

The purpose of this informal note is to give a comprehensive overview of the 49 candidate European Partnerships, and recall the relevant key aspects from evaluations and assessments of predecessors.

1. Overall context

European Partnerships provide a **framework for programme level collaboration** between the Union and public or private partners. Partnerships are in a unique position to address complex challenges. They are based on a common **Strategic Research and Innovation Agenda**, shared and committed by all partners. They are well positioned to develop **synergies** with other EU and MS programmes. Flexibility in implementing **additional activities** (related to market, regulatory, policy uptake) allows them to act as experimental/co-creation platforms.

Renewed ambition for European Partnerships

Horizon Europe introduces a more **strategic, coherent and impact-driven approach** to European Partnerships. They are expected to make a significant **contribution to achieving Union priorities** and **EU-wide ‘transformations’ towards the sustainable development goals (SDGs)**. They can also act as **dynamic change agents**, strengthening linkages within their respective ecosystem and with other relevant initiatives, as well as pooling resources and efforts towards common objectives.

The Commission has carried out a collective co-creation exercise to identify the priorities for partnerships. Besides all Services, Member States and stakeholders have been involved as part of the Horizon Europe strategic planning. This has allowed to better link partnerships with societal needs and political goals, and broaden the actors involved in their preparation.

Why a new approach?

Partnerships are not a new R&I policy intervention. They were introduced in 2002 as part of European Research Area to overcome fragmentation of research effort. Since then, a considerable repertoire of partnership instruments and initiatives have been introduced. Stakeholders and other EU institutions grew increasingly concerned over the proliferation of such instruments and initiatives, and the lack of transparency. Moreover, evaluations highlighted the need to re-orient partnerships towards outcomes and impact. Key documents:

- Horizon 2020 interim evaluation, including the Lamy Report (2017)
- Council conclusions “From the Interim Evaluation of Horizon 2020 towards the ninth Framework Programme” (adopted on 1 December 2017)
- European Parliament Report on the assessment of Horizon 2020 implementation (2017)
- ERAC recommendations (2018; based on its ad hoc working group for Partnerships)

Key changes in the policy approach

Main issue identified	How this is addressed under Horizon Europe
<i>Need for simplification</i>	<i>Simple architecture and toolbox by reducing partnership instruments into three implementation forms (Co-programmed, Co-funded and Institutionalised), and introducing a common umbrella brand.</i>
<i>More openness, transparency and coherence</i>	<i>Systematic approach to selecting, implementing and monitoring partnerships, underpinned by common criteria. The selection is embedded in the strategic planning of Horizon Europe, ensuring early involvement of Member States. Open and transparent process for priority setting and implementation of activities</i>
<i>Enhanced impact-orientation</i>	<i>Partnerships are established only if and when they allow achieving EU policy objectives more effectively than traditional collaborative R&I calls. They need to demonstrate a clear vision and targets (directionality) and corresponding partners’ contributions and commitments (additionality).</i>

2. Cluster Health

Main characteristics

The landscape of partnership candidates in the health cluster are key in achieving the following targeted impacts:

- Living and working in a health-promoting environment;
- Tackling diseases and reducing disease burden;
- Ensuring access to innovative, sustainable and high-quality health care;
- Maintaining an innovative, sustainable and globally competitive health industry.

Seven of the eight candidates for European Partnerships in cluster 1 are **predominantly building on collaboration with Member States**, their research funders and health authorities. Industry is directly targeted with the institutionalised partnership on Innovative Health.

In Cluster 1, the systemic failure identified is often related to the **lack of coordination** across sectors and between all relevant stakeholders. Several partnerships also address infrastructure failures – e.g. collecting and sharing all relevant rare disease data at EU and international level. Some aim at pushing forward the uptake of research results into **regulatory processes** by strengthening the science-policy interface (Chemical Risk Assessment). The EU-Africa Global Health candidate partnership aims to address inadequate **capacities** for clinical research in disease-endemic countries.

Two institutionalised partnerships and three co-funded partnerships are planned for 2021/2, whereas the remaining three would be included in the Work Programme 2023/4.

The **number of partnerships will be strongly reduced** compared to Horizon 2020, where a total of 16 partnerships have been supported (two institutionalised partnerships and 14 cofunded partnerships). This has been achieved building on multiple existing partnerships and merging them into a reformed approach.

A **budget share of approximately 36%** of the respective parts of the programme have been allocated to partnerships under Horizon 2020.

Individual partnership candidates

Draft title	EU-Africa Global Health Partnership (GHP/EDCTP3)		
Lead DGs	R&I, DEVCO	Form and timing	Institutionalised (Art.187), launch in 2021
Partners	<ul style="list-style-type: none"> ▪ Partners: European and sub-Saharan Africa countries (EDCTP Association); ▪ Associated partners on <i>ad hoc basis</i>: private funders (e.g. Bill and Melinda Gates Foundation), other third countries (e.g. United Kingdom) and industry (e.g. GSK). 		
Vision / main objective and achievements by 2030	Deliver new solutions reducing the burden of infectious diseases in sub-Saharan Africa, and strengthen research capacities for preparedness and response against re-emerging infectious diseases in sub-Saharan Africa and globally. By 2030: progressed to license at least two new health technologies tackling infectious diseases; and to have supported at least 100 research institutes in 30 countries for effective and rapid research response to develop diagnostics, treatments and vaccines against re-emerging epidemics.		
Relation to partnerships under Horizon 2020	Successor to Article 185 initiatives under Horizon 2020 (EDCTP2) and FP6 (EDCTP1)		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ EDCTP is a key player and holds a unique place in the global health landscape with its focus on clinical trials, developing scientists and fostering research networks. ⊖ Need to further develop an effective arrangement among Participating States. 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 1: Innovative Health, One Health/AMR 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ European Investment Bank mechanisms: InnovFin and future EuropeInvest. ▪ Development & Cooperation programmes in sub-Saharan Africa ▪ Marie Skłodowska Curie Actions (international), ERASMUS+ 		

Draft title	European Partnerships for Innovative Health		
Lead DGs	R&I	Form and timing	Institutionalised (Art.187), launch in 2021
Partners	Health industry associations (pharma, medtech, biotech, vaccines, imaging and digital)		
Vision / main objective and achievements by 2030	The initiative intends to (1) create an EU-wide health R&I ecosystem that facilitates translation of scientific knowledge into innovations; (2) foster the development of safe, effective, people-centred and cost-effective innovations that respond to strategic unmet public health needs currently insufficiently served by industry; (3) drive cross-sectoral health innovation for a globally competitive European health industry. It will cover prevention, diagnostics, treatment and disease management.		
Relation to partnerships under Horizon 2020	Successor of Innovative Medicines Initiative 2, with significantly broadened thematic scope (several health R&I areas) and partner composition (different industry sectors).		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Collaborations between competing global companies, SME's and academia, important asset for European pharma research. Large scale and ambition of projects ⊖ Need to engage other industry sectors, more consideration to public interest. 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 1: Health and Care Systems Transformation, EU-Africa Global Health ▪ Cluster 4: Key Digital Technologies; AI, Data and Robotics; HPC, 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Digital Europe Programme, Connecting Europe Facility, ▪ Beating Cancer Plan, Smart Health strategic value chain, Health Data Space 		



