H2020 GREEN DEAL WEBINAR 8.9.2020

- AGENDA AND PRACTICALITIES

13.00 General information about the Green Deal call in Horizon 2020 - Heini Günther, Business Finland Oy

13.10 Area 1: Increasing Climate Ambition: Cross sectoral challenges - Jaana Lehtimäki, Academy of Finland

13.30 Area 2: Clean, affordable and secure energy - Reijo Munther, Business Finland Oy

13.50 Area 3: Industry for a clean and circular economy – Reijo Munther/Heini Günther

14.05 Area 4: Energy and resource efficient buildings and Area 5: Sustainable and smart mobility - Tom Warras, Business Finland Oy

14.20 Area 6: Farm to Fork - Heini Günther

14.30 Area 7: Biodiversity and ecosystem services – Jaana Lehtimäki

14.40 Area 8: Zero-pollution, toxic free environment – Heini Günther

14.50 Q&A

15.00 Webinar ends

Event materials are already available in Business Finland / EUTI webpages: <u>https://www.businessfinland.fi/suomalaisille-</u> <u>asiakkaille/palvelut/rahoitus/horisontti-</u> 2020/esitysaineisto/

Event will be recorded and can be found from Business Finland / EUTI webpages <u>https://www.businessfinland.fi/suomalaisille-</u> <u>asiakkaille/palvelut/rahoitus/horisontti-</u> <u>2020/esitysaineisto/</u>) in about 2 weeks

In Teams Live Event microphones are muted all the time; please send you questions and comments via Q&A chat



H2020 Call - Building a low-carbon, climate resilient future: Research and innovation in support of the European Green Deal

- Contributes to the European Green Deal which sets out the path for a fundamental transformation of Europe's economies and societies
 - need to confront the climate crisis and provide protection for environment and biodiversity
 - addresses the equally urgent challenge of aiding Europe's recovery in the wake of the Covid-19 crisis, contributing directly to the EUs Recovery plan for Europe
- Goal is to use research and innovation to kick-start the environmental, social and economic transformations required to tackle the climate challenge, while helping the EU recover from the Covid-19 crisis, and increasing its resilience and capacity to respond to such novel threats in the future
- Builds the path towards more resilient future and for designing a new, green growth strategy for the EU, embracing digitisation and enhancing competitiveness of Europe



- Challenge not just technical: requires adaptations in life-styles and behaviour wide engagement of different actors - public & private; researchers, companies, regions, local communities, civil society...
- Fairness; identifying and addressing specific vulnerabilities no one is to left behind by the transition!
- International cooperation (addressing e.g. needs in less-developed countries, in the context
 of the Paris Agreement as well as the Sustainable Development Goals (SDGs)
- Immediacy of challenges -> call aims for concrete and visible results in a relatively short time = strong focus on demonstration actions -> rapid scalability and uptake of commercial solutions (impact!)
- ...but experimentation, social innovation and citizen engagement just as important!
- Proposers should consider and actively seek synergies and possibilities for further funding from other (EU, national or regional) innovation programmes or other public or private sources. Examples of synergies; different actions to extend research and innovation capacities of actors to achieve greater impact and efficiency -> e.g. national/regional actions to support market uptake

Horizon 2020 Green Deal Call

- Horizon 2020, Work Programme 2018-2020, 20. Cross-cutting activities
- Grants in 10 areas for 20 topics (+ sub-topics) with € 983 million
- Project types RIA, IA, CSA
- Consortium projects single stage calls!
- Commission aims to publish the call in time for the R&I days on 22-24th September
- Opening date expected to be 18 Sept 2020; closing date 26 Jan 2021
- Q4 2021 Signature of grant agreements (obligatory!)



Horizon 2020 Green Deal Call

- H2020 participation rules; at least 3 independent partners from 3 different member states or associated countries (CSA – sometimes just 1 partner posssible, see call text)
- International cooperation; third country partner costs usually covered by their own means or national funding schemes only exceptionally by Horizon 2020
- Funding rates; Research & innovation actions (RIA) 100%, Innovation actions (IA) 100%/70 % (non-profit/for profit) and Coordination and support actions (CSA) 100%. In each project type + 25 % for overheads.
- Project type depends of the maturity of innovation on the TRL-scale. Call text defines the desired TRL.

1	2	3	4	5	6	7	8	9	
Basic principles observed	Concept Formulized	Proof of Concept	Validation in lab	Technical validation in relevant environment	Demonstration in relevant environment	Demo in operational environment	System complete and operational	Commer- cial	







Area 1: Increasing Climate Ambition: Cross sectoral challenges

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTION	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-1-1-2020: Preventing and fighting extreme	Subtopic 1	IA	72 (15-20)	Evaluation criteria, scoring and threshold: Proven access to necessary land and/or permits for operation &
wildfires with the integration and demonstration of innovative means (SC5)	Subtopic 2	CSA	3 (2-3)	 convincing risk management regarding delayed availability of land or permits
LC-GD-1-2-2020: Towards Climate-Neutral and Socially Innovative Cities (SC5)		RIA	53 (53)	 Evaluation criteria, scoring and threshold: The quality of the proposed financial support mechanism to 3rd parties (regranting) Other conditions: At least 60% of EU contribution should be allocated to activities covered under Activity 4 for the financial support to 3rd parties.
LC-GD-1-3-2020: Climate- resilient Innovation Packages for EU regions	1. Innovation Packages for transformational adaptation of European regions and communities	IA	42 (10-15)	
(SC5)	2. Support the design, testing and upscale of Innovation Packages	CSA	3 (3)	

AREA 1 TOPICS	BUDGETS (EUR million) (WP part)	NCPs & webpage Draft call text
C-GD.1.1.2020 (IA)	72 (SC5)	Jaana Lehtimäki (Academy of Finland) Heini Günther (Business Finland)
C-GD.1.1.2020 (CSA)	3 (SC5)	https://www.businessfinland.fi/suomalaisille- asiakkaille/palvelut/rahoitus/horisontti-2020/vhteiskunnalliset-
LC-GD.1.2.2020 (RIA)	53 (SC5)- > 60% to Activity 4	haasteet/ilmastotoimet-ymparisto-resurssitehokkuus-ja-raaka- aineet/ https://ec.europa.eu/info/research-and-
LC-GD.1.3.2020 (IA)	42 (SC5)	innovation/strategy/european-green-deal/call/climate- ambition-and-impact-cross-cutting-solutions_fi
LC-GD.1.3.2020 (CSA)	3 (SC5)	



LC-GD-1-1-2020: Preventing and fighting extreme wildfires with the integration and demonstration of innovative means (IA & CSA)

