

PERIN

Portugal in Europe
Research and Innovation Network

Cluster 4 – Digital & Industry

HORIZON EUROPE



EU funding programmes

EU-wide collective effort					National regional and local			Financial instrument
Horizon Europe	Digital Europe	CEF	Creative Europe	Health	Cohesion	Agriculture funds	RRF	InvestEU
Research Innovation	Strategic capacities: computing, data, testbeds, etc. Advanced digital skills EU-Wide deployment	Broadband and 5G roll out Connecting Communities	Cultural Heritage Media	Data Spaces for Health Telemedicine eHDSI	Digital connectivity in white and grey areas Support to enterprises in line with Smart specialisation Digital skills for all citizens	Making use of Big Data for CAP monitoring Broadband rollout in rural areas	Connect Scale-up Modernise Reskill and Upskill 20% digital	Leverage private capital for investments in SMEs, research, digital, infrastructure, skills...



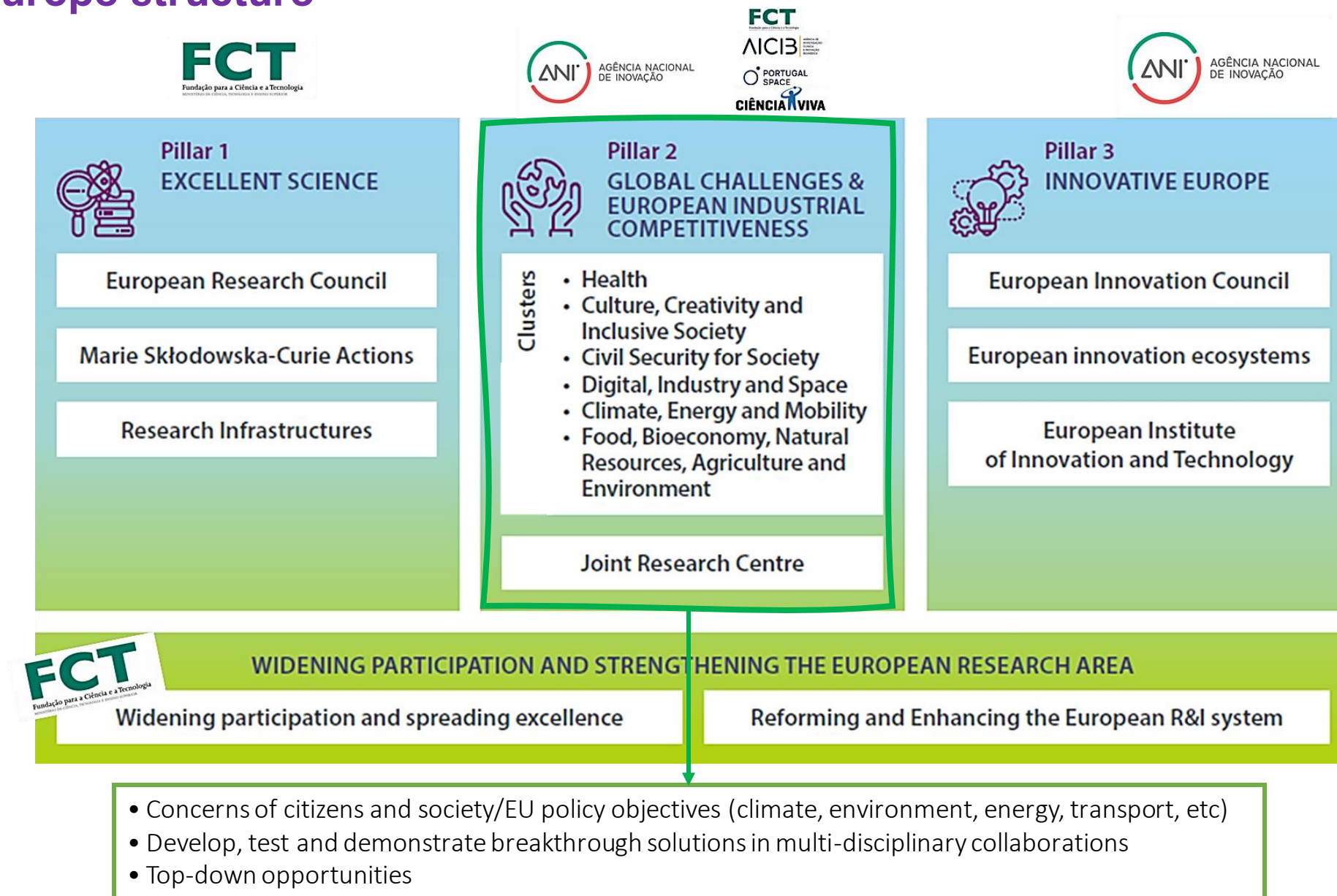
Infoweek
10-14 janeiro 2022



Infoday nacional
19 de janeiro 2022

[Digital Europe Programme \(DIGITAL\)](#)