Draft title	European Partnership for Chemicals Risk Assessment		
Lead DGs	R&I, ENV, SANTE	Form and timing	Co-funded, WP 2021/22
Partners	National & EU chemical risk assessors (agencies) and managers (ministries), their research networks: use of national research funds to support these is being discussed		
Vision / main objective and achievements by 2030	An EU-wide R&I programme supporting the EU and national chemical risk assessment/management authorities and processes with new data, knowledge, methods and skills to address current, emerging and novel chemical safety challenges. In line with the Green Deal's zero-pollution ambition for a toxic free environment, the Partnership will facilitate the transition to the next generation risk assessment to better protect human health and the environment.		
Relation to partnerships under Horizon 2020	The human biomonitoring platform developed under HBM4EU is included as part of a wider toolbox for innovation in chemical risk assessment.		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Collaboration, networking, capacity building, open access to documents/knowledge ⊖ Increase the mutual understanding of risk assessors/managers and academia to better target research activities to deliver results which can more easily be taken-up 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 6: Rescuing Biodiversity to Safeguard Life on Earth, Safe and Sustainable Food Systems, Water4All, Circular bio-based Europe; 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Mission on soil health and food ▪ Cohesion Funds, ESF+ 	<ul style="list-style-type: none"> ▪ LIFE, ERASMUS+ 	

Draft title	European Partnership - ERA for Health		
Lead DGs	R&I, SANTE	Form and timing	Co-funded, WP 2021/22 (tbc)
Partners	Main European public research funders in health research		
Vision / main objective and achievements by 2030	Health is an area where, since 2003, several pilots have developed a healthy eco-system of Public-Public Partnerships. In the wider ERA, some 80% of all national public research investment is made by some 15 research funders, including the European Commission. There is an unnecessary duplication of procedures, meetings and in some cases diversification of criteria. This Partnership will be an instrumental platform for flexible joint programming of research programmes, effectively coordinating most of these funding organisations, including most smaller EU research funders.		
Relation to partnerships under Horizon 2020	All Public-Public Partnerships related to Health, Demographic Change and Well-being		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Multiple national efforts in Health R&I coordinated in numerous ERA-NETs ⊖ Unnecessary duplication of procedures, lack of overall strategic approach 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ All Health-related European Partnerships ▪ EIT Health 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Cohesion Funds 		

Draft title	European Partnership on Health and Care Systems Transformation		
Lead DGs	R&I, SANTE, CNECT	Form and timing	Co-funded, WP 2021/22 (tbc)
Partners	National and regional R&I funders, health and care decision-makers and providers		
Vision / main objective and achievements by 2030	The co-fund aims at contributing to the transition towards more sustainable, resilient, innovative and high-quality people-centred health and care systems. It will pool a critical mass of European/national/regional scientific resources to more efficiently address similar challenges related to health and care systems transformation. As a result, the context relevant evidence will meet the needs of national/regional health and care systems by facilitating the transfer and uptake of cost-effective technological, service, organisational and policy innovations.		
Relation to partnerships under Horizon 2020	New partnership based on some elements from previous EU-funded initiatives (AAL Article 185, CSA TO-REACH, EIP on AHA, and JPI-More Years Better lives.		
Results from previous evaluations/assessments	Not applicable		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 1: Innovative Health, Personalised Medicine ▪ Cluster 4: Key Digital Technologies; AI, Data and Robotics 	<ul style="list-style-type: none"> ▪ EIT Health 	
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ European Health Data Space, Europe’s Beating Cancer Plan ▪ ESF+, Digital Europe, InvestEU, Strategic Reforms Support Programme 		

Draft title	European Partnership for Personalised Medicine		
Lead DGs	R&I, SANTE	Form and timing	Co-funded, WP 2023/4
Partners	National and regional R&I funders, Health and care decision-makers and providers		
Vision / main objective and achievements by 2030	Coordinate research in personalised medicine and create synergies between EU, Member States and regions. Faster uptake of R&I results into clinical practice, securing Europe's position in state-of-the-art healthcare provision. A paradigm shift from a ‘one size fits all’ approach towards taking into account individual differences and better utilising the accumulating data to manage health, disease and its predisposition. Sustainable health systems and independence in data intensive healthcare.		
Relation to partnerships under Horizon 2020	ICPerMed”, with over 40 participating national and regional authorities and the ERA NET “ERA PerMed” issuing yearly calls for transnational research projects.		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ One of the largest ERA-NETs in Health, international relevance ⊖ Need to include better educational and curricula developments aspects 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 1: Innovative Health, Health and Care Systems Transformation 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Mission on Cancer ▪ Cohesion funds 	<ul style="list-style-type: none"> ▪ MSC and Erasmus Programmes ▪ EU Health Programme 	

Draft title	European Partnership on Rare Diseases		
Lead DGs	R&I, SANTE	Form and timing	Co-funded, WP 2023/4
Partners	National/regional ministries R&I and Health ministries, research funders (primarily public), research performing and health care delivering organisations.		
Vision / main objective and achievements by 2030	The partnership will coordinate national/local and European Research & Innovation programs, combining research funding and implementation of research supportive activities such as training, data access infrastructures, data standards etc. The main goal is to improve the life of rare diseases patients by developing diagnostics and treatments for rare diseases, through multidisciplinary R&I programs with all the relevant stakeholders. This will increase impact, research results uptake, visibility of R&I and EU leadership in rare diseases research.		
Relation to partnerships under Horizon 2020	Successor to ERA-NET co-fund actions and the European Joint Programme on Rare Diseases (EJP RD, 2019-2023) under Horizon 2020		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Very high EU-added value and creation of a strong ERA on Rare diseases ⊖ Diverse and large number of partners to manage and coordinate 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 1: Personalised Medicine, Innovative Health, Health and Care Systems Transformation, Cluster 4: Key Digital Technologies; AI, Data & Robotics 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ InvestEU, Connecting Europe Facility, Digital Europe Programme, European Health Data Space 	<ul style="list-style-type: none"> ▪ Cohesion Fund, European Regional Development Fund ▪ EU Health Programmes 	

Draft title	European Partnership on One Health / Antimicrobial Resistance (AMR)		
Lead DGs	R&I	Form and timing	Co-funded, WP 2023/4
Partners	National and regional R&I funders, Health and care decision-makers and providers		
Vision / main objective and achievements by 2030	Coordination and align activities and funding among countries as well as with Commission activities and funding. It will also facilitate national coherence between different services/ministries with responsibility for the various aspects of AMR (e.g. human health, agriculture, environment, industry, finances). Main goal is to contribute to achieving the objectives of the European One Health Action Plan against AMR and the WHO Global Action Plan on AMR, by reducing the threat of AMR		
Relation to partnerships under Horizon 2020	The current Joint Programming Initiative on AMR, the ERA-NET Cofund EXEDRA and the One Health European Joint Programme Cofund		
Results from previous evaluations/assessments	<ul style="list-style-type: none">  Good progress in individual areas  Fragmented AMR research addressing human health, animal health, food safety and environment in silos 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 1: Health and Care Systems Transformation, EU-Africa Global Health, Innovative Health; Cluster 6: Animal Health 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ EU Health programme ▪ European Medicines Agency (EMA), European Food Safety Agency (EFSA) 	<ul style="list-style-type: none"> ▪ European Centres for Disease Prevention and Control (ECDC), 	

3. Cluster Digital, Industry and Space

Main characteristics

In this cluster, the key R&I orientations are grouped in two broad categories: (I) Enabling technologies ensuring European leadership and autonomy; and (II) Accelerating economic and societal transitions. The majority of the partnerships directly contribute to the first strand of priorities (next generation internet, advanced computing, AI and robotics). The partnerships in advanced manufacturing and process industries (Made in Europe, Clean Steel – Low Carbon Steelmaking, and Carbon Neutral and Circular Industry) also aim to accelerate transitions towards climate-neutral and circular industries.

