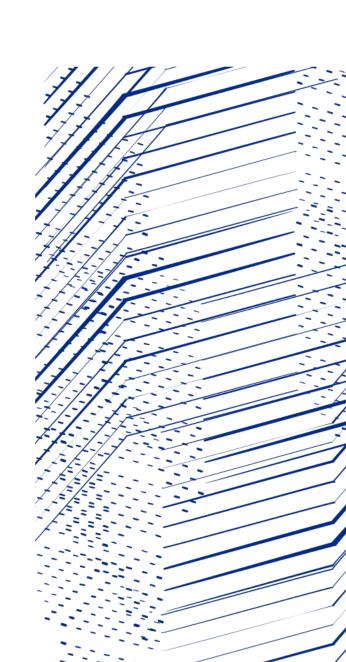


Introduction to Horizon Europe Research Infrastructures

Alice Chadwick National Contact Point for Research Infrastructures, UK





What is a National Contact Point?

UK NCP network: team of sector specific public servants whose role it is to provide free support to UK participants in Horizon Europe

International NCP network: support in Europe and the rest of the world

Services can include:

- **Informing**, **awareness raising** for Horizon Europe and other EU programmes
- Assisting, advising and training to improve the quality of Horizon Europe proposals
- Signposting and cooperation direct to relevant support and work with each other to support consortium development



Please contact <u>RINCPUK@stfc.ac.uk</u> if you would be interested in the newsletter for the latest Horizon Europe news and Research Infrastructures funding opportunities

Horizon Europe: Research Infrastructures

Research Infrastructures: facilities providing resources and services for the research communities to conduct research and foster innovation (single site, distributed, virtual).

Providing access to external users, could be:

- knowledge related (archives, data infrastructures)
- major scientific equipment (telescopes, research vessels)
- ICT infrastructures (computing systems, communication networks)

Research Infrastructures contribute to:

- 1. Extend the frontiers of knowledge
- 2. Exchange and transmit knowledge
- 3. Train the next generation of top researchers
- 4. Support industrial innovation

Within Pillar 1: Excellent Science, alongside ERC and MSCA, with €2.4bn funding





The purpose of the RI Programme

Is not:

building RIs.
 MS and third countries come together to build RIs with Structural Funds and National Funding/in-kind contributions.

Funding capital costs (with

It is aiming to:

- Develop an advanced RI system for the European Research Area (ERA)
- Support Trans-National & Virtual Access to RI
- Facilitate MS agreement on roadmaps for future pan-European RIs and RI upgrades via ESFRI
- Foster international cooperation of facilities, links with the private sector, and compliance with the European Open Science Cloud



some exceptions)

Novelties of Rls in HE

- A new challenge-driven approach will join the science-driven one
- Emphasis on customisation and integration of (different) RI services to better support research addressing global challenges and political priorities
- Integrating Activity instrument discontinued: support to access provision and higher levels of integration separated from joint research for the next generation of instrumentation
- New efforts to consolidate the existing landscape of European RI



Strategic objectives 2021-2024

- Consolidate and enhance the EU research infrastructures landscape
- Support Open Science and data-driven research through the European Open Science Cloud (EOSC) and high capacity network
- Enable and drive the green and digital transformation through research infrastructure services
- Push the limits of frontier research
- Develop cutting-edge technologies for RIs and foster innovation
- Enhance the international dimension of RIs



HE RI Work Programme 2021-2022

5 Destinations: packages of actions contributing to specific objectives and expected impacts

- **10 calls:** 6 calls in 2021 deadlines: 23/9/2021 (4 calls), 15/6/2021 and 20/1/2022 4 calls in 2022 deadlines: 20/4/2022 (3 calls), and 21/9/2022
- **29 topics:** 22 in 2021 and 7 in 2022

Other actions not subject to calls for proposals:

- 2 'COVID-19' actions with call for expression of interest (art. 195b): early publication -> 6th April 2021, closing date 20th May
- 2 topics for intended beneficiaries: ICRI 2022 Conference, ESFRI 20 year anniversary event
- 1 public procurement for EOSC core infrastructure (2022)
- 2 SGAs for the Research and Education Networks FPA
- External expertise: reviewers; individual experts; ERICs evaluators
- Section on specific features for RIs: conditions and requirements on TNA and VA provision



Call types

Research and Innovation Actions (RIA) – up to 100% funding rate (including 25% contribution to indirect costs)

- Aiming to establish new knowledge or explore feasibility of a new or improved technology, process, service or solution
- May include basic/applied research, technology development and integration, testing, etc.
 - Page limit: usually 45 pages

Innovation Actions (IA) – up to 70% funding rate (except non-profit: 100%) (including 25% contribution to indirect costs)

- Activities directly aimed at producing plans and arrangements or designs for new, altered or improved products, processes, or services
- Possibly including prototyping, testing, demonstrating, large-scale product validation
 - Page limit: usually 45 pages

Coordination and Support Actions (CSA) – up to 100% funding rate

- Activities contributing to the objectives of the Horizon Europe Programme excluding R&I activities (with some exceptions see the General Annexes for the Work Programme)
 - Page limit: usually 30 pages



An example call

Call - Developing, consolidating and optimising European Research Infrastructures to maintain global leadership (2021)

HORIZON-INFRA-2021-DEV-01

Conditions for the Call

Indicative budget(s)³

	Topics	Type of Action	Budgets (EUR million) 2021	Expected EU contribution per project (EUR million) ⁴	Number of projects expected to be funded	
		Opening: 08 Jun 2021 Deadline(s): 23 Sep 2021				
	HORIZON-INFRA-2021-DEV-01-01	CSA	2.50	1.50 to 2.50	1	
Ī	HORIZON-INFRA-2021-DEV-01-02	CSA	1.50	0.80 to 1.50	1	
	HORIZON-INFRA-2021-DEV-01-03	CSA	1.50	0.80 to 1.50	1	



An example topic

HORIZON-INFRA-2021-DEV-01-01: Support to the European Strategy Forum on Research Infrastructures

Specific conditions	Specific conditions							
Expected EU contribution per project	The EU estimates that an EU contribution of between EUR 1.50 and 2.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.							
Indicative budget	The total indicative budget for the topic is EUR 2.50 million.							
Type of Action	Coordination and Support Actions							
Funding rate	100%							

<u>Expected Outcome</u>: Project results are expected to contribute to all the following expected outcomes:

- · enhanced efficiency, impact and visibility of ESFRI strategy and actions;
- · better structured and strengthened European research infrastructure ecosystem;
- · reinforced global competitiveness of the European Research Area;
- · coordination and alignment of EU and national priorities for RIs.



An example topic

<u>Scope</u>: The European Strategy Forum on Research Infrastructures (ESFRI) brings together policy makers, funding bodies and the scientific community to identify investment priorities for pan-European research infrastructures as well as foster their implementation, sustainability and impact. A comprehensive and efficient support structure is essential for the effective execution of ESFRI tasks and activities.

In this respect, proposals should support ESFRI in carrying out the following activities:

- development and publishing of the ESFRI Roadmap;
- development and execution of the ESFRI communication and outreach strategy, including organisation of ESFRI-led conferences and outreach events;
- strengthen ESFRI analytical capacity, including through the use of external expertise in support of ESFRI policy and the ESFRI Roadmap processes;
- effective evaluation and monitoring of research infrastructures on the ESFRI Roadmap through appropriate ICT and analytical tools;
- fostering cooperation, exchange of experiences and good practices between the research infrastructures, their managers and stakeholders, as well as the funding bodies, including managing authorities of Cohesion policy programmes and policy makers;
- ensuring cooperation of ESFRI with the EOSC as well as with any other relevant bodies and stakeholders at European or international level.



