

#innovacion  
#ayudascdti  
#asesoramiento  
#internacionalizacion



@CDTIoficial

# Infoday Cluster 4 Industria

## Destino 2: Novedades y Recomendaciones

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# Horizonte Europa



## European Parliament and Council reached a common understanding on Horizon Europe on 19 March 2019

- Budget, synergies and third country association still pending, depending on the overall MFF negotiations
- Commission has started preparations for the implementation of Horizon Europe



# Nuevo Cluster, nuevos temas



## Cluster 4: Mundo digital, Industria y Espacio

### CLUSTER 4 Industria



MATERIAS  
PRIMAS

Industria  
DIGITAL

BIOTECNOLOGIA



# Nueva Agencia : HaDEA

Operativa : 1 Abril 2021



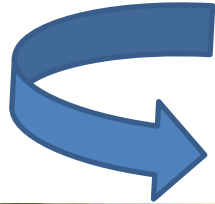


HaDEA will implement the following programmes (with indicative budgets):

- **EU4Health programme:** €51 billion
- **Horizon Europe: Pillar II, Cluster 1:** Health: €4.8 billion
- **Single Market Programme:** Food safety: health for humans, animals and plants along the food chain and better training for safer food: €1.3 billion
- **Digital Europe Programme:** €0.8 billion
- **Connecting Europe Facility:** Digital: €1.7 billion
- **Horizon Europe: Pillar II, cluster 4:** Digital, Industry and Space: €5.5 billion

+ Legacy: *financial commitments and projects from the predecessor programmes*

# Green Deal



## EU Taxonomy for sustainable Finance



*En las propuestas*

***“Do not significant harm”***

Compliance needs to be assessed both for activities carried out during the course of the project as well as the expected life cycle impact of the innovation at a commercialisation stage (where relevant).



# Estandarización



- Importante rol de la estandarización
- Más liderazgo en el establecimiento de standards (Estrategia EU)



- **Incluir en propuestas**
- Creciente nº topics mención explícita (todos MiE)

# Skills

*The EU needs a skills revolution to ensure people can thrive in the green and digital transitions, and to help in the recovery from the coronavirus pandemic.*



- Objetivo de los partenariados.  
Ej. MiE “Attractive value-added manufacturing jobs”



- Mención en topics: “A **strategy** for **skills development** should be presented, associating social partners when relevant”
- Actividades a incorporar en la propuesta



# Cooperación Internacional

INCO recomendada en alto número de topics en D2 (e Industria).

Pero aparecen restricciones:

## Raw Materials :

<i>Eligibility conditions:</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>In order to achieve the expected outcomes, and safeguard the Union's strategic assets, interests, autonomy, or security, namely to increase EU resilience in raw materials supply chains for EU industrial value chains and strategic sectors to enable their green and digital transition and to reduce current EU over-dependence on a few third countries for critical raw materials by boosting domestic production of primary and secondary raw materials, participation to the call is limited to legal entities established in Member States, associated countries, OECD countries, African Union Countries, and MERCOSUR, CARIFORUM, and Andean Community.</p> <p>Proposals including entities established in countries outside the scope specified in the topic/call/action will be ineligible.</p>
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## Open Strategic Autonomy

Reducir dependencia de terceros en sectores estratégicos

# Cooperación Internacional

INCO recomendada en alto número de topics en D2 (e Industria).  
Pero aparecen restricciones:

## Advanced Materials:

*“The topic is open for international cooperation where the EU has reciprocal benefit.”*

*“The 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.”*

*“Report on the protection and enforcement of intellectual property rights in third countries’, SWD(2019)452 final/2*



# Más impacto: Clustering

- Cooperación entre proyectos ➡ **Aumentar IMPACTO**

“Actions should envisage **clustering activities** with other relevant selected projects for cross-projects cooperation, consultations and joint activities on cross-cutting issues and share of results as well as participating joint meetings and communication events”