The 11 candidates for European Partnerships are **predominantly building on collaboration with industry**. Member States are participating together with industry in 2 partnership candidates, and are at the core of the partnerships on Metrology and Geological services.

The most common systemic failure that partnerships in this cluster aim to address relate **insufficient collaboration between systems actors and poorly integrated value chains** – or the need to integrate extended ecosystems to better exploit emerging opportunities. In fast-growing technologies and sectors (ICT, manufacturing) one important market failure is related to **skills shortages**. Some partnerships also address the need for creating global consensus on standardization and regulatory issues (smart networks and services).

Most of the partnerships are also long-standing initiatives, building upon partnerships existing under Horizon 2020 or even FP7 and on the work of one or more European Technology Platforms (ETPs). The exception is the partnership ‘Globally Competitive Space System’.

All partnerships are expected to be launched in 2021/2.

The **number of partnerships will be reduced** compared to Horizon 2020, where a total of 21 partnerships have been supported (three institutionalised partnerships, 6 co-programmed and 12 co-funded partnerships), mainly by discontinuing collaboration with national/regional research funders.

A **budget share of approximately 55%** of the respective parts of the programme have been allocated to partnerships under Horizon 2020.

Individual partnership candidates

Draft title	European Partnership for High Performance Computing (HPC)		
Lead DGs	CNECT	Form and timing	Institutionalised (Art.187), launch in 2021
Partners	Participating States, Industry		
Vision / main objective and achievements by 2030	By 2027, develop, deploy, extend and maintain in the Union a world leading federated and hyper-connected supercomputing, quantum computing, service and data infrastructure ecosystem; support the autonomous production of innovative and competitive supercomputing systems based on indigenous European components, technologies and knowledge and the development of a wide range of applications optimised for these systems; and, widen the use of this supercomputing infrastructure to a large number of public and private users, and support the development of key skills that European science and industry need.		
Relation to partnerships under Horizon 2020	Tis partnership is a successor to of the EuroHPC JU established in Oct. 2018.		
Results from previous evaluations assessments	Not applicable, interim evaluation in 2022		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: KDT, AI, Data and Robotics ▪ Other pillars: European Open Science Cloud 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ The partnerships will draw funding from Horizon Europe, Digital Europe and Connecting Europe Facility 	<ul style="list-style-type: none"> ▪ Quantum technologies ▪ Cybersecurity ▪ Advanced digital skills 	

Draft title	European Partnership for Key Digital Technologies (KDT)		
Lead DGs	CNECT	Form and timing	Institutionalised (Art.187), launch in 2021
Partners	Participating States, Industry		
Vision / main objective and achievements by 2030	Electronic and photonic components, and the software that defines how they work as part of a system, are the Key Digital Technologies. The overarching objective of the KDT partnership is to support the digital transformation of all sectors of the economy and society, make it work for Europe and address the European Green Deal. By 2030, EU leadership in KDT will reinforce industrial strongholds, having seized emerging opportunities to establish technological sovereignty and boost competitiveness.		
Relation to partnerships under Horizon 2020	Successor to ECSEL Joint Undertaking under Horizon 2020		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ➕ Successful alignment of EU, national and industrial agendas towards common goals; higher efficiency, reduced fragmentation; transparency and openness ➖ Need for greater emphasis on a strategic approach; better harmonisation of national procedures; integration of SMEs; closer follow-up of projects' impacts 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ All digital-centric partnerships including EIT Digital ▪ Partnerships representing users of KDT (e.g. mobility, Innovative Health) 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Digital Europe Programme (DEP), EUREKA clusters, ESIF, InvestEU ▪ Important Project of Common European Interest (IPCEI) in Microelectronics 		

Draft title	European Partnership for Smart Networks and Services (SNS)		
Lead DGs	CNECT	Form and timing	Institutionalised (Art.187), launch in 2021
Partners	Industry		
Vision / main objective and achievements by 2030	Support technological sovereignty concerning smart networks and services in line with the EU industrial strategy and the 5G cyber-security toolbox. Contribute to societal challenges enabling the digital and green transition, address the COVID-19 crisis both in terms of technologies for health crisis response and of economic recovery. Enable European players to develop the technology capacities for 6G systems as basis for future digital services towards 2030. Allow that lead markets for 5G infrastructure and services can develop in Europe by coordinating 5G deployment with CEF2 Digital.		
Relation to partnerships under Horizon 2020	Successor to 5G PPP under Horizon 2020		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ➕ Strong directionality towards 5G standards, EU industry leadership ➖ Strengthen links with other EU, national and regional initiatives, develop industry roadmaps to multiply effects towards the whole 6G future ecosystem 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: AI, Data&Robotics, High Performance Computing, KDT ▪ Vertical partnerships (health, mobility) and EIT Digital 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Digital Europe, Connecting Europe Facility, InvestEU ▪ Cohesion funds 		

Draft title	European Partnership on Artificial Intelligence, Data & Robotics		
Lead DGs	CNECT	Form and timing	Co-programmed, WP 2021/2
Partners	European Commission (EU), Industry, academia, end users, and civil society		
Vision / main objective and achievements by 2030	To deliver the greatest benefit to Europe from AI, Data&Robotics, this partnership will drive innovation, acceptance and uptake. It will enable deployment, boost new markets and applications, and public and private investment, to create technical, economic and societal value for business, citizens and the environment. By 2030, European sovereignty is expected in the development and deployment of trustworthy, safe and robust AI, Data and Robotics, compatible with EU values and regulations.		
Relation to partnerships under Horizon 2020	Merger of contractual PPPs on Big Data and for Robotics, and expanding to the whole AI community		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ➕ Enhanced collaboration between stakeholders, common roadmaps ➖ Strengthen links with EU, national&regional initiatives towards the whole ecosystem 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: SNS, HPC, KDT, Made in Europe, Globally Competitive Space System ▪ Vertical partnerships in other cluster and EIT-KIC Digital 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Cohesion fund ▪ Digital Europe Programme ▪ European Investment Bank ▪ Cybersecurity 		

Draft title	European Partnership for Photonics		
Lead DGs	CNECT	Form and timing	Co-programmed, WP 2021/2
Partners	Industry (to a large extent SMEs) and academia		
Vision / main objective and achievements by 2030	Photonics (light based technologies) is an essential building block for the digital transformation and for a green and healthy future in Europe. The Photonica Partnership aims to speed up photonic innovations for a digital, green and healthy future in Europe, securing Europe's technological sovereignty, raising the competitiveness of Europe's economy and ensuring long-term job and prosperity creation. By 2030 Europe will have maintained leadership in core and emerging photonic technologies.		
Relation to partnerships under Horizon 2020	Successor of contractual Public Private Partnership 'Photonics21'		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ➕ 3000 members, investment leverage of 5 and creating 42 000 jobs, mainly SMEs ➖ End user industry needs to be stronger involved to develop sector specific application roadmaps and push for broad uptake of photonic technologies 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: KDT, AI, Data&Robotics, Made in Europe ▪ Cluster 1: Health partnerships 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Digital Europe Programme, Cohesion funds, EIC, InvestEU 		

