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## Cluster 4: Digital, Industry and Space

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*NCP Cluster 4 Industry*

*Horizon Europe. Industrial Leadership*

*Directorate of European Programmes and Regional  
Cooperation*

## Presupuesto Horizonte Europa: lo que sabemos, 95.517 MEUR

PILAR 1 – CIENCIA EXCELENTE	25.011	PILAR 2 - RETOS MUNDIALES Y COMPETITIVIDAD INDUSTRIAL EUROPEA	53.516	PILAR 3 – INNOVACIÓN ABIERTA	13.597
ERC - Consejo Europeo de Investigación	16.004	Clúster 1 - Salud	8.246	EIC- Consejo Europeo de Innovación	10.105
MSCA - Acciones Marie Skłodowska-Curie	6.602	Clúster 2 - Cultura, creatividad y sociedad inclusiva	2.280	Ecosistemas de innovación europea	527
Infraestructuras de investigación	2.406	Clúster 3 - Seguridad	1.596	EIT - Instituto Europeo de Innovación y Tecnología	2.965
		<b>Clúster 4 - Digital, industria y espacio</b>	<b>15.349</b>		
		Clúster 5 - Clima, energía y movilidad	15.123		
		Clúster 6 - Alimentación, bioec. recursos naturales, agricultura y MA	8.952		
		JRC – Centro Común de Investigación	1.970		

<b>Ampliar la Participación y Fortalecer el Espacio Europeo de Investigación</b>	<b>3.393</b>
Ampliar la participación y difundir la excelencia	2.955
Reformar y mejorar el sistema europeo de la I+i	438

Incl 5.000 M€ Next Generation EU

Incl 4.000 M€ (acuerdo político MFP)

# Índice de contenidos

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- Destinos y convocatorias del Clúster 4 Industria
- Topics de potencial interés en Movilidad
- Apoyo al participante Cluster 4 Industria

# Cluster 4 - INDUSTRY



**D1** – Climate neutral, circular and digitised *production* TWIN-TRANSITION



**D2** – Increased Autonomy in Key Strategic Value Chains for Resilient Industry



**D3** – World leading *data* and *computing* technologies



**D4** – Digital and emerging *technologies* for competitiveness and fit for the green deal



**D5** – Strategic autonomy in developing, deploying and using global *space*-based infrastructures, services, applications and data



**D6** – A *human-centred* and ethical development of digital and industrial technologies

# Cluster 4: Mundo digital, **Industria** y Espacio

**WP 2023-  
2024**

## **Destination 1:**

Climate neutral, circular and digitised production

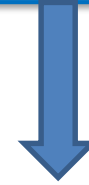


## **Call**

TWIN GREEN AND  
DIGITAL TRANSITION

## **Destination 2:**

Increased autonomy in key strategic value chains for resilient industry



## **Call**

RESILIENT VALUE CHAINS

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-7-digital-industry-and-space\\_horizon-2023-2024\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-7-digital-industry-and-space_horizon-2023-2024_en.pdf)

# Work Program 2023-2024

## Contextos políticos relevantes

- The European Industrial Strategy of March 2020, and in particular the Update of May 2021. [European Industrial Strategy of March 2020](#). [Update of May 2021](#)
- The Circular Economy Action Plan of March 2020. [Circular Economy Action Plan](#)
- The Chemicals Strategy for Sustainability of October 2020. [Chemicals Strategy](#)
- The Zero Pollution Action Plan of May 2021*. [Zero Pollution Action Plan](#)
- The Materials 2030 Manifesto. [Materials 2030 Manifesto](#)
- <https://www.ami2030.eu/>
- The Digital Decade of March 2021. [Digital Decade](#)
- The Fit for 55 Package of July 2021, delivering the EU's 2030 Climate Target on the way to climate neutrality. [https://ec.europa.eu/clima/eu-action/european-green-deal/2030-climate-target-plan\\_en](https://ec.europa.eu/clima/eu-action/european-green-deal/2030-climate-target-plan_en)

