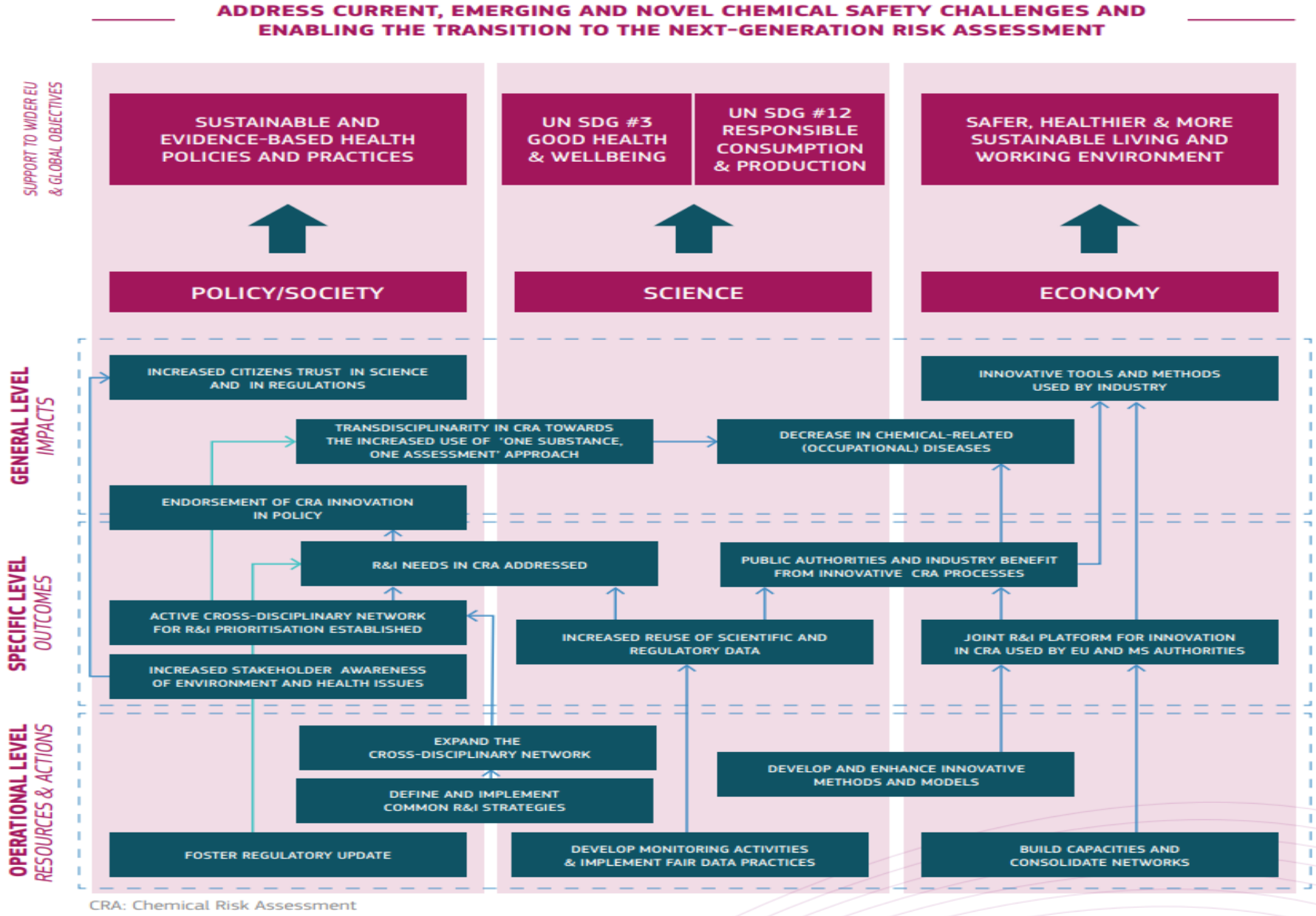


European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

PARC Specific Impact Pathway (PSIPS)



PARC Stakeholder forum

Purpose

- Vision and recommendations
- Synergies
- Interaction and engagement

Tasks

- Share vision and recommendations
- Identify synergies at EU and International levels
- Provide advice on the conduct of PARC

Members

- NGOs
- Industry /business associations
- Employer & worker representative bodies
- Health professionals
- Consumer orgs

European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM

THANK YOU

#EUPartnership

www.EDITwebsite.eu

© European Union 2022
Unless otherwise noted the reuse of this presentation is authorised under the CC BY 4.0 license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.
Image credits: © ivector #235536634, #249868181, #251163013, #266009682, #273480523, #362422833, #241215668, #244690530, #245719946, #251163053, #252508849, 2020. Source: Stock.Adobe.com. Icons © Flaticon – all rights reserved.

Community building: Poster Session, Topic Tables & coffee break

15:15 – 16:30 (LOBBY)

European Commission

ERA LEARN

EUROPEAN PARTNERSHIPS STAKEHOLDERS FORUM