Draft title	European Partnership for Clean Steel - Low Carbon Steelmaking		
Lead DGs	R&I	Form and timing	Co-programmed, WP 2021/2
Partners	Industry and academia		
Vision / main objective and achievements by 2030	Aligned with the European Green Deal targets, the partnership supports EU leadership in the transformation of the steel industry into a carbon-neutral sector, serving as catalyser for other strategic sectors. It will by 2027 implement at least 2 demonstration projects leading to 50% CO ₂ emission reduction and achieving TRL 8 by 2030 in at least 12 building blocks funded by the partnership. The final ambition is reducing CO ₂ emissions by 80-95% by 2050, ultimately achieving carbon neutrality.		
Relation to partnerships under Horizon 2020	New partnership, with some relation to the contractual PPP SPIRE on energy intensive industries		
Results from previous evaluations/assessments	Not applicable (new partnership)		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Upstream: Clean Hydrogen, Clean Energy Transition; Midstream: Circular and Carbon Neutral Industry; Downstream: Built4People, Made in Europe. 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Research Fund for Coal and Steel ▪ Innovation Fund, LIFE, ERDF, InnovFin, InvestEU, CEF and IPCEIs 		

Draft title	European Partnership on Metrology		
Lead DGs	R&I	Form and timing	institutionalised (Art.185), launch in 2021
Partners	National Metrology Institutes (Member States)		
Vision / main objective and achievements by 2030	Accelerating global lead of Europe in metrology research, creating by 2030 sustainable European metrology networks for highly competitive and emerging metrology areas able to compete with China and US. Europe will have a world-class metrology system, offering fit-for-purpose solutions supporting and stimulating new innovative products, responding to societal challenges and enabling effective design and implementation of regulation and standards underpinning public policies.		
Relation to partnerships under Horizon 2020	Successor to Article 185 initiative under Horizon 2020, EMPIR		
Main results from previous evaluations to be taken into account	<ul style="list-style-type: none"> ➕ Global influence of the EU, integration of over 50% of national investments, support to EU regulations, uptake in European standards, industrial impact. ➖ Not yet sustainable, further increase openness and response to society's needs 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Broad relevance, in particular for partnerships in cluster 1,4 and 5 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Cohesion funds 		

Draft title	European Partnership Made in Europe		
Lead DGs	R&I, CNECT	Form and timing	Co-programmed, WP 2021/2
Partners	Industry and academia		
Vision / main objective and achievements by 2030	The partnership will be the driving force for sustainable manufacturing in Europe (“leadership by innovation”). The partnership will contribute to a competitive and resilient manufacturing industry in Europe and affects many value chains. Circular economy is further priority (“circular by design”). It will serve as a platform for aligning national and regional manufacturing technology initiatives. Strategic cooperation with key actors will be developed to ensure take-up of research results.		
Relation to partnerships under Horizon 2020	Successor to the contractual public-private partnership (cPPP) on manufacturing, Factories of the Future, under Horizon 2020		
Results from previous evaluations / assessments to be taken into account	<ul style="list-style-type: none"> ⊕ Important industrial leverage of research outputs for European value chains, large participation of innovative SMEs, influence on national manufacturing strategies. ⊖ Further need to widen the stakeholder community and improve the contributions to sustainable technologies for a low carbon society. 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ AI, Data, and Robotics, Key Digital Technologies, HPC, Carbon Neutral and Circular Industry 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Digital Europe Programme, InvestEU 		

Draft title	European Partnership for Carbon Neutral and Circular Industry		
Lead DGs	R&I	Form and timing	Co-programmed, WP 2021/2
Partners	Industry, academia, end users, and civil society		
Vision / main objective and achievements by 2030	Partnership addressing energy intensive industries (e.g. cement, steel, chemical), with the objective to make them more competitive and a strong focus on increased sustainability of these industries in Europe. Specifically, cutting GHG emissions, increase the utilisation of secondary raw material and renewable energy in industry, decrease dependence from fossil fuels and imported raw materials. The objective is supporting the achievement of the EU targets on the above areas for 2030.		
Relation to partnerships under Horizon 2020	Sustainable Process Industry partnership SPIRE		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Good leverage effect, strong industry engagement, ability to build cross-sectorial cooperation, delivering on ambitious objectives. ⊖ Broaden participation beyond current industry, including civil society. 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: Clean Steel – Low Carbon Steelmaking ▪ Cluster 5: Hydrogen 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Synergies to fund large scale demonstrators (TRL 9), such as InvestEU, Just Transition Mechanism, Innovation Fund (ETS Directive), European regional funding, structural funds for the regions, purely national programmes. 		

Draft title	European Partnership for Globally competitive Space Systems		
Lead DGs	DEFIS	Form and timing	Co-programmed, WP 2021/2
Partners	Industry, including SMEs, research centers, academic laboratories		
Vision / main objective and achievements by 2030	The vision is to support the competitiveness of the sector and reinforce EU capacity to access and use space. The main objectives for 2030 are to contribute to: capture 50% of global accessible Telecom satellite market, become the worldwide leader for Earth Observation systems, reduce the cost/price of launch services by 50% by 2030, reach a maturity of TLR 6 in the fields of ecosystem for on-orbit operation and double the accessible new services space transportation market to European industry.		
Relation to partnerships under Horizon 2020	New partnership		
Results from previous evaluations/assessments	Not applicable (new partnership)		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: SNS; AI, Data&Robotics; Photonics; KDT 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Space Programme ▪ Defence Programme 		

Draft title	European Partnership for a Geological Service (for Europe)		
Lead DGs	R&I, GROW	Form and timing	Co-funded, WP 2021/2
Partners	National geological services		
Vision / main objective and achievements by 2030	Establish a Geological Service for Europe as a point of entry into a permanent collaborative network of European geological surveys, related research institutes and the academia. Develop a globally leading subsurface information platform and provide European institutions, enterprises, and citizens with up-to-date, high-quality geoscientific information, aggregated at the EU-level. Primary focus is on joint research, focusing on (1) resourcing Europe, (2) climate change and decarbonisation, (3) enhancing safety, security and wellbeing for EU citizens and (4) the subsurface in Europe's digital twin.		
Relation to partnerships under Horizon 2020	Successor to the ERA-Net GeoERA		
Results from previous evaluations/assessments	<p>⊕ Integration of the information and data management of national geological surveys</p> <p>⊖ Low level of integration, question on best form of intervention</p>		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 5: Clean Energy Transition ▪ Cluster 6: Water4All ▪ Other pillars: EIT Raw Materials 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ European Raw materials Initiative, COM(2008) 699 ▪ European innovation partnership (EIP) on raw materials 		

4. Cluster Climate, Energy and Mobility

Main characteristics

The landscape of Partnership candidates in this cluster are key in achieving the following strategic R&I orientations:

- Cross-sectoral solutions for decarbonisation, including developing infrastructure, services and systems for smart and sustainable communities and cities;
- Develop cost-efficient, net zero-greenhouse gas emissions energy system centered on renewables;
- Develop demand side solutions to decarbonise the energy system, including achieving a highly energy-efficient and decarbonised EU building stock;
- Develop low-carbon and competitive transport solutions across all modes; and
- Make automated and connected road transport safe and competitive.

The 11 candidates for European Partnerships in cluster 5 are **predominantly building on collaboration with industry**. Four of them are candidates for Institutional Partnerships (Clean Hydrogen, Transforming Europe's rail system, Clean Aviation and ATM). Member States are at the core of the partnerships on Clean Energy Transition and Driving urban transitions to a sustainable future.

Fragmented value chains or dysfunctional systems affecting the development of innovative solutions are systemic failures that most of Partnerships in Cluster 5 are addressing. Some aim to de-risk investment in the development and pre-deployment of climate change solutions, hydrogen and other low-carbon technologies as well as low-emission aircrafts and ships.

All Partnerships are expected to be launched in 2021/2.

The **number of partnerships will be reduced** compared to Horizon 2020, where a total of more than 25 partnerships have been supported (4 institutionalised partnerships, 1 co-programmed and more than 20 co-funded partnerships), mainly by merging all energy related cofounded partnerships, and by discontinuing support to a small number of initiatives.