# Work Program 2023-2024

Prestar  
atención



- Se mantiene piloto **60%** financiación (for profit entities) en IA de partenariados co-programados
- Incorporación convocatorias en **2 fases**
- Afecta a **distintas fechas** de apertura y cierre: **2023** marzo (fase 1), abril (fase única), octubre (fase 1)
- Fases 1 con blind evaluation.**
- Incorporación mecanismos de justificación **lump sum.**
- Versiones actualizadas de los templates RIA-IA, CSA, fase única y dos fases**
- Límites de páginas:** ampliación por incorporación de **lump sum (ver topic y aviso en templates)**, ampliación por **plan de negocio y explotación (ver en el topic)**

*Exceptional page limits to proposals/applications*

In order to include a business case and exploitation strategy, the page limit in part B of the General Annexes is exceptionally extended by 3 pages.

# Business case and Exploitation strategy

## Business Case

- Target market
- Market size EU and globally
- User & Customer needs
- Matching at cost-effective manner
- Competitive advantage

## Exploitation strategy

- Obstacles and actions to reach higher TRLs
- TRLs 7 strategy for full-scale manufacturing in the EU
- matching value chains, enhancing product robustness; securing industrial integrators; and user acceptance



# Resultados provisionales Industria 2021

## 2. Resilience

### 1. Twin Transition



# Resultados provisionales Industria 2021

## 1. Twin Transition

- 233 propuestas con participación ES (78,7%)
- 15 proyectos **coordinados** ES (30,0%)
- Tasa de éxito: 17,6% vs 16,9%
- **79,6 M€** para entidades ES
- **1er país en retorno: 22,43% UE**



## 2. Resilience

- 151 propuestas con participación ES (78,2%)
- 10 proyectos **coordinados** ES (18,5%)
- Tasa de éxito: 25,2% vs 28%
- **39,9 M€** para entidades ES
- **2º país en retorno: 13,7% UE**



# Resultados provisionales Partenariados 2021-2022

278 propuestas con participación ES (74,1%)

82 proyectos financiados con participación ES (91,7%)  
15 coordinados ES (31,2%)

Tasa de éxito ES: 15,8% vs. 12,8% global

57,3 M€ para entidades ES  
ES 1º país en retorno (18,50%)



MADE IN EUROPE (2021-22)



# Cluster 4: Mundo digital, **Industria y Espacio**

**Call 2023**

## Destination 1:

Climate neutral, circular and digitised production



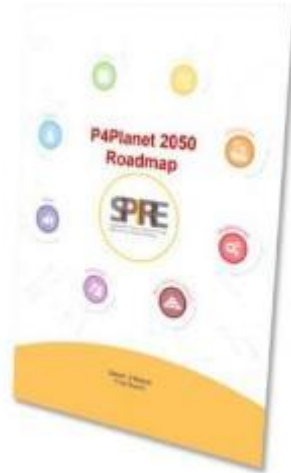
## Call

TWIN GREEN AND  
DIGITAL TRANSITION

## Convocatorias 2023

- Fase única:
  - ✓ Apertura: 8 de diciembre 2022
  - ✓ Cierre: 20 de abril 2023
  - ✓ 12 topics
  - ✓ M€ 334,27
- 2 fases:
  - ❖ Apertura: 8 de diciembre 2022
  - ❖ Cierre: 7 de marzo (1), 5 octubre 2023 (2)
  - ❖ 1 topic
  - ❖ M€ 12

# Partenariados en Cluster 4 - Industria



## Metrología



<https://metpart.eu/>

- Partenariados co-programados

- Partenariado institucionalizado

# Destination 1: Climate neutral, Circular and Digitised Production 2023



**Manufacturing Industry**



**Energy efficient and climate neutral process industries**



**Hubs for circularity**, first-of-a-kind, lighthouse demonstrator plants implementing urban industrial symbiosis



**A New Way to Build**, accelerating disruptive change in construction (2 stages)

**Circularity and Zero Pollution in process industries**

**Clean Steel**, to the Fit for 55 targets





# Destination 1: Twin green and digital transition



HORIZON-CL4-2023-TWIN-TRANSITION-01-02

High-precision OR complex product manufacturing – potentially including the use of photonics (Made in Europe and Photonics Partnerships) (IA)