- The Green Deal explicitly calls "to reduce the incidence and extent of forest fires" and to "boost the EU's ability to predict and managed environmental disasters"
- Large-scale and intense wildfires require accelerating the shift towards a more holistic fire
 management approach that integrates environmental, climate, health and safety, security, cultural and
 socio-economic aspects with:
 - Research, demonstration and deployment of innovative means and methods tailored to extreme wildfire behavior, such as better techniques, models, solutions and capabilities for preventing, predicting, monitoring and fighting wildfires and mitigating their impacts
 - Proactive governance, large-scale and community-based risk assessments, awareness and preparedness where citizens, local communities and the forestry sector play a central role.
- Activities should go beyond the state of the art and previous R&I activities at EU level, cooperate with ongoing H2020-projects; and make best use of existing EU initiatives and services (e.g. Copernicus, Galileo).
- Activities should involve relevant international, national and EU agencies and end-users; multilateral cooperation is encouraged



Subtopic 1 (IA): Actions should speed up the pan-European adaptation process to extreme wildfires by advancing and applying research and innovation, incl. demonstration pilot sites, while make best use of existing data, technologies and services.

- Methods and means should be developed, integrated and demonstrated in different environments across Europe and tailored to geographical and socio-economic conditions, with dfferent type of fuels, landscapes and biodiversity values and scales.
- Proposals should consider an integrated fire management strategy to include viewpoints from all parties. Actions should have wellrepresented actors in all three mangement phases: Prevention and preparedness; Detection and response; Restoration and adaptation.

Subtopic 2 (CSA): This topic is for coordinating and supporting the IA projects funded under this topic. Activities may include e.g.:

- Supporting clustering and cooperation among the projects under this topic and with other relevant H2020 -actions (including EGD call, Area 7)
- Facilitating the integration of the fire management phases covered by funded IA projects
- Engagement with citizens, local communities, forest owners, forestry-based industry etc.
- Extensive and structured knowledge sharing and evaluation-based analysis of past wildfire events
- Facilitating international cooperation (US, Canada, Australia etc.)

The most promising results demonstrated in the actions are expected to be up-scaled and deployed into different policies, strategies, quidelines, legislation, systems etc. **See also other expected impacts!**

LC-GD-1-2-2020: Towards Climate-Neutral and Socially Innovative Cities (RIA)

- Green deal proposes a new growth strategy that aims to preserve the planet for future generations
- The EC's long-term climate vision calls for a drastic reduction (50-55% by 2030) of greenhouse gas emission cities account more than 70% of global man-made CO2 emissions
- This topic is to develop a platform providing necessary technical, regulatory, financial and socioeconomic expertise as well as assistance to cities (good geographical balance) for developing and implementing their climate action plans, and related social innovation action plans.
 - It should facilitate the coordination of ongoing European activities in the are of climate neutrality for cities.
 - It should be sustainable, scalable and self-financed beyond the life of the action.
- The action should take account and build on existing platforms (footnote 86); experience by the Covenant of Mayors initiative; methodologies, analysis and processes developed by JRC; and based on the principles and standards of the Join, Boost, and Sustain Declaration (footnote 88).
- See the description of a city (footnote 85)



The proposal should address all the four activities:

1) Climate action plans and Green Deal innovation (7)

 E.g. develop a science-based set of indicators for assessment of the climate, environmental and socio-economic impact of cities' climate neutral action plan as well as its replication and scaling potential in terms of greenhouse gas emissions reduction withing the framework of the European Green Deal

2) Investment project preparation and finance (1)

 Provide information and consulting services to cities on preparing and financing investment projects for the transition to climate neutrality. This should take into account and build on good practices developed by global, European and national initiatives and programmes...collaboration with national development banks and commercial banks is encouraged

3) Social innovation and citizens' engagement (3)

E.g. Support cities and local communities in testing solutions that stem from European R&I. This should entail a
matching of cities' and local communities' needs to R&I results through various means e.g. match-making and
brokerage hubs.

4) Research and innovation for climate-neutral transformation of cities (2)

 E.g. Open calls for proposal (external review by independent experts) to support large scale pilots (0.5-1.5 M€) for the deployment in lead cities or districts of systemic solutions combining technological, nature-based, social, cultural, regulatory and financial innovation and new business and governance models to underpin the climate transition, taking stock of existing best practices and already available solutions.

See expected impacts (6), p. 80-81

LC-GD-1-3-2020: Climate-resilient Innovation Packages for EU regions (IA & CSA)

- Multidisciplinary approaches that integrate technological, digital, business, governance, and environmental dimensions with social innovation are needed for the development of adaptation pathways consistent with EGD targets, and tailored to support the regions and communities most exposed to climate change impacts.
- The call will serve as early facilitators (Horizon Europe Mission on Adaptation to Climate Change) in pre-identifying and upscaling the most promising cross-sectoral solutions at a regional scale.
- Proposals should address <u>only one of the following action areas:</u>

Area 1: Innovation Packages for transformational adaptation of European regions and communities (IA) OR

Area 2: Support the design, testing and upscale of Innovation Packages (CSA)



Area 1: Innovation Packages for transformational adaptation of European regions and communities (IA)

- This IA 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
- The innovation packages should cover several key community systems and comprise the adaptation solutions and pathways deemed essential for climate resilience in the specific regional contexts and the set timeline.
- The innovation package should (8 objects) e.g. prioritise the key systems that most urgently need to be protected from climate impacts and risks, and which should significantly improve the resilience of the region or community

Area 2: Support the design, testing and upscale of Innovation Packages (CSA)

- The action should support the implementation and dissemination of the solutions developed and tested under area 1. In particular actions should support:
- Citizens and regions engagement (e.g. education and training activities; multi-stakeholder dialogue and citizens engagement and surveys)
- Monitoring and assessment (e.g. develop a set of indicators; enable the monitoring and assessment of Innovation Packages)
- Portfolio of solutions (e.g. mapping and leveraging EU and national funding and financial programmes; develope free-access online platform or upgrade existing platforms)
- Expected impacts (5), For example, support the EGD targets...

