

#innovacion  
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# *Resiliencia climática y regiones circulares*



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**ESHORIZONTE2020**  
Portal español del Programa Marco de Investigación e Innovación de la Unión Europea  
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## Area 1. Increasing climate ambition

LC-GD-1-1-2020-  
Extreme wildfires

LC-GD-1-2-2020-  
Climate-neutral cities

LC-GD-1-3-2020-  
Climate resilient  
innovation  
packages

## Area 3. Industry for a clean and circular economy

LC-GD-3-1-2020-  
Closing the industrial  
carbon cycle-Catalytic  
routes

LC-GD-3-2-2020-  
Systemic  
solutions for the  
territorial  
deployment of  
circular economy

## Area 7. Biodiversity and ecosystem services

LC-GD-7-1-2020.  
Restoring  
biodiversity and  
ecosystem  
services

A photograph of a wildfire at night. The fire is intense, with bright orange and yellow flames rising from a forest. In the foreground, two deer are standing in a shallow stream, looking towards the fire. The scene is dark, with the fire providing the primary light source.

**LC-GD-1-1-2020: Preventing and fighting extreme wildfires with the integration and demonstration of innovative means**

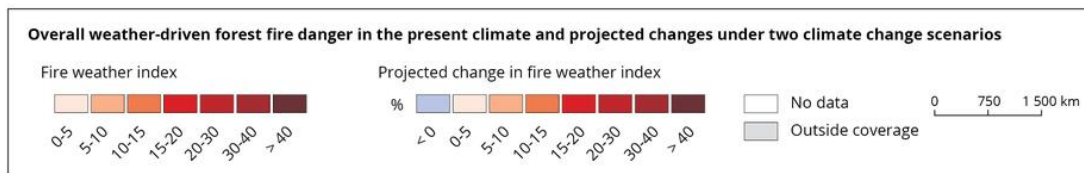
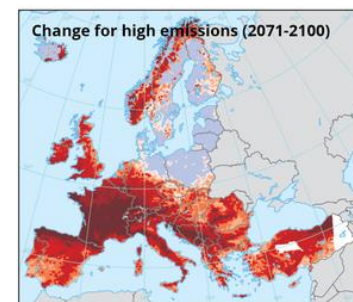
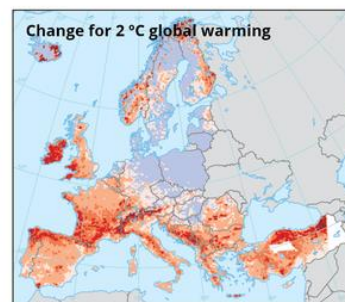
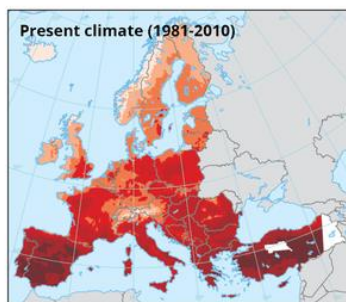




# Green Deal's immediate priorities: “reduce incidence and extent of forest fires” and “boost ability to predict and manage environmental disasters”.

More EU citizens suffer directly & indirectly from wildfire impacts every year:

- Hundreds of casualties
- € 2 billions economic damages
- 500,000 ha of forest and Natura 2000 areas ravaged - not only South but also rising in Central, Eastern and Northern EU
- Wildfires are already among the first contributors to climate change
- **Extreme wildfires** will be more frequent, with negative effects on **biodiversity and ecosystems, and air**





## Implementing a more holistic fire management approach that integrates environmental, climate, health & safety/security, cultural and socio-economic aspects with:

- Research, demonstration and deployment of innovative means and methods tailored to extreme wildfire behavior
- Proactive governance, where citizens, local communities, the forestry and bio-economy sectors play a central role.



- Activities should go beyond the state of the art and previous R&I activities
- Cooperate with ongoing relevant Horizon 2020 projects and make best use of existing EU initiatives and services (such as Copernicus, Galileo and EGNOS).
- Activities should involve relevant international, national and EU agencies (e.g. European Environment Agency (EEA) or European Union Aviation Safety Agency (EASA)) and end-users (such as forest owners or forest-based industry actors)
- International cooperation is encouraged.

