

#innovacion  
#financiacion  
#asesoramiento  
#internacionalizacion



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## CONVOCATORIAS 2019 RETO SOCIAL 5

Acción por el clima, medioambiente, eficiencia de los recursos y materias primas

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PNC Reto Social 5

 @JCGarcia\_CDTI



Portal español del Programa Marco de Investigación e Innovación de la Unión Europea

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EL MARCO POLÍTICO

1

EL PROGRAMA DE TRABAJO

2

LOW CARBON

2.1

GREENING THE ECONOMY

2.2

OTROS ASPECTOS A TENER EN CUENTA EN RS5

3

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**OTROS ASPECTOS A TENER EN CUENTA EN RS5**

**3**



# GRANDES OBJETIVOS A NIVEL GLOBAL



**PARIS2015**  
UN CLIMATE CHANGE CONFERENCE  
**COP21·CMP11**



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# LA COP21

- Hasta 2030 reducir al menos un 40% emisión gases efecto invernadero respecto 1990
- Hasta 2030 al menos un 27% de energías renovables
- Hasta 2030 al menos un 27% de mejora energética
- Interconexiones de electricidad de al menos un 10% en 2020 y 15% en 2030, especialmente en Estados Bálticos y Península Ibérica

## EN ESPAÑA ESTO SE TRADUCE EN

- Disminución de un 26% hasta 2030 en sectores difusos ( no sujetos a derechos de emisiones)

# Los SDGs- EL WP

## LOW CARBON



## GREENING THE ECONOMY





# LAS FOCUS AREAS



Building a low-carbon, climate resilient future



Connecting economic and environmental gains-the Circular Economy

# LOW CARBON-OBJETIVOS

- Producir soluciones para conseguir los objetivos de la COP21
- Generar conocimiento científico relevante para la implementación de las “Nationally Determined Contributions” (NDCs)
- Dar soporte a políticas relevantes de la UE: Energy Union, Arctic policy, EU Adaptation Strategy
- Cooperación con socios estratégicos (países/regiones)
- Comunicación de los resultados de investigación a una mayor audiencia, incluyendo el público general.
- Apoyo a la implementación de los SDGs



# LOW CARBON

**Industrial technologies (LEIT-NMBP):** topics in call 'Industrial Sustainability' (notably on **Energy Efficient Buildings** and **Clean Energy through Innovative Materials**), €271 million

**Space (LEIT-Space):** topics on **Earth Observation**, €82 million

**Food security (SC2):** some topics in calls '**Sustainable Food Security**', '**Blue Growth**' and '**Rural Renaissance**', €203 million

**Energy (SC3):** all topics in call '**Building a low-carbon, climate resilient future: secure, clean and efficient energy**', €1 953 million

**Transport (SC4):** all topics in call '**Green vehicles**' and some topics in call 'Mobility for Growth' ('**Low-carbon and sustainable transport**'), €408 million

**Climate (SC5):** all topics in call '**Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement**', €426 million



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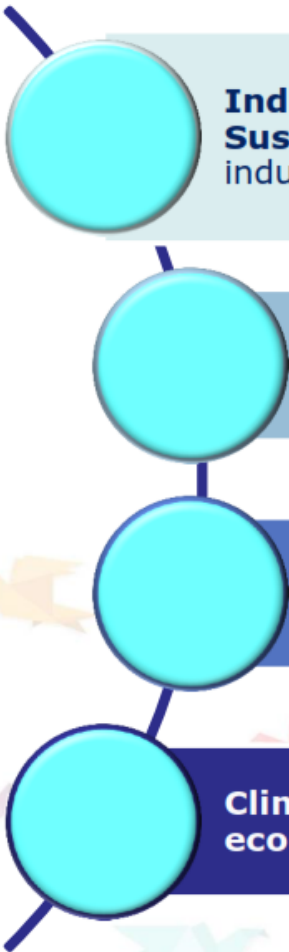
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# CIRCULAR ECONOMY-OBJETIVOS

- Integración de la producción, consumo, gestión de residuos y materias primas
- Asegurar un desacoplamiento entre el crecimiento económico y el consumo de recursos, energía, agua y materias primas primarias
- Minimización de vertidos
- Mejorar la competitividad industrial
- Oportunidades de nuevos negocios
- “Servitización” de la economía



# CIRCULAR ECONOMY



**Industrial technologies (LEIT-NMBP):** topics in call 'Industrial Sustainability' (notably **Sustainable Process Industry** and **Catalysing the Circular Economy**); and in industrial biotechnology: €370 million

**Food security and Bioeconomy (SC2):** topics in calls 'Sustainable Food Security', 'Blue Growth' and 'Rural Renaissance', including **access to risk finance**: €253 million

**Energy (SC3):** Carbon dioxide reuse: €12 million

**Climate, Environment and Raw Materials (SC5):** topics in call '**Greening the economy in line with the SDGs**' – circular economy and raw materials: €306 million



# OTRAS POLÍTICAS- NIVEL GLOBAL



UN World Conference on  
Disaster Risk Reduction  
2015 Sendai Japan



**United Nations**  
Framework Convention on  
Climate Change



**UNISDR**

Oficina de las Naciones Unidas para la Reducción  
del Riesgo de Desastres



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# OTRAS POLÍTICAS- NIVEL EUROPEO



## EIP Water

Boosting opportunities – Innovating water



2018   
EUROPEAN YEAR  
OF CULTURAL  
HERITAGE  
#EuropeForCulture



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# ESTRUCTURA WP 2018-2020

## **Call-Building a low-carbon, climate resilient future: climate action in support of Paris Agreement**

- **Decarbonization**
- **Climate adaptation, impacts and services**
- **Inter-relation between climate change, biodiversity and ecosystem services**
- **The Cryosphere**
- **Knowledge gaps**

**Protecting and leveraging the value of our natural and cultural assets**

## **Call-Greening the economy in line with the Sustainable Development Goals (SDGs)**

- **Connecting economic and environmental gains – the circular economy**
- **Raw materials**
- **Water for our environment, economy and society**
- **Innovating cities for sustainability and resilience**
- **Earth observation**
- **Nature-based solutions, disaster risk reduction and natural capital accounting**
- **Heritage alive**

# ESTRUCTURA WP 2018-2020

**Call-Building a low-carbon,  
climate resilient future:  
climate action in support of  
Paris Agreement**

- Decarbonization
- Climate adaptation, impacts and services
- Inter-relation between climate change, biodiversity and ecosystem services
- The Cryosphere
- Knowledge gaps

**Protecting and leveraging the value  
of our natural and cultural assets**

**Call-Greening the economy in  
line with the Sustainable  
Development Goals (SDGs)**

- Connecting economic and environmental gains – the circular economy
- Raw materials
- Water for our environment, economy and society
- Innovating cities for sustainability and resilience
- Earth observation
- Nature-based solutions, disaster risk reduction and natural capital accounting
- Heritage alive

# BUILDING A LOW-CARBON, CLIMATE RESILIENT FUTURE: CLIMATE ACTION IN SUPPORT OF THE PARIS AGREEMENT



PARIS2015  
UN CLIMATE CHANGE CONFERENCE  
COP21·CMP11



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# DECARBONISATION

LC-CLA-02-2019.- Negative emissions and land-use based mitigation assessment

- a) Feasibility of negative emissions for climate stabilisation
- b) Land-based mitigation

RIA  
5 y 7 m€



# DECARBONISATION

LC-CLA-02-2019.- Negative emissions and land-use based mitigation assessment

- a) Feasibility of negative emissions for climate stabilisation
  - I. Assess potential, effectiveness of existing and emerging negative emission technologies and practices and their impact on ecosystems
- b) Land-based mitigation



# DECARBONISATION

LC-CLA-02-2019.- Negative emissions and land-use based mitigation assessment

- a) Feasibility of negative emissions for climate stabilisation
- b) Land-based mitigation
  - I. Analysis of various land-use based mitigation options at the global and regional level, assessing their potential and effectiveness in reduction of greenhouse gases





