

OVERVIEW DOCUMENT HORIZON 2020 GREEN DEAL CALL – 18.08.2020 update

In this table you can find the summary of each Green Deal Call topic. When you click on the short name of the call topic you are forwarded to a small summary of this call topic with interesting links. In the right column you can find the direct links to the COM webpages and draft Work Programme of mid-May.

In the latest draft of the Green Deal Workprogramme, the COM divides the call into 8 “core” or principal areas and 2 supporting areas on knowledge systems and research infrastructure and citizen engagement. We have updated some of the new information in this overview.

	Call areas and topics	Type of action	Link to
1	Increasing climate ambition		COM webpage
	wildfires	IA&CSA	Draft call topic
	climate-neutral cities	RIA	Draft call topic
	climate resilient innovation regions	IA & CSA	Draft call topic
2	Clean, affordable and secure energy		COM page
	offshore renewable energy	IA & RIA	Draft call topic (of IA subtopic)
	100 MW electrolyser	IA	Draft call topic
	Clean energy in partnership with Africa	IA	COM page & draft call topic
3	Circular Economy		COM page
	closing the carbon cycle	IA	Draft call topic
	territorial deployment	IA	Draft call topic
4	Energy efficient buildings	IA	COM page & draft call topic
5	Smart mobility - Green airports and ports	IA	COM page & draft call topic
6	Sustainable food from farm to fork	IA	COM page & draft call topic
7	Restoring biodiversity and ecosystem services	IA	COM page & draft call topic
8	Zero-pollution, toxic-free environment		COM page
	to protect from persistent and mobile chemicals	RIA	Draft call topic
	evidence based policy to address chemical and pharmaceutical mixtures	RIA	Draft call topic
9	Strengthening the knowledge		COM webpage
	research infrastructure services	RIA	Draft call topic
	end-user products and services for citizens	RIA	Draft call topic
	digital twin of the ocean	IA	Draft call topic
10	Citizen empowerment		COM webpage
	participation	RIA	Draft call topic
	behavioural change	RIA	Draft call topic
	citizen science, civic involvement	IA	Draft call topic

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

The new context of extreme wildfires requires accelerating the shift towards 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 behaviour, such as better techniques, models, solutions and capabilities for preventing, predicting, monitoring and fighting wildfires, including better technologies and equipment for first responders.
- Proactive governance, large-scale and community-based risk assessments, awareness and preparedness - where citizens, local communities and the forestry sector play a central role.

Type of action: Innovation Action; Coordination and support action

Estimated budget:

- IA: 72 mio €
- CSA: 3 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

1.2. Towards climate-neutral and socially innovative cities LC-GD-1-2-2020

This action should develop a one-stop shop platform that would provide the necessary technical, regulatory, financial and socio-economic expertise as well as assistance to cities for developing and implementing their climate action plans, and related social innovation action plans.

Type of action: Research and Innovation Action

Estimated budget: 53 mio€

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

1.3. Climate-resilient innovation packages for EU regions LC-GD-1-3-2020

This action should aim at enabling rapid and far-reaching change through the development of region-specific portfolios of solutions (mature enough for demonstration), which may include nature-based solutions, insurance and governance, and behavioural change.

Action 1: Innovation Action - Innovation Packages for transformational adaptation of European regions and communities (estimated budget 42 mio€)

Action 2: Coordination Support Action - Support the design, testing and upscale of Innovation Packages (estimated budget 3 mio €)

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

2.1. Innovative land-based and offshore renewable energy technologies and their integration into the energy system LC-GD-2-1-2020

Clean renewable power production must become the main source of energy and major investments are needed to achieve this. There are two subtopics to this call. The first looks at land-based renewable energy technologies and how they can be better integrated in the energy system. More in particular the EC is looking for projects involving district heating and cooling (DHC) and for cogeneration of heat and power (CHP). They should achieve TRL of 4-5 and this is a RIA. Each project will receive between 3 and 6 million EUR. The second subtopic looks at offshore energy solutions. The call for proposals is technology neutral so does not have to be solely about wind energy but can also involve wave, tidal and solar systems. The scope consists of the offshore renewable energy power generating systems (mandatory) and can be completed with solutions regarding the grid infrastructure and power2X/battery/storage systems. The envisaged end TRL is 7. Each project will receive between 20 and 35 million EUR.

Type of action: Innovation Action and Research&Innovation Action

Estimated budget:

- RIA: 18 mio €
- IA: 68 mio €

[Draft topic text \(mid-May\) \(of IA subtopic\)](#)

[Slides provided to the Programme Committee \(mid-April\) \(of IA subtopic\)](#)

2.2. Develop and demonstrate a 100 MW electrolyser upscaling the link between renewables and commercial/industrial applications LC-GD-2-2-2020

In order to decarbonize the European economy, hydrogen will be needed in hard to abate sectors (e.g. cement factories) and some transport means where electrification is not a good solution (e.g. heavy duty vehicles and long distance trucks). Current production is nowhere near enough so we need more and bigger facilities. A big step upwards in this respect would be a 100 Megawatt electrolyser which should be in operation at the end of the project.