A **budget share of approximately 38%** of the respective parts of the programme have been allocated to partnerships under Horizon 2020.

Individual partnership candidates

Draft title	European Partnership for Transforming Europe's rail system		
Lead DGs	MOVE	Form and timing	Institutionalised (Art.187), launch in 2021
Partners	Rail manufacturers, operators, infrastructure managers		
Vision / main objective and achievements by 2030	Accelerate development and deployment of innovative technologies (especially digital and automation) and deliver on European Green Deal objectives (e.g. shift substantial part of the 75% of inland freight carried today by road to rail and inland waterways). Outputs would become a mandatory part of the target rail system. Develop solutions with broad support across EU—up to 75% market uptake by 2030, improving the competitiveness of rail and support the European technological leadership in rail.		
Relation to partnerships under Horizon 2020	Successor to Shift2Rail Joint Undertaking		
Results from previous evaluations/assessments	<p>⊕ Reduce fragmentation, continuity of research goals, large-scale demonstrators</p> <p>⊖ In order to make a real impact on the railway of the future, a better understanding of societal needs and a more outward looking view of emerging technologies need to be adopted and the membership needs to be broadened.</p>		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: KDT ▪ Cluster 5: Mobility related partnerships, Clean Hydrogen, Batteries 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Connecting Europe Facility ▪ Digital Europe Programme 	<ul style="list-style-type: none"> ▪ Cohesion Fund, European Regional Development Fund , European Investment Bank 	

Draft title	European Partnership for Integrated Air Traffic Management (ATM)		
Lead DGs	MOVE	Form and timing	Institutionalised (Art.187), launch in 2021
Partners	Industry, airlines, airports, air navigation service providers, R&I institutes		
Vision / main objective and achievements by 2030	Digital transformation of ATM, making the European airspace the most efficient and environmentally friendly sky to fly in the world, supporting the competitiveness and recovery of the European aviation sector in a post-COVID crisis Europe. Key areas: improving connectivity, air-ground integration and automation, increasing flexibility and scalability of airspace management, safe integration of drones. Deliver by 2030 the solutions identified in the European ATM Master Plan for Phase D at TRL 6.		
Relation to partnerships under Horizon 2020	Single European Sky ATM Research (SESAR) Joint Undertaking		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Delivery of 100+ ATM solutions deployed at over 300 locations in Europe. ⊖ Need to accelerate the ATM research innovation cycle all the way to market uptake, need to reduce funding concentration, improve transparency 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: KDT, Smart Networks and Services, AI, Data&Robotics, Globally Competitive Space System 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Connecting Europe Facility, Cohesion Fund ▪ SESAR deployment programme 		

Draft title	European Partnership for Clean Aviation		
Lead DGs	R&I, MOVE, CLIMA, ENV, GROW, ENER	Form and timing	Institutionalised (Art.187), launch in 2021
Partners	Industry, research organisations, academia		
Vision / main objective and achievements by 2030	Put aviation on route to climate neutrality, by accelerating the development, integration, and validation of mainly disruptive R&I solutions, for deployment as soon as possible. Also developing the next generation of ultra-efficient low-carbon aircraft, with novel power sources, engines, and systems, which will emerge from the research and demonstration phase at a high TRL. Supporting aviation R&I benefits the aviation sector's competitiveness and employment; especially important post-COVID 19.		
Relation to partnerships under Horizon 2020	Clean Sky 2 Joint Undertaking		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Strong partnership involving many stakeholders allowing multi-annual R&I ⊖ Administrative simplification; synergies with other EU and national programmes 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: Made in Europe ▪ Cluster 5: ATM, Clean Hydrogen, Batteries 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Connecting Europe Facility, Cohesion Fund, EIB; ▪ National aviation R&I 		

Draft title	European Partnership on Clean Hydrogen		
Lead DGs	R&I, ENER	Form and timing	Institutionalised (Art.187), launch in 2021
Partners	Industry, academia		
Vision / main objective and achievements by 2030	Accelerate development and deployment of European clean hydrogen technologies, contributing to a sustainable, decarbonised and fully integrated energy system. Focus on production, distribution and storage of clean hydrogen to supply hard to decarbonise sectors such as heavy industries and heavy-duty transport applications. Some objectives by 2030: produce clean hydrogen at ~€1.5-3/kg, allowing penetration into mass markets; reduce distribution costs to less than EUR 1/kg of hydrogen at scale.		
Relation to partnerships under Horizon 2020	Fuel Cell and Hydrogen Joint Undertaking		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Hydrogen applications have progressed towards mass commercialisation ⊖ Address systemic challenges to roll-out products commercially (e.g. regulations), need to improve participation of and impact for less R&I intensive countries 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: Clean Steel, Carbon Neutral and Circular Industry ▪ Cluster 5: Mobility partnerships (Rail, road, aviation, waterborne), Batteries 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Cohesion funds ▪ ETS Innovation fund ▪ Connecting European Facility ▪ IPCEI 		

Draft title	People-centric sustainable built environment (Built4People)		
Lead DGs	ENER	Form and timing	Co-programmed, launch in 2021
Partners	Industry, NGOs, and Academics from the built environment sector		
Vision / main objective and achievements by 2030	The vision is high quality, low carbon, energy and resource efficient built environment driving the transition towards sustainability. It brings together the whole value chain and it will develop sector-relevant innovation clusters across the EU. The objectives: Scientific (generate holistic innovation for sustainability), Economic (revitalise the sector via sustainable operation) and Societal (induce behavioural change towards sustainable living) will be reached through a user-centric approach.		
Relation to partnerships under Horizon 2020	New partnerships, with limited links to the contractual PPP Energy Efficient Buildings		
Results from previous evaluations/assessments	Not applicable (new partnership)		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: Carbon Neutral and Circular Industry, Made in Europe ▪ Cluster 5: Clean Energy Transition, DUT; Cluster 6: Circular bio-based Europe 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ LIFE, InvestEU, Cohesion Policy Funds 		

Draft title	European Partnership – Towards zero-emission road transport (2ZERO)		
Lead DGs	R&I	Form and timing	Co-programmed, WP 2021/2
Partners	Industry and academia		
Vision / main objective and achievements by 2030	Accelerate the development of a zero tailpipe emission transport in Europe with a systems approach, and develop a common vision and deliver a multi-stakeholders roadmap for a climate neutral and clean road transport system. It will improve mobility and the safety of people and goods, ensure future European leadership in innovation, production and services. Main achievements by 2030 will focus on wide deployment of zero-emission, affordable user centric solutions, CO2 emission reduction and air quality improvements. A major challenge will be the introduction of zero-emission and competitive long distance heavy duty vehicles.		
Relation to partnerships under Horizon 2020	Contractual PPP European Green Vehicle Initiative		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Structuring of the value chain and avoiding duplication of efforts, replication at national level, speeding up market uptake, and the ongoing market reshaping ⊖ Increase representativeness of entire value chain, SMEs and EU13 participation 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: Key Digital Technologies ▪ Cluster 5: Batteries, Clean Hydrogen, CCAM, DUT 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Missions: Climate neutral and smart cities mission; Cancer mission ▪ Connecting European Facility, InvestEU, IPCEI, Cohesion Funds 		