Horizon Europe structure

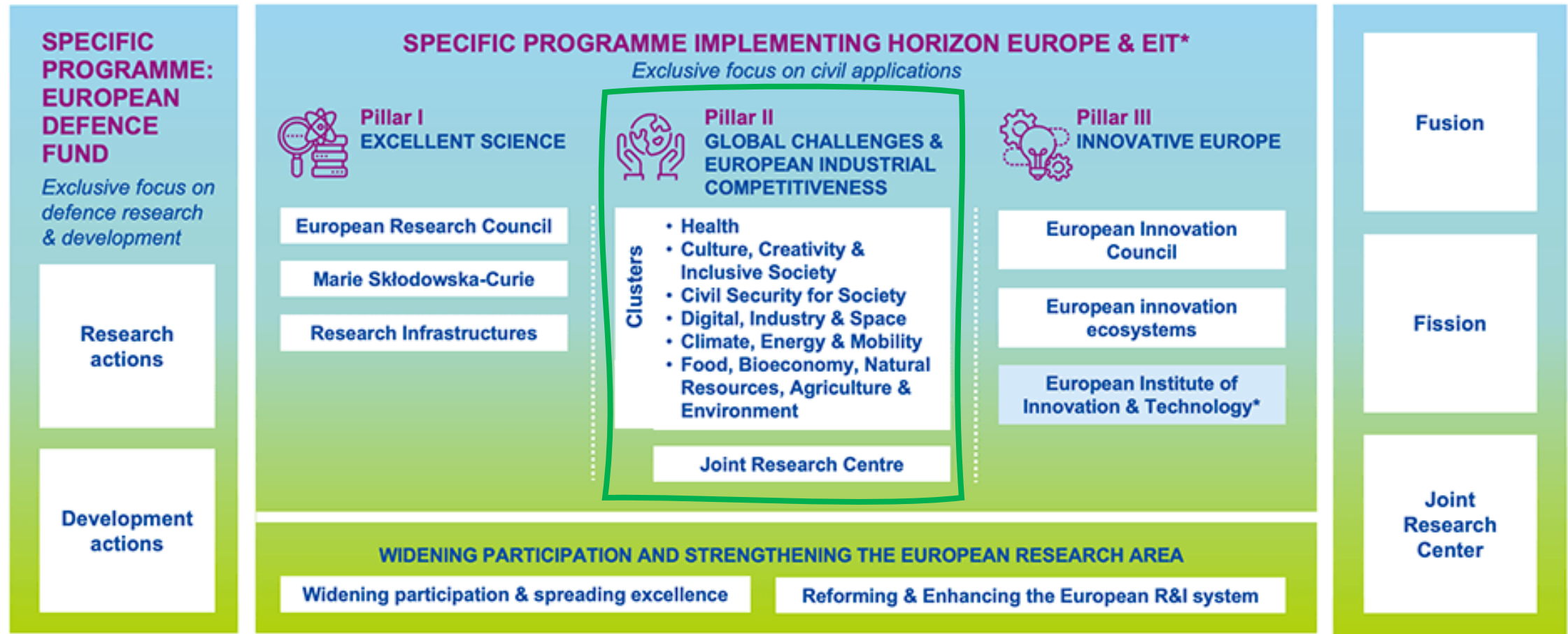


**GOT IT!
...WHERE IS THE
FUNDING FOR MY
PROJECTS ?**



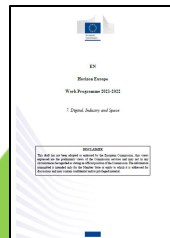
HORIZON EUROPE Structure

EURATOM



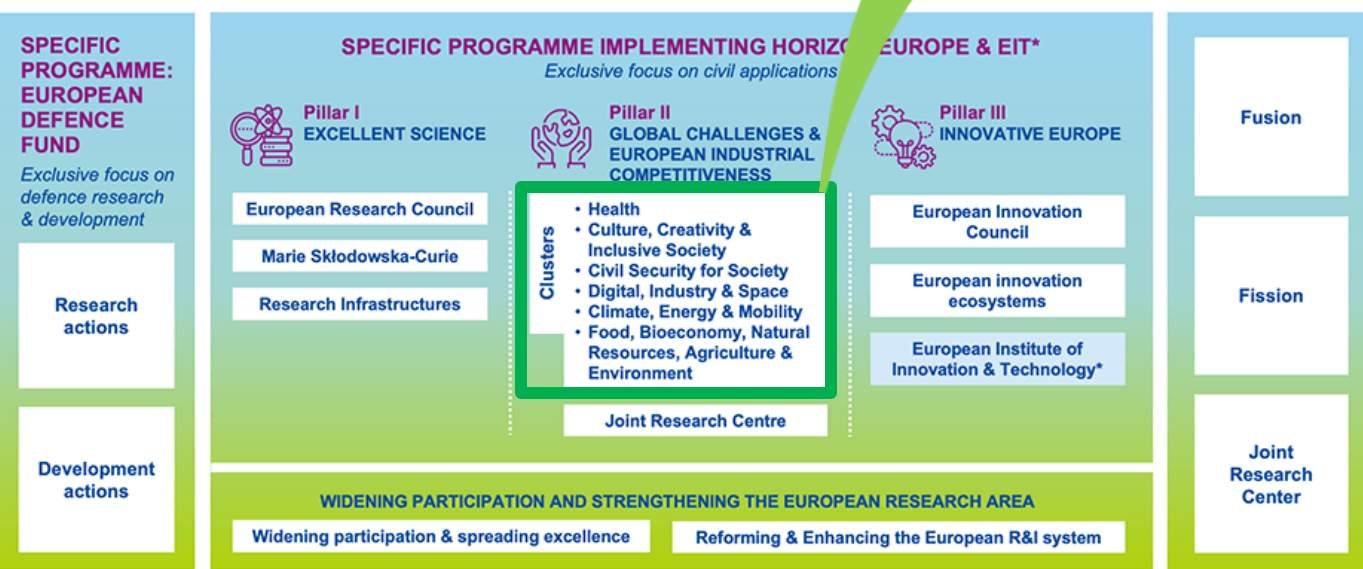
Horizon Europe (2021-2027)

Opportunities – where?