Area 2: Clean, affordable and secure energy

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTION	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-2-1-2020: Innovative land-based and offshore renewable energy technologies and their integration into the energy system (SC3)	1. Development of land- based renewable energy technologies and their integration into the energy system	RIA	18 (3-6)	Evaluation criteria, scoring and threshold dfferent for the subtopics TRL to 4-5
	2. Demonstration of innovative technologies to enable future large scale deployment of offshore renewable energy	IA	68 (20-35)	Evaluation criteria, scoring and threshold different for the subtopics; TRL to 7
LC-GD-2-2-2020 Develop and demonstrate a 100 MW electrolyser upscaling the link between renewables and commercial/industrial Applications (SC3)		IA	60 (25-30)	Exceptional funding rates; Other conditions; TRL from 6/7 to 8
LC-GD-2-3-2020: Accelerating the green transition and energy access Partnership with Africa (SC3)		IA	40 (5-10)	Eligility and admissibility conditions; Evaluation criteria, scoring and threshold

AREA 2 TOPICS	BUDGETS (EUR million) (WP part)	NCPs & webpage Draft call text
LC-GD.2.1.2020 (RIA)	18 (SC3)	Reijo Munther & Tom Warras (Business Finland)
LC-GD.2.1.2020 (IA)	68 (SC3)	https://www.businessfinland.fi/suomalaisille- asiakkaille/palvelut/rahoitus/horisontti- 2020/yhteiskunnalliset-haasteet/energia/'
LC-GD.2.2.2020 (IA)	60 (SC3)	https://ec.europa.eu/info/research-and- innovation/strategy/european-green-
LC-GD.2.3.2020 (IA)	40 (SC3)	deal/call/clean-affordable-and-secure-energy_fi



Promoting Clean Energy

- LC-GD-2-1-2020: Innovative land-based and offshore renewable energy technologies and their integration into the energy system
- <u>Specific Challenge</u>: The European Green Deal expects to transform Europe into a fair and prosperous society with a modern, resource-efficient and competitive economy with no net emissions of greenhouse gases in 2050. To decarbonise Europe, landbased and offshore renewables must become the main energy source, while keeping the stability and resilience of the European Energy System. Research and Innovation is still needed to be able to achieve a full system transformation and to realize the ambition of other EU policies like the Clean Planet for all, the SET-Plan, and the New Circular Economy Strategy and to contribute to the Sustainable Development Goals of the United Nations (in particular SDG 7 Affordable and Clean Energy and SDG 9 Industry, Innovation and Infrastructure.



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

• Given that the topic contains two subtopics, the specific challenge for the first one, about **the development of land-based renewable energy technologies and their integration into the energy system,** includes in particular the following:

Renewable energy-based systems for district heating and cooling (DHC) and for cogeneration of heat and power (CHP) can play a key role in energy system integration, and make a significant contribution to the decarbonisation of the energy system.

Similarly, the specific challenge for the subtopic on **demonstration of innovative technologies to enable future large scale deployment of offshore renewable energy** includes in particular the following:

The Commission's long-term strategy, *A Clean planet for all*, identifies offshore renewable technologies, amongst others, as a key energy system for the Clean Energy Transition. It provides estimates for the offshore wind capacity in Europe of 240-440 GW by 2050, compared to about 22 GW today.

Grid infrastructure

Power to X /battery/ storage systems

The project should bring the demonstrated technologies to TRL 7

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

- <u>Specific Challenge</u>: The European long term decarbonisation strategy (LTS) "A Clean Planet for All" published by the European Commission in November 2018 refers to the potential key role of hydrogen in decarbonising hard-to-abate sectors, such as industry, cement, steel, and also contributing to decarbonisation of heavy duty and long distance transport.
- To help achieve the climate neutrality objective, hydrogen needs to be produced at large scale, mainly through electrolysis powered by renewable electricity. The LTS scenarios achieving climate neutrality envisage an installed electrolyser capacity ranging between 400 and 511 GW by 2050 in the EU. However today the technology is only available at multi-MW scale (a 20 MW electrolyser project is being implemented through the co-funding of the Fuel Cells and Hydrogen Joint Undertaking, under the call 2018).
- In order to reach the GW scale, an important milestone would be the development and demonstration of a 100MW electrolyser.



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

Mandatory knowledge sharing activity:

- Cross border dimension and knowledge sharing within Europe: as part of mandatory activities, organise 3 workshops, out of which at least 2 in European countries, outside of the beneficiary's main implantation, involving policy makers and energy stakeholders, to share knowledge on experience gathered and replication of experiences.
- Contribute to addressing common challenges, information (like reporting on impact indicators) and dissemination
 activities through cooperation with other relevant projects funded by the European Commission in the context of this
 call.
- To ensure that projects jointly contribute to energy system integration, and create synergies and supply chains for Hydrogen, through synergies between, and to enhance the visibility of H2020 supported actions, projects are requested to reserve a small part of their funding to such cooperation.
- The knowledge to be shared will cover the whole project cycle including project management, procurement, permitting, construction, commissioning, performance, cost level and cost per unit performance, environmental impacts, health and safety, as well as needs for further research and development.
- Proposals are expected to bring the technologies from TRL 6/7 to TRL 8 at the end of the project.



LC-GD-2-3-2020: Accelerating the green transition and energy access Partnership with Africa

- <u>Specific Challenge</u>: This action responds to the Joint Communication for a Comprehensive Strategy with Africa^[1] adopted on 9/3/2020, which highlights that innovation is key to enable African countries to pursue sustainable pathways to development through a low-carbon, climate resilient and green growth trajectory, leapfrogging fossil fuel technologies. It will contribute to the present R&I Partnership on Climate Change and Sustainable Energy of the EU/AU High-Level Policy Dialogue^[2] on Science, Technology and Innovation that is expected to strongly contribute to Action 1 of the Comprehensive Strategy with Africa.
- The African continent has an enormous renewable energy potential which just began to be harnessed successfully. The adoption of innovative, affordable and efficient renewable energy solutions will support Africa in achieving sustainable development growth and economic transformation.
- Scope
 - development of renewable energy sources, including solutions for off-grid communities, and their integration
 into the existing energy system, considering the generation of renewable energy, the transmission, and the use
 of storage/battery systems.





Area 3: Industry for a clean and circular economy

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTION	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-3-1-2020: Closing the industrial carbon cycle to combat climate change – Industrial feasibility of catalytic routes for sustainable alternatives to fossil resources (NMBP)		IA	80 (40)	Evaluation criteria, scoring and threshold
LC-GD-3-2-2020: Demonstration of systemic solutions for the territorial deployment of the circular economy		IA	60 (10-20)	Other conditions



AREA 3 TOPICS	BUDGETS (EUR million) (WP part)	NCPs & webpages if not mentioned before Draft call text
LC-GD.3.1.2020 (IA)	80 NMBP	NMBP: Reijo Munther & Heini
C-GD.3.2.2020 (IA)	60 (SC5)	Günther (Business Finland) https://www.businessfinland.fi/suomalaisille- asiakkaille/palvelut/rahoitus/horisontti- 2020/teollisuuden-johtoasema/nmbp/ SC5 Jaana Lehtimäki (Academy of Finland) & Heini Günther (Business Finland) https://ec.europa.eu/info/research-and- innovation/strategy/european-green- deal/call/industry-clean-and-circular-economy_fi

LC-GD-3-1-2020: Closing the industrial carbon cycle to combat climate change – Industrial feasibility of catalytic routes for sustainable alternatives to fossil resources (NMBP)

- <u>Specific Challenge</u>: Greening of industrial and energy production, storage and distribution^[1] by use of CO₂ emissions from industrial processes.
- 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. This has the potential e.g. to reduce by over 30 % the current ~665 Mt of CO₂ emissions per annumLow carbon energy and feedstock for the European chemical industry, DECHEMA 2017. Industrial Value Chain A Bridge Toward a Carbon Neutral Europe, VUB-IES 2018, Table 1, page 21:
 https://www.ies.be/files/Industrial_Value_Chain_25sept_0.pdf related to the Energy Intensive Industries in Europe. How and accompany to demonstrate the industrial and accompany for each producing synthetic.