LC-CLA-05-2019.- Human dynamics of climate change

- a) Climate services for Africa
- b) Climate and human migration

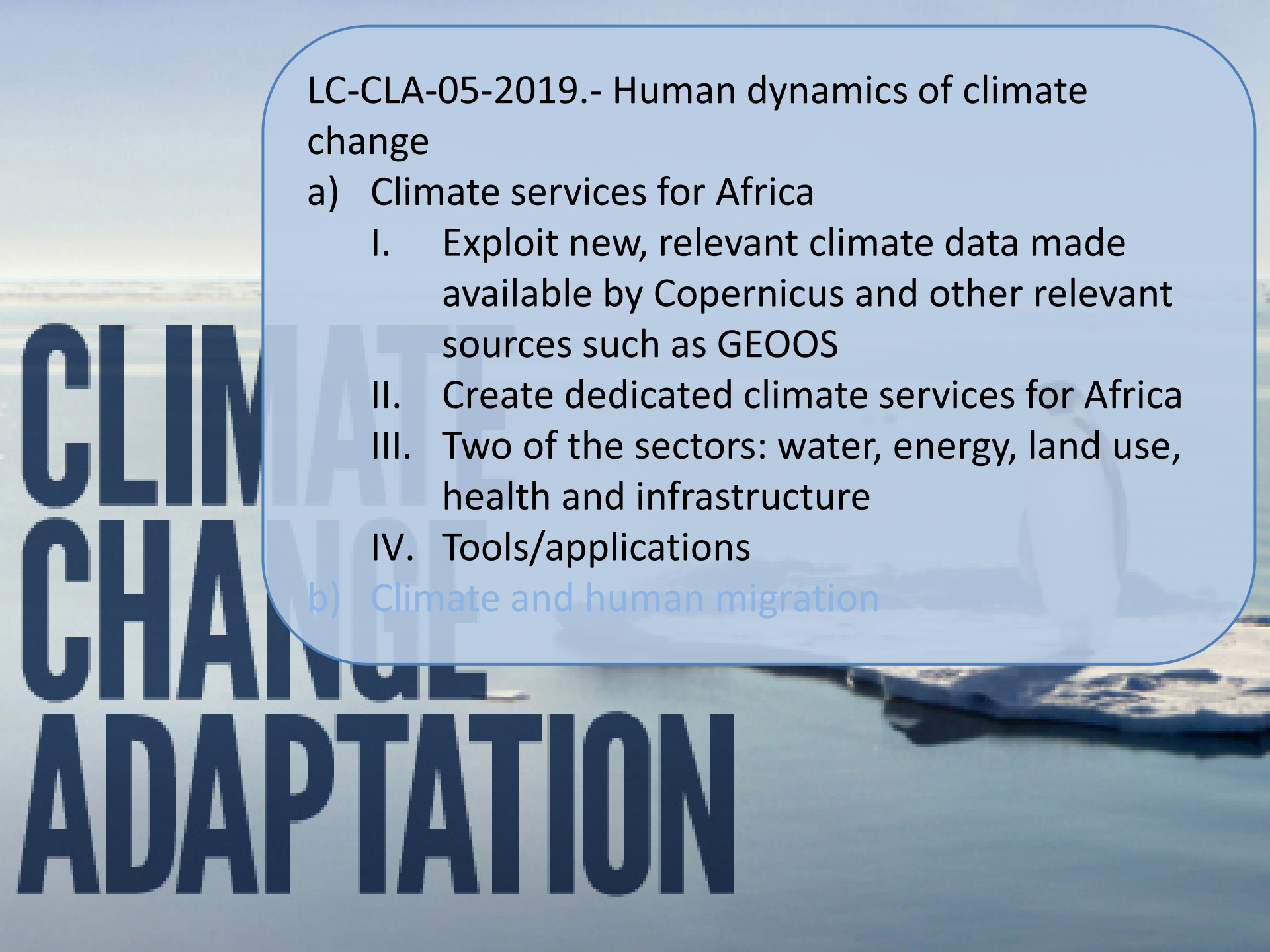
RIA

5 y 7 m€

**CLIMATE  
CHANGE  
ADAPTATION**







# CLIMATE CHANGE ADAPTATION

LC-CLA-05-2019.- Human dynamics of climate change

a) Climate services for Africa

- I. Exploit new, relevant climate data made available by Copernicus and other relevant sources such as GEOOS
- II. Create dedicated climate services for Africa
- III. Two of the sectors: water, energy, land use, health and infrastructure
- IV. Tools/applications

b) Climate and human migration

LC-CLA-05-2019.- Human dynamics of climate change

a) Climate services for Africa

b) Climate and human migration

I. Identify and analyse drivers relating to climate change that may affect human migration

II. Provide guidelines and policy recommendations for the European Agenda on Migration

CLIMATE  
CHANGE  
ADAPTATION



## LC-CLA-06-2019.- Inter-relations between climate change, biodiversity and ecosystem services

- I. Investigate at all relevant spatial and temporal scales ways that ecological processes and ecosystems services are impacted by climate change

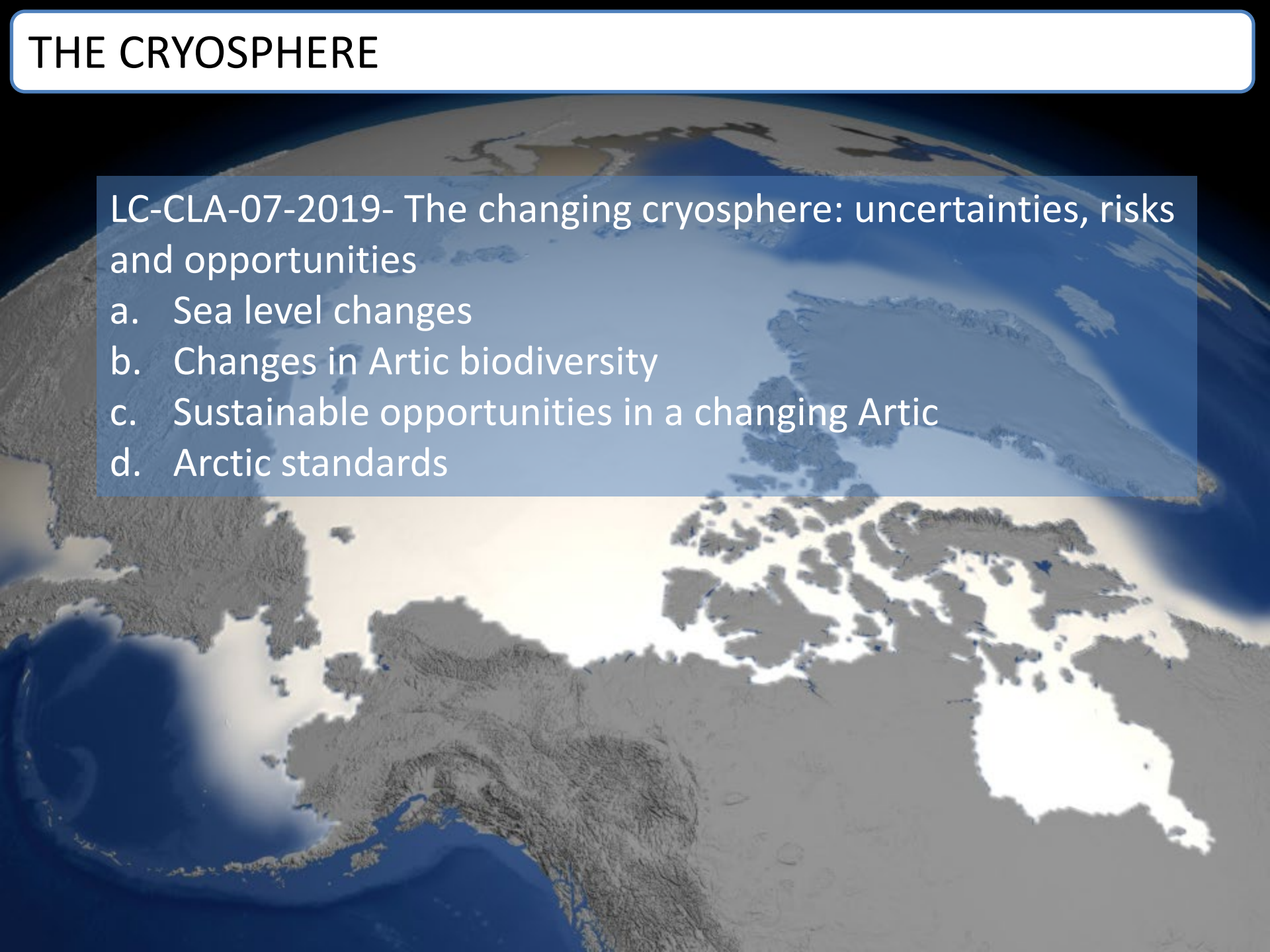


RIA  
5 y 7 m€

# THE CRYOSPHERE

LC-CLA-07-2019- The changing cryosphere: uncertainties, risks and opportunities

- a. Sea level changes
- b. Changes in Arctic biodiversity
- c. Sustainable opportunities in a changing Arctic
- d. Arctic standards