**Subtopic 1 (Innovation Actions):** Speed up the pan-European adaptation process to extreme wildfires by advancing and applying research and innovation, including demonstration pilot sites, while making best use of existing data (e.g. remote sensing, in-situ or community-based data), technologies (e.g. Big Data and Artificial Intelligence) and services (as Copernicus, Galileo and EGNOS).



## **Subtopic 2 (Coordination and Support Action):**

This action aims to ensure that the demonstration of innovative and integrated approaches fulfils the expected impacts, by coordinating and supporting the Innovation Action projects funded under this topic.

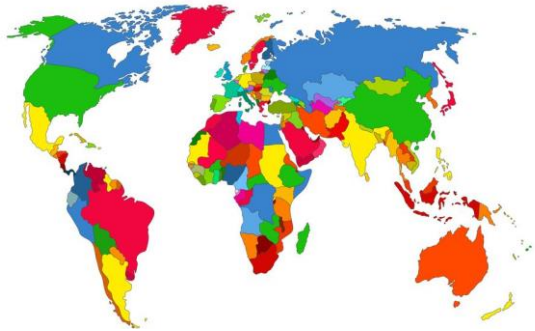


## Subtopic 1 (Innovation Actions)

- 15-20 m€

## Subtopic 2 (Coordination and Support Action):

- 2-3 m€



In particular with United States, Canada, Australia, Russia, Japan, Brazil, South America, Indonesia and South Africa.





The actions funded under this call topic should jointly contribute substantially to achieving by 2030 the following targets in Europe (with respect to 2019):

- 0 fatalities from wildfires
- 50% reduction in accidental fire ignitions
- 55% reduction in emissions from wildfires
- Control of any extreme and potentially harmful wildfire in less than 24 hours
- 50% of Natura 2000 protected areas to be fire-resilient
- 50% reduction in building losses
- 90% of losses from wildfires insured
- 25% increase in surface area of prescribed fire treatments at EU level

# LC-GD-1-3-2020: Climate-resilient Innovation Packages for EU regions







- Health
- Primary production including agriculture, forestry fisheries and aquaculture
- Water
- Environment, including biodiversity
- Infrastructure including clean energy and transport

Subtopic 1 : Development of Innovation Packages for transformational adaptation

Innovation Package



1. Choosing regional partners

Target regions most exposed and/or with the highest exposure and/or least adaptive capacity

2. Co-creation of transformative pathways

possible courses of systemic innovation action on how to get to achieve societal transformation

3. Orchestration and demonstration of a portfolio of innovations

region-specific portfolios of solutions (mature enough for demonstration) to test and scale up

Subtopic 2 : Citizen engagement, monitoring and testing of Innovation Packages





## Subtopic 1: Innovation Packages for transformational adaptation of European regions and communities (Innovation Actions)

- Propose and implement multiscale and multisectoral regional adaptation pathways
- Implement and test innovations in key systems
- Risk analyses and management
- Target regions with the highest exposure and/or least adaptive capacity
- Take stock of existing good practices and solutions
- Make use of operational climate services



## Subtopic 2: To ensure that the demonstration of innovative and integrated approaches fulfils the expected impacts

- Citizens and regions engagement for the wide deployment and integration of Innovation Packages
- Monitor and assess Innovation Packages
- Develop a free-access online platform with user-friendly information on Innovation Packages



