

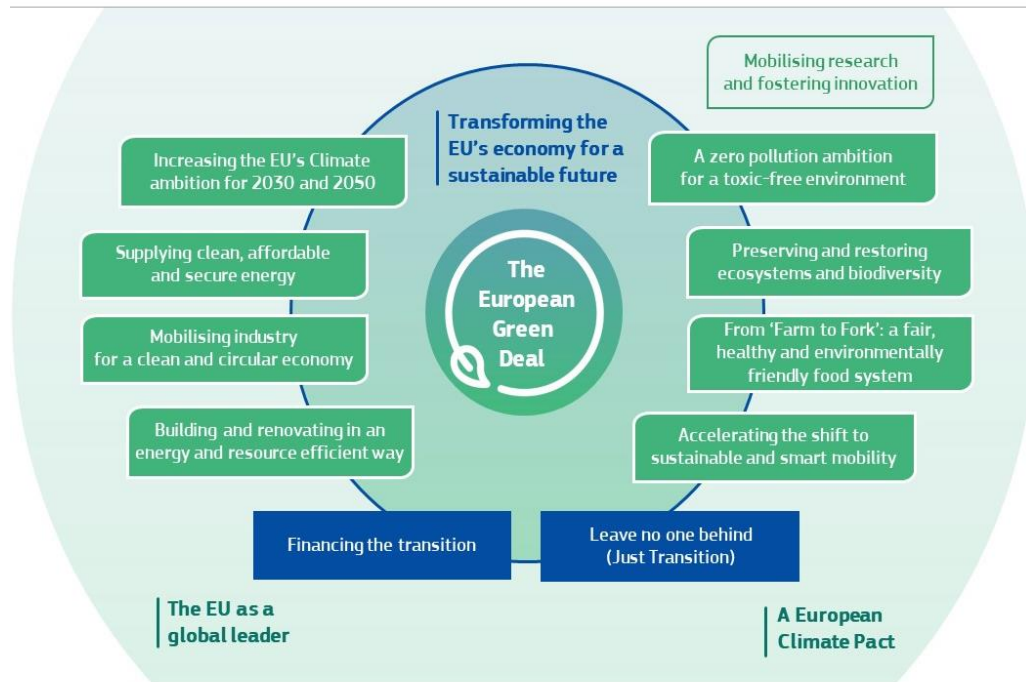
# Research Funding calls

Laura Kitti 25.8.2020

# European Green Deal Call

# What is the European Green Deal?

It is a new *growth strategy* that sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people's health and quality of life, caring for nature, and leaving no one behind.



# Research in the European Green Deal

- Research and innovation will play a central role in driving transformative change by
  - accelerating and navigating the necessary **transitions**
  - deploying, demonstrating and de-risking **solutions**
  - social innovations for **engaging** citizens
- The last Horizon 2020 call will support additional Green Deal related research and innovation with a call worth close to €1 billion.
- Horizon Europe, the EU's next research and innovation framework programme 2021-27, will support the implementation of Green Deal.

# H2020 Green Deal call

- GDC is a different call. It aims to produce tangible and visible results.
- Proposed actions must have a strong focus on **impact**.
- Projects are expected to provide concrete **solutions**.
  - The call will support pilot applications, demonstration projects and innovative products, and innovation for better governance of the green and digital transition, and social and value chain innovations.
- The call also encourages experimentation and social innovation for new ways to engage civil society and empower citizens.
- In relation to **the current pandemic**, the call will contribute to the green and digital recovery and to increasing societal resilience for example in agriculture, biodiversity acceleration of renewables, clean transport and modernisation towards a clean and circular industry.

# Call areas

1. Increasing climate ambition: cross-sectoral challenges
  2. Clean, affordable and secure energy
  3. Industry for a clean and circular economy
  4. Energy and resource-efficient buildings
  5. Sustainable and smart mobility
  6. Farm to Fork
  7. Restoring biodiversity and ecosystem services
  8. Zero-pollution, toxic-free environment
  9. Strengthening our knowledge in support of the European Green Deal
  10. Empowering citizens for transition towards a climate neutral, sustainable Europe
  11. Accelerating the clean energy transition and access in partnership with Africa
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- 8 THEMATIC AREAS

# Area 1: Increasing climate ambition

This area addresses research and innovation needs for climate mitigation and adaptation (see *Clean Planet for All*).