RI Destinations



Developing,
Consolidating and
Optimising European RIs
Landscape, Maintaining
Global Leadership
(ESFRI)



Enabling an Operational,
Open and FAIR
European Open
Science Cloud
Ecosystem



RI Services to Support
Health Research,
Accelerate the Green and
Digital Transformation,
and Advance Frontier
Knowledge (thematic)

Next Generation of Scientific Instrumentation, Tools and Methods and Advanced Digital Solutions

Network Connectivity in Research and Education

– Enabling Collaboration
Without Boundaries







Aiming to develop a European strategy for RI, building on the ESFRI RIs and ERICs to develop the RI landscape by stimulating new ideas and consolidating, enhancing RIs for international cooperation, and strengthening accessibility and resilience of European RIs



Developing,
Consolidating and
Optimising European
Rls Landscape,
Maintaining Global
Leadership (ESFRI)

- RI concept development of next generation of EU RIs
- Preparatory phase of new RIs implemented with the ESFRI Roadmap
- Support to ESFRI and e-IRG
- Strengthen cooperation on RI with international partners
- International Conference on RI and other events for RI
- Facilitate transition to remote/digital RI service provision



2021 funding opportunities: opens 8th June 2021, closes 23 September 2021

Call: Developing, consolidating and optimising the European research infrastructure landscape, maintaining global leadership (2021)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2021-DEV- 01-01	Support to the European Strategy Forum on Research Infrastructures	CSA	1.5-2.5	1.5-2.5	1
INFRA-2021-DEV- 01-02	Strengthen the bilateral cooperation on research infrastructures with Africa: improving the knowledge base on climate change in Africa	CSA	1.5	0.8-1.5	1
INFRA-2021-DEV- 01-03	Transition to digital/remote research infrastructure service provision: lessons learnt, needs and best practices	CSA	1.5	0.8-1.5	1
INFRA-2021-DEV- 01-04	Support to National Contact Points (NCPs) for Research Infrastructures	CSA	2	1.5-2	1
INFRA-2021-DEV- 01-05	Support to the e-Infrastructure Reflection Group (e-IRG)	CSA	0.3	~0.3	1



Information based on the DRAFT work programme; may be subject to change

2022 funding opportunities: opens 30th September 2021, closes 20th January 2022

Call: Developing and consolidating the European research infrastructure landscape, maintaining global leadership (2021)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2021-DEV- 02-01	Preparatory phase of new ESFRI research infrastructure projects	CSA	36	1.5-3	12
INFRA-2021-DEV- 02-02	Consolidation of the research infrastructure landscape – Individual support for ESFRI projects	CSA	1-1.5	7.5	5



RI Destination INFRAEOSC

Aiming to develop the European Open Science Cloud as a platform for FAIR research data, transform the way data is shared and exploited (better quality and productivity), facilitate multi-disciplinary cooperation, improve trust in science through openness



Enabling an
Operational, Open
and FAIR European
Open Science
Cloud Ecosystem

- Supporting Open Science practices and a digitally-skilled workforce
- **EOSC-Core** and services develop key functions to provide a fully operational environment for discovering, access, sharing, re-using data and services
- Disciplinary/Multidisciplinary/Horizontal use cases and services for FAIR
- Support to specific entities:
 - New **EOSC** partnership in its start-up phase
 - International Standardisation for research data solutions suited to the EOSC context



RI Destination INFRAEOSC

2021 funding opportunities: opens 8th June 2021, closes 23rd September 2021

Call: Enabling an operational, open and FAIR EOSC ecosystem (2021)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2021-EOSC- 01-01	Supporting an EOSC-ready digitally skilled workforce	CSA	7	7	1
INFRA-2021-EOSC- 01-02	Supporting the development and coordination of activities of the EOSC Partnership	CSA	4	4	1
INFRA-2021-EOSC- 01-03	Deploying EOSC-Core components for FAIR	RIA	10	10	1
INFRA-2021-EOSC- 01-04	Innovative and customisable services for EOSC	RIA	3-5	20	4
INFRA-2021-EOSC- 01-05	Enabling discovery and interoperability of federated research objects across scientific communities	CSA	10	10	1
INFRA-2021-EOSC- 01-06	FAIR and open data sharing in support of cancer research	RIA	8	8	1



RI Destination INFRAEOSC

2022 funding opportunities: opens 19th Jan 2022, closes 20th April 2022

Call: Enabling an operational, open and FAIR EOSC ecosystem (2022)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2022-EOSC- 01-01	Services and tools to underpin a research assessment system that incentivises open science practices	RIA	2-3	6	3
INFRA-2022-EOSC- 01-02	Improving and coordinating technical infrastructure for institutional open access publishing across Europe	RIA	~5	5	1
INFRA-2022-EOSC- 01-03	FAIR and open data sharing in support of healthy oceans, seas, coastal and inland waters	RIA	6-8	16	2
INFRA-2022-EOSC- 01-04	Support for initiatives helping to generate global standards, specifications and recommendations for open sharing of FAIR research data, publications and software	CSA	3	~3	1





RI Services to Support
Health Research,
Accelerate the Green and
Digital Transformation,
and Advance Frontier
Knowledge (thematic)

- Provide efficient and customised RI services (e.g. access to unique scientific tools, samples provision, processing and analysis, data services) to support an effective and responsive health and care system and accelerate the transition towards a green and digital future
- Provide RI services to enable the advancement of frontier knowledge
- Enhance long-term problem solving capacity in areas linked to health and the green and digital transitions, including a better understanding of societal and economic implications



2021 funding opportunities: opens 8th June 2021, closes 23 September 2021

Call: Research infrastructure services to support health research, accelerate the green and digital transformation, and advance frontier knowledge (2021)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2021-SERV- 01-01	Research infrastructure services to support research addressing cancer	RIA	10-15		1
INFRA-2021-SERV- 01-02	Research infrastructure services for a sustainable and resilient agriculture and agro-ecological transition	RIA	10-15		1
INFRA-2021-SERV- 01-03	Research infrastructure services for responding to climate-related risks on the environment	RIA	10-15	70	1
INFRA-2021-SERV- 01-04	Research infrastructure services enabling the development of materials for a circular economy	RIA	10-15		1
INFRA-2021-SERV- 01-05	Research infrastructure services for sustainable and inclusive Global Value Chain and Europe recovery from socio-economic crises	RIA	7-10		1



2021 funding opportunities: opens 8th June 2021, closes 23 September 2021

Call: Research infrastructure services to support health research, accelerate the green and digital transformation, and advance frontier knowledge (2021)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2021-SERV- 01-06	Enabling research infrastructure services for better use of imaging data to address challenges in thematic research areas	RIA	2.5-4.5	9	3
INFRA-2021-SERV- 01-07	Research infrastructure services advancing frontier knowledge	RIA	10-14.5	33.2 (2021), 10.3 (2022)	3



2022 funding opportunities: opens 1st June 2022, closes 21st September 2022

Call: Research infrastructure services to support health research, accelerate the green and digital transformation (2022)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2022-SERV- 01-01	Implementing digital services to empower neuroscience research for health and brain inspired technology via EBRAINS	RIA	38	38	1



Challenge-driven topics in:

- Health: 2 topics on cancer and EBRAINS + 1 action on infectious diseases (COVID)
- Food and agriculture: 1 topic on sustainable agriculture and agroecology
- Environment/atmosphere: 1 topic on climate change risks
- Analytical physics for matter analysis: 1 topic on sustainable materials
- Socio-economic sciences: 1 topic on recovery from socio-economic crisis
- Data, Computing and Digital: 1 topic on acquisition and use of imaging data



Curiosity-driven topics in:

- **Environment/Geosphere:** including geo-hazards and geo-resources
- Environment/Biosphere: terrestrial biodiversity and ecosystems, including Arctic and forest
- Particle and nuclear physics

Astronomy, Energy, Humanities -> not proposed for the 2021-2022 WP because access provision in these domains is well covered by ongoing H2020 grants.