# THE CRYOSPHERE

LC-CLA-07-2019- The changing cryosphere: uncertainties, risks and opportunities

- a. Sea level changes
  - l. Assess the processes controlling changes to global ice mass balance
- b. Changes in Arctic biodiversity
- c. Sustainable opportunities in a changing Arctic
- d. Arctic standards

RIA  
8 y 10 m€

# THE CRYOSPHERE

LC-CLA-07-2019- The changing cryosphere: uncertainties, risks and opportunities

- a. Sea level changes
- b. Changes in Arctic biodiversity
  - I. Identify and analyse major drivers of changing biodiversity in the Arctic
  - II. Assess ecosystems' responses to both external and internal factors
- c. Sustainable opportunities in a changing Arctic
- d. Arctic standards

RIA

5 y 6 m€



# THE CRYOSPHERE

LC-CLA-07-2019- The changing cryosphere: uncertainties, risks and opportunities

- a. Sea level changes
- b. Changes in Arctic biodiversity
- c. Sustainable opportunities in a changing Arctic
  - i. Assess the viability of new economic activities (resource exploitation, shipping, tourism...) and ecological/socio-economic impacts
- d. Arctic standards

RIA

5 y 6 m€



# THE CRYOSPHERE

LC-CLA-07-2019- The changing cryosphere: uncertainties, risks and opportunities

- a. Sea level changes
- b. Changes in Arctic biodiversity
- c. Sustainable opportunities in a changing Arctic
- d. Arctic standards
  - I. Propose guidelines and protocols to develop “Arctic standards” including legal framework.
  - II. Cover technologies and services with high potential to bring social and economic benefits

CSA 2 m€

# DEADLINES Y CONDICIONES ADICIONALES

| TOPICS                 | DEADLINES  |
|------------------------|------------|
| LC-CLA-07-2019 (CSA)   | 19/02/2019 |
| Resto (RIAS) 1st stage | 19/02/19   |
| 2nd stage              | 04/09/19   |

| TOPICS                                         | Condiciones adicionales                          |
|------------------------------------------------|--------------------------------------------------|
| LC-CLA-05-2019 (human dynamic climate changes) | Al menos 3 participantes de dos países africanos |
| LC-CLA-07-2019 (changing cryosphere)           | Al menos 2 participantes de terceros países      |

# GREENING THE ECONOMY



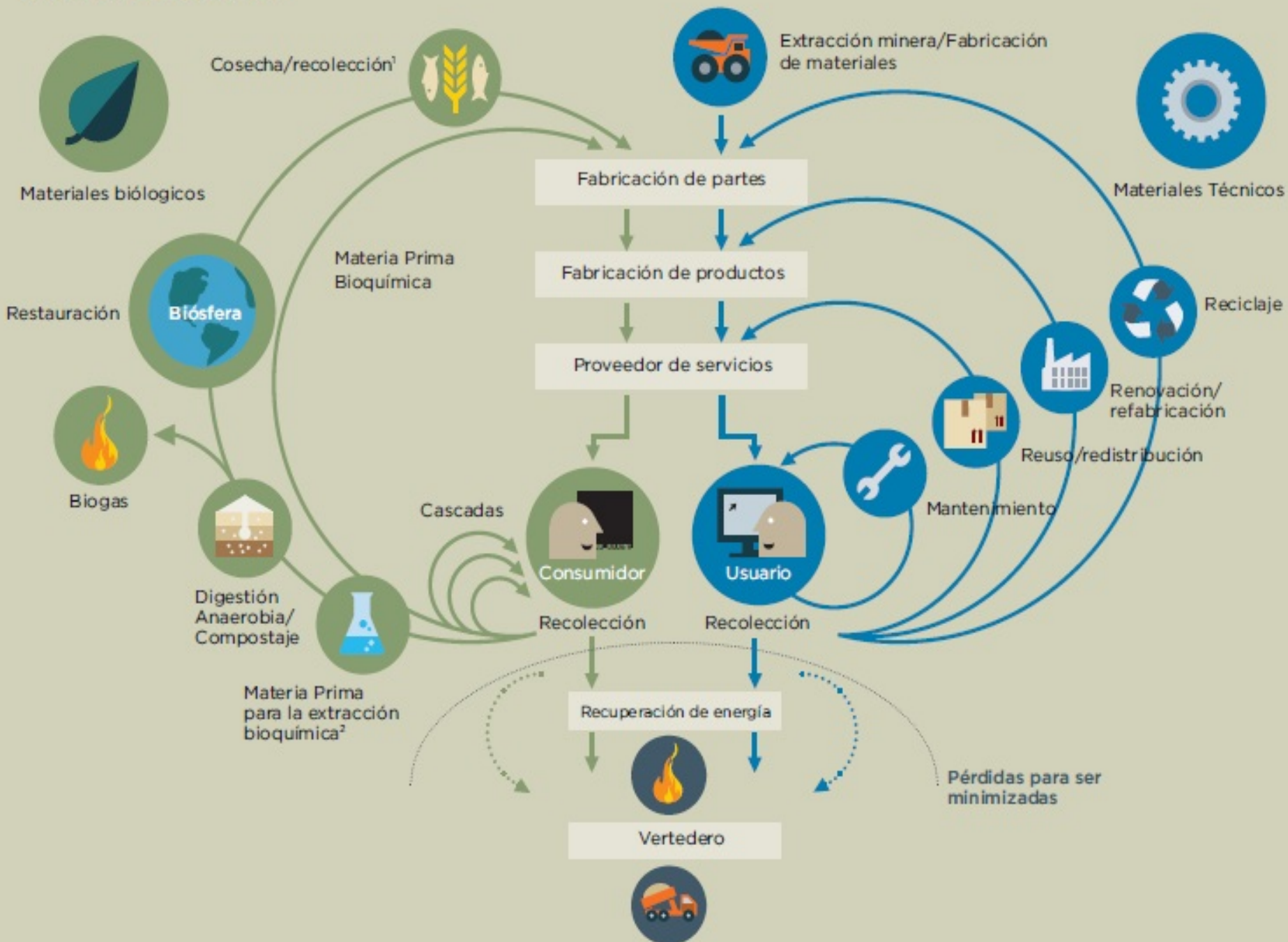


CONNECTING ECONOMIC AND ENVIRONMENTAL GAINS

# **CIRCULAR ECONOMY**



# Una economía circular





# EL PAQUETE **CIRCULAR ECONOMY**

- Propuesta legislativa en vertidos: reciclaje 65% (70%) / reciclaje embalajes 75% / Valorización energética / Máx. vertedero 10% (5%)
- Plan de eco-diseño 2016-2019
- Estrategia para reutilización de **agua**
- Estrategia en **plásticos**
- Creación de la Plataforma **Financiación** de la Economía Circular
- Creación de la plataforma **Food Losses and Food Waste**
- **Paquete Industry 2020 in the Circular Economy**
- **Innovation Deals**

# EL PAQUETE **CIRCULAR ECONOMY**

- Propuesta legislativa en **venta on-line**
- Propuesta legislativa en **fertilizantes**
- Protocolo para los **residuos de construcción y demolición**
- Propuesta legislativa para restricción de uso de sustancias peligrosas en **equipamiento eléctrico y electrónico**
- Publicación de **guías**: Best Available Techniques Reference Documents (BREFs), Guía para la Compra Pública Verde, guía transporte vertidos, guía prácticas comerciales, etc

## CE-SC5-04-2019: Building a water-smart economy and society

- a) Symbiosis between industry and water utilities
- b) Large scale applications with multiple water users at various relevant scales