- Se deben incluir acciones - concretas y planificadas
- Reservar recursos



# Sinergias dentro y fuera de HorizonEurope

**Otros clusters :**  
Cluster 5

**EIT:**  
Manufacturing,  
Raw Materials

**Otros pilares de HE:**  
European Innovation  
Council

**Otros programas  
fuera de HE:**  
Digital Europe,  
European Social  
Fund, etc.

**CLUSTER 4**

# Plan de Explotación y Business Case

- “**For TRLs 7-8**, a credible strategy to achieve future full-scale manufacturing in the EU is expected, indicating the commitments of the industrial partners after the end of the project”.
  - **Business case**: Obligatorio solo para los topics marcados
- ↓
- Estrategia de explotación realista : **Identificar obstáculos**, requisitos y acciones necesarias para alcanzar TRLs más altos: cadenas de valor, integradores industriales, aceptación consumidor, etc.



→ Estandarización  
→ Regulación  
→ Inversión, etc.

# Involucrar a la sociedad

- Comunicación de la ciencia a la sociedad.
- Involucrar a diferentes stakeholders
- Topics SSH ; innovación social



Mención en **topics**: “Proposals should take into account issues of accessibility and inclusivity, such as age, gender, disability, and socio-economic background.” Raw Materials

**Evaluación (Excellence)**: the quality of open science practices including .... engagement of citizens, civil society and end users where appropriate.



# Conclusiones

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La agenda política se refleja, no solo en los topics, sino también en la forma de presentar y evaluar las propuestas.

Novedades: principio de no perjuicio (DNSH) , restricciones a la cooperación internacional.

Maximizar el impacto logrado en el proyecto: colaboración, explotación, impacto social, etc.

# Programa de Trabajo 2021-22

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**Horizon Europe**

**Work Programme 2021-2022**

**7. Digital, Industry and Space**

**DISCLAIMER**

This draft has not been adopted or endorsed by the European Commission. Any views expressed are the preliminary views of the Commission services and may not in any circumstances be regarded as stating an official position of the Commission. The information transmitted is intended only for the Member State or entity to which it is addressed for discussions and may contain confidential and/or privileged material.

**BORRADOR**

Disponible en el Portal de  
Transparencia de la CE



<https://ec.europa.eu/transparency/expert-groups-register/core/api/front/document/49271/download>

## Destination 2: Increased autonomy in key strategic value chains for resilient industry

### Raw Materials



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

### Advanced Materials



### Green and Sustainable Materials

Materials for the benefit of **society and the environment** and materials for decarbonising Industry

Materials and data cross-cutting actions

### Value Chains - Business



Novel paradigms to establish **resilient** and **circular value chains**

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



## Novel paradigms to establish resilient and circular value chains

2021

Información  
PROVISIONAL

HORIZON-CL4-2021-RESILIENCE-01-01

TRL 3-6 8-9 M€

Ensuring circularity of composite materials(RIA)

2022

H-CL4-2022-RESILIENCE-01-01

Circular and low emission value chains through digitalisation (RIA)



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

Asegurar un suministro de MMPP seguro, sostenible y responsable



Investigación e innovación a lo largo de toda la cadena de valor:





2021

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

Información  
PROVISIONAL

HORIZON-CL4-2021-RESILIENCE-01-03

Hasta TRL 3-5 13,5M€

Identifying future availability of secondary raw materials (RIA)

HORIZON-CL4-2021-RESILIENCE-01-04

Hasta TRL 6-7 12 M€

Developing climate-neutral and circular raw materials (IA)

HORIZON-CL4-2021-RESILIENCE-01-05

8 M€

Building EU-Africa partnerships on sustainable raw materials value chains (CSA)





2021

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

Información  
PROVISIONAL

**HORIZON-CL4-2021-RESILIENCE-01-06**

Hasta TRL 3-5 7,5M€

Innovation for responsible EU sourcing of primary raw materials, the foundation of the Green Deal (RIA)