To ensure continuity in the provision of access, these domains are proposed in 2023-2024

RI Destination INFRATECH

Aiming to develop ground-breaking RI technologies, i.e. scientific instruments, tools, methods, advanced digital solutions, to enable new discoveries and ensure Europe and RIs are at the forefront of technological excellence, in cooperation with industry



Next Generation of Scientific Instrumentation, Tools and Methods and Advanced Digital Solutions

- Research and development for the next generation of scientific instruments, tools and methods advance the state-of-art European RIs, show transformative potential across scientific domains, serve a wider community of users and/or new areas of research and underpin the provision of improved and advanced services
- Interdisciplinary Digital Twins digital replicas of living or non-living physical entities modelling and simulating ultracomplex phenomena and advancing scientific discovery, as well as delivering socio-economically beneficial technical and software solutions and services to interdisciplinary research communities



RI Destination INFRATECH

2021 funding opportunities: opens 8th June 2021, closes 23 September 2021

Call: Next generation of scientific instrumentation, tools and methods (2021)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2021-TECH- 01-01	Interdisciplinary digital twins for modelling and simulating complex phenomena at the service of research infrastructure communities	RIA	9-12	28 (2021), 8 (2022)	4



RI Destination INFRATECH

2021 funding opportunities: opens 19th Jan 2022, closes 20th April 2022

Call: Next generation of scientific instrumentation, tools and methods (2021)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2022-TECH- 01-01	R&D for the next generation of scientific instrumentation, tools and methods	RIA	5-10	110	11



Aiming for a fast, resilient connectivity to access applications, enable global collaboration of virtual activities, keep Europe at the forefront of global Research & Education by attracting data and talent and borderless collaboration, achieving global connectivity and international collaboration

Next Generation of Scientific Instrumentation, Tools and Methods and Advanced Digital Solutions

- Both **EU internal and EU external dimensions** covered
- Setting up of the Framework Partnership Agreement (FPA) providing overall goals for:
 - New pan-EU programme to meet huge growth in network capacity and demand for advanced services
 - Paradigm shift in digital science and computational infrastructures over the next 10 years
- Specific Grant Agreement (SGA) on basis of FPA goals:
 - Operational excellence in connectivity and collaboration services;
 widening of user base; access to European Data Spaces; convergence of AAI across R&E
 - International collaboration with Regional Networks to ensure scientists and researchers access to world class RI worldwide; investments for long-term acquisitions of capacity and associated equipment for domestic and international connectivity



2021 funding opportunities: opens 19th May 2021, closes 22 June 2021

Network connectivity in Research and Education – Enabling collaboration without boundaries (2021)

Topic reference number	Topic title	Funding action	Indicative size (€ million)	Indicative budget (€ million)	No. projects
INFRA-2021-NET- 01-01-FPA	Framework Partnership Agreement (FPA) for Research and Education Networks	CSA			1



Specific Features for Research Infrastructure

Trans-national and/or virtual access activities

- Trans-national access activities:
 - Offered under the grant provided 'free of charge' to selected researchers/teams inc. industry
 - Access for external users either in person or through provision to user of remote scientific services
 - Research infrastructures must **publicise** widely the access offered under the grant agreement and **open specific** calls to invite applications for access, taking into account equal opportunities and gender issues, with selection carried out by independent peer-review evaluation
 - Must document to support and justify the amount of access reported units of access to be identified and defined in the proposal
 - Users (or a majority of the team) **must work in countries other than that where the RI is located** except where access is provided by an international organisation, the JRC, an ERIC, or other legal entity with international membership
 - Duration of stays at the RI limited to 3 months unless provided for in proposal
 - Financial support covers access costs incurred, and travel/subsistence costs incurred supporting the visits
 - Does not include capital investments inc. depreciation costs of equipment, infrastructure, etc unless specified
 in the WP



Specific Features for Research Infrastructure

Trans-national and/or virtual access activities

- Virtual access activities:
 - Virtual access to RI to be **provided through communication networks to users complying with RI's access policy**, without selection, e.g. database access online
 - Must publicise widely the access offered under the grant agreement
 - **Financial support** to virtual access will **cover access costs** incurred by the infrastructure in providing access under the project including technological and scientific support researchers need to effectively use the services
 - Capital investments and internally invoiced goods and services will not be eligible costs unless specified under the call topic (in which case only the portion used to provide virtual access can be eligible)
 - A unit of access to each RI service must be identified and precisely defined in the proposal
 - Provision of virtual access during the project lifetime will be measured through units of access defined in the grant agreement and must be periodically assessed by an external board
 - Eligibility criteria (e.g. affiliation to a research or academic institution) for users can be defined in the proposal, to take into account the access policies of the different RIs



Crossover topics

€53.5bn (excluding **Associated Country** contributions)



Pillar II **GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL** COMPETITIVENESS

- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre** (€2bn

Total funding excludes UK and other **Associated Country contributions**

Health (€8.3 billion over 2021-2027)

- 1. Staying healthy in a rapidly changing society
- Living and working in a health-promoting environment
- 3. Tackling diseases and reducing disease burden
- Ensuring access to innovative, sustainable & high quality health care
- 5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society
- Maintaining an innovative, sustainable and globally competitive health industry

2021-2022 Draft Work Programme: At least 48 call topics worth €1.8 bn

Culture, Creativity and Inclusive Society (€2.3 bn)

- 1. Innovative research on democracy and governance
- Innovative research on European cultural heritage and the cultural and creative industries
- 3. Innovative research on social and economic transformations

2021-2022 Draft Work Programme: At least 47 call topics worth €423 m

Civil Security for Society (€1.6 bn)

- 1. Better protect the EU and its citizens against crime and terrorism
- Effective management of EU external borders
- Resilient infrastructure
- 4. Increased cybersecurity
- A disaster resilient society for Europe
- 6. Strengthened security research & innovation

2021-2022 Draft Work Programme: At least 94 projects funded worth €413 m

- Horizon Europe Collaborative Funding Overview Webinar
- Cluster webinars

Digital AI, data & computing / photonics & electronics

/ smart networks & connectivity / robotics / quantum / digital economy

Industry Circular industries / resource & energy efficiency / digital & agile manufacturing / sustainability by design / smart, multi-functional materials (incl. graphene, nano & bio) / advanced materials for energy storage (incl. hydrogen & electrification)

Space Satellite technology / access to space / space data / space science / space robotics **2021-2022 Draft Work Programme:** No of topics and value tbc

Climate Climate sciences & responses / a competitive & sustainable

(€15.1 bn)

(€15.4 bn)

European battery value chain / emerging breakthrough technologies & climate solutions / citizens & stakeholder engagement / communities & cities

Energy Global leadership in renewable energy / energy systems, grids & storage / carbon capture, utilisation & storage / cross-cutting issues / highly energy-efficient & climate neutral EU building stock / industrial facilities in the energy transition / hydrogen partnership