IA

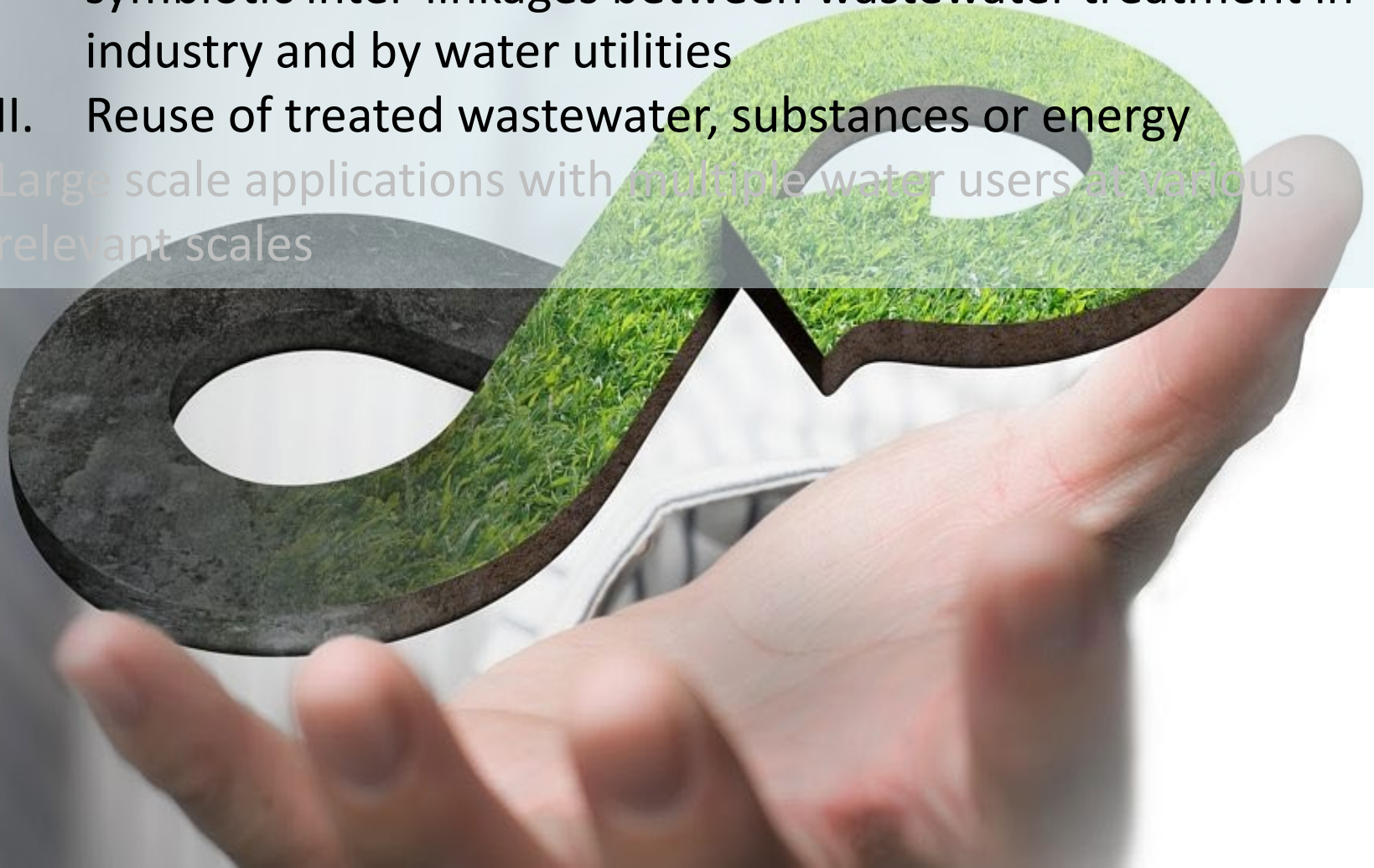
10 y 15 m€





## CE-SC5-04-2019: Building a water-smart economy and society

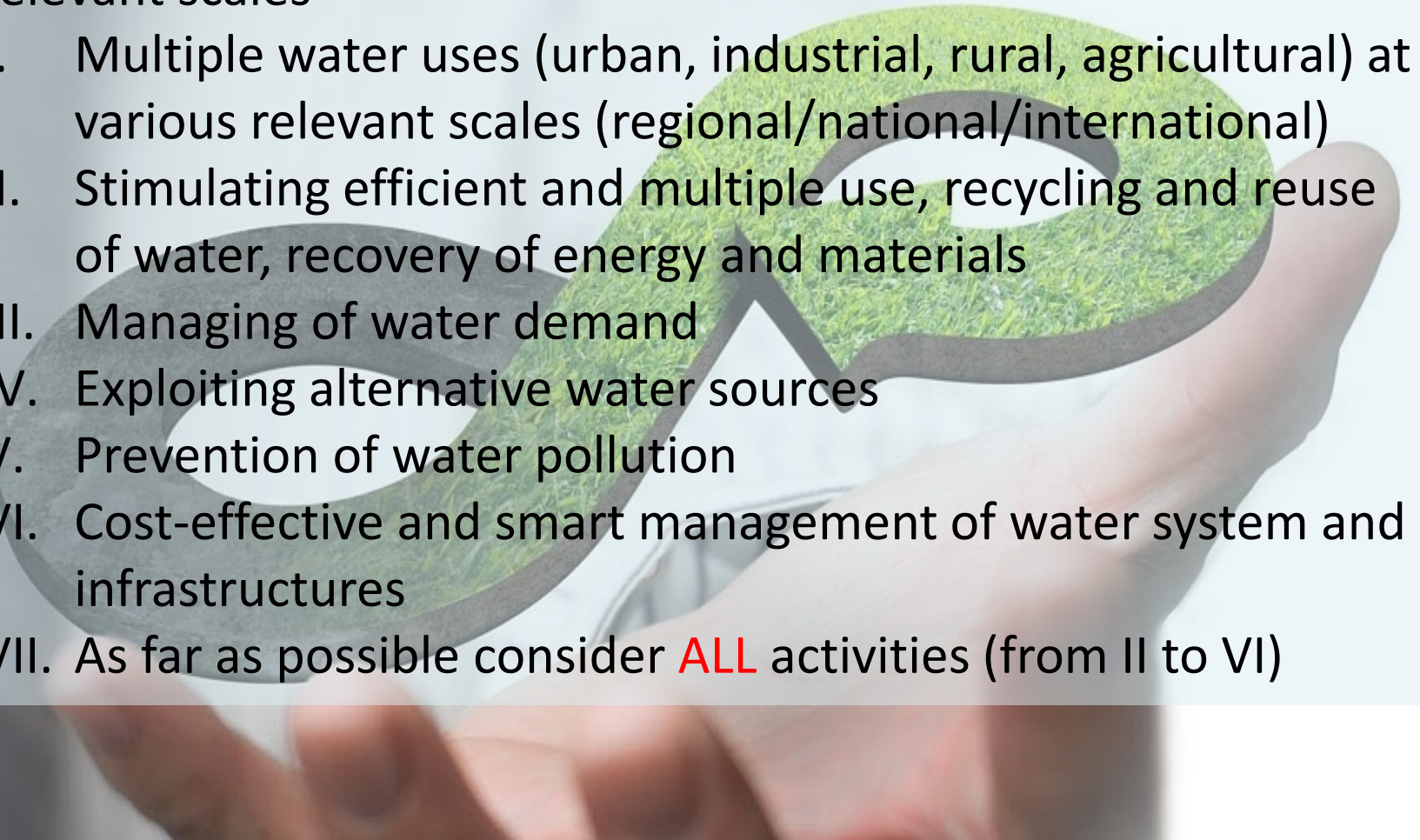
- a) Symbiosis between industry and water utilities
  - I. Resource-efficient solutions derived from exploitation of symbiotic inter-linkages between wastewater treatment in industry and by water utilities
  - II. Reuse of treated wastewater, substances or energy
- b) Large scale applications with multiple water users at various relevant scales



## CE-SC5-04-2019: Building a water-smart economy and society

a) Symbiosis between industry and water utilities

b) Large scale applications with multiple water users at various relevant scales

- I. Multiple water uses (urban, industrial, rural, agricultural) at various relevant scales (regional/national/international)
  - II. Stimulating efficient and multiple use, recycling and reuse of water, recovery of energy and materials
  - III. Managing of water demand
  - IV. Exploiting alternative water sources
  - V. Prevention of water pollution
  - VI. Cost-effective and smart management of water system and infrastructures
  - VII. As far as possible consider **ALL** activities (from II to VI)
- 