Draft title	European Partnership on Connected and Automated Driving (CCAM)		
Lead DGs	R&I, MOVE	Form and timing	Co-programmed, WP 2021/2
Partners	Industry and academia, public authorities, road operators		
Vision / main objective and achievements by 2030	Accelerate the implementation of innovative connected, cooperative and automated mobility (CCAM) technologies and services. By bringing together the actors of the complex cross-sectoral value chain, it will develop and implement a shared, coherent and long-term European R&I agenda. By 2030, the partnership will have demonstrated inclusive, user-oriented and well-integrated mobility concepts, enabled by CCAM, with increased safety and a reduced carbon footprint. It will make Europe a world leader in the deployment of connected and automated mobility for people and goods.		
Relation to partnerships under Horizon 2020	New Partnership		
Results from previous evaluations/assessments	Not applicable (new partnership)		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: KDT, Smart Networks and Services, AI, Data and Robotics ▪ Cluster 5: 2ZERO, DUT 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Connecting Europe Facility ▪ Cohesion Funds 		

Draft title	European Partnership on Zero-emission Waterborne Transport		
Lead DGs	R&I, MOVE, CLIMA, ENV, GROW, ENER	Form and timing	Co-programmed, WP 2021/2
Partners	Industry, academia		
Vision / main objective and achievements by 2030	Vision: EU to lead and accelerate the transformation of maritime and inland waterborne transport to eliminate all harmful environmental emissions (including greenhouse gas, air and water pollutants) through innovative technologies and operations, underpinning growth and employment. Objective: By 2030, develop & demonstrate deployable zero-emission solutions, which are applicable for all main ship types and services, which will enable achievement of zero-emission waterborne transport by 2050.		
Relation to partnerships under Horizon 2020	New partnership, building on the activities of the Waterborne Technology Platform.		
Results from previous evaluations/assessments	Not applicable (new partnership)		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 5: Batteries, Clean Hydrogen, to some extent CCAM ▪ Cluster 6: Blue Oceans 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Connecting Europe Facility, Climate Change Innovation fund, LIFE programme ▪ Proposed directive “FuelEU Maritime” 		

Draft title	European industrial battery value chain		
Lead DGs	R&I	Form and timing	Co-programmed, WP 2021/2
Partners	Battery value chain industry, research organisations, public authorities, investment platforms, NGOs.		
Vision / main objective and achievements by 2030	This partnership aims in the short - to medium-term to support the development of a world-class European R&I ecosystem on batteries (currently non-existent), with a view towards industrial leadership by Europe in the design and production of batteries for the next generations of both stationary and mobile applications. In the long-term, the goal is to develop futuristic battery technology beyond 2030.		
Relation to partnerships under Horizon 2020	New Partnership.		
Results from previous evaluations/assessments	Not applicable (new partnership)		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 5: Applications of batteries (2ZERO, Clean Hydrogen, Clean Aviation, Waterborne, Rail), Clean Energy Transition; Cluster 4: Key Digital Technologies, Made in Europe; Other Pillars: EITs InnoEnergy, Raw Materials, Manufacturing 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ InvestEU, EIC: Close links with the higher TRL activities for commercialisation ▪ European Battery Alliance, Batteries Europe 		

Draft title	European Partnership – Driving urban transitions to a sustainable future (DUT)		
Lead DGs	R&I, ENER	Form and timing	Co-funded, WP 2021/2
Partners	National/regional ministries R&I and ENV ministries, research funders (public)		
Vision / main objective and achievements by 2030	The Partnership will engage and enable the whole spectrum of urban stakeholders (local authorities/municipalities, business and citizens) to co-create innovative, systemic and people-centric approaches, tools, methods and services in support of the urban transformative transitions for more efficient and decarbonised use of energy, sustainable and people-friendly mobility systems, circular and environmental-friendly use of resources, for the well-being of citizens and preservation of biodiversity.		
Relation to partnerships under Horizon 2020	Joint Programming Initiative Urban Europe and several ERA-NET co-fund actions		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> 🟢 Strong ERA in sustainable urbanization, benefits for city authorities, municipalities and citizens. Hub for international cooperation on sustainable urbanisation. 🔴 Constrains to fund participation costs of cities in R&I activities. 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 5: Clean Energy Transitions, Built4People, 2ZERO, CCAM ▪ Cluster 6: Rescuing biodiversity, Safe and Sustainable Food System, Water4All 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Cohesion funds 		

Draft title	European Partnership for Clean Energy Transition		
Lead DGs	R&I, ENER	Form and timing	Co-funded, WP 2021/2
Partners	National/regional research funders (public)		
Vision / main objective and achievements by 2030	A transformative R&I Programme across Europe, the European Partnership for Clean Energy Transition will boost and accelerate energy transition in all its dimensions. It will enable joint R&I programmes from regional to national and global level, co-supported by industry, public organisations, research and citizens' organisations to make Europe a frontrunner in energy innovation and eventually the first climate-neutral continent. With an ambitious SRIA targeting 2030 it will address key challenges of energy transition with a clear output orientation and measurable impacts.		
Relation to partnerships under Horizon 2020	Merger of more than 10 small scale partnerships (ERA-NET Co-funds)		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> 🟢 Strong link to SET and its Technology Implementation Plans 🔴 No long-term commitment (multiple funding request, no programmatic approach), need to widen participation and link to structural funds 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 5: Driving urban transitions, Built environment, Hydrogen, Batteries ▪ EIT-KIC InnoEnergy 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Cohesion funds ▪ European Fund for Strategic Investments 		

5. Cluster Food, Bioeconomy, Natural Resources, Agriculture and Environment

Main characteristics

The proposed partnerships in cluster 6 aim to contribute to the full range of R&I orientations under cluster 6, such as (a) Food Systems, (b) Environmental observation, (c) Biodiversity and Natural Capital, (d) Agriculture, forestry and rural areas, (e) Seas, Oceans and Inland Waters, (f) Bio-based Innovation Systems and (g) Circular Systems

The 8 candidates for European Partnerships in cluster 1 are **predominantly building on collaboration with Member States**, their research funders and health authorities. Industry is directly targeted with the institutionalised partnership on Circular bio-based Europe.

In cluster 6, systemic failures also relate most commonly to fragmented and potentially duplicate research and innovation efforts and insufficiently integrated value chain. Their focus is often pooling resources and building critical mass to better understand ecosystems and the development of experimental co-creation platforms (living labs for sustainable farming practices) and solutions (e.g. to safeguard biodiversity).

The institutionalised partnerships and three co-funded partnerships are planned for 2021/2, whereas the remaining four co-funded partnerships would be included in the Work Programme 2023/4.

The **number of partnerships will be reduced** compared to Horizon 2020, where a total of more than 20 partnerships have been supported (one institutionalised partnerships and more than 20 co-funded partnerships), mainly by merging all oceans and seas related partnerships, and by discontinuing support to a small number of initiatives.

A **budget share of approximately 26%** of the respective parts of the programme have been allocated to partnerships under Horizon 2020.