The emphasis lies on three specific sectors

- 1) the devastating impacts of recurrent wildfires across Europe
- 2) the pivotal role of Europe's cities in driving climate
- 3) the equally important responsibility of Europe's regions to accompany their communities and economies in adapting to climate change.

The area comprises the following topics:

- **1.1. Preventing and fighting extreme wildfires with the integration and demonstration of innovative means, [contact Lauri Sikanen](#)**
- 1.2. Towards climate-neutral and socially innovative cities
- **1.3. Climate-resilient innovation packages for EU regions**

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

Energy-intensive industries are an essential part of Europe's economy and supply critical value chains. The actions under this area support switching to alternative, climate-neutral energy and feedstock sources, and to support adopting more circular product designs. Supportive policy measures, helping consumers to make more informed choices, are likewise covered.

The area comprises the following topics:

3.1. Closing the industrial carbon cycle to combat climate change

**3.2. Demonstration of systemic solutions for the territorial deployment of the circular economy (TRL 7-8)**



# Technology readiness levels (TRL)

- TRL 1 – basic principles observed
- TRL 2 – technology concept formulated
- TRL 3 – experimental proof of concept
- TRL 4 – technology validated in lab
- TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 7 – system prototype demonstration in operational environment
- TRL 8 – system complete and qualified
- TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

## Area 6: Farm to fork

- European food should become the global standard for sustainability (see A Farm-to-Fork Strategy)
- This will strengthen the efforts of farmers and fishermen and -women to tackle climate change, protect the environment and preserve biodiversity while contributing to more circular economies and lifestyles.
- Proposals will test, pilot and demonstrate innovative systemic solutions (TRL 5-7)
- The area comprises the following topic:
  - 6.1. Testing and demonstrating systemic innovations for sustainable food from farm to fork

## Area 6: Farm to fork – subtopics 2010 A-F (IA)

- A. Achieving climate neutral farms by reducing GHG emissions and by increasing farm-based carbon sequestration and storage.  
**If you are interested, contact Galyna Medyna.**
- 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. **contact Galyna Medyna**
- C. Reducing the dependence on hazardous pesticides; reducing the use and increasing the efficiency of fertilisers; reducing the losses of nutrients from fertilisers, towards zero pollution of water, soil and air. **contact Sari Autio**

## Area 6: Farm to fork – subtopics 2010 A-F (IA)

- D. Reducing the dependence on the use of antimicrobials in animal production and in aquaculture. Maybe not worth Luke coordinating a proposal, but worth joining a consortium. Be active in your networks and try to get invited!
- E. Reducing food losses and waste at every stage of the food chain including consumption, while also avoiding unsustainable packaging.  
If you are interested, contact Juha-Matti Katajajuuri.
- 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. If you are interested, contact Anne Pihlanto

## Area 7: Biodiversity and ecosystem services

- Ecosystems provide essential goods such as fresh water and clean air; by mitigating natural disasters, pests and diseases, they help regulate the climate. (see EU Biodiversity Strategy 2030)
- The area comprises the following topic:
  - 7.1. Restoring biodiversity and ecosystem services

Luke could have potential coordinators, but none have been decided, if interested, **contact Mikko Kurttila.**

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

- Actions must address change at the collective level through participatory processes and experimental research on behavioural, social and cultural change.
- The area comprises the following topics:
  - 10.1. European capacities for citizen deliberation and participation for the Green Deal
  - 10.2. Behavioural, social and cultural change for the Green Deal
  - 10.3. Enabling citizens to act on climate change and environmental protection through education, citizen science, observation initiatives, and civic involvement.

# Timeline

- Mid-September: the Green Deal Call will be formally adopted as an amendment to the Horizon 2020 Work Programme 2018-20 and the call will be published and will open.
- 22.–24.9.2020 the EU R&I Days is an opportunity to find potential project partners.
- 26.1.2021 is expected closing of the call.
- **Only single stage applications!**

# Support services

- Research Funding Services team will assist in developing proposals which Luke is coordinating.
  - Coordinators involving the Research Funding Services team during October or earlier will receive full support with all aspects of their proposals.
  - Coordinators requesting support in November or later will receive partial support.
- Remember to add your name to the Funding calls notice board on the G-drive.