Mobility Zero-emission road transport / aviation / enabling climate neutral, clean, smart & competitive waterborne transport / impact of transport on environment & human health / connected, cooperative & automated mobility (CCAM) / safety & resilience - per mode & across all modes / multimodal & sustainable transport systems for passengers & goods 2021-2022 Draft Work Programme: 421 projects funded worth €2.77 bn

Food, Bioeconomy, Natural Resources, Agriculture and Environment (€9.0bn)

- Biodiversity & ecosystem services
- Fair, healthy & env.-friendly food systems from primary production to consumption
- Circular economy & bioeconomy sectors
- Clean environment & zero pollution
- Land, oceans & water for climate action
- Resilient, inclusive, healthy & green rural, coastal & urban communities
- 7. Innovative governance, env. observations & digital solutions in support of the Green Deal

2021-2022 Draft Work Programme: At least 183 call topics worth €1.76 bn



Katie Dingley Health (Academia)



Jo Frost Health (Industry)



Anni Laihanen Culture, Creative & Inclusive

Society



Zale Johnson Security



Stafford Lloyd Digital



Abishek Ramesh Industry & Materials



Catherine Holt Space + Natural Resources



Emma Fenton Climate & Environment



Helen **Fairclough** Energy



Louise Mothersole **Transport &**

Mobility



Agritech

Helen **Sweeney** Food &



Paul Bello Biotechnology

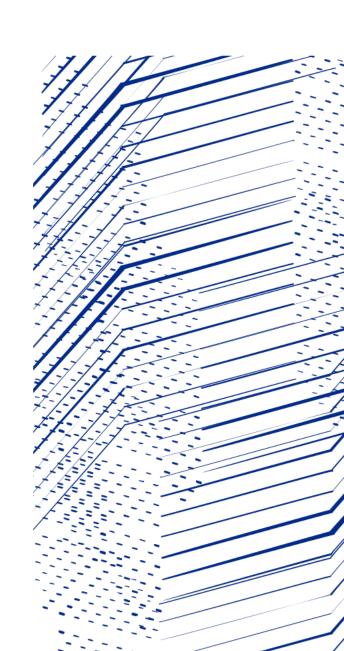
NCPs for Europe and the rest of the world





Break

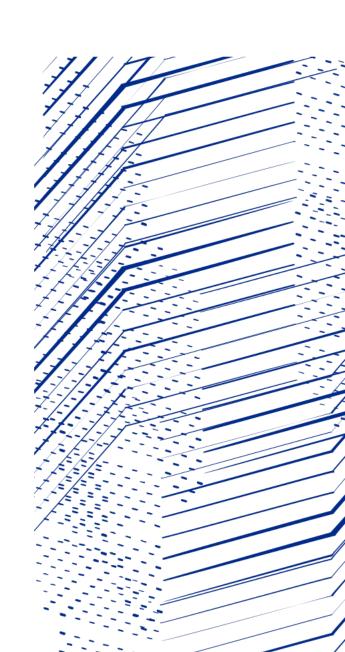




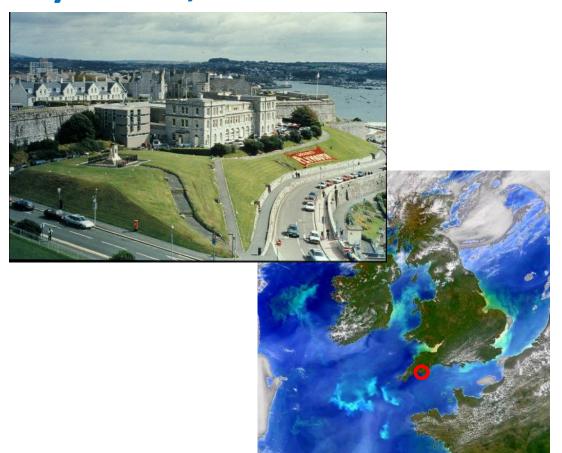


Case study





The Marine Biological Association Plymouth, UK







1. Joint Research Activities

JRA1: Genomic Observatories

JRA2: Cryobanking of Marine Organisms

JRA3: Functional Genomics

JRA4: Development of instrumentation

2. Networking Activities

- NA2: Improving virtual access to marine biological stations data, information and knowledge
- NA4: Long-term sustainability of marine biological stations

3. Trans-national activities











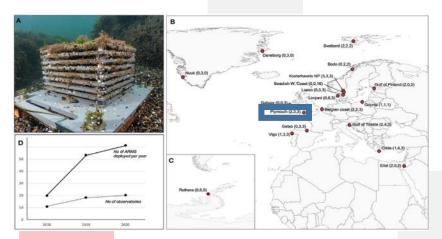




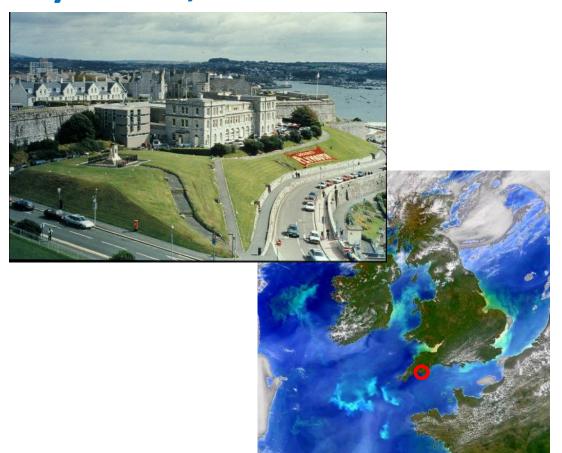


ASSEMBLE

Autonomous Reef
Monitoring Structures
(ARMS)



The Marine Biological Association Plymouth, UK



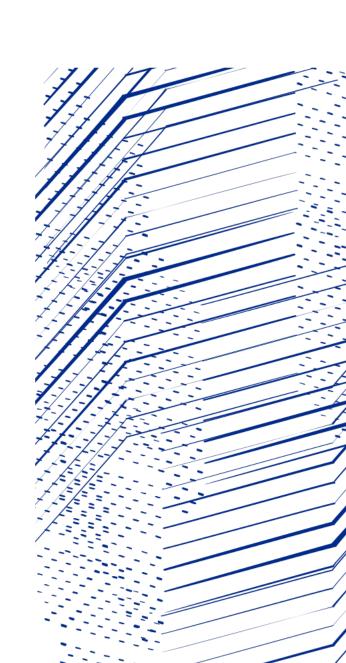






How to apply, useful resources and available support





EU Funding and Tenders Portal

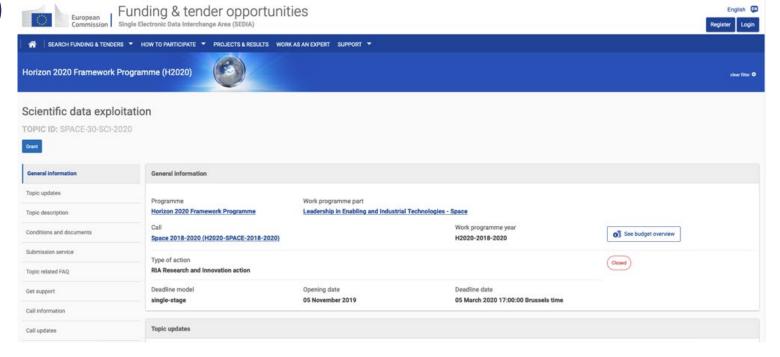
All calls for proposals (called Topics) are published on the EU's <u>Funding and Tenders Portal</u> from April/May onwards