Individual partnership candidates

Draft title	European Partnership Accelerating farming systems transition: agroecology living labs and research infrastructures		
Lead DGs	AGRI	Form and timing	Co-funded, WP 2023/4 (2023)
Partners	National/regional and local authorities, research funders (public)		
Vision / main objective and achievements by 2030	Structure and support a network of living labs and research infrastructures accelerating the transition towards agroecology throughout Europe. Provide spaces for long-term, site-specific, multi-stakeholder and real-life experimentation, and deliver ready-to-adopt practices that support farmers to understand and implement agroecological practices at the scale needed for positive economic, environmental and social impacts. By 2030, the ecosystem around agroecology will be better connected at EU level, knowledge of agroecological processes will boost uptake of agroecology by farmers and the environment and social performance of farming will be improved.		
Relation to partnerships under Horizon 2020	This is a new partnership, building results of and cooperate with ongoing initiatives such as FACCE-JPI, the ERA-NET Core Organic and the EJP Soils.		
Results from previous evaluations/assessments	Not applicable		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 6: Rescuing Biodiversity to Safeguard Life on Earth; Animal Health; Agriculture of Data; Safe and Sustainable Food Systems; Water4All; Circular bio-based Europe 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ European Agricultural Fund for Rural Development, European Regional Development Fund, Mission “Soil health and Food” 		

Draft title	European Partnership for Animal Health (PAH)		
Lead DGs	AGRI	Form and timing	Co-programmed or co-funded, WP 2023/4
Partners	National/regional research funders, possibly industry (tbc)		
Vision / main objective and achievements by 2030	Deliver key knowledge, services and products to significantly improve the control of animal infectious diseases and animal welfare in a coordinated way, thus sustain animal production and protect public health. It will involve most reference laboratories, embark funding agencies and cooperate with private sectors. By 2030, programmes will be further aligned, the animal health and welfare R&I ecosystem will be stronger, improving preparedness and providing additional solutions to prevent, detect and respond to priority infectious animal diseases, fight AMR, and improve animal welfare.		
Relation to partnerships under Horizon 2020	Building on ERA-NET ICRAD and earlier ERA-NETs (EMIDA, ANIHWA) as well as part of EJP One Health; link to STAR-IDAZ International Research Consortium		
Results from previous evaluations/assessments to be taken into account	<ul style="list-style-type: none"> ⊕ Joint agenda setting and investments in joint calls (6 calls for €100 mio), alignment/integration of reference centres ⊖ Limited integration and alignment, subcritical scale, lack of industry involvement 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 1: One Health/AMR ▪ Cluster 6: Blue Oceans, Safe and Sustainable food systems 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Cohesion funds, European Agricultural Fund for Rural Development 		

Draft title	Agriculture of Data		
Lead DGs	R&I, AGRI	Form and timing	Co-programmed or co-funded, WP 2023/4
Partners	Partners: Member States (ministries, funding bodies, agencies)		
Vision / main objective and achievements by 2030	Support sustainable agriculture in the EU as well as policy monitoring and implementation, by using digital and data technologies in environmental observation. Generating EU-wide data sets and information through combining geospatial and Earth Observation datasets and employing data technologies to provide solutions to the agricultural sector allowing for more efficient, environmentally friendly, and profitable production and strengthen monitoring capacities across policy fields.		
Relation to partnerships under Horizon 2020	New partnership		
Results from previous evaluations/assessments	Not applicable, new partnerships		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: AI, Data and Robotics; Globally competitive Space Systems ▪ Cluster 6: Accelerating farming systems transition 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Space programme incl. Copernicus, Digital Europe Programme ▪ EuroGEO, the European component GEO (Group on Earth Observations) 		

Draft title	European Partnership Rescuing Biodiversity to Safeguard Life on Earth		
Lead DGs	R&I, ENV	Form and timing	Co-funded, WP 2021/2
Partners	National/regional ministries R&I and ENV ministries, research funders (public)		
Vision / main objective and achievements by 2030	Provide an overarching platform connecting national/local and European Research & Innovation programs and combining in-cash and in-kind resources in support of one goal: by 2030 biodiversity in Europe is back on a path of recovery. It will co-develop multidisciplinary R&I programs with stakeholders, set up a European network of harmonized observatories for biodiversity monitoring, and implement a broad range of activities to increase relevance, impact and visibility of R&I and EU leadership in tackling the biodiversity crisis, in line with the new EU Biodiversity Strategy for 2030.		
Relation to partnerships under Horizon 2020	Successor to an ERA-NET with 3 individual ERA-NET Co-funds under Horizon 2020		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Creation of a strong ERA on biodiversity, with 39 partners from 25 countries, which host around 75% of the funding capacity of biodiversity R&I in Europe ⊖ Limited scope and link to broader stakeholders and policy makers 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 5: DUT; Cluster 6: Accelerating farming systems transition, Blue Oceans, Agriculture of Data, Water4All, 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ CAP, LIFE, Cohesion Fund, European Maritime and Fisheries Fund and European Regional Development Fund 		

Draft title	European Partnership for Blue Oceans		
Lead DGs	R&I	Form and timing	Co-funded, WP 2021/2
Partners	National/regional R&I, Maritime, ENV ministries, research funders (public)		
Vision / main objective and achievements by 2030	It targets the objectives of the Clean Planet for All, the Green Deal and EU blue policies towards a climate-neutral, sustainable and productive Blue Economy that preserve biodiversity by 2030. It will support digital technologies, observation, circular economy, ecosystem based management and renewable energy. It will foster alignment of regional, national and European R&I programmes combining financial and in-kind resources, infrastructures, building on transnational Sea basin research initiatives.		
Relation to partnerships under Horizon 2020	Building on all relevant previous partnerships (BONUS Art.185, MARTERA,, BlueMed, JPI Oceans, Black Sea CONNECT, JPI Climate, JPI Healthy Food		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ➕ Structuring effect on complex R&I landscape, response to marine challenges ➖ National barriers to unlock joint programming, low participation of small countries 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 5: Zero-emission Waterborne Transport; ▪ Cluster 6: Rescuing Biodiversity, Safe and Sustainable Food Systems, Water4All 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Mission Ocean; Copernicus; Cohesion Fund; European Maritime & Fisheries Fund , EIT Climate-KIC, Circular Bio-based Europe Life 		

Draft title	European Partnership for Safe and Sustainable Food Systems		
Lead DGs	R&I	Form and timing	Co-programmed or co-funded, WP 2023/4
Partners	National/regional ministries R&I and AGRI ministries, research funders (public)		
Vision / main objective and achievements by 2030	Provide an overarching platform and process to underpin the needed transition to sustainable food systems to support and provide solutions to the “Farm to Fork” Communication by connecting national/regional and European Research & Innovation programmes and food systems actors, to deliver co-benefits for nutrition, climate, circularity and communities. Foster alignment, boost investments, and increase the societal relevance, impact, uptake and visibility of R&I, and strengthen EU leadership in tackling food system transformation.		
Relation to partnerships under Horizon 2020	New partnership, building on the work of a number of public/public partnerships (JPIs FACCE, HDHL and Oceans, ERA-NETs, PRIMA Article 185 initiative)		
Results from previous evaluations/assessments	Not applicable, new partnerships		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 1: Chemicals Risk Assessment; Cluster 6: Accelerating farming systems transition, Animal Health, Circular bio-based Europe, Biodiversity, Agriculture of Data 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Cohesion funds ▪ European Investment Bank 	<ul style="list-style-type: none"> ▪ Digital Europe Programme ▪ European Agricultural Fund 	

Draft title	European Partnership for a Circular bio-based Europe		
Lead DGs	R&I	Form and timing	Institutional (Art.187), launch in 2021
Partners	Industry incl. primary biomass producers, regional authorities, academia		
Vision / main objective and achievements by 2030	Produce major contributions to the climate targets in 2030 and to pave the way for climate neutrality by 2050, and increased sustainability and circularity of production and consumption systems, in line with the European Green Deal. Developing and expanding the sustainable sourcing and conversion of biomass into bio-based products focusing on multiscale biorefinery processing, and by applying circular economy approaches such as utilisation of biological waste from agriculture, industry and municipal sectors. The deployment of bio-based innovation as at regional scale with the view to revival of rural and marginal regions.		
Relation to partnerships under Horizon 2020	Successor of BBI JU		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ➕ Strong SME participation, broad geographic relevance, high economic impact ➖ Better exploit potentials at macro regional level, synergy with other EU initiatives 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 4: Carbon Neutral and Circular Industry ▪ Cluster 6: Rescuing Biodiversity, Water4All 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ InvestEU, Regional Development Fund, Agricultural Fund, LIFE, European Maritime and Fisheries Fund, Circular Bioeconomy Fund 		