**HORIZON-CL4-2021-RESILIENCE-01-07**

Hasta TRL 6-7 12 M€

Building innovative value chains from raw materials to sustainable products (IA)



## Raw Materials

H-CL4-2022-RESILIENCE-01-02

Monitoring and supervising system for exploration and future exploitation activities in the **deep sea** (RIA)

H-CL4-2022-RESILIENCE-01-03

Streamlining cross-sectoral policy framework throughout the extractive life-cycle in environmentally protected areas (CSA)

H-CL4-2022-RESILIENCE-01-04

Developing **digital platforms** for the small scale extractive industry (IA)

H-CL4-2022-RESILIENCE-01-05

Technological solutions for **tracking raw material flows** in complex supply chains (RIA)

H-CL4-2022-RESILIENCE-01-06

Sustainable and innovative **mine of the future** (IA)

H-CL4-2022-RESILIENCE-01-07

Innovative solutions for efficient use and enhanced **recovery** of mineral and metal by-products from processing of raw materials (IA)

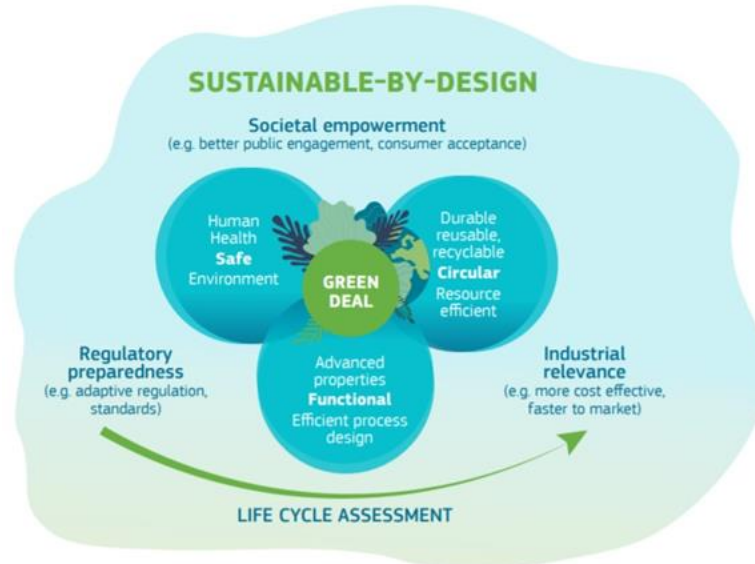
H-CL4-2022-RESILIENCE-01-08

**Earth observation** technologies for the mining life cycle in support of EU autonomy and transition to a climate-neutral economy (RIA)

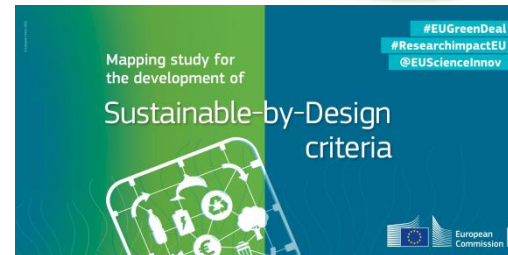
# Sustainable-by-Design



[https://ec.europa.eu/environment/strategy/chemicals-strategy\\_en](https://ec.europa.eu/environment/strategy/chemicals-strategy_en)



<https://ec.europa.eu/eusurvey/runner/9c66713d-15e4-b8ea-36b4-d5d1d8b471db>





## Green and Sustainable Materials

2021

Información  
PROVISIONAL

HORIZON-CL4-2021-RESILIENCE-01-08

3-4 M€

Establishing EU led international community on safe- and **sustainable-by-design** materials to support embedding **sustainability** criteria over the **life cycle of products** and processes (CSA)

HORIZON-CL4-2021-RESILIENCE-01-11

TRL 3-5 4-5 M€

Safe- and sustainable-by-design **polymeric materials** (RIA)

HORIZON-CL4-2021-RESILIENCE-01-12

TRL 3-5 4-5 M€

Safe- and sustainable-by-design **metallic coatings and engineered surfaces** (RIA)