 Create a personal account (top right) and register your organisation to get a Participant Identification Code (PIC)

Each Topic has its own webpage with everything you need to know – read it all (expand

the sections to see 'More Info')

Funding & tender opportunities





Draft documents

- General introduction: January 2020 version, March 2021 version*
- General annexes: November 2020 version, January 2021 version, March 2021 version*
- Annex 2: Marie Skłodowska-Curie Actions
- Annex 3: Research Infrastructures.
- Strategic plan: November 2020 version, January 2021 version
- Model grant agreement
- Proposal template
- European Research Council: Final work programme
- Widening and European Research Area
- The European Innovation Council
- Research missions: February 2021 version, March 2021 version*
- Digital, Industry, Space
- Digital, industry and space cluster: December 2020 version, February 2021
- Health cluster: October 2020 version; January 2021 version, March 2021 version*
- Climate, energy, and mobility: November 2020 version, February 2021 version, February 2021 version 2*
- Food, Bioeconomy Natural Resources, Agriculture and Environment
- Culture, creativity and inclusive society: October 2020 version, December 2020 version
- Civil security for society: September 2020 version, October 2020 version, January 2021 version*
- Euratom: February 2021 version*
- Research infrastructures outline
- Slides from meeting of the Shadow Strategic Configuration



https://sciencebusiness.net /frameworkprogrammes/horizonpapers



https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3662

The Proposal

All proposals are submitted electronically via the Topic webpage on the <u>Funding</u> and <u>Tenders Portal</u>

- Part A administrative information completed online
- Part B technical proposal template downloaded from the Portal, completed and then uploaded as PDF
 - Section 1 Excellence
 - Section 2 Impact
 - Section 3 Implementation

Research and Innovation Action (RIA) and Innovation Actions (IA)

- Part B Technical proposal is maximum 45 pages
 Coordination and Support Action (CSA)
- Part B Technical proposal is maximum 30 pages



Proposal Evaluation

- Carried out by independent experts you and your colleagues <u>should register</u>. You won't be allowed to evaluate your own competition but if called upon elsewhere it will give valuable insight
- Maximum score of 15 points available, 5 for each section:
 - Excellence
 - Impact
 - Quality and efficiency of the proposal
- Threshold minimum of 10 points overall **and** minimum of 3 points for each section
- Proposals then ranked (for Innovation Actions, Impact given a weighting of 1.5 in ranking)
- Proposals meeting both thresholds will be funded from top-down ranking, as far as budget allows
- Tied scores: additional criteria used in ranking including proportion of budget allocated to SMEs, gender balance of project team and others



Additional useful information

- Check out the <u>Reference Documents</u> this is the officially recognised correct source. It contains:
 - Work Programme in full including context and General Annexes
 - Templates, guides, rules, etc
 - Annotated Model Grant Agreement
- The <u>on-line manual</u> is very useful and has additional information such as international collaboration



Support services

- National Contact Points (NCPs): this network is the main structure to provide guidance, practical information and assistance on all aspects of participation in Horizon Europe
 - UK NCPs
 - Legal and Financial queries Stephen Alexander
 - Worldwide NCP network EU Member States,
 Associated Countries and many 'third' countries
- The UK Knowledge Transfer Network (KTN) has deep thematic knowledge and networks including in Europe to help companies identify opportunities and partners. It supports NCPs with their thematic activities.
- Innovate UK EDGE: Network around the UK providing local help. First point of contact for UK small businesses on the European Innovation Council (EIC) and other business support. They also have access to a large database of UK/other companies seeking collaboration.

- <u>UK Research Office (UKRO)</u>:
 - UK NCPs for the <u>European Research Council</u> and Marie Skłodowska-Curie Actions
 - Regularly updated <u>factsheet</u> on UK participation on EU funded programmes – accessible by all
 - Those based at <u>subscribing organisations</u> can also get support on other areas of Horizon Europe and can <u>register for updates</u>
- <u>EU Intellectual Property (IP) Helpdesk</u>: very useful free to use helpdesk including helpline, training events and templates, guides and proformas (including Consortium Agreements, MOUs, NDA templates, how to write an exploitation and dissemination plan).



Further Information

Introduction to Horizon Europe webinar recording: Introduction to Horizon Europe Webinar - KTN (ktn-uk.org)

UK NCPs: https://www.gov.uk/business-finance-support/horizon-2020-business-grants-uk#find-your-uk-national-contact-point-for-advice

Horizon Europe dedicated website: https://ec.europa.eu/info/horizon-europe_en

UKRI: https://www.ukri.org/apply-for-funding/horizon-europe/

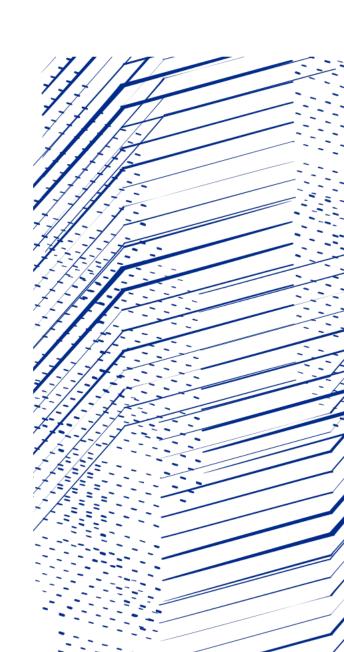
UKRO: https://www.ukro.ac.uk/Pages/eu programmes.aspx





Next steps and close





Next steps

I'm interested in exploring an opportunity, what should I do?

- Don't wait for the UK to associate, or for clarity on the work programmes!
- Identify your areas of interest
- Contact the relevant NCP to discuss your proposal idea and discuss its relevance to the current Calls for Proposals
- Prepare a proposal summary
- Find out what has been funded already and which organisations are involved
- Approach potential partners engage and network, work with communities across the EU so that you're in a good place to engage further down the line
- Keep an eye on the Funding and Tenders Portal upcoming calls appear here



Next steps

I'm interested in exploring an opportunity, what should I do?

Attend relevant webinars and info days

	INFRASTRUCTURES	
	DIGITAL, INDUSTRY & SPACE	CLUSTER 4
0 JUNE	CIVIL SECURITY FOR SOCIETY	CLUSTER 3
1 JULY	CULTURE, CREATIVITY & INCLUSIVE SOCIETIES	CLUSTER 2
1 JULY	MARIE SKŁODOWSKA-CURIE ACTIONS	
2 JULY	HEALTH	CLUSTER 1
5 & 06 JULY	CLIMATE, ENERGY & MOBILITY	CLUSTER 5
7 & 08 JULY	FOOD, BIOECONOMY, NATURAL RESOURCES AGRICULTURE & ENVIRONMENT	CLUSTER 6
9 JULY	ERA & WIDENING	
THE EU	RESEARCH & INNOVATION PROGR	RAMME

European Commission HE Info Days

https://www.horizon-europe-infodays2021.eu/







Horizon Europe Consortia Building Series

This webinar series brought to you by KTN Global Alliance in partnership with UK National Contract Points (NCPs) will focus on pitching of project ideas and brokering partnerships for European Research and Innovation collaborations and networking

#UKinHorizon

14th, 17th, 21st June 2021

https://ktn-uk.org/events/horizon-europe-consortia-building-series/

Horizon Europe

How can you help?