48 M€/ 8 p /  
TRL 5-7

## Manufacturing Industry



HORIZON-CL4-2023-TWIN-TRANSITION-01-04

Factory-level and value chain approaches for remanufacturing (Made in Europe Partnership) (IA)

37,6 M€/ 6 p / TRL 5-7

# Destination 1: Twin green and digital transition



## Manufacturing Industry



HORIZON-CL4-2023-TWIN-TRANSITION-01-07

Achieving resiliency in value networks through modelling and Manufacturing as a Service (Made in Europe Partnership) (RIA)

32 M€/ 6 p /  
TRL 3-6



HORIZON-CL4-2023-TWIN-TRANSITION-01-08

Foresight and technology transfer for Manufacturing as a Service (Made in Europe Partnership) (CSA)

1 M€ /  
1p



# Cluster 4: Mundo digital, **Industria y Espacio**

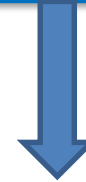
**Call 2023**

## Convocatorias 2023

- ❑ Fase única:
  - ✓ Apertura: 8 de diciembre 2022
  - ✓ Cierre: 20 de abril 2023
  - ✓ 12 topics
  - ✓ M€ 213
- ❑ 2 fases:
  - ❖ Apertura: 8 de diciembre 2022
  - ❖ Cierre: 7 de marzo (1), 5 octubre 2023 (2)
  - ❖ 4 topics
  - ❖ M€ 124

## Destination 2:

Increased autonomy in key strategic value chains for resilient industry



## Call

RESILIENT VALUE CHAINS

# Destination 2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry 2023



**Raw materials** for EU strategic autonomy and successful **transition to a** climate-neutral and **circular economy**



**Safe and Sustainable by Design (SSbD) chemicals and materials**

Strategic Innovation Markets driven by **Advanced Materials** (2 stages)



Improving the resilience of EU **businesses**, especially **SMEs and Startups**

# Destination 2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry



**Raw materials** for EU open strategic autonomy and successful **transition to a** climate-neutral and **circular economy**

## Destination 2: Call RESILIENT VALUE CHAINS

**Prestar atención a:**

Business cases and exploitation strategies for industrialisation

Restricciones de participación en eligibility conditions

“.. beneficiaries must make use of **Copernicus and/or Galileo/EGNOS** (other data and services may additionally be used).”

## Destination 2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry

### Topics en Raw materials



- HORIZON-CL4-2023-RESILIENCE-01-09:  
Recyclability and resource efficiency of Rare Earth based magnets (IA)

□ 20 M€/ 3p / TRL  
6-7

- **Actions are expected to contribute to the implementation the EU action plan on Critical Raw Materials**
- **and the action plan on Rare Earth Magnets and Motors from the European Raw Materials Alliance**
- <https://erma.eu/european-call-for-action/>

EUROPEAN  
RAW MATERIALS  
ALLIANCE | ERMA

Ensuring access to the raw materials for the European

Green Deal: A European Call for Action

## Destination 2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry

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### Topics en Raw materials



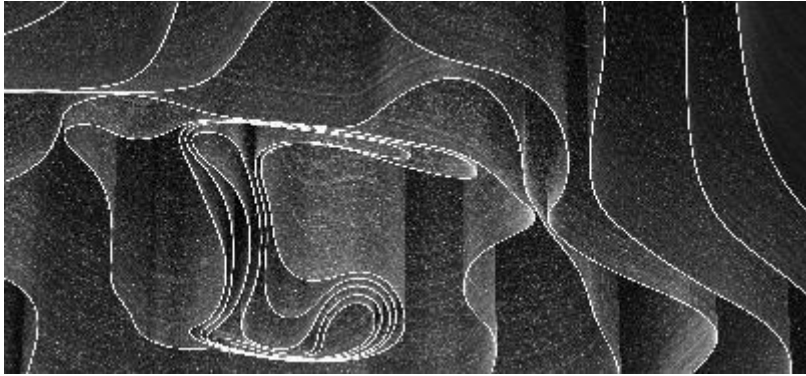
HORIZON-CL4-2023-RESILIENCE-01-09:  
Recyclability and resource efficiency of Rare Earth based magnets (IA)