## Green and Sustainable Materials

2021

Información  
PROVISIONAL

HORIZON-CL4-2021-RESILIENCE-01-09

TRL 5-7 7-10 M€

Promote Europe's availability, affordability, sustainability and security of supply of essential chemicals and materials (IA)

HORIZON-CL4-2021-RESILIENCE-01-10

TRL 3-6 5-7 M€

Paving the way to an increased share of recycled plastics in added value products (RIA)



2021

## Materials for the benefit of society and the environment and materials for decarbonising Industry

Información  
PROVISIONAL

HORIZON-CL4-2021-RESILIENCE-01-14

TRL 4-6 7-10M€

Development of more energy efficient electrically heated **catalytic reactors** (IA)

HORIZON-CL4-2021-RESILIENCE-01-16

Creation of an innovation community for solar fuels and chemicals (CSA) 3-4 M€

HORIZON-CL4-2021-RESILIENCE-01-17

Advanced materials for hydrogen storage (RIA)

TRL 3-5 4-6 M€

HORIZON-CL4-2021-RESILIENCE-01-20

Antimicrobial, Antiviral, and Antifungal **nanocoatings** (RIA)

TRL 3-6 4-6 M€







2022

Información  
PROVISIONAL

## Green and Sustainable Materials

H-CL4-2022-RESILIENCE-01-10

Innovative materials for advanced **(nano)electronic** components and systems (RIA)

H-CL4-2022-RESILIENCE-01-11

Advanced **lightweight** materials for energy efficient structures (RIA)

H-CL4-2022-RESILIENCE-01-12

Functional **multi-material** components and structures (RIA)

H-CL4-2022-RESILIENCE-01-23

Safe- and sustainable-by-design **organic and hybrid coatings** (RIA)

### Materials for the benefit of society...

H-CL4-2022-RESILIENCE-01-13

Smart and multifunctional **biomaterials** for health innovations (RIA)

H-CL4-2022-RESILIENCE-01-14

**Membranes** for gas separations - membrane distillation (IA)

H-CL4-2022-RESILIENCE-01-16

Building and renovating by exploiting advanced materials for energy and resources efficient management (IA)

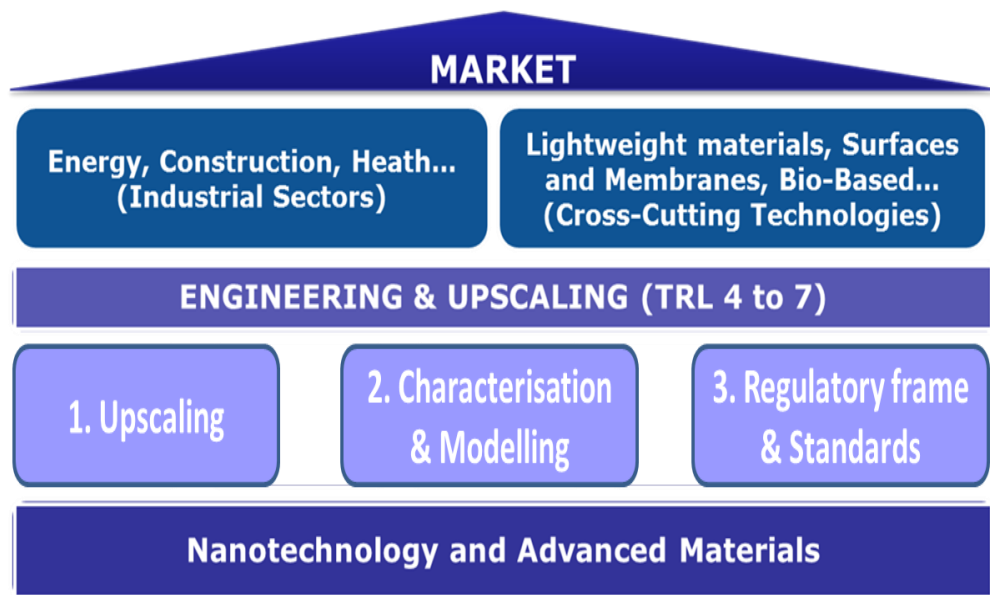
H-CL4-2022-RESILIENCE-01-24

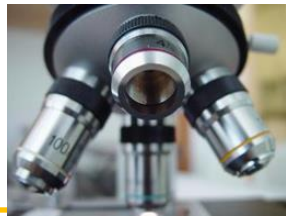
Novel materials for **supercapacitor** energy storage (RIA)