Type of action: Innovation Action (funding rate reduced to 50%)

Estimated budget: 68 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

2.3. Accelerating the clean energy transition and access in partnership with Africa LC-GD-2-3-2020

The proposals will cover the demonstration of innovative climate adaptation, climate mitigation and sustainable energy solutions, in the African social, economic and environmental contexts. The solutions could address developments in the areas of renewable energy sources and their integration into existing energy system, energy efficiency in particular in urbanised contexts, the water-energy-food nexus, with the aim of providing sustainable energy access (electricity/cooking) or creating economic wealth and jobs (productive use of energy/energy efficiency). Proposals shall include a life cycle analysis showing the impacts of the proposed solutions on the environment, on climate change targets, and on the social and the economic dimensions, from a cradle to grave viewpoint.

Type of action: Innovation Action (at least 2 partners from at least 1 African Country)

Estimated budget: 40 mio €

[Draft topic text](#)

[Slides provided to the programme Committee \(mid-April\)](#)

3.1. Closing the industrial carbon cycle to combat climate change LC-GD-3-1-2020

The challenge is to sustainably convert CO₂ emissions from industrial processes into synthetic fuels and chemicals utilising renewable energy driven processes with novel, highly optimised and energy efficient catalytic systems.

Type of action: Innovation Action (min. 2 projects funded)

Estimated budget: 80 mio €

Cross-cutting Priorities: International cooperation

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

3.2. Demonstration of systemic solutions for the territorial deployment of the circular economy LC-GD-3-2-2020

Proposals must implement and demonstrate concrete systemic solutions for the territorial deployment of the circular economy (including circular bioeconomy) in at least three territorial clusters. Examples of actors are administrations, industry (including small and medium enterprises - SMEs), scientific community, financial intermediaries, non-

governmental organisations and civil society. Systemic solutions shall be cross-cutting among different sectors and include science, technology, governance, economic, social and environmental dimensions and components. A systemic solution should address one or more economic sectors/value chains/technological processes to increase their circularity, involve circular participative governance models, demonstrate sustainable products and/or services' business models, involve one or more social and community-based innovation schemes (such as local repairing schemes for products), address environmental, behavioural and cultural aspects, and provide specific training, education and knowledge sharing services for local stakeholders. The selected projects will be linked to the new Circular cities and regions innovations (CCRI) of the European Commission which will be set up in due course.

Type of action: Innovation Action

Estimated budget: 60 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

4. Building and renovating in an energy and resource efficient way LC-GD-4-1-2020

The built environment remains a strategic research and innovation domain in view of the goal of full decarbonisation by 2050. The priority is the design and construction of new or retrofitting of existing buildings as zero-emission/zero-pollution, positive energy powerhouses within sustainable green neighbourhoods. The two major components of this transition are:

- designing and constructing buildings to reduce their embodied emissions and increase their energy efficient operation. Retrofitting existing buildings to improve their energy efficiency.
- energy positive buildings (producing electricity, covering their heating and cooling needs and contributing to the grid stability) with sustainable, renewable energy technologies.

Proposals are expected to bring the technologies from TRL 5/6 to TRL 7/8 at the end of the project.

Type of action: Innovation Action (page limit: 100 pages)

Estimated budget: 60 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

5. Green airports and ports as hubs for sustainable and smart mobility LC-GD-5-1-2020

Ports and airports play a pivotal role in the fast growing transport sector. To make this sector more sustainable, this call is looking for high TRL projects that make these multimodal hubs greener. This can be done by making the transport from and to the buildings electric,

creating low-energy use solutions, improving the air quality on-site, reducing the food waste in the terminals and so on. Essential to this call for proposals is that the projects have to be demonstrated and monitored in a real-life environment, called the 'lighthouse' port or airport.

Type of action: Innovation Action

Estimated budget: 100 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

6. Testing and demonstrating systemic innovations for sustainable food from farm to fork LC-GD-6-1-2020

The Farm to Fork Strategy aims to address the challenges and accelerate the transition to sustainable food systems, to ensure that the economic, social and environmental foundations of food and nutrition security are not compromised for current and future generations. It requires and builds on innovative systemic solutions that can be scaled up, such as smart agro-ecological practices, new protein sources other than meat, sustainable food from the oceans and aquaculture, and personalised advice relating to sustainable healthy diets. Concerted efforts are needed to test, demonstrate and scale-up such solutions and target impact in this decade.