HORIZON EUROPE

EURATOM



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

CLUSTER

e.g. **Cluster 4** – Digital, Industry, Space

DESTINATIONS & CALLS

(areas of impact)

e.g.

Destination 1

Call: Green, flexible and advanced manufacturing

TOPICS (specific calls !)

e.g. **HORIZON-CL4-2021-TWIN-TRANSITION-01-01:**
AI enhanced robotics systems for smart manufacturing
(topic objectives, budget, TRL, etc)

- **Expected outcome**
- **Expected contribution**
- **Scope**

Cluster Digital, Industry and Space

6 “destinations”, 6 expected impacts

15,349 b€

- **DESTINATION 1**
Climate neutral, circular and digitised production

Global leadership



- **DESTINATION 2**
Increased autonomy in key strategic value chains for resilient industry

Industrial leadership and increased autonomy in key strategic value chains with security of supply in raw materials



- **DESTINATION 3**
World leading data and computing technologies

Globally attractive, secure and dynamic data-agile economy



- **DESTINATION 4**
Digital and emerging technologies for competitiveness and fit for the green deal

Sovereignty in digital technologies and in future emerging enabling technologies



- **DESTINATION 5**
Open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data

Strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data



- **DESTINATION 6**
A human-centred and ethical development of digital and industrial technologies

A human-centred and ethical development of digital and industrial technologies



- Green, flexible and advanced manufacturing
- Enabling circularity of resources in the process industries, including waste, water and CO2/CO
- Advanced digital technologies for manufacturing
- Integration of renewables and electrification in process industry
- Increase productivity, efficiency

- Resilient, sustainable and secure (critical) raw materials value chains
- Materials with enhanced functionalities and sustainable-by-design
- Materials solutions for clean, toxic/pollutant free environment
- Raw materials for transition to a climate-neutral and circular economy
- Advanced materials

- Data sharing in the common European data spaces
- Strengthening Europe's data analytics capacity
- From Cloud to Edge to IoT for European Data

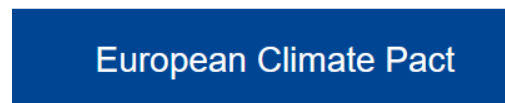
- Ultra-low power processors
- Electronics
- Photonics
- 6G and foundational connectivity
- AI, data and robotics
- Quantum Technologies
- Graphene

- Leadership in AI based on trust
- An Internet of Trust
- eXtended Reality (XR)
- Make the most of the technologies within society and industry

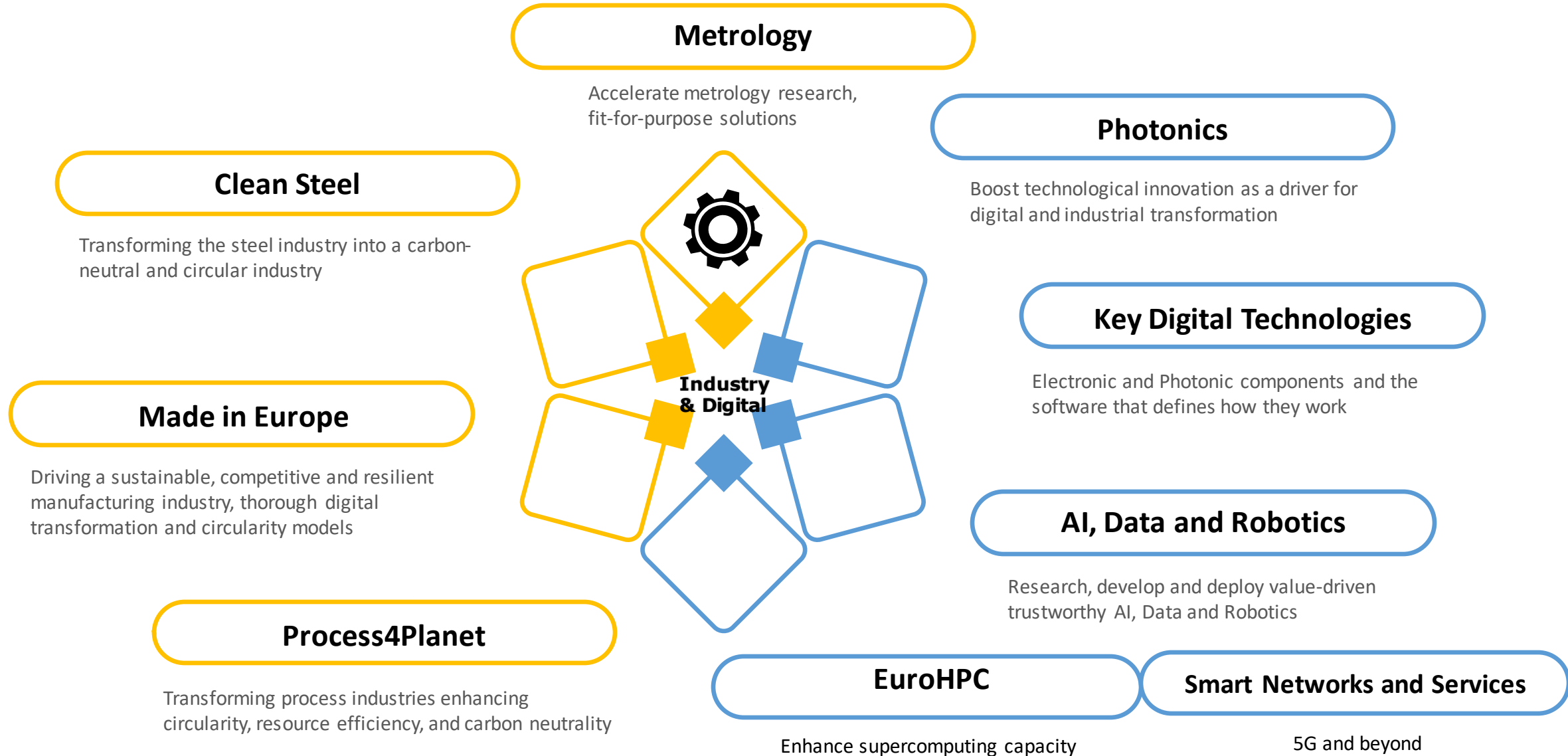
Some of the European strategy & Initiatives