**RAW  
MATERIALS**

# RAW MATERIALS INITIATIVE Los 3 pilares

**Suministro  
justo y  
sostenible de  
RM de  
mercados  
globales**

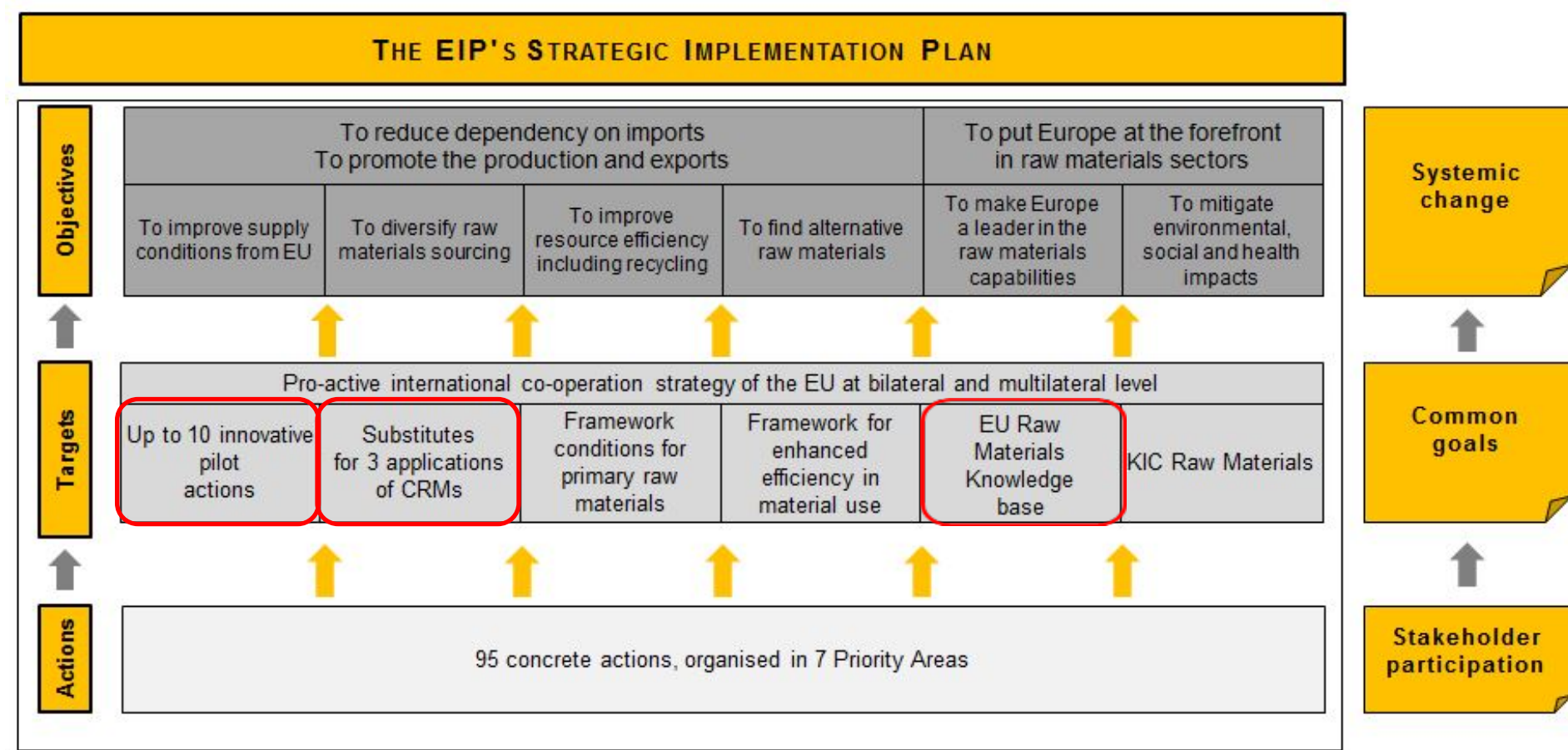
**Eficiencia  
recursos y  
suministro de  
RM  
secundarias  
mediante  
reciclado**

**Suministro  
sostenible  
de RM en la  
UE**

## CRITICAL RAW MATERIALS (CRM)

| SALEN                                                                           | ENTRAN         |
|---------------------------------------------------------------------------------|----------------|
| Cromo                                                                           | Barita         |
| Magnesita                                                                       | Bismuto        |
| Carbón de coque<br>(no llega al límite pero se queda en la lista por prudencia) | Hafnio         |
|                                                                                 | Helio          |
|                                                                                 | Caucho natural |
|                                                                                 | Fósforo        |
|                                                                                 | Escandio       |
|                                                                                 | Tantalio       |
|                                                                                 | Vanadio        |

## LA EIP on RAW MATERIALS







OVERVIEW



POLICY & LEGISLATION



TERMINOLOGY & LIBRARY



CRITICAL RAW MATERIALS



RM SCOREBOARD & OTHER  
MONITORING SYSTEMS



SECONDARY RAW MATERIALS &  
CIRCULAR ECONOMY



ENVIRONMENTAL & SOCIAL  
SUSTAINABILITY



ECONOMICS & TRADE



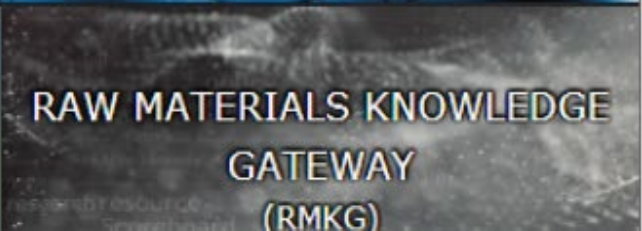
INDUSTRY & INNOVATION



RAW MATERIALS' PROFILES &  
SUPPLY CHAINS



COUNTRY PROFILES



RAW MATERIALS KNOWLEDGE  
GATEWAY  
(RMKG)

The background of the slide features a collection of various coins and metal rods, possibly from different countries or eras, arranged in a somewhat circular pattern. The coins are of different sizes and colors, including silver, gold, and copper. The metal rods are dark and cylindrical. The overall image has a soft, blurred effect, giving it a vintage or historical feel.

CE-SC5-07-2018-2019-2020: Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes

CE-SC5-08-2018-2019-2020: Raw materials policy support actions for circular economy

SC5-09-2018-2019: New solutions for sustainable production of raw materials

SC5-10-2019-2020: Raw materials innovation actions: exploration and Earth observation in support of mining

## CE-SC5-07-2018-2019-2020: Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes

- a. Sustainable processing and refining of primary and/or secondary raw materials(2018,2019)
  - I. Sistemas nuevos o mejorados sobre tecnologías de proceso y refino para recuperación de minerales y metales
- b. Recycling of raw materials from end-of-life products (2018,2019)
  - I. Reciclado y recuperación de materias primas secundarias de producto final
- c. Recycling of raw materials from buildings (2018,2019)
  - I. Recuperación de materias primas de edificios
- d. Advanced sorting systems for high-performance recycling of complex end-of-life (2018,2019)
  - I. Sistemas innovadores de desmantelado y clasificación que permitan reciclado y recuperación eficiente



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- c. **Recycling of raw materials from buildings (2018,2019)**
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  - I. Sistemas innovadores de desmantelado y clasificación que permitan reciclado y recuperación eficiente

## CE-SC5-08-2018-2019-2020: Raw materials policy support actions for the circular economy

- a. Voluntary scheme for certification of treatment facilities for key types of wastes (2018)
- b. Resource efficiency in wood processing, recovery and recycling (2018)
- c. Responsible sourcing of raw materials in global value chains (2019)
  - l. Global business and stakeholder platform for exchange of information

**CSA**  
**Hasta 3 m€**



## SC5-09-2018-2019: New technologies for the sustainable production of raw materials

- a. Breakthrough concepts and solutions for sustainable exploration, mining and/or processing (2018)
- b. Digital mine(2019)
- c. Recovery of metals and minerals from sea resources (2019)

**RIA**  
**3 y 7 m€**



## SC5-09-2018-2019: New technologies for the sustainable production of raw materials

- a. Breakthrough concepts and solutions for sustainable exploration, mining and/or processing (2018)
- b. **Digital mine(2019)**
  - I. Develop and Industrial Internet of Things (IoT) platform to **significantly** enhance efficiency of mining operations
- c. Recovery of metals and minerals from sea resources (2019)

## SC5-09-2018-2019: New technologies for the sustainable production of raw materials

- a. Breakthrough concepts and solutions for sustainable exploration, mining and/or processing (2018)
- b. Digital mine(2019)
- c. Recovery of metals and minerals from sea resources (2019)
  - l. Technological solutions for the processing of minerals and metals from sea resources, including seawater brines



SC5-10-2019-2020: Raw materials innovation actions:  
exploration and Earth observation in support of sustainable  
mining

- a. Integrated exploration solutions (2019)
- b. Services and products for the extractive industries life  
cycle(2019)

IA  
8 y 13 m€



SC5-10-2019-2020: Raw materials innovation actions:  
exploration and Earth observation in support of sustainable  
mining

a. Integrated exploration solutions (2019)

- I. Integrated exploration solutions focused on finding  
new deep land deposits
- II. Benefit from any of the advanced geological-  
geochemical-geophysical-remote sensing approaches

b. Services and products for the extractive industries life  
cycle(2019)

## SC5-10-2019-2020: Raw materials innovation actions: exploration and Earth observation in support of sustainable mining

a. Integrated exploration solutions (2019)

b. **Services and products for the extractive industries life  
cycle(2019)**

- I. Develop services and products based on Earth observation data and techniques for extractive industries life cycle
- II. Built upon information and data made available by the Copernicus Programme and other relevant Earth observation data