20 M€/ 3p / TRL  
6-7

- **Priority is neodymium magnets, but other highly performant magnets can also be targeted if duly justified**
- **Developed improved magnets and their recyclability should be tested in the final application in relevant motors or generators.**
- **Actions could additionally address disruptive technologies for highly performant magnets**

## Destination 2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry

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**Strategic Innovation  
Markets driven by  
Advanced Materials**

***Call 2023 Two Stages***



The **Materials2030 Roadmap** highlighted that **innovation markets** are the industrial perspective presenting the **“market pull”** to address societal needs and challenges under a long-term perspective.



Systemic approach to develop the **next generation solution-oriented advanced materials**

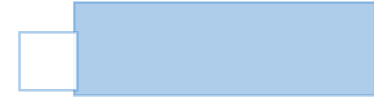


**Data exchange and interoperability in materials modelling** and characterisation across value chains

# Destination 2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry

## Strategic Innovation Markets driven by Advanced Materials

**Call 2023 Two Stages**



HORIZON-CL4-2023-RESILIENCE-01-32: Bioinspired and biomimetic materials for sustainable textiles (IA)

31 M€/ 4p / TRL 4-7

HORIZON-CL4-2023-RESILIENCE-01-33: Smart sensors for the Electronic Appliances market (RIA) (Lump sum)

31 M€/ 4p / TRL 3-6

HORIZON-CL4-2023-RESILIENCE-01-34: Advanced (nano and bio-based) materials for Sustainable Agriculture (RIA)

31 M€/ 4p / TRL 3-6

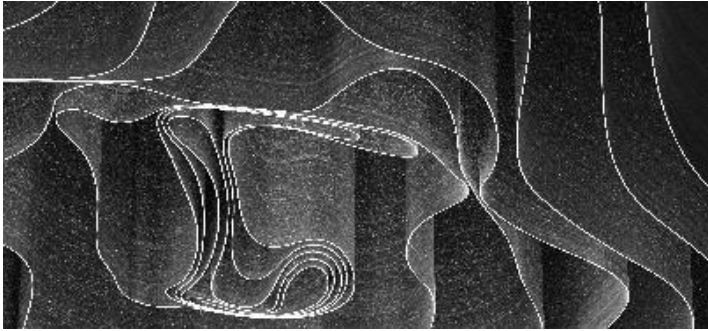
HORIZON-CL4-2023-RESILIENCE-01-37: Advanced materials for magnets in applications for the New Energies Market (RIA)

31 M€/ 4p / TRL 3-6

## **Destination 2:** Increased Autonomy in Key Strategic Value Chains for Resilient Industry

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HORIZON-CL4-2023-RESILIENCE-01-37: Advanced materials for magnets in applications for the New Energies Market (RIA)



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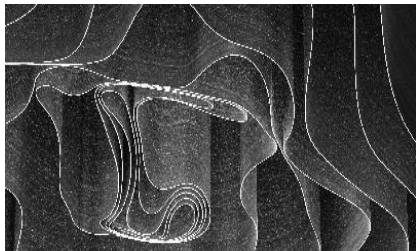
**Strategic Innovation  
Markets driven by  
Advanced Materials**

- ✓ **Indicative budget: EUR 31 million EU**  
**contribution per project: EUR 6-8 million**
- ✓ **Type of Action: RIA**
- ✓ **1st stage: 7th March 2023**
- ✓ **TRL:3-4 to 5-6**
- ✓ **Blind evaluation**



## Destination 2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry

HORIZON-CL4-2023-RESILIENCE-01-37: Advanced materials for magnets in applications for the New Energies Market (RIA)