## Subtopic 1 (Innovation Actions)

- 10-15 m€

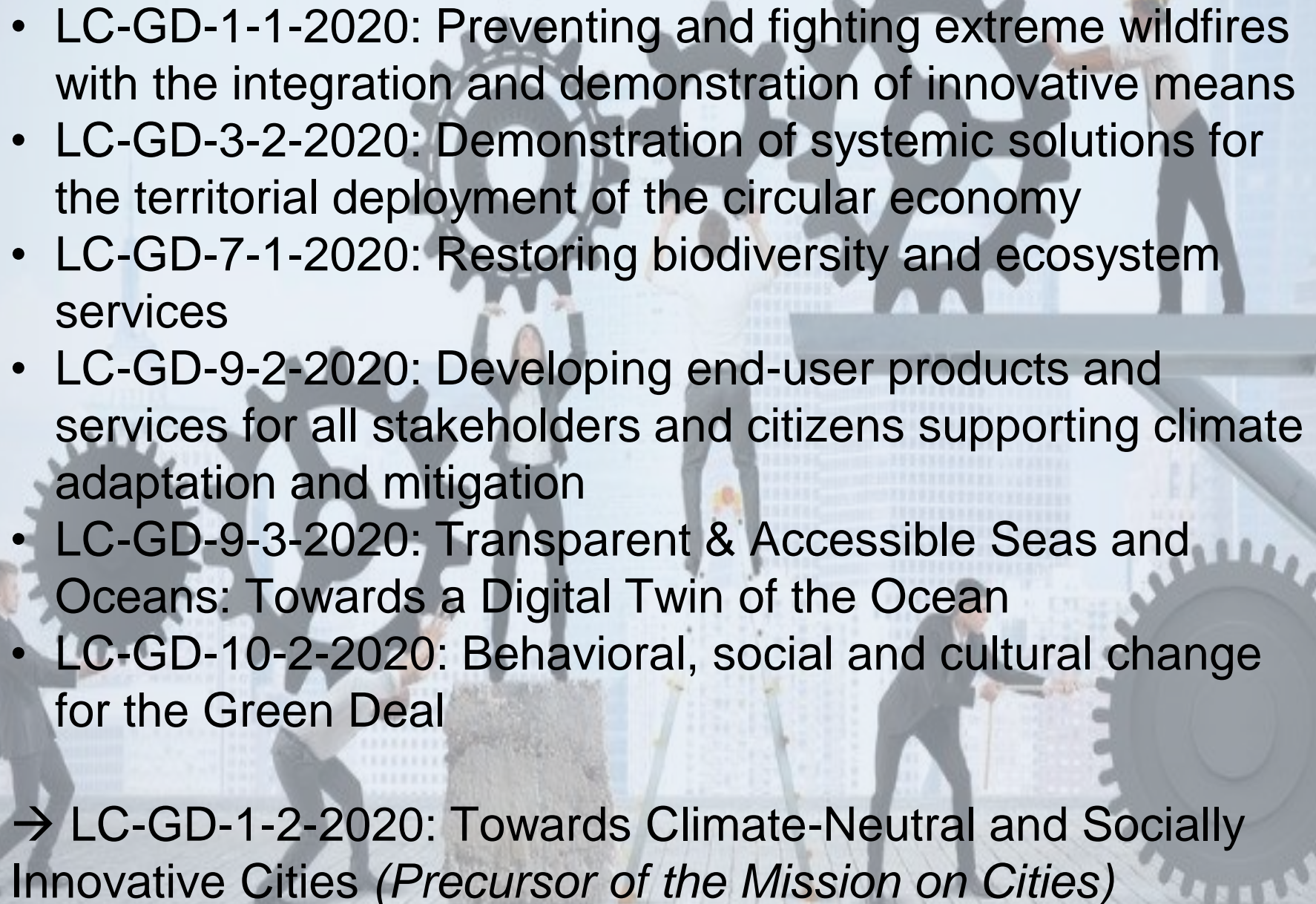
## Subtopic 2 (Coordination and Support Action)

- 3 m€

# Tentative Timeline: Green Deal topic and Mission Area Adaptation to Climate Change





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- LC-GD-1-1-2020: Preventing and fighting extreme wildfires with the integration and demonstration of innovative means
  - LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy
  - LC-GD-7-1-2020: Restoring biodiversity and ecosystem services
  - LC-GD-9-2-2020: Developing end-user products and services for all stakeholders and citizens supporting climate adaptation and mitigation
  - LC-GD-9-3-2020: Transparent & Accessible Seas and Oceans: Towards a Digital Twin of the Ocean
  - LC-GD-10-2-2020: Behavioral, social and cultural change for the Green Deal
- LC-GD-1-2-2020: Towards Climate-Neutral and Socially Innovative Cities (*Precursor of the Mission on Cities*)