[Industry 5.0 Award](#)
Deadline 1 April



European Partnerships



Example of a topic text

These are top-down !

HORIZON-CL4-2022-RESILIENCE-01-11: Advanced lightweight materials for energy efficient structures (RIA)

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of between EUR 3.00 and 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 20.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Technology Readiness Level</i>	Activities are expected to start at TRL 3 and achieve TRL 5 by the end of the project – see General Annex B.

Expected Outcome: The positive environmental impact of lightweight composite materials most often occur due to benefits during the use-phase. The overall life-cycle benefits are often reduced as a consequence of negative environmental impacts associated with the manufacturing (energy consumption) and inherent challenges to regain the high-value components (fibre and matrix) at industrial scale. Development of new chemistries for fast curing resins, new bio-based composites (including fibres and core materials), joining technologies between composites and other materials and associated novel production techniques are expected to result in

- Reduced cost for production of renewable lightweight materials, 25 % lower cost than currently used materials;
- Light-weight products containing >50% sustainable, bio-based materials;
- Up to 30% lightweight potential through tailored functionality for a range of extreme environment (energy, infrastructures, aeronautics, space) applications and in surface transport;
- Reduction in CO₂ emissions (LCA) of at least 20 %;
- Business models and circular value chains for lightweight bio based components;
- Improved time-to-market for European providers of lightweight solutions.

Relevant indicators and metrics, with baseline values, should be clearly stated in the proposal.

Scope: A step change is needed to develop new sustainable and high performance lightweight materials and associated novel manufacturing techniques which comply with industrial demands for quality and reliability. Research areas to be addressed include:

- Development of new chemistries for fast curing resins (including bioresins) and associated novel production techniques (e.g. out-of-autoclave processes to reduce energy consumption);
- Utilisation of existing or development of cost competitive renewable resins and/or core materials in combination with new fibres to make all renewable lightweight composites and structures;
- Technologies and material design paradigms that enable hybrid composites based on a variety of constituents e.g. combinations of virgin and recycled fibres, bio-fibres including appropriate fibre coatings, etc. towards maximum cost and environmental benefits with a life-cycle perspective;
- High performance high temperature polymer composites with potential to extended use at temperatures above 300C. Besides general material and manufacturing, the long-term durability of materials in service is a potential area of research and development;
- New multifunctional composites where the materials and structures, besides traditional structural capacity, also is optimized towards one or several other functions such as thermal management (heating/cooling), energy harvesting and storage, morphing, self-monitoring, etc.;
- New recycling technologies for polymer composites structures and, in particular, composite constituents. The high value constituents e.g. carbon fibres or matrix are not easily separated and technologies to recycle both in the same process should be addressed.

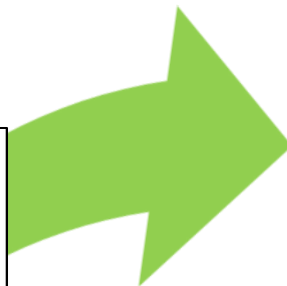
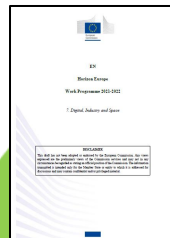
Improving advanced lightweight materials will have a positive environmental impact, which is in direct relation to the well-being of citizens.

Proposals submitted under this topic should include a business case and exploitation strategy, as outlined in the introduction to this Destination.

This topic is open for international cooperation where the EU has reciprocal benefit, while excluding industrial competitors from countries where the safeguarding of IPRs cannot be guaranteed.

Horizon Europe (2021-2027)


Opportunities – where?



Lets see
some specific
topic examples...