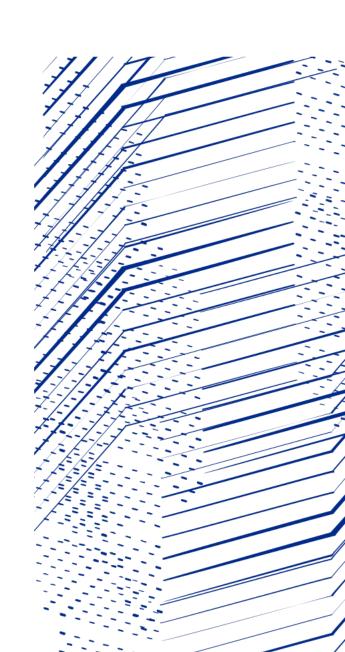
- Spread the word that UK organisations can take part
- Have a look at the Work Programme and think if you know of any companies who might be interested in the call topics
- Encourage organisations to start to form consortiums and find partners
- Spread the word to other countries
- Help re-establish the high levels of UK participation and engagement





Thank you

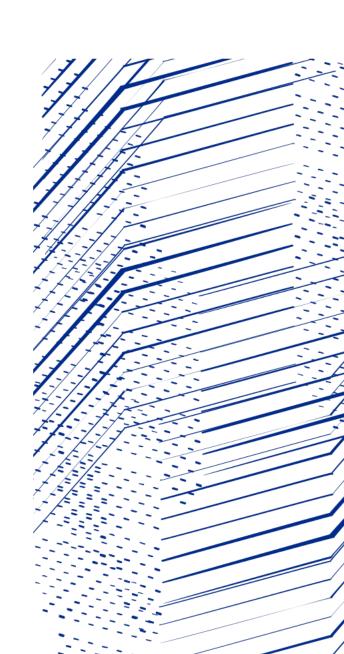






Q&A







Extra slides – further information



What is a National Contact Point (NCP)?

- Team of sector specific advisors to support UK entities successfully participate in EU Framework Programmes.
- Support available for each area of Horizon Europe



Informing, awareness raising – on Horizon Europe and other EU programmes



Assisting, advising and training – to improve the quality of Horizon Europe proposals



Signposting and cooperation – direct to relevant support and work with each other to support consortium development





Full <u>list of UK</u> National Contact Points

NCPs for <u>Europe and</u> the rest of the world

Some definitions

- Work Programme combined calls for proposals for the whole thing (excluding Institutionalised partnerships who do their own)
- Cluster a major problem space. There are six in total. Cluster 5 is Climate, Energy and Mobility
- **Destination** a way of breaking down the Cluster to manageable chunks with a common theme, e.g., decarbonisation of transport
- **Topic** a specific call for proposals with its own scope, budget, etc. Often (but not always) more than one project will be funded.
- The Portal the <u>EU Funding & Tenders Portal</u> where all information needed to participate can be found
- PIC Participant Identification Code a unique identifier for each participating legal entity
- LEAR Legal Entity Appointed Representative a single person at the top for each organisation, often Chief Finance Officer or similar (buck stops with them)
- Coordinator The lead participant for a proposal and project who brings the team together, submits the proposal and manages delivery of the project



How to Read the Topic

HORIZON-CL4-2021-SPACE-01-12: Future space ecosystems: on-orbit operations, new system concepts

Specific conditions		
Expected EU contribution per project	The EU estimates that an EU contribution of between EUR 1.00 and 2.00 million would allow these outcomes to be addressed appropriately Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 5.90 million.	
Type of Action	Research and Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply:	
	Some activities, resulting from this topic, may involve using classified background and/or producing of security sensitive results (EUCI and SEN). Please refer to the related provisions in section B Security — EU classified and sensitive information of the General Annexes.	

<u>Expected Outcome</u>: Enable the industrialisation and new services in space by intelligent solutions and concepts, exploiting synergies with terrestrial sectors and cultivating an *AppStore* and *Open-Architecture* mentality.

Therefore, automation, robotics and artificial intelligence (AI) especially in combination with standardisation, modularisation and digitalisation are key enablers, improving space systems and satellites' flexibility and cost-efficiency, increasing sustainability and accessibility, introducing mass-customisation and cooperative design as well as simplifying operations.

Each project is expected to contribute to one or several of the following outcomes:

• A future space ecosystem, fostering the industrialisation and business in space as well as supporting scientifically meaningful missions by using synergies with terrestrial sectors, building on spacecraft modularity, simplifying operations and make *plug-and-play* modules more common as well as enabling on-orbit services such as maintenance, assembly, manufacturing, re-configuration, recycling, logistics, warehousing, etc.

Unique topic identifier and title

Budget range of the proposal and total for the topic

Type of project

Additional eligibility criteria

Outcome – what you need to have achieved

Scope – coverage

Scope – selection of proposals

Scope – what you can do

Scope: The areas of R&I, which need to be addressed to tackle the above expected outcomes are:

1) R&I on new scalable satellite platform concepts and building blocks increasing the degree of satellite modularisation. Aiming at intelligent, adaptable and maintainable systems with plug-and-play compartmentalised functionalities (modules) that will introduce both, on-orbit re-configuration and re-use/re-cycling of spacecraft parts fostering debris mitigation, as well as increased system redundancy, inherently. The approach should consider an innovative, scalable and adaptive framework concept for a 'European construction kit for satellite systems and applications', following the AppStore approach and fostering development of compartmentalised functionalities (modules) for satellite systems independently from mission. The framework should address the needs from building block developers as well as from endusers. As one result, functional satellite modules (Orbital Replaceable Units to deliver new/enhanced functionality should be developed (TRL 5-6) to upgrade the satellite platform of the orbital demonstration mission mission standard interfaces standard interfaces (plug-and-play concept). The module design should support the integration of different pre-existing standard interfaces further reference is given in a technical guidance document.

2) R&I on new on-orbit services concepts concentrating on a next generation of potential business cases (e.g. satellite recycling, transfer services, logistics, warehousing, etc.) contributing to a sustainable space infrastructure and in-space ecosystem development. Work should include, but not be limited to, market & trend analyses, design of mission and system architecture, and feasibility studies.

A proposal may address more than one area but must indicate the main area addressed, and is expected to promote cooperation between different actors (industry, SMEs and research institutions) and consider opportunities to quickly turn technological innovation into commercial space usage.

To ensure a balanced portfolio covering the three areas described above, grants will be awarded to applications not only in order of ranking but at least also to one project that is the highest ranked within each area, provided that the applications attain all thresholds.

Support services – regional support

Northern Ireland

• <u>NICP (Northern Ireland Contact Point) Network</u>: provides regional advice and support to potential NI Horizon Europe applicants by way of assistance with identifying areas of relevance within the competitive calls, help with application completion, identifying collaborative partners for applications, organising events & workshops, and engaging with National Contact Points

Scotland

• <u>Richard Buxbaum</u> is based in Scotland Europa (Scottish Enterprise) and is **the regional contact point in Scotland** for Horizon Europe. He can provides expertise, advice and can help coordinate access to a range of tailored support depending on your needs

Wales

- Horizon Europe Unit: dedicated team supporting Welsh organisations to access Horizon Europe opportunities. Based within the Welsh European Funding Office (WEFO), Welsh Government.
 - Horizon Europe Unit SCoRE Cymru Scheme: provides financial support, travel and expertise (bid writing) for Welsh organisations looking to access European research and innovation programmes like Horizon Europe. Further information is available by emailing the Horizon Europe Unit.