Europe. However, it is necessary to demonstrate the industrial and economic feasibility of producing synthetic fuels and chemicals by scaling-up the developed technologies to reach industrial production levels and validate the industrial exploitability and circularity.

• Masterplan for a Competitive Transformation of EU Energy-Intensive Industries Enable a Climate-neutral, Circular Economy by 2050. Report by the High-Level Group on Energy-intensive Industries, 2019



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

- <u>Expected Impact</u>:
- Industrial scale demonstrator operational by 2026 based on Industrial Symbiosis and novel, highly optimised and energy efficient catalytic systems.
- Significant reduction of industrial CO₂ emissions (~200Mt p.a. reduction by 2050) with the potential to achieve a carbon intensity below 20g CO2eq/MJ.
- Enhance the effectiveness of renewable energy sources (i.e. solar, wind) by enabling the production and transmission of a flexible high energy density storage medium in the form of chemicals and synthetic fuels to be used for specific industry segments (e.g. aviation, chemical, shipping, defence) and validated through Techno-Economic and Life Cycle assessment (TEA/LCA).
- Demonstrate and validate the industrial feasibility and cost effectiveness of the technologies, at pilot plant level with a minimum chemical production capacity of 4000 tons per annum, while enhancing Europe's sustainable competitiveness in accordance with the Commissions Industrial Strategy^[1].
- Significant indirect impact on air quality and citizen health through the filtering of flue gas emissions from large industrial plants (e.g. energy, cement, chemical, non-ferrous metals and steel).
- Foster a cross-sectorial European innovation eco-system to deploy sustainable alternatives to fossil resources of create demonstration capacity for sustainable catalytic systems of superior efficiency towards 2030 and 2050.

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

- The circular economy concept should be a central component in local and regional economies, which have a suitable scale for closing resource loops, creating sustainable circular ecosystems and designing participatory community-based innovation schemes. An increasing number of cities, regions, industries and businesses are engaged in testing and improving circularity in their territories, economic sectors, value chains and services. Nevertheless, the concrete implementation of systemic solutions for the territorial deployment of the circular economy still needs to be demonstrated and replicated effectively in other areas.
- In particular, a major challenge is how to effectively apply the circular economy concept beyond traditional resource recovery in waste and water sectors. The EU added value can be obtained through the demonstration of territorial systemic circular solutions in one territory and their replication in other areas in Europe.
- This process of demonstration and replication of circular systemic solutions will multiply the local contribution to achieving the policy targets of the European Green Deal, the Circular Economy Action Plan^[1], the Bioeconomy Strategy^[2] and the European Industrial

Strategy ^[1] <u>https://ec.europa.eu/environment/circular-economy/</u>

121 https://ec.europa.eu/research/bioeconomy/index.cfm?pg=policy&lib=strategy

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

- Expected Impact:
- decoupling of economic and human activities from the consumption of finite resources and GHG emissions, ensuring the transition towards circular and climate-neutral economy;
- improved sustainability and circularity of clusters' economic sectors, natural ecosystems, management and valorisation of local resources;
- emergence of circular business opportunities and a structured pipeline of investment projects;
- increased circular and climate-neutral practices among citizens and their participation in systemic solutions;
- creation of jobs in the short to medium term;
- more effective development of circular solutions through knowledge transfer between the territorial clusters funded under this topic and other territories across EU member states and associated countries;
- more effective widespread uptake and easier replication, scalability and visibility of circular systemic solutions and hence multiplication of the economic, social and environmental benefits to achieve the policy targets of the European Green Deal, Circular Economy Action Plan, EU Bioeconomy Strategy and the European Industrial Strategy at local, regional, national, European and international levels.



Area 4: Energy and resource efficient buildings

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTION	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-4-1-2020: Building and renovating in an energy and resource efficient way (SC3)		IA	60 M€ (10-20 M€)	Exceptional page limits to proposals/applications



AREA 4 TOPICS	BUDGETS (EUR million) (WP part)	NCPs & webpage if not mentioned before Draft call text
LC-GD-4.1.2020 (IA)	60 (SC3)	Reijo Munther & Tom Warras (BF) https://ec.europa.eu/info/research-and- innovation/strategy/european-green- deal/call/energy-and-resource-efficient- buildings_fi



European Commission

TRL up to 7/8

The European Green Deal Call

Building and renovating in an energy and resource efficient way

To design and **construct new** or **retrofit existing** buildings as zero-emission / zero-pollution, positive energy powerhouses. Multiplication of such buildings in green neighborhood / district "living labs".

Proposals are expected to deliver at least two large-scale, real-life demonstrations of promising technology and social innovations based on:

- 1. Scalability design of green, positive energy neighborhoods
- 2. Industrial construction/renovation workflows with recycling, minimized disruption, etc
- 3. Highly energy-efficient building designs (BIM, integrated photovoltaics, etc)
- 4. Renewable ES electricity generation in buildings and district level (also: revers.heat pumps)
- 5. Energy storage systems (eg. 2nd life batteries from electric vehicles, eg. interoperability with the grid)
- 6. Highly energy-efficient building operation at reduced maintenance costs (eg. smart home services
- 7. Citizen awareness raising, training for sustainability
- 8. Coordination on standards and regulatory aspects for efficiency of buildings and HVAC technologies.

Expected impact:

- Primary energy savings (in GWh/year);
- Investments in sustainable energy
- High energy performance / positive energy buildings;
- Reduction of GHG emissions
- Reduction of the embodied energy 50 %
- Reduction of air pollutants towards zero
- Shortened construction time/cost by 30%
- Improved indoor environment quality and reduction of dust and noise by >30%

Building and renovating in an energy and resource efficient way

To design and **construct new** or **retrofit existing** buildings as zero-emission / zero-pollution, positive energy powerhouses. Multiplication of such buildings in green neighborhood / district "living labs".