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Industry 4.0 & smart manufacturing

Deadline: 30 March 2022

HORIZON-CL4-2022-TWIN-TRANSITION-01-01: Rapid reconfigurable production process chains
(Made in Europe Partnership) (IA)

HORIZON-CL4-2022-TWIN-TRANSITION-01-03: Excellence in distributed control and modular manufacturing
(Made in Europe Partnership) (RIA)

HORIZON-CL4-2022-TWIN-TRANSITION-01-09: Demonstrate the use of Digital Logbook for buildings (IA)




Modelling & Design, optimization of processes

Deadline: 30 March 2022

HORIZON-CL4-2022-RESILIENCE-01-05: Technological solutions for tracking raw material flows in complex supply chains (RIA)

HORIZON-CL4-2022-RESILIENCE-01-19: Advanced materials modelling and characterisation (RIA)

HORIZON-CL4-2022-RESILIENCE-01-25: Optimised Industrial Systems and Lines through digitalisation (IA)



2D applications, energy harvest, & graphene

Deadline: 30 March 2022

HORIZON-CL4-2022-DIGITAL-EMERGING-02-17: New generation of advanced electronic and photonic 2D materials-based devices, systems and sensors (RIA)

HORIZON-CL4-2022-DIGITAL-EMERGING-02-18: 2D materials-based devices and systems for energy storage and/or harvesting (RIA)

HORIZON-CL4-2022-DIGITAL-EMERGING-02-19: 2D materials-based devices and systems for biomedical applications (RIA)

HORIZON-CL4-2022-DIGITAL-EMERGING-02-20: 2D-material-based composites, coatings and foams (IA)

HORIZON-CL4-2022-DIGITAL-EMERGING-02-22: Supporting the coordination of the Graphene Flagship projects (CSA)

Data, Algorithms, “Cloud”

Deadline: 5 April 2022



HORIZON-CL4-2022-DATA-01-01: Methods for exploiting data and knowledge for extremely precise outcomes (analysis, prediction, decision support), reducing complexity and presenting insights in understandable way (RIA)

HORIZON-CL4-2022-DATA-01-02: Cognitive Cloud: AI-enabled computing continuum from Cloud to Edge (RIA)

HORIZON-CL4-2022-DATA-01-03: Programming tools for decentralised intelligence and swarms (RIA)