# Academy of Finland

# Additional funding from the Finnish Government's supplementary budget

- Finnish Flagship Programme 2020, DL 2.9.2020
- FIRI: Research infrastructures as collaborative platforms, DL 2.9.2020
- Special funding for RDI partnership networks, DL 2.9.2020
- Special funding for research into crisis preparedness and security of supply, DL 15.9.2020

# Academy's September call, DL 30.9.2020

- Special funding for system-level research into climate change mitigation and adaptation, if you are interested, contact Mikko Kurttila
- Targeted Academy Project: International Co-Investigator Scheme for Finnish-Norwegian research cooperation in engineering, contact Antti Asikainen
- Funding for Postdoctoral Researcher, all research fields
- Funding for Academy Research Fellow, all research fields
- Academy Project Funding, all research fields
- Funding for international researcher mobility based on bilateral agreements. The mobility funding call is implemented with the following countries India, Japan, China, Germany and Russia.

# Business Finland

# Business Finland funding for research

- Research to Business funding (former TUTLI), DL 16.9.2020. The main goal is on the commercialization preparation, not on research of the idea.
- Co-Creation, open-ended. The goal is a joint co-innovation project of companies and research.
- Co-Innovation, open-ended. Funding for R&D projects by companies and research organisations, in which they jointly develop new knowledge and innovations for new business needs.



**Customer work, intro**  
Juha-Matti Katajajuuri,  
Senior Customer  
Manager

# Challenge based research



# Commercial work

## Why Luke?

- We are an impartial government research institute with strong, global partner network
- We help create opportunities for **enhanced sustainability** and value added across the bioeconomy ecosystem
- We have unique research infrastructures and R&D&I know-how. Our IPR portfolio creates value and new business opportunities for companies

### Contract research

#### **Impact**

*Efficiently and effectively delivering impact for our customers by problem solving*

### Public private partnerships

*More efficient pre-competitive research development*

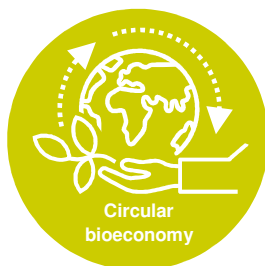
### IPR licensing

*Leveraging IPR to license our patents and form start ups*





# Examples of commercial projects in our portfolio



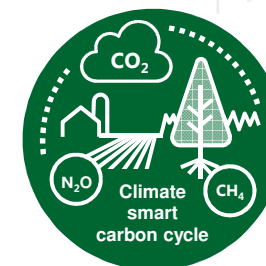
- Resource efficient production systems
- Closed and optimised nutrient cycles
- Value added components of sidestreams and recycled raw materials, extraction technologies
- **Eco-design to minimise environmental impacts (LCA)**
- Biomass availability and costs



- Efficient primary production systems, especially nutrition and feeding technologies
- **Sustainability assessments**, assesment and reduction of environmental impacts of agriculture, food systems and forestry
- Genome based breeding for plants and animals, incl. fish



- **Sustainable** and renewable food systems and forestry
- Adapting primary production to changing climatic conditions including pest and disease control
- Improve resilience and securing biodiversity



- Soil carbon sequestration and emission reduction from peatlands
- Greenhouse gas (GHG) exchange and carbon balance; measurement and expert consultancy
- Changes in land use and carbon balance calculations and scenarios
- **Carbon footprint assessment of products**, packaging and supply chains

## Life Cycle Assessment and Carbon Footprinting of food products – supply chain specific assessment – understand the hotspots of the chain, direct development work, B-t-B and consumer communication



### PHASES of LCA:

- Goal and scope definition
- Inventory analysis
  - broad activity data collection from the chain
  - flow chart
  - material / energy balances
  - assessment of emissions
- Impact assessment
- Interpretation of the results & reporting

Some of our food chain customers and collaboration partners concerning **carbon footprint** assessment of food products and supply chains/systems

Altia, Raisio, Barilla, Panimolaboratorio, Kauppapuutarhaliitto, Potwell, Fazer, Atria, Kesko, Paulig, Vaasan, Sinebrychoff, SOK, Juustoportti, HK Scan, Hesburger, Paulig, Valio, Finnamyl, Leijona Catering, Pirkanmaan Voimia, Stora Enso, Pyroll Group, Apetit tärkkelysteollisuus, Borealis Polymers, United Biscuits....YM, MMM, towns/regions...

To be transformative, Global Bioeconomy must contribute to many of the 17 UN Sustainable Development Goals

- social life cycle and sustainability assessments needed (SLCA, LSCA) – science based reliable measures – towards improvement