The project will set up (or use existing) innovation clusters in different regions of Europe.

Such innovation clusters need to include the local / regional / national value chain(s), to demonstrate, evaluate and ultimately replicate the innovative solutions in different environment and market conditions, with due consideration of social, business and policy drivers.

This will also ensure the validation of the innovations **for different building types** - residential (e.g. social housing) and non-residential (e.g. hospitals, schools, public buildings) - and various climatic zones. Innovation action (IA) TRL up to 7/8

Proposals requesting a contribution of 10 to 20 mio.€ would be recommended.



Area 5: Sustainable and smart mobility

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTI ON	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-5-1-2020: Green airports and ports as multimodal hubs for sustainable and smart Mobility (SC4)	Area A: Green Airports Area B: Green Ports	IA	100 M€ (15-25 M€)	Evaluation criteria, scoring and threshold; TRL 6 or above

AREA 5 TOPICS	BUDGETS (EUR million) (WP part)	NCPs & webpage if not mentioned before Draft call text
LC-GD.5.1.2020 (IA)	100 (SC4)	Tom Warras (Business Finland) https://www.businessfinland.fi/suomalaisille- asiakkaille/palvelut/rahoitus/horisontti- 2020/yhteiskunnalliset-haasteet/liikenne/ https://ec.europa.eu/info/research-and- innovation/strategy/european-green- deal/call/sustainable-and-smart-mobility_fi





Green airports and ports as hubs for sustainable and smart mobility

Expected Impacts:

- 1. Accelerated **deployment of sustainable alternative fuels** (e.g. biofuels, hydrogen, ammonia) **and electromobility** for aviation, shipping and other transport modes; supply, storage, recovery
- 2. Green energy / fuel **production**, **distribution and supply** (e.g. hydrogen, electricity, biofuels), with re-fuelling and re-charging capabilities for multiple vehicles/purposes
- 3. Green airports and ports as **multimodal** hubs, optimising **passenger and freight** flows for low emission mobility, in a context of much stricter public health criteria;
- 4. Energy-efficient and green airport and port **operations and buildings**, logistics, interaction with modes (**rail**), promoting modal shifts
- 5. Reduced emissions in aviation, waterborne and other transport and reduction of noise; reduced emissions for cities, urban mobility, better city integration for ports/airports
- 6. Clear commitments to Europe-wide take up of technological, nontechnological and socially innovative solutions are expected, which could be follow-up actions, for instance supported by **CEF**
- 7. Significant, direct and immediate contribution to the achievement of the European Green Deal, as well as other EU transport policy objectives (including TEN-T), while strengthening the competitiveness of the European transport segtor.





Green airports and ports as hubs for sustainable and smart mobility Separate ranking lists for AIRPORTS and PORTS

For airports, all of the four headings shall be addressed in the proposals

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Green airports:

Transport

3 musts

- Access & multimodal connection to the airport
- From airport terminal to aircraft
- At landside (logistics, ground handling, fuel)
- Iow-emission energy use for aircrafts, airports, road vehicles, public transport and carpooling
- use of green de-icing and anti-icing;
- innovative digital solutions, MaaS
- infrastructure for small and medium airports
- sustainable alt.fuels production facilities onsite
- EU Clearing House for Sust.Kerosene (EU-CHSK)

- Green airports:Terminal
 - green and smart logistics and infrastructures;
 - green built environment (construction / demolition) and procurement processes;
 - > energy efficiency of buildings
 - Biodiversity, green land planning
 - Energy
 - energy value chain from supply to use
 - industrial scale pilot advanced biofuels refineries or retooling of existing fuel refineries
 - identifying effective incentives to address challenges in alternative fuels system
 - assessing the scalability of solutions
 - **Cross-cutting aspects**
 - Six aspects listed; 3 of those shall be
 - addressed

2 out of 4

2 out of 4



Green airports and ports as hubs for sustainable and smart mobility Separate ranking lists for AIRPORTS and PORTS

Green ports: Perform large-scale, real-life high TRL demonstrations of green maritime and inland ports, addressing at least six (6) of the following aspects:

- 1. low-emission energy supply and production at ports and on-shore supply systems
- 2. demonstrating low-emission energy supply and production at ports and supply systems with storage, distribution and re-charging/sustainable alternative fuel re-fueling infrastr for ships and for other use
- 3. Demonstrate seamless and highly efficient logistics operations, for integrated port-hinterland connections
- 4. Perform pilot activities of digitalisation in ports, particularly with connected and automated vehicles and cranes, port systems
- 5. mechanisms for multimodal access, passenger and freight flows, facilitating port access and reducing traffic from/to the city or other nodes;
- 6. assessing non-technological framework conditions, such as market mechanisms and regulatory actions in the short and medium term, which can provide financial/operational incentives
- 7. developing and promoting new multi-actor governance arrangements that address the interactions
- 8. Deliver a Master Plan for the future Green Port

6 out of 8

Area 6: Farm to fork

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTION	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-6-1-2020: Testing and demonstrating systemic innovations in support of the Farm-to-Fork Strategy (SC2)	 A. Achieving climate neutral farms by reducing GHG emissions and by increasing farm-based carbon sequestration and storage B. Achieving climate neutral food businesses by mitigating climate change, reducing energy use and increasing energy efficiency in processing, distribution, conservation and preparation of food C. Reducing the dependence on hazardous pesticides; reducing the losses of nutrients from fertilisers, towards zero pollution of water, soil and air and ultimately fertiliser use D. Reducing the dependence on the use of antimicrobials in animal production and in aquaculture E. Reducing food losses and waste at every stage of the food chain including consumption, while also avoiding unsustainable packaging F. Shifting to sustainable healthy diets sourced from land, inland water and sea, and accessible to all EU citizens, including the most deprived and vulnerable groups 	IA	74 (6- 12)	Evaluation criteria, scoring and threshold; TRL 5 to 7

AREA 6 TOPICS	BUDGETS (EUR million) (WP part)	NCPs & webpage if not mentioned before Call draft text
LC-GD.6.1.2020 (IA)	74 (SC2)	Heini Günther (BF) & Jaana Lehtimäki (AF) https://www.businessfinland.fi/suomalaisille- asiakkaille/palvelut/rahoitus/horisontti- 2020/yhteiskunnalliset-haasteet/elintarviketurva/ https://ec.europa.eu/info/research-and- innovation/strategy/european-green- deal/call/farm-fork_fi



LC-GD-6-1-2020: Testing and demonstrating systemic innovations in support of the Farm-to-Fork Strategy (IA) 74 m€ (6-12 m€/project)

Specific Challenge: European food is safe, nutritious and of high quality, yet there's a need to secure food production for the fast-growing world population in a sustainable, safe and just way. Many current production practices and consumption patterns still result in air, water and soil pollution, contribute to the loss of biodiversity and to climate change, challenge animal welfare and consume excessive amounts of natural resources, including water and energy, while an important part of food is wasted. At the same time, unbalanced diets contribute to obesity and other nutrition-related, non-communicable diseases.