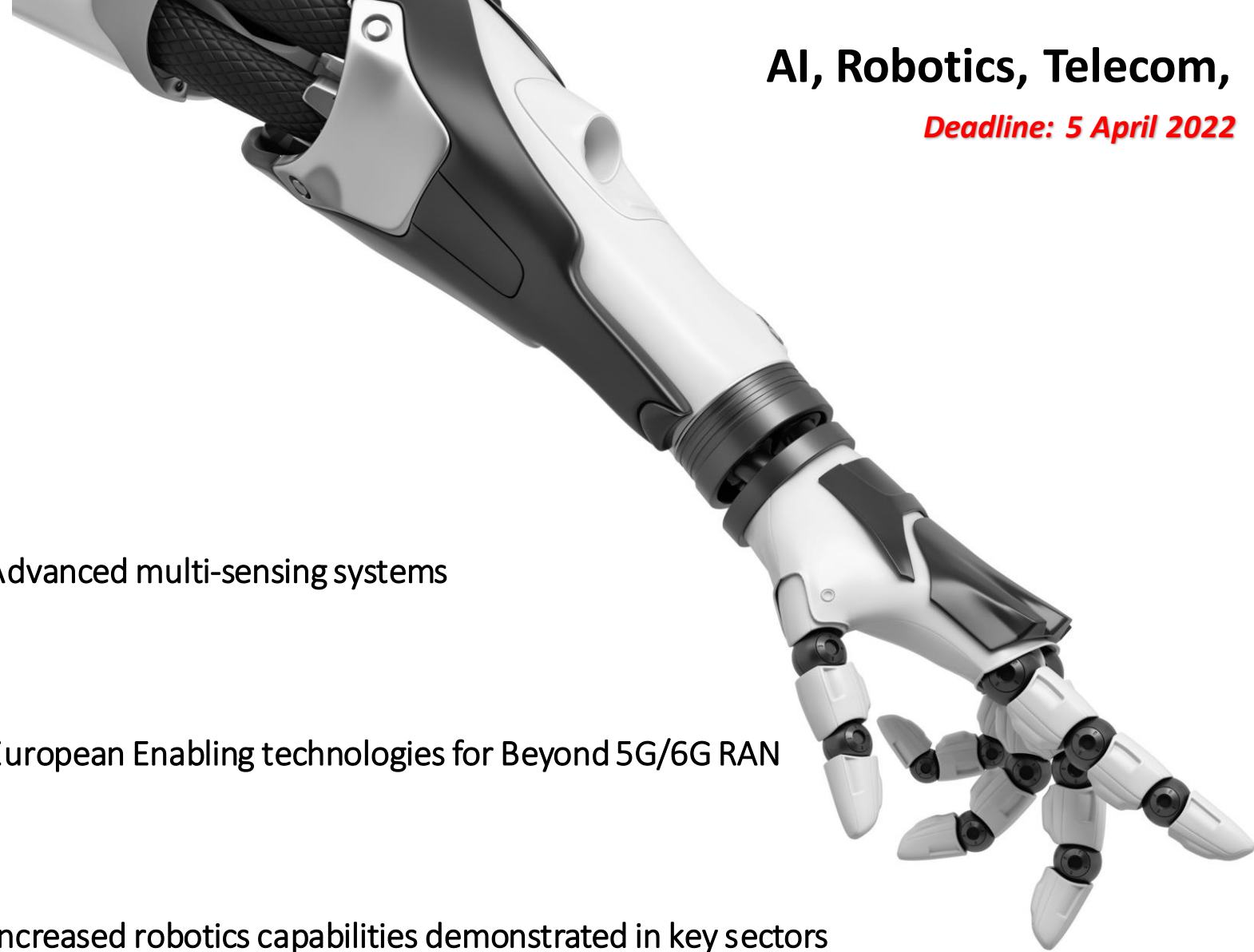
AI, Robotics, Telecom,

Deadline: 5 April 2022

HORIZON-CL4-2022-DIGITAL-EMERGING-01-03: **Advanced multi-sensing systems**
(Photonics Partnership) (RIA)

HORIZON-CL4-2022-DIGITAL-EMERGING-01-30: **European Enabling technologies for Beyond 5G/6G RAN**
disaggregated architectures (RIA)

HORIZON-CL4-2022-DIGITAL-EMERGING-01-07: **Increased robotics capabilities demonstrated in key sectors**
(AI, Data and Robotics Partnership) (IA)



HORIZON-CL4-2022-HUMAN-01-01: **AI for human empowerment** (AI, Data and Robotics Partnership) (RIA)

HORIZON-CL4-2022-HUMAN-01-05: **Next Generation Safer Internet: Technologies to identify digital Child Sexual Abuse Material** (CSAM) (RIA)

HORIZON-CL4-2022-HUMAN-01-14: **eXtended Reality Technologies** (RIA)



KDT JU

Key Digital Technologies Joint Undertaking

Electronic and Photonic components and the software that defines how they work

Deadline 27 April 2022

6G SNS

5G and beyond

More
opportunities



EuroHPC
Joint Undertaking

Enhance supercomputing capacity

Deadlines with different cutoffs: Mar, Jul, Oct



Measurement tech and infrastructures

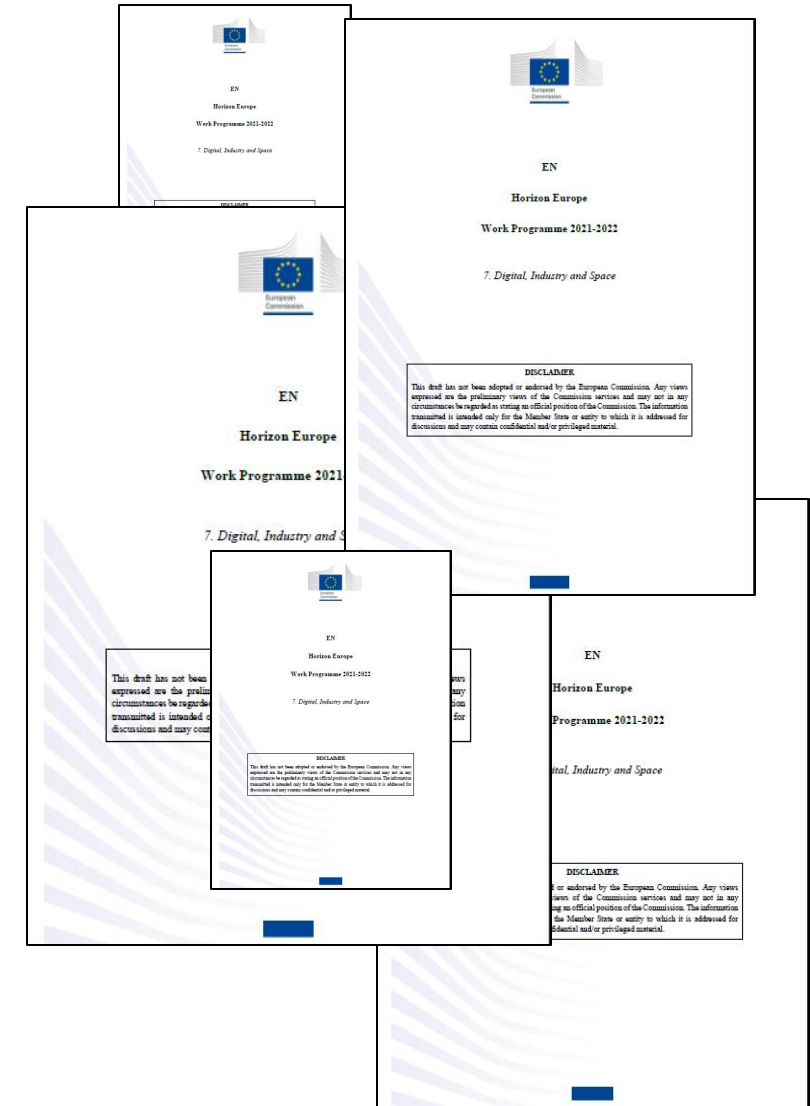
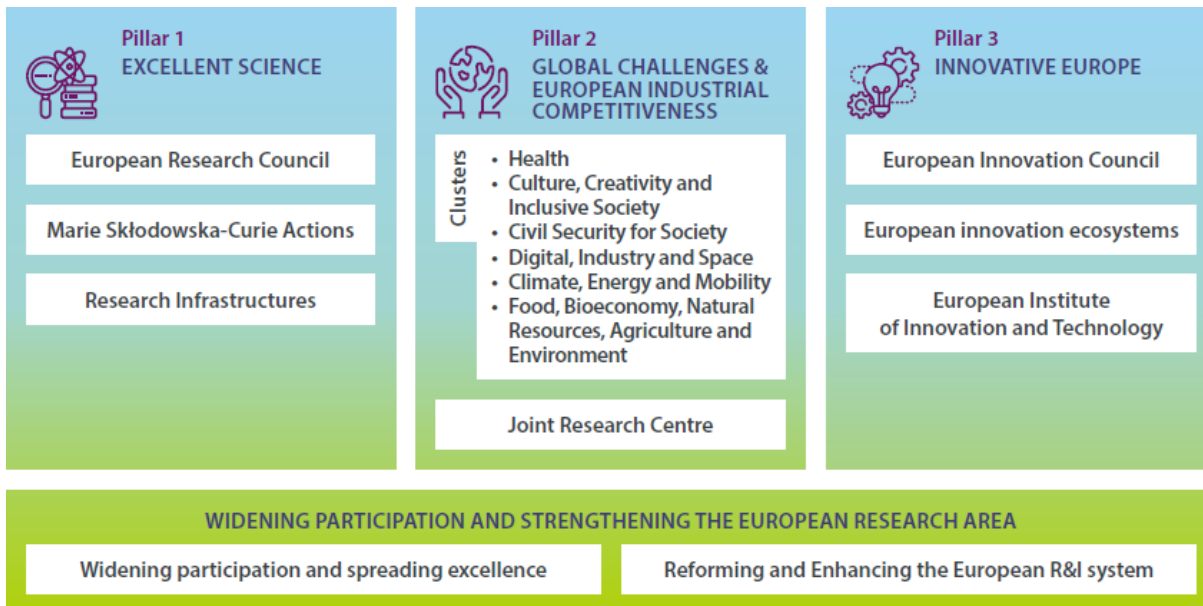
**OK.
I am convinced.
but...**