Strategic Innovation  
Markets driven by  
Advanced Materials

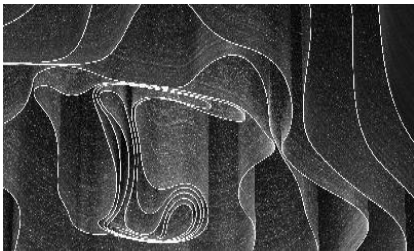
*Europe's industry will benefit from advanced materials for magnets that are either free from rare-earth metals, or use to a significant extent a substitute and reduce the share of rare-earth metals magnets*

*The new advanced materials for high-performance magnets must be available at an industrial scale*

*The political ambitions of the European Green Deal matching the increasing demand for energy harvesting and storage with the ambition to reduce emissions.*

## Destination 2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry

HORIZON-CL4-2023-RESILIENCE-01-37: Advanced materials for magnets in applications for the New Energies Market (RIA)



Strategic Innovation  
Markets driven by  
Advanced Materials

*Bullets in the Scope*

***Rare-earth metals for magnets shall be replaced or reduced with inexpensive and non-critical materials***

***Designing new rare-earth-free permanent magnetic materials (PMM) to replace high performing but critically restrained rare-earth-based PMM***

***Projects must demonstrate 50% enhanced magnetic performance***

***Life-cycle assessment and techno-economic assessment (LCA/TEA) will analyse the economic relevance of the new advanced materials for magnets.***

***Scaling the production to an industrial level for advanced materials for magnets that are rare-earth metal free or substituted.***



The European Network of HE Cluster 4 Industry National Contact Points

# Services

## Proposal Idea Check

13th of March 2023

Proposal Idea Check is a free service offered by the international network of Horizon Europe Cluster 4 Industry National Contact Points, NCP4Industry. This form may be submitted by the coordinator or partner, however, it is highly recommended to submit it at least several months before the call topic deadline.

Please fill the template below and send your project idea **by 13th of March 2023**. The NCP4Industry network will be in contact with all the participants and the feedback meetings will be organised in February-March 2023.

[www.ncp4industry.eu](http://www.ncp4industry.eu)

<https://ncp4industry.eu/proposal-idea-check/>



## Industry Matchmaking Event still open until 31 March 2023

[Home](#) > [News](#) > [NCP Networks](#) > [Industry Matchmaking Event still open until 31 March 2023](#)

<https://ncp4industry.eu/industry-matchmaking-event-still-open-until-31-march-2023/>

# Apoyo al participante

Portal de eventos

- Acceso a **infodays y sesiones de 2022-23**. En especial contenidos en aspectos horizontales sobre preparación de las propuestas (parte A y parte B).

[https://eventos.cdti.es/ES/20230203\\_HE\\_Taller\\_cluster4industria](https://eventos.cdti.es/ES/20230203_HE_Taller_cluster4industria)

- Eventos específicos

- Sesión específica mecanismos de Lump sum.

- [https://eventos.cdti.es/ES/LosLunes\\_CDTI\\_SOST\\_Bruselas\\_sesion11](https://eventos.cdti.es/ES/LosLunes_CDTI_SOST_Bruselas_sesion11)

- **Brokerage events para apoyo a búsqueda de socios y preparación propuestas. Abierto hasta 31 de marzo. Ver en la web**



# Apoyo al participante

Eventos  
informativos y  
de apoyo al  
participante

- Taller CDTI apoyo a la preparación y resolución de dudas.
  - **3 de febrero (on line)**  
[https://eventos.cdti.es/ES/20230203\\_HE\\_Taller\\_cluster4industria](https://eventos.cdti.es/ES/20230203_HE_Taller_cluster4industria)
- **Infodays regionales CDTI con las agencias de las CCAA. Ver en [eventos.cdti.es](https://eventos.cdti.es)**
  - Cataluña, País Vasco, Castilla y León, C. Valenciana, Aragón. Galicia, Andalucía.
- **Web Horizonte Europa** <https://www.horizonteeuropa.es/> .  
*Servicio alertas RSS*

# Apoyo al participante

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## Clúster 4 – Industria



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+ info sobre programas y ayudas  
para la  
internacionalización de la I+D+I española



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