Problems: CHG-emissions in agriculture, unsafe amounts of fertilizers in ecosystems, antimicrobial resistence (-> premature deaths), food wastage, obesitys and diet related diseases

Covid-19: -> need for resilient food systems responding to global shocks and disruptions in supply chains and to mitigate socio-economic impacts of crisis as regards food poverty

Farm to Fork -strategy accelerates the transition to sustainable food systems ensuring that the economic, social and environmental foundations of food & nutrition security are not compromised. Emphasis on enabling a "just transition" for all actors of the food systems; also social inequalities are reduced, food poverty is addressed, and a fair income for all actors is ensured

F2F requires and builds on **innovative solutions that can be scaled up**, such as **agro-ecological and organic practices**, alternative sources of protein (e.g. plant-based, ocean-based, insect-based, etc.), 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 innovative systemic solutions.

<u>Scope</u>: A range of activities will support the deployment and scaling up of innovations that contribute to the objectives of the Farm-to-Fork Strategy . Proposals will test, pilot and demonstrate innovative systemic solutions (TRL 5-7) to one of the following six subtopics (A-F), corresponding to urgent and pressing food systems' challenges:

A. achieving climate neutral farms; B. achieving climate neutral food businesses; C. reducing hazardous pesticides; D. reducing use of antimicrobials; E. reducing food loss and waste;F. shifting to sustainable healthy diets

At least one project/subtopic will be funded.



Proposals should focus on systemic innovations maximizing synergies and minimising trade-offs

- Systemic thinking/systemic approach; to define the challenge, identify innovative systemic solutions from production to consumption; to assess their expected and actual impact including risks, synergies, and trade-offs with regards to the three pillars of sustainability (climate/environmental, economic, social/health, including biodiversity and animal welfare)
- Multi-actor and cross-sectoral approach; engaging practitioners (primary producers, processors, retailers, food service providers, consumers), public and private institutions (governmental institutions, NGOs, industry) and citizens from farm to fork to co-create, test and demonstrate solutions from production to consumption, in practice, on a European scale but with attention for regional and sectoral needs and contexts (environmental, socioeconomic, geographical, cultural). Take specific care to engage young professionals (e.g., young farmers, young fishers, young researchers, young entrepreneurs, etc.), SMEs, consumers and citizens.
- Focus on upscaling innovation (TRL5-7) but project can include limited research activities to address specific gaps for solution building, testing and demonstration. Particular attention should be given to understand behaviours, motivations and barriers,
- Action plan for dissemination, communication and engagement, for building awareness, education
 and skills relevant to the solutions on a European scale, in and beyond the regions of the activities



Expected Impact: Demonstrate innovative systemic solutions with potential to generate significant positive impacts by 2030 with regards to :

Achieving climate neutrality of farms and farming systems (on land, water and sea); reducing GHG emissions; increasing carbon sequestration and storage (Subtopic A); Achieving climate neutrality of food businesses; reducing energy use and increasing energy efficiency in processing, distribution, conservation and preparation of food (Subtopic B); Decreasing the dependency on the use of hazardous pesticides (Subtopic C); Reducing loss of nutrients from fertilisers and ultimately fertiliser use; increasing the efficiency of fertilisers (Subtopic C); Decreasing the dependency on antimicrobials in animal production and in aquaculture (Subtopic D); Reducing food losses and waste and the use of unsustainable packaging, at every stage of the food chain including consumption (Subtopic E); Increasing the share of citizens that adhere to healthy sustainable diets, including among the most deprived and vulnerable groups (Subtopic F); Providing sufficient, safe, nutritious, healthy and affordable food for all (Subtopics (A), (B), (C), (D), (E), and (F)); Improving the overall sustainability of food systems (social/health, climate/environmental and economic) (Subtopics (A), (B), (C), (D), (E), and (F)); Improving the resilience of food systems to shocks and stresses (Subtopics (A), (B), (C), (D), (E), and (F))

- Contribute significantly to the achievement of corresponding objectives and targets on the Farm to Fork –strategy and the European Green Deal (see detailed list in call text)
- Achieve an increase in awareness among policy makers, businesses, investors, entrepreneurs, institutions, stakeholders and citizens of selected innovative systemic solutions, their potential and

Area 7: Biodiversity and ecosystem services

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTION	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-7-1-2020: Restoring biodiversity and ecosystem services (SC5)		IA	80 (16-25)	Evaluation criteria, scoring and threshold; at least the two-highest- ranked proposals covering terrestrial and/or freshwater ecosystems, and covering coastal and/or marine ecosystems will be funded provided that they attain all threshold values.



AREA 7 TOPICS	BUDGETS (EUR million) (WP part)	NCPs & webpage if not mentioned before Draft call text
C-GD.7.1.2020 (IA)	80 (SC5)	Jaana Lehtimäki (AF) Heini Günther (BF) https://ec.europa.eu/info/research-and- innovation/strategy/european-green- deal/call/restoring-biodiversity-and-ecosystem- services_fi



LC-GD-7-1-2020: Restoring biodiversity and ecosystem services (IA)

- Actions should demonstrate and promote systemic solutions for upscaling urgent restoration to increase biodiversity and support ecosystem services in heavily degraded freshwater, coastal or marine ecosystems as requested in the Biodiversity Strategy for 2030.
- There is a need to strengthen the resilience of aquatic and terrestrial ecosystems against environmental and climate stressors while integrating the local socio-economic specificities of their surrounding environment.
- The topic seeks to show how investing in nature restoration can help vulnerable regions and communities to improve their resilience to social and environmental shocks, when rapid changes in climate and environment, economies and social conditions occur.

Required activities should include (9), For example:

- Adapt, integrate and demonstrate innovative methods on upscaling ecosystem restoration;
- Demonstrate and test how restoration activities enable sustainable, climate-neutral and climate-resilient, inclusive, and transformative approaches;
- Generate knowledge on how large-scale restoration can accelerate transformative change beneficial for biodiversity and climate resilience, and bring this information to UN programmes as well as to IPCC and IPBES process

In addition, actions should address all the listed issues (7), For example:

- Together with the concerned communities, developing a scalability plan, including at landscape scale and using spatial planning legislation where relevant...
- Setting baselines, goals and a monitoring framework for the projects...
- Restoration actions should be paired with supportive and robust management practices that reduce pressures and direct habitat damage at the local scale, and empower civil socity in planning and deployment of restoration and maintenance of its achievements to support restoration efforts in the long term.