Where are the project topics???

How...



ONE WAY



SUBMIT

Submission platform **05**

04 Write the proposal !

Application form (Part A)

Project proposal – Technical description (Part B)

Build a consortium.
Collaborate, collaborate! **03**



02 Look for a project call.
Read the work programmes!



01 Ambitious & innovative idea. Concept.
Read stakeholders needs.

ONE WAY



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Funding and tenders homepage

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

European Commission | Funding & tender opportunities
Single Electronic Data Interchange Area (SEDIA)

English EN

Register Login

SEARCH FUNDING & TENDERS

HOW TO PARTICIPATE PROJECTS & RESULTS WORK AS AN EXPERT SUPPORT

Find Search funding & tenders
Funding updates
Archived funding (FP7-CIP)

tenders

Search funding & tenders, programmes... Search

ERA corona platform Brexit info Report fraud

EU Programmes

Asylum, Migration and Integration Fund (AMIF)	Border Management and Visa Instrument (BMVI)	Customs Control Equipment Instrument (CCEI)	Citizens, Equality, Rights and Values Programme (CERV)	Creative Europe (CREA)	Customs Programme (CUST)
Digital Europe Programme (DIGITAL)	Europe Direct (ED)	European Parliament (EP)	European Solidarity Corps (ESC)	Erasmus+ Programme (ERASMUS+)	European Social Fund + (ESF)

News

25 May, 2021

Webinar 'The Funding & Tenders Portal for beginners', 27 May 2021, 10.00 CEST

The Funding & Tenders Portal is the single gateway for participants in many EU funding programmes and procurement actions. This webinar is addressed in the ...

20 May, 2021

Webinar "All you need to know on D&E under Horizon Europe", 9 June 2021; 9:30 CEST

Are you planning to apply for a Horizon Europe call? Don't forget to prepare your Dissemination & Exploitation (D&E) section under the impact! In order ...

19 May, 2021

Webinar addressed to providers of Certificates on Financial Statements in Horizon 2020 grants

A recorded webinar about Certificates on Financial Statements (CFS) for Horizon 2020 grants is now available on the Funding &

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search>

Funding and tenders homepage

[link: 2022 calls - Cluster 4: Digital, Industry and Space](#)

SEARCH FUNDING & TENDERS

HOW TO PARTICIPATE

PROJECTS & RESULTS

WORK AS AN EXPERT

SUPPORT

Horizon Europe (HORIZON)

clear filter

Friday 18 June 2021 between 20:00 and 22:00 & Saturday 19 June 2021 between 8:00 and 16:00 CET

All documents will be unavailable in the Grants and Audits Management Services, in the Participant Register Services and in "My Expert Area". Please refrain from launching any document-related process, since these will not work and will have to be restored by the Service Desk. We apologise for any inconvenience this may cause.

Type your Keywords...

Q

Match whole words only

GRANTS

TENDERS

Submission status

Forthcoming (160)

Open for submission

Closed

Programming period

2021 - 2027 (160)

Horizon Europe (HORIZON)

Programme part

Digital, Industry and Space

Mission

Select a Mission...