# Ecosistemas de la Innovación

- Llegada a mercado de las tecnologías
- Reducir barreras tecnológicas y no tecnológicas

**COLABORACION**





## Materials and data cross-cutting actions

2021

Información  
PROVISIONAL

HORIZON-CL4-2021-RESILIENCE-01-25

2-4 M€

**Biomaterials database** for Health Applications (CSA)

HORIZON-CL4-2021-RESILIENCE-01-26

TRL 3-6 2-4 M€

Sustainable **Industry Commons** (RIA)

2022

H-CL4-2022-RESILIENCE-01-19

Advanced materials **modelling** and **characterisation** (RIA)

H-CL4-2022-RESILIENCE-01-20

Climate Neutral and Circular Innovative Materials Technologies Open Innovation **Test Beds** (IA)

H-CL4-2022-RESILIENCE-01-12

Optimised Industrial Systems and Lines through digitalisation (IA)



## Improving the resilience and preparedness of EU businesses, especially SMEs and Startups

**2021**

**Información  
PROVISIONAL**

**HORIZON-CL4-2021-RESILIENCE-01-27**

Innovation Radar, Tech Due Diligence and Venture Building for strategic digital technologies (CSA)

2,5-4 M€



**HORIZON-CL4-2021-RESILIENCE-01-28**

Re-opening industrial sites preparatory action – Promoting a sustainable strategy for Europe's industrial future (CSA)

1 M€

**HORIZON-CL4-2021-RESILIENCE-01-29**

'Innovate to transform' support for SME's sustainability transition (CSA)

5 M€



## Improving the resilience and preparedness of EU businesses, especially SMEs and Startups

**Información  
PROVISIONAL**

**HORIZON-CL4-2021-RESILIENCE-01-31**

**3-5 M€**

European Technological and Social Innovation Factory (RIA)

**HORIZON-CL4-2021-RESILIENCE-01-32**

**10 M€**

Social and affordable housing district demonstrator (IA)

**2022**

**H-CL4-2022-RESILIENCE-01-21**

Leveraging standardisation in Digital Technologies (CSA)