Expected impacts (6), For example:

The projects results are expected to contribute the objectives of the EGD, including the EU commitment to reduce emissions by 50-55% by 2030 and become net carbon-neutral by 2050; the implementation of the EU Biodiversity Strategy by 2030 and the EU Nature Directive, the Water and Marine Strategy Framework Directives, the Farm-to-Fork Strategy, the Pollinators Initiative, the Climate Law, the Bioeconomy Strategy and Action Plan...



Area 8: Zero-pollutions, toxic-free environment

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTION	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-8-1-2020: Innovative, systemic zero-pollution solutions to protect health, environment and natural resources from persistent and mobile chemicals (SC5)		RIA	40 (8-12)	
LC-GD-8-2-2020: Fostering regulatory science to address combined exposures to industrial chemicals and pharmaceuticals: from science to evidence-based policies (SC5)		RIA	20 (4-6)	



	WP part)	Call draft text
C-GD.8.1.2020 (RIA) 4 C-GD.8.2.2020 (RIA) 2	40 (SC5) 20 (SC5)	Jaana Lehtimäki (AF) Heini Günther (BF) https://ec.europa.eu/info/research-and- innovation/strategy/european-green- deal/call/zero-pollution-toxic-free-environment_fi



LC-GD-8-1-2020: Innovative, systemic zero-pollution solutions to protect health, environment and natural resources from persistent and mobile chemicals (RIA) 40 m€ (8-12 m€/project)

- Call topic aims at establishing new knowledge and exploring the feasibility of new technologies to protect health, environment and natural resources from persistent and mobile chemicals that are widely used in various consumer and industrial products, thus forming a systematic problem for human health and nature, some of them (e.g. PFAS) being very toxic
- Selected projects are expected to advance our knowledge on health impacts and environmental effects and to address and preferably prevent a specific pollution problem involving contamination of environmental resources (such as soil, sediments, air, food and drinking water).
- Solutions developed should lead to cost-effective prevention, monitoring and mitigation/ elimination of the issues and better understanding of environmental fate and thereby help preventing negative impacts from these chemicals
- projects may include appropriate technologies, business, governance and social innovation aspects and the demonstration of innovative solutions in a relevant environment (TRL 4-6). In particular, projects may consider analytical methods and monitoring, enabling to quantify entire groups of persistent and mobile chemicals in food, soil or drinking water. This would allow achieving a higher level of consumer protection, as such grouping methods are essential for regulating groups of harmful substances that have similar structures.

Expected Impact:

- Provide a foundation for prevention and mitigation solutions based on better understanding the sources and distribution of the targeted chemicals, access to models of their environmental fate and degradation pathways and improved understanding of relevance for human and environmental health of the problem of emerging and persistent pollution;
- Provide solutions and support decision making for addressing large-scale diffuse contamination of water and soil with persistent and mobile chemicals (including for combinations of pollutants) in an integrated manner;
- Contribute to achieving a toxic-free environment through solutions for better load reduction, (bio)remediation and detection technologies, including real time monitoring approaches;
- Improve risk assessment to facilitate optimal risk management and preventive solutions;
- Support policy development, regulatory action and risk communication with FAIR data of regulatory relevance;
- Support actions deriving from several EU documents on persistent and mobile chemicals, the upcoming Zero Pollution Action Plan and the aims of the new Circular Economy Action Plan to minimise the presence of substances that pose problems to human and environmental heal them.

LC-GD-8-2-2020: Fostering regulatory science to address combined exposures to industrial chemicals and pharmaceuticals: from science to evidence-based policies (RIA) 20 m€ (4-6 m€/project)

- Humans, wildlife and domestic animals are exposed to combinations of different chemicals via air, water (including the marine environment), food and feed, consumer products, materials and goods. This includes also pharmaceuticals in the environment.
- The scientific understanding of combination effects has progressed in recent years and approaches for risk assessment and management of unintentional mixtures and combined exposures to chemicals are available. In parallel with the development and implementation of regulatory approaches, there is still a need to improve the scientific knowledge base
- Current knowledge shows that exposures to combinations of chemicals pose risks to
 ecosystems and human health that may not be sufficiently managed under existing
 regulations -> need to advance regulatory science to provide policy-makers and risk
 assessors with validated approaches, methods and tools for decision making and to study the
 effectiveness and efficiency of different policy approaches.
- Actions; applied reseach studies demonstrating how different methodologies can be applied to identify, quantify and prevent harmful co-exposure to industrial chemicals and pharmaceuticals

The applicants can address some or all of the following (see call text for details):

(i) Development of innovative tools and analytical methods to detect and measure complex mixtures, (ii) Comparisons of different possible regulatory approaches to manage unintentional chemical mixtures and coexposures, (iii) Estimations of the degree to which current and possible future regulatory practices/approaches underestimate (or possibly occasionally overestimate) risks related to chemical exposure, (iv) Develop and apply modelling, statistical approaches and other relevant methods to identify and study the health impacts on human populations and the environment, (v) Scientific case studies to identify safety margins for specific unintentional exposures, (vi) The possible effects on humans, in particular on vulnerable sub-populations, from combined (chronic) exposure to low levels of pharmaceuticals via the environment, (vii) Combining and analysing EU data sources to generate insights on real-life and potential exposure combinations, typical exposure routes and uses, (viii) Development, improvement and validation of models for predicting (chronic) exposure to combinations of chemicals

Expected impacts:

 Scientific evidence to enable prevention and/or mitigation of co-exposure to pharmaceuticals and industrial chemicals • Support the implementation of existing risk assessment and risk management approaches to reduce the most critical exposures • Support the assessment of new regulatory approaches • Support activities on combined exposures as relevant for the Strategic Approach to Pharmaceuticals in the Environment and as to be defined in the forthcoming Chemical Strategy for Sustainability

Selected projects under this topic are strongly encouraged to continuously share information and participate to joint activities to optimise synergies to address policy-relevant knowledge gaps.