**Innovating cities for sustainability and resilience**



SC5-13-2018-2019: Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems

SC5-14-2019: Visionary and integrated solutions to improve well-being and health in cities



SC5-13-2018-2019: Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems

- I. Desarrollo de herramientas, sistemas de decisión, metodologías, guías, estándares para el despliegue y monitorización de NBS en restauración, prevención, rehabilitación y mantenimiento de áreas urbanas y periurbanas

- a. Strengthening EU-China collaboration (2018)
- b. Strengthening EU-CELAC collaboration (2019)

RIA  
5 m€



SC5-14-2019: Visionary and integrated solutions to improve well-being and health in cities

- I. Visionary and integrated solutions (e.g. therapy gardens, urban living rooms...) intersection social, cultural, digital and NB innovation to increase health and well-being

RIA  
10 m€

# Earth Observation

SC5-16-2019: Development of commercial activities and services through the use of GEOSS and Copernicus data

## a) Coordination of European innovators in the domain of Earth observation

CSA  
1 M€

- I. Foster the development and implementation of a collaborative and integrated European research and innovation strategy for mass market applications based on space and non-space EO

## b) Designing Earth observation services and products of the future, building on GEOSS and Copernicus assets

- I. Deliver solutions addressing citizens' needs and contributing to the development of new markets of products and services integrating EO with other data sources



# Earth Observation

SC5-16-2019: Development of commercial activities and services through the use of GEOSS and Copernicus data

a) Coordination of European innovators in the domain of Earth observation

I. Foster the development and implementation of a collaborative and integrated European research and innovation strategy for mass market applications based on space and non-space EO

b) **Designing Earth observation services and products of the future, building on GEOSS and Copernicus assets**

I. Deliver solutions addressing citizens' needs and contributing to the development of new markets of products and services integrating EO with other data sources

IA  
2-3 M€



# NATURE-BASED SOLUTIONS, DISASTER RISK REDUCTION AND NATURAL CAPITAL ACCOUNTING

SC5-23-2019: Multi-stakeholder dialogue platform to promote nature-based solutions to societal challenges: follow-up project

- I. To build upon the achievements of ThinkNature (ongoing CSA) to promote the design, development, replication and upscaling of NBS at the European and global scale
- II. Contactar con OPPLA y Biodiversa

CSA  
2 M€

# Heritage alive

SC5-20-2019: Transforming historic urban areas and/or cultural landscapes into hubs of entrepreneurship and social and cultural integration

- I. Reactivate and regenerate historic urban areas and/or cultural landscapes
- II. Foster innovation by relevant start-ups, cultural and creative industries, including digital sector

IA  
7 y 8 m€



## SPECIFIC SUPPORT AND IMPLEMENTATION ASPECTS

SC5-22-2019.- Assessing and fostering the impacts of Research and Innovation Actions (RIA) and Innovation Actions (IA) granted by Societal Challenge 5 in 2014-2015

- I. Assess the impacts of all the RIA and IA projects funded by SC5 under the 2014-2015 WP (87 projects in total)
- II. Análisis cuantitativo y cualitativo
- III. Aplicar metodología existente o desarrollar nueva

CSA  
0,6 M€

# CONDICIONES ESPECIALES DE ELEGIBILIDAD

| TOPICS                     |           | DEADLINES |
|----------------------------|-----------|-----------|
| CSAs                       |           | 19/02/19  |
| Resto (RIAS/IAs) 1st stage |           | 19/02/19  |
|                            | 2nd stage | 04/09/19  |



# CONDICIONES ESPECIALES DE ELEGIBILIDAD

| TOPICS                                                           | Condiciones adicionales                                                 |
|------------------------------------------------------------------|-------------------------------------------------------------------------|
| SC5-13-2018-2019 (NBS for urban ecosystems)                      | Al menos 3 participantes de CELAC                                       |
| SC5-14-2019 (well-being and health in cities)                    | Al menos 4 ciudades de diferentes MS o AS                               |
| SC5-20-2019 (historic urban areas into hubs of entrepreneurship) | Al menos 4 áreas históricas o paisajes culturales de diferentes MS o AS |

# CONDICIONES ESPECIALES DE FINANCIACIÓN

| TOPICs                                        | Condiciones especiales                                     |
|-----------------------------------------------|------------------------------------------------------------|
| SC5-14-2019 (well-being and health in cities) | Máximo de un 20% del presupuesto total en infraestructuras |

# SC5-14-2019-VISIONARY AND INTEGRATED SOLUTIONS TO IMPROVE WELL-BEING AND HEALTH IN CITIES

|                                      | Previo      |             | Modificación |             |
|--------------------------------------|-------------|-------------|--------------|-------------|
|                                      | Escenario A | Escenario B | Escenario C  | Escenario D |
| Presupuesto proyecto                 | 10.000.000  | 10.000.000  | 10.000.000   | 10.000.000  |
| Importe de infraestructuras          | 2.000.000   | 9.000.000   | 2.000.000    | 9.000.000   |
| Tipo de limitación                   | 20%         | 20%         | 20%          | 20%         |
| Imputado 100%                        | 2.000.000   | 9.000.000   |              |             |
| Financiado 20%                       | 400.000     | 1.800.000   |              |             |
| Importe máximo a imputar (20% total) |             |             | 2.000.000    | 2.000.000   |
| Financiado 100% imputado             |             |             | 2.000.000    | 2.000.000   |
| Financiado                           | 400.000     | 1.800.000   | 2.000.000    | 2.000.000   |
| Aportación Comisión                  |             |             |              |             |
| Empresas                             | 280.000     | 1.260.000   | 1.400.000    | 1.400.000   |
| Ayuntamientos                        | 400.000     | 1.800.000   | 2.000.000    | 2.000.000   |

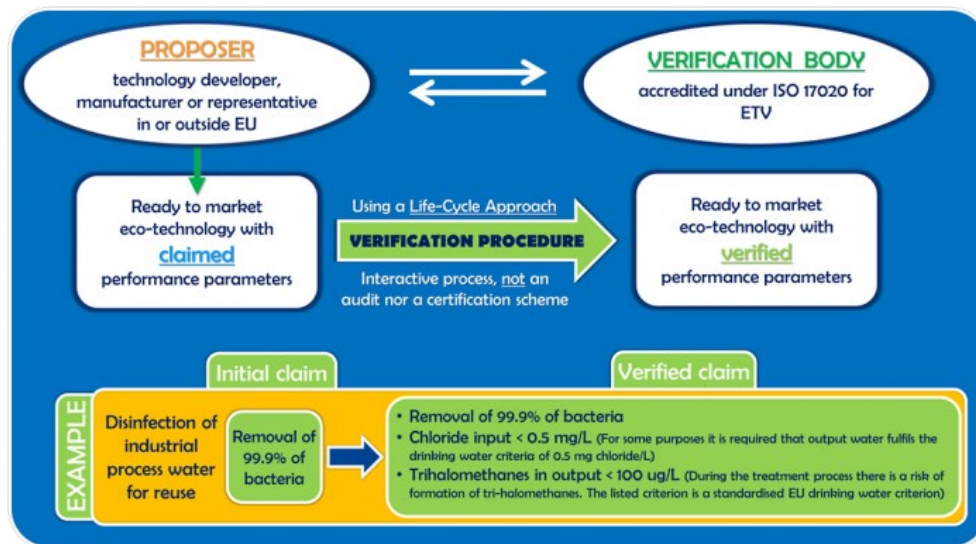
# OTROS ASPECTOS A TENER EN CUENTA EN RS5

3



# ENVIRONMENTAL TECHNOLOGY VERIFICATION (ETV) PILOT PROGRAMME

- ✓ Esquema voluntario de verificación para tecnologías que cumplan:
  - Tecnologías medioambientales innovadoras
  - Listas para lanzar al mercado (TRL >7)
  - Cuyas características, rendimientos no estén cubiertas por estándares o regulaciones
  - Dentro de los sectores: tratamiento y monitorización agua, energía, materiales, vertidos y recursos
- ✓ Validación independiente
- ✓ No es un esquema de certificación. Proporciona información que permite comparar con otras tecnologías
- ✓ Para SMEs





# THE GREEN BEST PRACTICE COMMUNITY



An expert-reviewed knowledge base of best practices for 11 sectors



# THE GREEN BEST PRACTICE COMMUNITY

## From BEMP reports to an online tool & community



### **Development of an on-line tool to:**

- *make it is easy to find relevant best practices*
- *allow all stakeholders to propose best practices and case studies*
- *interact as a community*
- *discuss and validate proposed best practices efficiently*



# ECO-MANAGEMENT AND AUDIT SCHEME (EMAS)



Performance,  
Credibility,  
Transparency

EMAS  
FOR YOU

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EMAS

EMAS  
REGISTRATIONS

EMAS  
PUBLICATIONS

EMAS  
CONTACTS

DO YOU WANT TO  
MOVE TOWARDS THE  
**CIRCULAR ECONOMY?**

Start with EMAS



División de  
Programas de la UE

@EsHorizonte2020

CDTI Centro para el Desarrollo Tecnológico Industrial | E.P.E.