Draft title	European Partnership Water Security for the Planet (Water4All)		
Lead DGs	R&I, ENV	Form and timing	Co-funded, WP 2021/2
Partners	National/regional research funders and policy makers as core members, in association with other research and economic actors		
Vision / main objective and achievements by 2030	Boosting systemic transformations and changes across the entire water research – innovation pipeline, fostering the matchmaking between problem owners and solution providers. It proposes a portfolio of multi-national, multi-faceted and cross-sectoral approach, encompassing policy, environmental, economic, technological and societal considerations to enable water security for all on the long term. By 2030, it intends to achieve reduced water stress, increased protection of water resources and ecosystems and enhanced resilience, mitigation and adaptation of water systems to global changes.		
Relation to partnerships under Horizon 2020	It builds on the work of the Water JPI, the EIP Water and the Water Europe Technology Platform		
Results from previous evaluations/assessments	<p>⊕ Important mobilisation of national R&I funding, strong international cooperation</p> <p>⊖ Low alignment, slow structuring effect, insufficient integration of relevant actors</p>		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Cluster 1: Chemical Risks Assessment, ▪ Cluster 5: DUT, Zero-emission Waterborne Transport, ▪ Cluster 6: Rescuing Biodiversity, Blue Oceans, Safe and Sustainable Food System, Accelerating farming systems transition 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Cohesion funds, LIFE, COST 		

6. Other pillars

In this section there are 11 candidates (including 9 EIT KICs) that are outside Pillar II:

- Partnership for Innovative SMEs which finds its allocation in Pillar III – Innovative Europe,
- The European Science Cloud Partnership (Pillar I, but relevant for all parts of the Framework Programme) to provide a trusted and open common interoperable framework for federating infrastructures, platforms and associated services for data-driven research
- EIT KICs – that aim to address skills shortage and increase absorption capacities of European businesses (via thematic context)

8 KICs are already established. Innovative SMEs would be a successor of Eurostars 1 and 2 (under Eureka secretariat). Completely new candidates are: EOSC and new KIC on Cultural and Creative Industries.

Individual partnership candidates

Draft title	European Open Science Cloud (EOSC) Partnership (pillar 1)		
Lead DGs	R&I and CNECT	Form and timing	Co-programmed, WP 2021/2
Partners	Member States and mandated organisations (Research Organisations, Research Funders Infrastructures including e-Infrastructures, Researcher Associations, Service Providers.		
Vision / main objective and achievements by 2030	Deploy and consolidate by 2030 an open, trusted virtual environment to enable the circa 2 million European researchers to store, share and reuse research data across borders and disciplines. The partnership will bring strategic coherence and complementary commitments at EU, national and institutional levels in order to (i) federate all advanced data infrastructures in Europe, (ii) modernize the ERA with a capability to produce “FAIR-by-design” (Findable, Accessible, Interoperable, Reusable) datasets, (iii) populate EOSC with new FAIR data and related services, (iv) expand the FAIR data culture across Europe.		
Relation to partnerships under Horizon 2020	EOSC is a new partnership under Horizon Europe; it has no H2020 predecessor.		
Results from previous evaluations/assessments	Not applicable		
Coherence with other Partnerships (priorities)	Underpins all pillars and partnerships, in particular Cluster 4 (EuroHPC, AI Data and Robotics) but also vertical partnerships (health, environment, food, energy, mobility)		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Digital Europe Programme, Cohesion funds, Copernicus Programme 	<ul style="list-style-type: none"> ▪ National Open Science programmes by the Member States, G7 and OECD 	

Draft title	European Partnerships Innovative SMEs (pillar 3)		
Lead DGs	R&I	Form and timing	Co-funded, WP 2021/2
Partners	National R&I and economy ministries, national funding bodies (public) and the dedicated implementation structure: Eureka Association		
Vision / main objective and achievements by 2030	The partnership covers a specific niche that other EU, national and regional interventions do not address for the benefit of SMEs in Europe: the cooperation among two or more international partners, with at least one R&I performing SME as a leader. The proposed new initiative is to help innovative SMEs to grow and become embedded in global value chains and new markets. It would achieve this by supporting innovative SMEs in developing products, processes and services through funding market-led, cross-border, R&I collaborative projects and providing accompanying measures. It would enable global collaboration and the commercialisation of new knowledge.		
Relation to partnerships under Horizon 2020	Successor to Eurostars 2 institutional partnership under Article 185.		
Results from previous evaluations/assessments	<ul style="list-style-type: none"> ⊕ Bottom up approach; Strengthening transnational cooperation of R&D performing SMEs, including newcomers; economic impacts of projects after 2 years; ⊖ Decentralised implementation with certain administrative inefficiencies; uncertainty to get funding for selected projects; not enough active participation of countries 		
Coherence with other Partnerships (priorities)	Not directly applicable, due to the bottom-up and thematic open approach		
Synergies with other programmes / initiatives	InvestEU programme, European Structural and Investment Funds, Single Market Programme		

Draft title	EIT Knowledge and Innovation Communities (pillar 3)		
Lead DGs	EAC	Form and timing	EIT KICs (8 ongoing, 1 new KIC on Cultural and Creative Industries foreseen to be launched in 2023)
Partners	Higher education institutions, research organisations, companies and other stakeholders		
Vision / main objective and achievements by 2030	<p>The KICs aim at running portfolios of knowledge triangle activities through:</p> <ul style="list-style-type: none"> • <i>Education and training activities</i> with strong entrepreneurship components to train the next generation of talents, including the design and implementation of programmes awarded the EIT Label3, in particular at master and doctoral level; • <i>Activities supporting innovation</i> to develop innovative products, processes and services that address a specific business opportunity; • <i>Business creation and support activities</i>, such as accelerator schemes to help entrepreneurs translate their ideas into successful ventures and speed up the growth process. <p>KICs have the focus on global challenges through the integration of the knowledge triangle at EU, Member States, regional and local levels. They will contribute to the Pillar II of Horizon Europe and complement relevant activities to tackle global challenges and increase the competitiveness of the EU on a global scale.</p>		
Relation to partnerships under Horizon 2020 In brackets: period to be financed by the EIT)	EIT Digital (2009-2024)	EIT Raw Materials (2014-2029)	
	EIT Climate-KIC (2009-2024)	EIT Food (2016-2031)	
	EIT InnoEnergy (2009-2024)	EIT Urban Mobility (2018-2033)	
	EIT Health (2014-2029)	EIT Manufacturing (2018-2033)	
Results from previous evaluations / assessments to be taken into account	<ul style="list-style-type: none"> ⊕ Training and skills development, building local innovation ecosystems ⊖ Need to increase the regional impact, through an enhanced openness of the KICs towards wide range of potential partners and stakeholders and a better articulated regional strategy of KICs, including links to the relevant RIS3 Strategies. ⊖ Need to ensure financial sustainability and independence from structured funding of the EIT after 15 years of operations 		
Coherence with other Partnerships (priorities)	<ul style="list-style-type: none"> ▪ Relevant European Partnerships in areas such as climate change, digital transformation, energy, food, health, raw materials, urban mobility and added-value manufacturing 		
Synergies with other programmes / initiatives	<ul style="list-style-type: none"> ▪ Relevant Horizon Europe missions and clusters, Marie-Skłodowska-Curie Actions, European Innovation Council, Cohesion Policy Funds, InvestEU, Creative Europe, Single Market Programme, Digital Europe Programme, Erasmus 		