More information

- Horizon 2020 Commission Green Deal call web page:
- https://ec.europa.eu/info/researchand-innovation/strategy/europeangreen-deal/call_en

Funding & Tenders portal:

 https://ec.europa.eu/info/fundingtenders/opportunities/portal/screen/ programmes/h2020 22-24 September 2020: European R&I Days,Brussels:

 https://ec.europa.eu/info/research-andinnovation/events/upcomingevents/european-research-andinnovation-days_en

Partner search services:

- https://www.sisnetwork.eu/partnersearch/ (SSH)
- http://forms.asrt.sci.eg/europa/Default. aspx

Partner search service for industry partners:

https:// een.ec.europa.eu/partnetic



Other GD webinars & networking events

UK will be hosting series of three Green Deal information webinars with large and inclusive brokerage events in the following weeks:

Several GD events on the European NCPsCare page (incl. also specially SSH-related Virtual Brokerage event organized by Net4Society Oct 10):

 http://www.ncpscare.eu/?tag=green-deal

Belgian events on Sep 9 and Sep11:

 https://ncpbrussels.be/events/177european-green-deal-callwebinars.html?utm_content=bufferd 385b&utm_medium=social&utm_so urce=twitter.com&utm_campaign= uffer



H2020: EUTI & Finnish NCPs

www.horisontti2020.fi

https://www.businessfinland.fi/suomalaisille-asiakkaille/palvelut/rahoitus/horisontti-2020/horisontti-yhteyshenkilot/#ncp





Area 9: Strengthening our knowledge in support of the EDG

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTION	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-9-1-2020: European Research Infrastructures capacities and services to address European Green	(a) Support Europe leadership in clean energy storage technologies	RIA	28 for the topic (7)	Evaluation criteria scoring and threshold
Deal challenges (RI)	(b) Enhancing European research infrastructures for greenhouse gases observation in and around cities	RIA	28 for the topic (13)	
	c) Enhancing observations for air quality and citizens' health in urban areas	RIA	28 for the topic (8)	
LC-GD-9-2-2020: Developing end-user products and services for all stakeholders and citizens supporting climate adaptation and mitigation (SC5) (SC2)		RIA	25 (3-5)	
LC-GD-9-3-2020: Transparent & Accessible Seas and Oceans: Towards a Digital Twin of the Ocean (SC2)		IA	12 (12)	

AREA 9 TOPICS	BUDGETS (EUR million) (WP part)	NCPs & webpage if not mentioned above Call draft text
LC-GD.9.2.2020 (RIA)	25 (SC5)	Jaana Lehtimäki (AF) & Heini Günther (BF)
LC-GD.9.1.2020 (RIA)	28 (INRFA)	Suvi Broholm & Ulla Ellmén (AF) https://www.businessfinland.fi/suomalaisille- asiakkaille/palvelut/rahoitus/horisontti- 2020/huipputason-tiede/tutkimusinfrastruktuurit/
LC-GD.9.3.2020 (IA)	12 (SC2)	Heini Günther (BF) & Jaana Lehtimäki (AF)
		https://ec.europa.eu/info/research-and- innovation/strategy/european-green- deal/call/strengthening-knowledge_fi



Area 9: Strengthen our support in knowledge of the EDG



- (a) Support EU leadership in clean energy storage technologies
- Enable breakthrough research and innovation in energy storage.
- Anchor European RIs in an efficient and competitive research and industrial ecosystem for energy storage.
- (b) European RIs and monitoring networks for GHSs observing (b1), air quality and citizens' health (b2) in cities
- Strengthening the observation and monitoring of GHG emissions, ultrafine particles and air quality.



application

end-user products and services for all citizens supporting climate adaptation and mitigation (RIA/IA);

9.2. Developing stakeholders and

- Improve climate delivery
- Increase accessability
 of information on
- climate effects to citizens
- Improve quality of data on climate adaptation and mitigation
- Characterize social and behavioral factors necessary for the climate transition.
- Improve climate adaptation and mitigation to adapt social and economic barriers.
- Inform citizens and stakeholders on climate action possibilities.





Develope an integrated digital ocean through interoperable twins: □ build on existing EU assets (eg Copernicus, **EMODNET, ERICs or** the Blue Cloud) address concrete cases in local or regional sea basins □ demonstrate their usefulness with regard to several of the Green Deal priorities

Area 10: Empowering citizens for the transition towards a climate-neutral, sustainable Europe

TOPIC (COMMITTEE)	SUBTOPIC	TYPE OF ACTION	BUDGET FOR THE TOPIC (BUDGET FOR THE PROJECTS)	SPECIAL CONDITIONS
LC-GD-10-1-2020: European capacities for citizen deliberation and participation for the Green Deal (SC6)		RIA	10 (3-5)	
LC-GD-10-2-2020: Behavioural, social and cultural change for the Green Deal (SC6)		RIA	10 (3-5)	
LC-GD-10-3-2020: Enabling citizens to act on climate change, for sustainable development and	Subtopic 1; Enabling citizens to act on climate change through education	IA	25 for the topic (3-5)	Evaluation criteria, scoring and threshold
environmental protection through educations, citizen science, observation initiatives, and civig engagement (SC5)	Subtopic 2: Enabling citizens to act on climate change, for sustainable development through better monitoring and observing of the environment and their environmental impacts	IA	25 for the topic (3-5)	Evaluation criteria, scoring and threshold

AREA 10 TOPICS	BUDGETS (EUR million) (WP part)	NCPs and webpage if not mentioned before Call draft text
LC-GD.10.1.2020 (RIA) LC-GD.10.2.2020 (RIA)	10 (SC6) 10 (SC6)	Helena Vänskä (AF) https://www.businessfinland.fi/suomalaisille- asiakkaille/palvelut/rahoitus/horisontti- 2020/yhteiskunnalliset-haasteet/eurooppa- muuttuvassa-maailmassa/
C-GD.10.3.2020 (IA)	25 (SC5)	Jaana Lehtimäki (AF) & Heini Günther (BF) https://ec.europa.eu/info/research-and- innovation/strategy/european-green- deal/call/empowering-citizens-transition_fi

^{8.9.202}Area 10: Empowering citizens for the transition to the tr

Citizen deliberation

- Commit citizens to the GreenDeal goals.
- The goal is to establish transnational networks of experts, researchers and practitioners specialized in deliberative democracy and civic participation.



10.2 Behavioural, social and cultural change for the Green Deal (RIA)

• Create greater societal resilience by behaviour change at both individual and collective levels

- Establish transnational networks on behavioural, social and cultural change.
- 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

goals.



ge, for sustainable education, citizen c engagement (IA) 10.3Enabling citizens to act on clim: development and environmental protectior science, observation initiatives,

Subtopic 1: (RIA)

- Build a European competence framework within the context of lifelong learning;
- Specific educational programmes curricula, trainings, networking activities and exchange of good practices;
- Subtopic 2: (IA)
 - Collect environmental and socio-economic data
 - Provide personalized information to citizen about their environmental impact (apps);