Centro para el  
Desarrollo  
Tecnológico  
Industrial

@CDTioficial



## Monitoring framework for the circular economy

### What is the circular economy about?

A circular economy aims to maintain the value of products, materials and resources for as long as possible by returning them into the product cycle at the end of their use, while minimising the generation of waste.

The fewer products we discard, the less materials we extract, the better for our environment.

This process starts at the very beginning of a product's lifecycle: smart product design and production processes can help save resources, avoid inefficient waste management and create new business opportunities.

[> read more](#)



#### HIGHLIGHTS



##### Monitor the progress of your country

Explore our monitoring framework tool which will help you to easily evaluate your country's progress towards a circular economy by displaying all relevant indicators.



##### Discover the circular economy

Our visualisation tool will help you to learn more about the circular economy in an easily-understandable and fun way.



##### Visualise flows of material resources

Explore the simplified life cycle of materials in the EU from the beginning through to material processing to their different uses and final stages.

#### DIRECT ACCESS TO...



Information on indicators



Tables



Policy context



Links

#### EXPLORE FURTHER



##### Statistical articles on environment

Have a look at our Statistics Explained articles on environment for a range of topics, such as climate change, material flows.



##### Waste statistics

Find all information and easy access to our data on waste, including topics such as generation and treatment of waste.

# INDICADORES DE ECONOMÍA CIRCULAR



**eurostat**

Your key to European statistics

## MONITORING FRAMEWORK

Please select a country from the drop down list below to get a detailed overview of its situation regarding the different indicators. You can then click on each dimension (or on the arrow) to expand/collapse the list of indicators belonging to this dimension. You may also enlarge the framework by clicking on the full screen mode icon below.

Please note that for some indicators displayed below, data is only available for the EU aggregate and not for Member States individually.

Choose a country:



## CIRCULAR ECONOMY INDICATORS

 Expand All

 Collapse All



Production and consumption



Waste Management



Secondary raw materials



Competitiveness and innovation





# OTRAS HERRAMIENTAS



Climate action, Environment, Resource Efficiency and Raw Materials

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## Useful guides

**Keys to Successful Integration of Social Sciences and Humanities in H2020**

The integration of Social Sciences and Humanities research (SSH) in Horizon 2020 projects comes with great opportunities but also with certain challenges. For decades, the European research was mainly focused on the expertise of researchers specialised in life and physical sciences, technology, engineering and mathematics (STEM). Now, the Horizon 2020 policy looks further – it is a premise that integration of SSH aspects into European research is to generate new knowledge and produce interdisciplinary and innovative solutions to both societal and technological issues.

 Download

1MB

**EIP Water Conference 2017-Water Innovation: Bridging Gaps, Creating Opportunities**

The [EIP Water Conference 2017-Water Innovation](#) was held in Porto on 27th-28th September 2017. and [The programme](#), dedicated to “Water Innovation: Bridging Gaps, Creating Opportunities”, was built upon the innovative solutions to address major European and global water challenges, as well as market opportunities and how to remove barriers by advancing and leveraging existing solutions.

With over 1 000 delegates, 76 speakers and **65 presentations**, many projects and initiatives coming up most of them from the **Action Groups**, were introduced.

Download this report to learn more about this.

 Download

295.24 KB 0 downloads

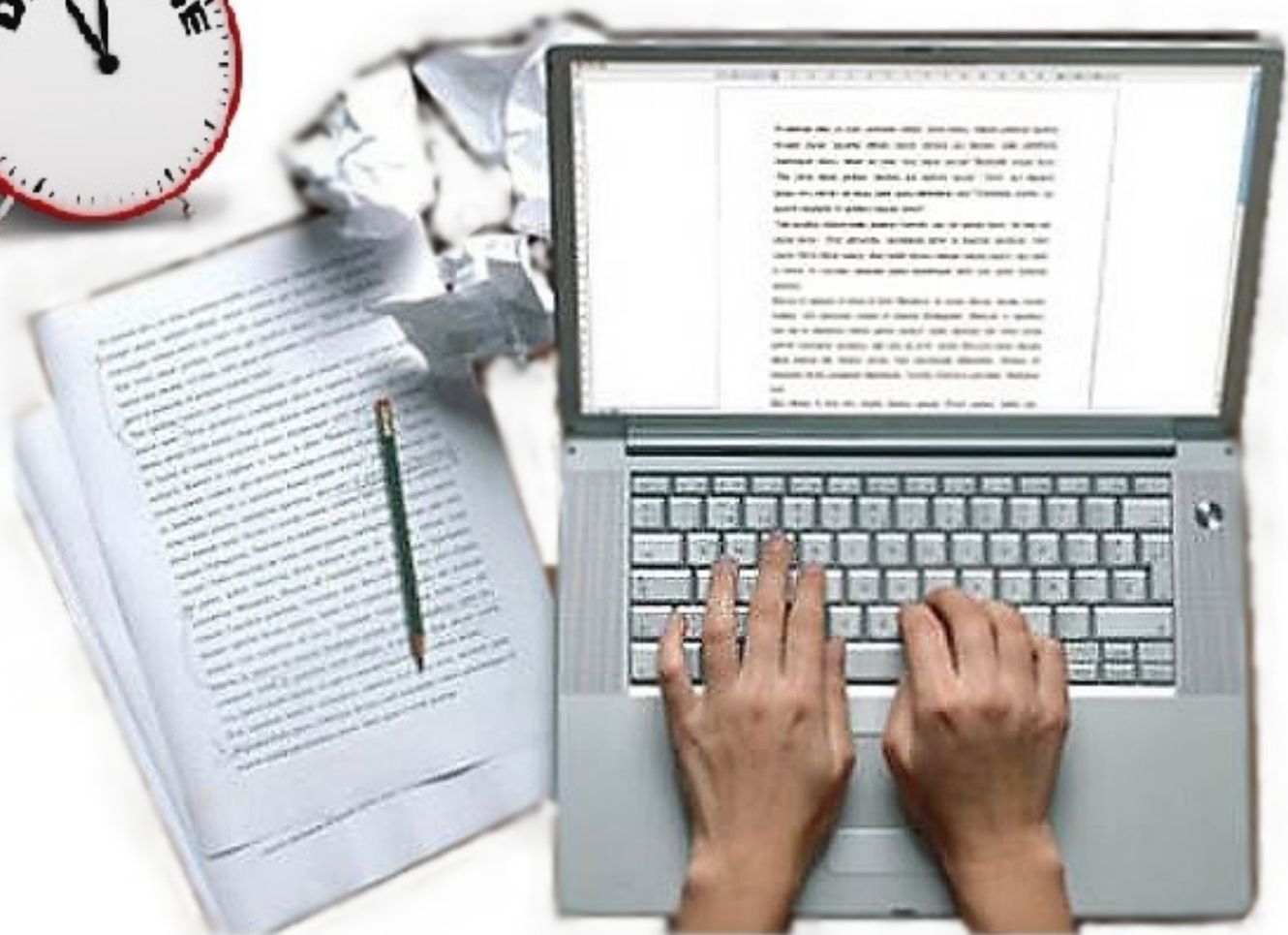
# ALGUNAS CONSIDERACIONES

|           | International<br>Cooperation                                                      | Social<br>Sciences &<br>Humanities                                                 | Gender<br>dimension                                                                 | Clustering                                                                          |
|-----------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| LC-CLA-02 |  |                                                                                    |                                                                                     |  |
| LC-CLA-05 |  |  |  |                                                                                     |
| LC-CLA-06 |  |  |                                                                                     |  |
| LC-CLA-07 |  |  |                                                                                     |  |