Type of action: Innovation Action

Estimated budget: 74 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

[Video presentation](#) (you tube)

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

Ecosystems provide essential services such as fresh water and clean air, biomass provision for food, feed, fibre and fuel, mitigation of natural disasters, pests and diseases, improved health and wellbeing of citizens, and support for climate regulation. Biodiversity loss threatens the delivery of these services.

Type of action: Innovation Action

Estimated budget: 80 mio €

[Draft topic texts \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

8.1. Innovative, systemic zero-pollution solutions to protect health, environment and natural resources from persistent and mobile chemicals LC-GD-8-1-2020

An example of these chemicals is per- and polyfluoroalkyl substances (PFAS), a group of thousands of manmade chemicals that are widely used in various consumer and industrial products (e.g. water- and stain repellent textiles, fire-fighting foams, food contact materials and cosmetics). The project should aim at i.a. solutions for better remediation and detection technologies, improved risk assessment, data of regulatory relevance accessible to policy makers and for risk communication.

Type of action: Research and Innovation Action

Estimated budget: 40 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

8.2. Fostering regulatory science to address chemical and pharmaceutical mixtures: from science to evidence-based policies LC-GD-8-2-2020

This topic calls for applied research studies, demonstrating how regulatory science can apply new tools and methodological approaches based on the latest scientific evidence, to quantify and prevent harmful co-exposures to industrial chemicals and pharmaceuticals.

Type of action: Research and Innovation Action

Estimated budget: 20 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

9.1. European Research Infrastructures capacities and services to address European Green Deal challenges LC-GD-9-1-2020

This call topic strives for activities that mobilise world-class capacities and resources, notably those provided by European Research Infrastructures (RIs), to support breakthrough solutions in energy storage and advance climate/environment monitoring and observation

Type of action: Research and Innovation Action

Estimated budget: 28 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

9.2. Developing end-user products and services for all stakeholders and citizens supporting climate adaptation and mitigation LC-GD-9-2-2020

This call topic strives for activities that deliver end-user products and services that help decision-makers identify which modes of production, consumption and lifestyle are compatible with climate resilience and pathways achieving climate neutrality by 2050.

Type of action: Research and Innovation Action

Estimated budget: 25 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

9.3. A transparent and accessible ocean - Towards a Digital Twin of the Ocean LC-GD-9-3-2020

This call topic strives for activities that prepare the ground for the development of a digital twin of the ocean, to better connect and understand the unknown ocean and its crucial role in our survival, and provide evidence for informed decisions.

Type of action: Innovation Action

Estimated budget: 12 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

10.1. European capacities for citizen deliberation and participation for the Green Deal LC-GD-10-1-2020

Projects will establish transnational networks of experts, researchers, practitioners and relevant civil society organisations specialised on deliberative democracy and civic participation across Europe, including professionals in the field of public engagement. They will share good practice, tools and resources and implement participatory and deliberation processes on priority issues in order to deliver on the Green Deal, both at the level of local communities and at wider scale. National and local governments and administrations will be closely associated.

Type of action: Research and Innovation Action

Estimated budget: 10 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

10.2. Behavioural, social and cultural change for the Green Deal LC-GD-10-2-2020

This topic covers behavioural change at individual and collective levels, including public and private organisations. Projects will establish transnational and transdisciplinary networks of experts, researchers, practitioners and relevant civil society organisations on behavioural, social and cultural change. They will jointly analyse social and behavioural change processes, share good practice, tools and resources and implement behavioural experimentation on priority issues to deliver on the Green Deal. Specific topics for case studies will be co-decided with the EC services involved in implementing the Green Deal.

Type of action: Research and Innovation Action

Estimated budget: 10 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)

10.3. Enabling citizens to act on climate change and environmental protection through education, citizen science, observation initiatives, and civic involvement LC-GD-10-3-2020

Area education: actions will foster the development and implementation of a multidisciplinary European competence framework within the context of lifelong learning for the development and assessment of knowledge, skills and attitudes of citizens and in particular young people on climate change and sustainable development. Contributions and practical knowledge provided by non-academic stakeholders, and international best practices, will be important.

Area citizen science: actions will target the involvement of citizens in climate- and environment-related issues and domains, such as biodiversity, marine and freshwater pollution and sustainable food. They will focus on the active participation of citizens through citizen science, environmental observation and civic consortia. Projects should be conducted on a broad scale, in cooperation with businesses, civil society organisations and public authorities. Actions should include the development and/or improvement of devices (low-cost sensors, consumer apps, etc.) taking into account the interoperability and exchange of future and existing data collected.

Type of action: Innovation Action

Estimated budget: 25 mio €

[Draft topic text \(mid-May\)](#)

[Slides provided to the Programme Committee \(mid-April\)](#)