Searching for partners?

- Brokerage events
 - <u>Virtual international Information Day and Brokerage Event: Social Sciences & Humanities in EU Green Deal Call</u>
 (27 October)
- The NCP CaRE Partner Search tool: http://partnersearch.ncps-care.eu/
- Enterprise Europe Network:
 - Partner search opportunity database https://een.ec.europa.eu/partners
 - local EEN advisers https://een.ec.europa.eu/content/advice-support
- Funding and Tenders portal partner search
 - https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/partner-search
- CORDIS: https://cordis.europa.eu/
- Topic page on Funding and Tenders portal
- National Contact Points:
 - UK NCP network: https://www.gov.uk/business-finance-support/horizon-2020-business-grants-uk#support-within-different-sectors
 - NCP Network (International): https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/ncp



Cluster 1 - Health



Staying healthy in a rapidly changing society

- Diet and health (obesity)
- Ageing and demographic change
- Mental health

- Digital empowerment in health literacy
- Personalised prevention
- Al to predict disease risk



Living and working in a health-promoting environment

Environmental, occupational and socio-economic risk factors to health, e.g.

- indoor & outdoor air pollution, chemicals, non-ionizing radiation (EMFs)
- urbanisation, climate and other environmental changes
- socio-economic inequalities, working environments



Tackling diseases and reducing disease burden

- Better diagnostics, personalised treatment
- New and advanced therapies for NCDs
- Scientific evidence, policy, legal frameworks
- Innovative health technologies
- Understanding diseases
- Infectious disease threats



Ensuring access to innovative, sustainable and high-quality health care

- Fair access to high quality, sustainable healthcare for all citizens
- Innovative, feasible, implementable, financially sound scalable solutions (for governance, financing, human and physical resources, health service provision and patient empowerment)



Unlocking the full potential of new tools, technologies and digital solutions for a healthy society

Tools, technologies and digital solutions for medical devices and improved health

- considering safety, effectiveness, appropriateness, accessibility,
- comparative value-added and fiscal sustainability, as well as
- ethical, legal and regulatory issues



Maintaining an innovative, sustainable and globally competitive health industry

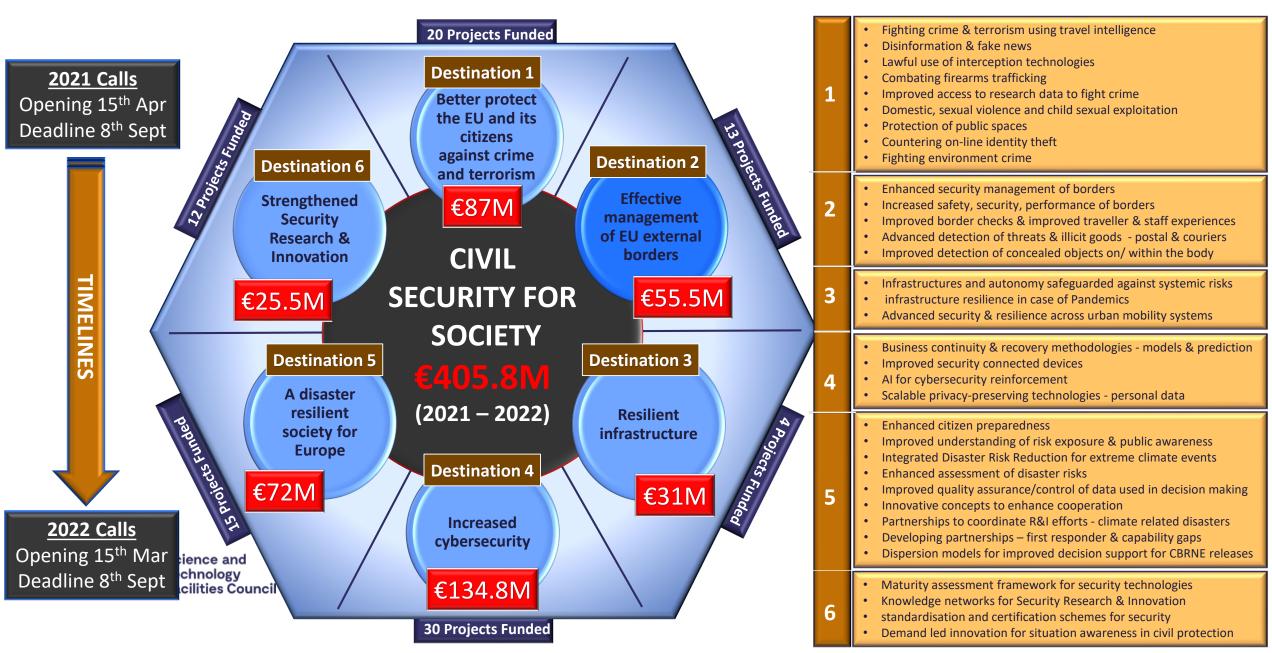
- Market access of innovative tech. (medical, pharmaceutical, biotech, digital)
- Novel methodologies and metrics, and support for regulatory authorities
- Safe and clinically validated tools, technologies and services
- Greener pharmaceuticals and technologies

Culture, Creativity and Inclusive Society –

Cluster 2 **2021 Calls** Opening 15 April Deadline 1 Sept **Destination 1: Destination 3: Innovative Innovative** research on research on democracy social and and economic **TIMELINES** transformations governance 147M€ 131M€ **Destination 2: Innovative** research on 144.3M€ **European cultural** heritage and the **2022 Calls Cultural** and Opening 20 Jan ience and **Creative Industries** chnology Deadline 20 April cilities Council 41 projects funded

- Future of liberal democracy
 - Economic models and modern democracies
 - Feminisms for a new age of democracy
 - Democratic politics in the EU's neighbourhood
 - Politics and governance in a post-pandemic world
 - AI, big data and democracy
 - Future of democracy and civic participation
 - Inequalities & democracy
 - Education for democracy
 - Political extremism
 - Democracy, politics and media
 - Global governance for a world in transition
- Green technologies and materials for cultural heritage
 - Participatory management & sustainable financing of museums/cultural institutions
 - CCI as a driver innovation and competitiveness
 - Cultural heritage & advanced digital technologies
 - Endangered languages in Europe
 - Traditional crafts for the future
 - European music ecosystem & filmmaking industry
 - Climate change & natural hazards and cultural heritage & remediation
 - Games & culture shaping our society
 - European Bauhaus
- Irregular migration
 - Support in a changing world of work and social protection
 - New technologies in education & training
 - Changing supply chains and declining trade intensities
 - New technologies in education & training
 - Decision-making processes of migrants
 - Gender & social, economic and cultural empowerment
 - Inclusive labour market
 - Successful development of skills matched to needs
 - · Racial, ethnic and religious equality
 - Socio-economic effects of aging societies

Civil Security for Society – Cluster 3



Cluster 4 – Digital, Industry & Space Key Themes

Destinations 3,4,6

Digital

- AI, Data & Computing
- Photonics & Electronics
- Smart Networks & Connectivity
- Robotics
- Digital Economy

€1.56bn - 2021/22

- 1st Calls Open: 15 Apr 2021;
- Deadline: 8 Sep 2021



NCP Digital: Stafford Lloyd

Destinations 1 & 2

Industry

- Circular Industries
- Resource & Energy efficiency
- Digital & Agile Manufacturing
- Sustainability by design
- Smart, Multi-functional materials (incl. Graphene, Nano & bio)
- Adv. Materials for Energy storage (incl. Hydrogen & Electrification)