Funding and tenders (160)

Need help?

Sort by:

Submission status

Grant

Coordination of complementary actions for missions

Forthcoming

Programme

Horizon Europe (HORIZON)

ID

HORIZON-MISS-2021-COOR-01-01

Types of action

HORIZON Coordination and Support Actions

Deadline model

single-stage

Opening date

22 June 2021

Deadline date

14 September 2021 17:00:00 Brussels time

Grant

Better prepared regional and local authorities to adapt to climate change

Forthcoming

Programme

Horizon Europe (HORIZON)

ID

HORIZON-MISS-2021-CLIMA-01-01

Types of action

HORIZON Coordination and Support Actions

Deadline model

single-stage

Opening date

22 June 2021

Deadline date

14 September 2021 17:00:00 Brussels time

Grant

Advanced spintronics: Unleashing spin in the next generation ICs (RIA)

Forthcoming

Programme

Horizon Europe (HORIZON)

ID

HORIZON-CL4-2021-DIGITAL-EMERGING-01-14

Types of action

HORIZON Research and Innovation Actions

Deadline model

single-stage

Opening date

22 June 2021

Deadline date

21 October 2021 17:00:00 Brussels time

ONE WAY



SUBMIT

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How to find project partners

**Be proactive !
Engage communication!
Look on your network ! And outside !**



Own network

- Known partners
- Clients



Partnering events

- Annual Information Day & Brokerage event in Brussels
- Brokerage events organised by the Enterprise Europe Network



Databases of previous and ongoing projects

- CORDIS project database
- EIC hub
- Eco-innovation projects
- LIFE projects



Partner search tools

- CORDIS partner search platform
- Enterprise Europe Network cooperation opportunities database

ONE WAY



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Type your Keywords...

☒ Match whole words only

☒ GRANTS ☐ TENDERS

Submission status

Forthcoming (160) Open for submission Closed

Programming period

2021 - 2027 (160)

Horizon Europe (HORIZON)

Programme part

Digital, Industry and Space

Mission

Select a Mission...

Funding and tenders (160)

Grant	Coordination of complementary actions for missions	
Forthcoming		
Programme	Horizon Europe (HORIZON)	Deadline mode
ID	HORIZON-MISS-2021-COOR-01-01	Opening date
Types of action	HORIZON Coordination and Support Actions	Deadline date
Grant	Better prepared regional and local authorities to adapt to climate change	
Forthcoming		
Programme	Horizon Europe (HORIZON)	Deadline mode
ID	HORIZON-MISS-2021-CLIMA-01-01	Opening date
Types of action	HORIZON Coordination and Support Actions	Deadline date
Grant	Advanced spintronics: Unleashing spin in the next generation ICs (RIA)	
Forthcoming		
Programme	Horizon Europe (HORIZON)	Deadline mode
ID	HORIZON-CL4-2021-DIGITAL-EMERGING-01-14	Opening date
Types of action	HORIZON Research and Innovation Actions	Deadline date

European Commission | Funding: Submission Service

Welcome Joao RIBAU

Login Topic selection Create proposal Participants Proposal Forms Submit

Create proposal

Deadline
19 May 2021 17:00:00 Brussels Local Time

Call data:
Call: HORIZON-EIC-2021-PATHFINDEROPEN-01
Topic: HORIZON-EIC-2021-PATHFINDEROPEN-01-01
Type of action: HORIZON-EIC
Type of MGA: HORIZON-AG

Topic and type of action can only be changed by creating a new proposal.

Download Part B templates
Download part B templates

Support & Helpdesk
Online Manual IT How To
IT Helpdesk FAQ
Service Desk:
EC-FUNDING-TENDER-SERVICE-DESK@ec.europa.eu
+32 2 29 92222

Please submit your proposal at the latest 48 hours before the deadline (to avoid system congestion or system incompatibility issues). Late proposals will not be accepted. Don't wait until the end because you are worried about confidentiality - we will not open the proposals before the deadline. You can submit the proposal as many times as you wish up until the deadline. Each new submitted version will replace the previous one.

Find your organisation
PIC Short name
Search for your organisation
Organisations you have been previously associated with. (Click to select)

PIC: 999488680
WELDING AND QUALITY INSTITUTE
INSTITUT DU SOUDAGE ET QUALITE-ISO
TAGUSPARK AVENIDA PROFESSOR
DR CAVACO SILVA 33 TALAIDE
PORTO SALVO,PT
VAT: PT500140022

Your role
Please indicate your role in this proposal
Main contact Contact person

Your proposal
Please choose an acronym for your proposal.
It will appear also in the "General Information" section of the Application Form Part A and can also be updated there.
Acronym Enter value
Short Summary Enter value

SAVE AND GO TO NEXT STEP

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1. Select a call/topic
2. Read instruction
3. Access button to portal

ONE WAY



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<https://www.youtube.com/watch?v=tCiXkE88zeI>

CURIOUS ?



GET involved and informed beforehand

Get involved in the R&I priorities discussion

[Grupo Nacional de Discussão do Horizonte Europa
Pilar II & Pilar III](#)

Get informed of all the initiatives, calls and HE hot topics

[Contact List](#)



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ESPAÇO

PERIN

Portugal in Europe
Research and Innovation Network

Cluster 4 – Digital & Industry