# Pre-commercial procurement (PCP) call

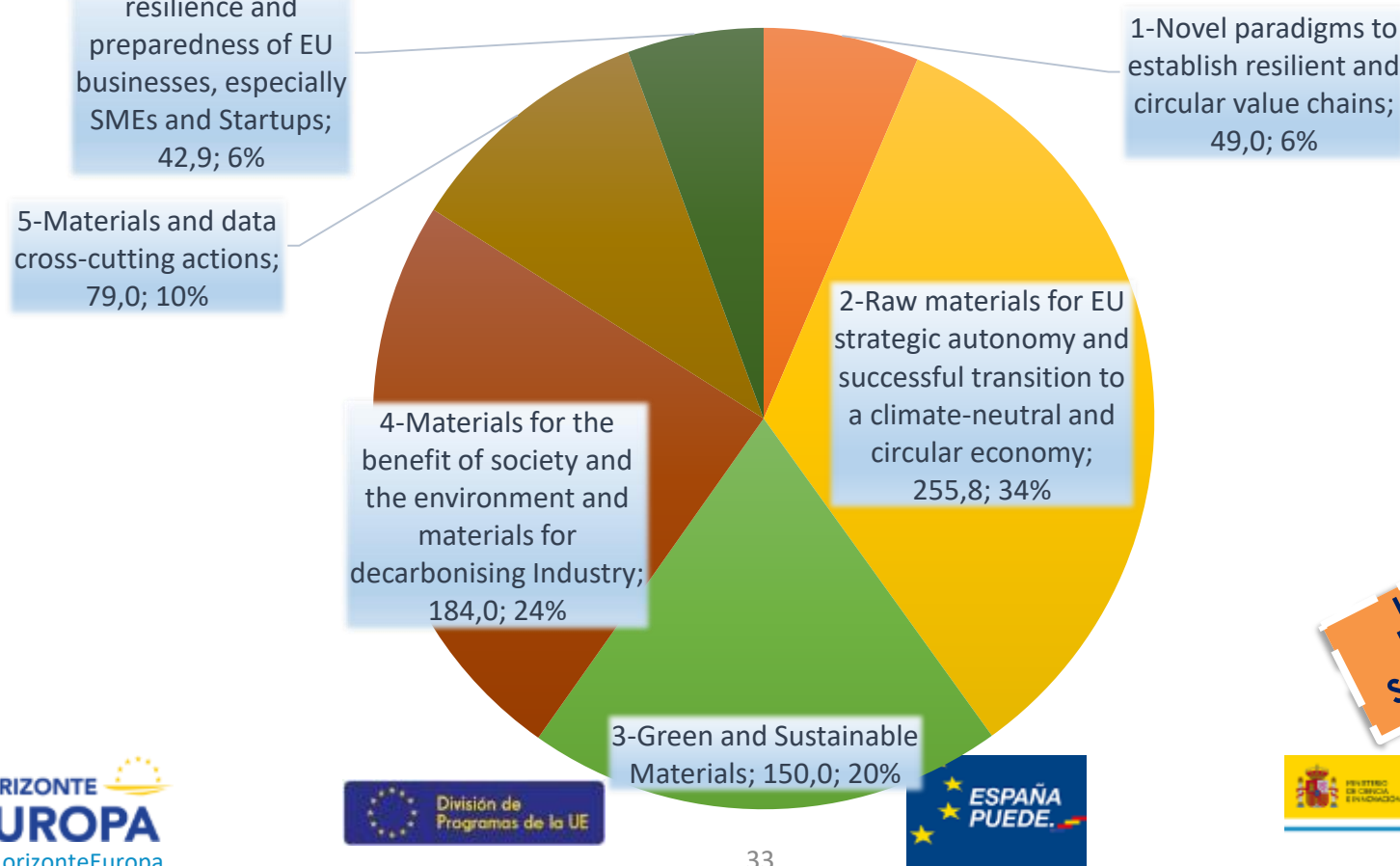
Información  
PROVISIONAL

HORIZON-CL4-2022-RESILIENCE-02-01-PCP

Boosting green economic recovery and strategic autonomy in Strategic Digital Technologies through **pre-commercial procurement (PCP action)**



## Destination 2. Wp 2021-2022 Sections (M€;%)



**Información  
PROVISIONAL  
Sujeta a cambios**

EUROPEAN  
RAW MATERIALS  
ALLIANCE | ERMA


Raw materials and advanced  
materials are the key enablers  
of the green energy transition



EIT RawMaterials is supported by the EIT,  
a body of the European Union



# Aspectos prácticos

	Apertura	Cierre
Convocatoria 2021:	<del>Abril 2021</del>	<b>Septiembre 2021</b>
Convocatoria 2022:	Octubre 2021	<b>Marzo 2022</b>
Evaluación en fase única		

**Información  
PROVISIONAL  
Sujeta a cambios**



- Nuevos documentos: Plantilla nueva!
- 45 páginas máximo

# Más información

<http://www.horizonteeuropa.es>



- Listas de distribución CDTI:



# Para buscar socios

Virtual Brokerage Event - Cluster 4 Industry: **29 de junio**  
EEN Madrid , Materplat, CDTI



<https://cluster4industry.b2match.io/>

# 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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