€1.51bn - 2021/22

- 1st Calls Open: 15 Apr 2021;
- Deadlines: 15 July 2021 and 29 Sept 2021



NCP Industry: Abishek Ramesh

Destinations 5

Space

- Satellite technology
- Access to space
- Space data
- Space science
- Space robotics

€0.31bn - 2021/22

- 1st Calls Open: 6 May 2021;
- Deadline: 7 September 2021



NCP Space: Catherine Holt

Note: Info based on DRAFT WP

Cluster 5 – Climate, Energy & Mobility Key Themes

Destinations 1 & 2 Climate

- Climate sciences and responses
- Batteries
- Emerging breakthrough technologies
- Citizens and stakeholder engagement
- Communities and cities

€0.5bn - 2021/22

- 1st Calls Open: 15 Apr 2021
- Deadlines: 7 Sept 2021 and 19 Oct 2021

NCP Climate: Emma Fenton

Destinations 3 & 4

Energy

- Renewables
- Energy Systems and grids
- Carbon Capture, Utilisation and Storage
- Energy efficient buildings
- Industrial decarbonisation

€1.4bn - 2021/22

- 1st Calls Open: 15 Apr 2021
- Deadlines: 26 Aug 2021 and 19 Oct 2021



NCPs Energy: <u>Helen Fairclough</u>, <u>Kerry Young and Chris Young</u>

Destinations 5 & 6 Mobility

- Zero emission road transport
- Aviation
- Waterborne transport
- Impact of transport on the environment and human health
- Connected, Cooperative and Automated Mobility
- Safety and resilience
- Multimodal and sustainable transport systems

€0.9bn - 2021/22

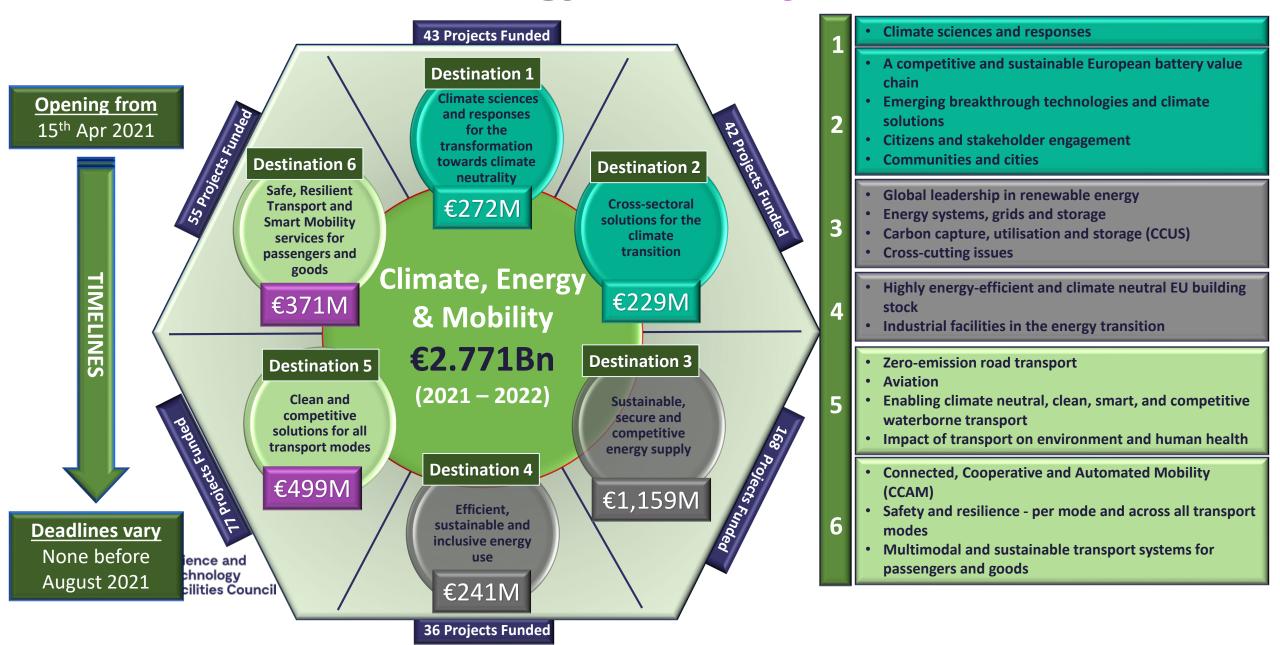
- 1st Calls Open: 15 April 2021
- Deadlines: 7 Sept 2021 and 19 Oct 2021



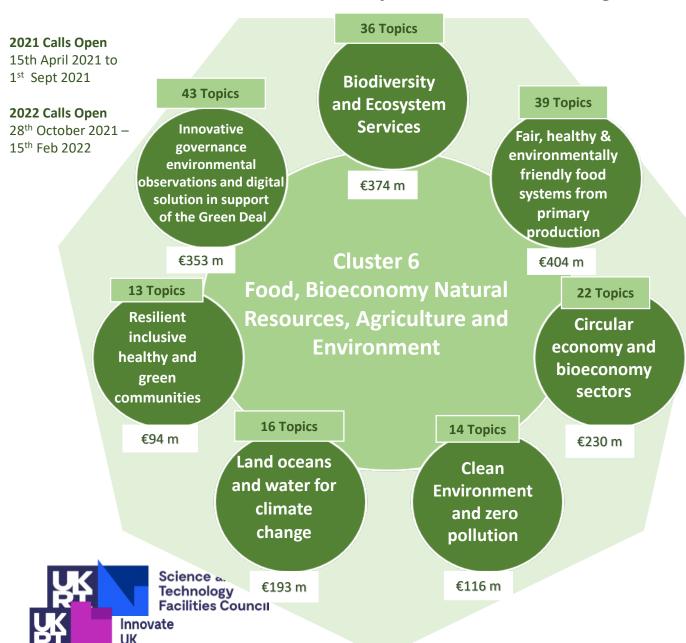
NCP Mobility: Louise Mothersole

Note: Info based on DRAFT WP

Cluster 5 – Climate, Energy & Mobility



Cluster 6: Food, Bioeconomy Natural Resources, Agriculture and Environment



Destination 1: Biodiversity and Ecosystem Services

- Understanding biodiversity decline
- Valuing and restoring biodiversity and ecosystem services
- Managing biodiversity in primary production
- Enabling transformative change on biodiversity

Destination 2: Fair, healthy and environmentally-friendly food systems from primary production to consumption

- Enabling sustainable farming
- Enabling sustainable fisheries and aquaculture
- Transforming food systems for health, sustainability and inclusion
- Targeted international cooperation

Destination 3: Circular economy and bioeconomy sectors

- Enabling a circular economy transition
- Innovating sustainable bio-based systems and the bioeconomy
- Safeguarding the multiple functions of European forests
- Innovating for blue economy and biotechnology value chains

Destination 4: Clean environment and zero pollution

- Halting emissions of pollutants to soils and waters
- Protecting drinking water and managing urban water pollution
- Addressing pollution on seas and oceans
- Innovating for blue economy and biotechnology value chains

Destination 5: Land, oceans and water for climate action

Destination 6: Resilient, inclusive, healthy and green rural, coastal and urban communities

Destination 7: Innovative governance, environmental observations and digital solutions in support of the Green Deal

- Innovating with governance models and supporting policy
- Deploying and adding value to Environmental Observations
- Digital and data technologies as key enablers
- Strengthening agricultural knowledge and innovation systems