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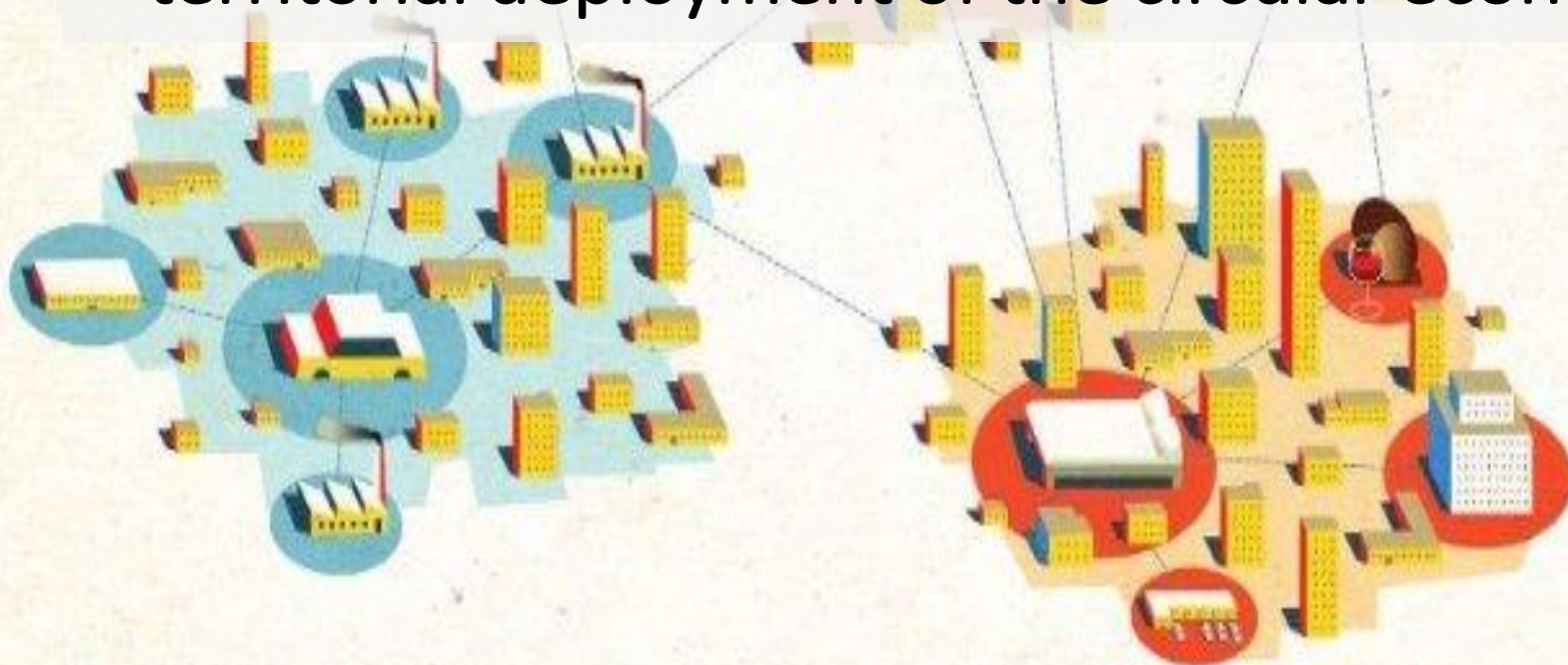
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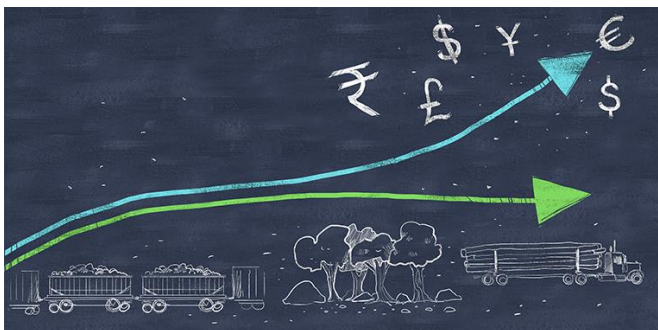
LC-GD-3-2-2020

Demonstration of systemic solutions for the territorial deployment of the circular economy





Circular economy can play an important role in the EU's recovery from the adverse socio-economic and environment impacts of the COVID-19 crisis, by providing systemic solutions for sustainable growth and economic recovery.