# ALGUNAS CONSIDERACIONES

|                | International Cooperation                                                         | Social Sciences & Humanities                                                         | Gender dimension                                                                      | Clustering                                                                            |
|----------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| CE-SC5-04-2019 |                                                                                   |    |    |                                                                                       |
| CE-SC5-07-2019 |  |                                                                                      |                                                                                       |    |
| CE-SC5-08-2019 |  |    |                                                                                       |    |
| SC5-09-2019    |  |                                                                                      |                                                                                       |    |
| SC5-10-2019    |  |                                                                                      |                                                                                       |                                                                                       |
| SC5-13-2019    |  |    |    |                                                                                       |
| SC5-14-2019    |                                                                                   |    |    |    |
| SC5-16-2019    |                                                                                   |                                                                                      |                                                                                       |                                                                                       |
| SC5-23-2019    |                                                                                   |                                                                                      |                                                                                       |  |
| SC5-20-2019    |                                                                                   |  |  |  |
| SC5-22-2019    |                                                                                   |                                                                                      |                                                                                       |                                                                                       |

# LA PROPUESTA



# CONTAR UNA HISTORIA AL EVALUADOR

|                       |                               |
|-----------------------|-------------------------------|
| <b>THE CHALLENGE</b>  | The problem we want to solve  |
| <b>THE SOLUTION</b>   | The technical solution        |
| <b>THE PROJECT</b>    | What consist our project      |
| <b>THE MARKET</b>     | Who are we addressing?        |
| <b>IMPACT</b>         | How we will affect the market |
| <b>THE CONSORTIUM</b> | Who is in the consortium?     |



# CLAVES DEL ÉXITO



# RECOMENDACIONES EVALUADORES



**Criterion: Excellence**

| Main weaknesses in proposals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | How to improve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Main strengths in proposals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Lack of novelty</li> <li>• Lack of originality</li> <li>• Lack of clear objectives</li> <li>• Lack of credibility of the proposed approach</li> <li>• Ambition</li> <li>• Poor description of the state-of-the-art</li> <li>• Lack of precise indications of the advancements proposed</li> <li>• Low TRL</li> <li>• Lack of clear cost calculations</li> <li>• Not fully covered scope of call</li> <li>• Relation to the call</li> <li>• No link to industrial activity</li> <li>• Short explanations</li> <li>• Lack of tangible previous results specification</li> <li>• Repetition of already researched areas</li> </ul> | <ul style="list-style-type: none"> <li>• Elaborate on evaluation criteria</li> <li>• More interdisciplinary expertise</li> <li>• More clear description</li> <li>• More emphasis on impacts of technical features to business model</li> <li>• Close cooperation with NCPs</li> <li>• Wider point of view of excellence</li> <li>• Include more sub-criteria under excellence</li> <li>• Encourage new ideas</li> <li>• To have business or market related persons involved in writing</li> <li>• Feasibility study should be attached</li> <li>• To be more innovative</li> <li>• More focus on the state-of-the-art and proof of concept</li> <li>• Shorter writing and more precise information</li> <li>• Better guidelines on how to understand the scope of the call</li> <li>• Having the practical experience and know how in the field</li> </ul> | <ul style="list-style-type: none"> <li>• Objectives and methodology</li> <li>• Partnerships</li> <li>• Very detailed information - Relevant goals</li> <li>• Transdisciplinary considerations</li> <li>• Innovation potential</li> <li>• State of the art</li> <li>• Clear stated technical issues</li> <li>• High quality and linkages with previous or existing initiatives</li> <li>• The links with the Environmental EU / global challenges on energy/climate change</li> <li>• Ability to complement across countries and institutions</li> <li>• Concise, accurate and complete presentation</li> </ul> |

# RECOMENDACIONES EVALUADORES



## Criterion: **Impact**

| Main weaknesses in proposals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | How to improve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Main strengths in proposals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Lack of quantification of the expected impacts. All the expected impacts described in the topic not taken into account.</li> <li>The impacts are not relevant and real.</li> <li>Expected impacts are not derived and justified on previous results.</li> <li>Lack of credibility, very optimistic impact section. Not focusing enough, using general descriptions.</li> <li>Doubtful effectiveness of the proposed measures to exploit and disseminate the project results.</li> <li>Dissemination of project results is not addressed adequately and not clearly explained. Sometimes dissemination confused with communication or exploitation.</li> <li>Repetition of required impact from the call without development appropriate to the proposal contents.</li> <li>Not understand that the impact is related to the particular concept, nor to the call fiche.</li> <li>Weak elaboration of business and market perspectives, e.g. potential market volumes.</li> <li>Lack of financial figures and business models.</li> <li>Lack of credible exploitation through a convincing commercialisation plan.</li> </ul> | <ul style="list-style-type: none"> <li>Plan very concretely and precisely.</li> <li>Include more sub-criteria. Give more detailed explanations about the criteria.</li> <li>Define all relevant details in objectives with e.g. three headlines: technical, commercial/financial and market issues.</li> <li>Quantify the impact.</li> <li>Use financial figures.</li> <li>Use clearer expectations for impact dimensions (clearer "cause-impact" relations).</li> <li>Justify as much as possible the relevant characteristics of the solution, using also quantified data, clearly presented, as for example costs vs the other solutions. Indicate e.g. clear sales expectations/profits/investments/jobs for the next 3 to 5 years.</li> <li>Prepare an excellent dissemination plan (with diverse dissemination measures).</li> <li>It is not sufficient to reference a part of the work programme but to point out which particular effect will be generated by the project.</li> <li>Avoid copy paste of call fiche impact topics and concentrate on the impact of the proposed development.</li> </ul> | <ul style="list-style-type: none"> <li>Accurate, sharp and clear structure.</li> <li>Clear outcomes and benefits of projects and targets definition.</li> <li>Some proposals (higher TRL levels) showed clear business plans.</li> <li>The expected impacts listed in the work programme under the relevant topic (Call impact).</li> <li>Dissemination, communication and exploitation section well elaborated.</li> <li>Dissemination plan is clear with many avenues for dissemination (i.e. not just publications).</li> <li>Well-planned and diverse dissemination measures.</li> <li>Usually the proposals are well addressed to a necessary impact.</li> <li>Proposals generally seem to be aware of what a genuine impact is.</li> <li>A good management structure with WPs/deliverables/milestones that are well explained.</li> <li>Environmental impacts are almost always well written.</li> <li>Most of the proposals attempt to maximize their impact by cooperating with a wide and large partnership, over multicentre areas.</li> </ul> |

## Criterion: **Impact** (continuation)

| Main weaknesses in proposals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | How to improve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Main strengths in proposals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>The local /regional end users are not identified and the cooperation with them is not planned from the beginning of the project.</li> <li>Relatively low implication of policy makers and/or SMEs in the proposal, which has the potential of negatively affect the applicability of the projects.</li> <li>Lack of suggestions for changes in policies.</li> <li>Lack of effective measures on territory/decision making processes.</li> <li>Strengthening the competitiveness and growth of companies is rarely addressed in the proposals missing market details: which markets, size of specific product group concerned, pricing details, missing global focus or details.</li> <li>Weak analysis of competition, segmentation and poor business plan to justify the potential growth.</li> <li>Insufficient concrete information about the environmental savings (i.e. kWh less electricity consumption, less waste products in tonnes / year, less amounts of water in m3, etc.).</li> <li>The European dimension is typically rather weak.</li> <li>Vague IPR management.</li> </ul> | <ul style="list-style-type: none"> <li>Industrial uptake of research results is good to describe at greater length.</li> <li>Include collaboration with international institutes and SMEs, important is also collaboration with industry representatives.</li> <li>Discussions on impacts should be more firmly grounded with direct references to industrial processes that may utilize the outputs of the project.</li> <li>KPI's should be jointly developed with industry; only industry (e.g. the PPP or JTI industry circles) is able to estimate market impacts.</li> <li>Is good to involve someone of the business or sales areas in the company (or external advice) in the writing of the proposal and not just researchers.</li> <li>Encourage suggesting specific actions and policies to be implemented by governments and political institutions.</li> <li>Ask for evaluation of impacts (by professionals).</li> <li>Ask NCPs for cooperation and consultations.</li> <li>See guidelines and specialized trainings (e.g. IPR Helpdesk).</li> </ul> | <ul style="list-style-type: none"> <li>Regarding SC5 in SME instrument: the business impact for the companies is typically very well described.</li> <li>Analysed every single impact of the call.</li> <li>The direct link with the environmental EU and Global policies; impact expected on making energy cheaper/more efficient/sustainable technologies, impacting in the future the quality of citizens life, contributing to improve the values of the democracy through the balanced access to the energy.</li> <li>Those proposals which focus on limited impact categories and/or addressing very important societal problems.</li> <li>The criterion covers all aspects of impacts (scientific, social, economic, etc.)</li> <li>Technical references, like IP, patents etc. are clearly given in proposal.</li> </ul> |





**LOST**

**CONFUSED**

**UNSURE**

**UNCLEAR**

**PERPLEXED**

**DISORIENTED**

**BEWILDERED**





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para la  
internacionalización de la I+D+I española

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