- There is an urgent need to decouple economic growth from resource use and to ensure a swift transition to climate-neutral and circular solutions.
- Europe also needs to increase its supply of critical raw materials and to increase the security of its value chains such as for example the new Circular Economy Action Plan key product value chains: batteries and vehicles, electronics and ICT, packaging, plastics, textiles, construction and buildings, food, water and nutrients







Each proposal is expected to implement and demonstrate circular systemic solutions for the territorial deployment of the circular economy (including the circular bioeconomy) in one ‘circular territorial cluster’.

- Circular territorial cluster’: socio-economic and environmental system composed of all relevant actors and dimensions to implement, demonstrate and facilitate the replication of at least one circular systemic solution.
- Systemic solution: cross-sectoral demonstration project for the territorial deployment of a circular and climate-neutral economy.
- The composition and dimension of a cluster should be clearly defined and justified in the proposal.
- Ideally each cluster should have a Circular Economy Action Plan





## Solutions should to:

- Help to create critical mass for public and private investments and public procurement pull for new solutions
  - Improve consumers' understanding and acceptance of circular and climate-neutral services and products.
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- Explore synergies with other funds, including Cohesion Policy funds, the Just Transition Fund and InvestEU, hereby showing pathways to market uptake.
  - Involve one or more community-based innovation schemes, such as local repairing schemes for products.
  - Identify, analyse and when relevant, quantify the economic, social and environmental benefits.
  - The knowledge gathered by the projects must be shared with the CCRI
  - Replicability and scalability of business models
  - Twinning exercises between the clusters, complementary and cooperation with other projects
  - TRL 6-7; Innovation action
  - 10-20 m€ / 60 m€ (3-6 projects)



Proposals are expected to contribute to the implementation of the CCRI with concrete and demonstrated examples of circular systemic solutions:

- Decoupling of economic and human activities from the consumption of finite resources and GHG emissions
- Increased circular and climate-neutral practices among citizens and their participation in systemic solutions
- Creation of jobs in the short to medium term
- Knowledge transfer between territorial clusters
- Achieve policy targets: EUGD, CEAP, EUBS, EIS



A lush green forest with a stream flowing through it. The water is clear and fast-moving, creating white rapids as it flows over rocks. The surrounding trees are tall and thin, with dense green foliage. In the background, a concrete bridge with two pillars spans across the stream. The overall scene is vibrant and natural.

**LC-GD-7-1-2020: Restoring biodiversity and ecosystem services**



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- Support the development of specific demand and supply chains in restoring ecosystems on land or at sea
  - Demonstrate and test how restoration activities and socio-ecological management of ecosystems enable sustainable, climate-neutral and climate-resilient, inclusive, transformative approaches, including across the bioeconomy
  - Promote scaling up and stepping up of implementation of NBS
  - Showcase how restoring ecosystems at large scale will also help human communities to adapt to changing conditions at their local level, and how restoration activities can be integrated into economically and socially viable land use practices



Don't forget:

## Solutions should:

- Developing a scalability plan
  - Setting baselines, goals and a monitoring framework for the projects
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- Promote innovative funding, cross-sectoral collaborations and social participation to support the design, implementation and monitoring of sustainable and effective restoration efforts.
  - International cooperation is encouraged
  - Project consortia must evidence that they have the rights to undertake actions on the areas to be restored. No land purchase or lease can be funded under this topic
  - 16-25 m€ / 80 m€: 3-5 projects
  - Innovation action



Projects results are expected to contribute to:

- Maintained and enhanced natural carbon sinks and reduced greenhouse gas emissions through the important role of biodiversity
- the objectives of the European Green Deal, including the EU commitment to reduce emission by 50-55% by 2030 and become net carbon-neutral by 2050
- Increased restoration through uptake of public-private partnerships and (voluntary) market-based incentives for business
- Enhanced empowerment, engagement and reconnection of local communities with nature and increased social awareness on restoration actions, and their benefits





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para la  
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