Introduction, Background & Funding Overview

Patrick Barrett
Moorepark – November 2019
Background

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- Research & CODEX Division, DAFM
Underpinning EU R&I strategic approaches

Strategic approach to EU agricultural research and innovation

Food 2030 - Strategic approach to EU food & nutrition security

Bioeconomy strategy (R&I component)
FOOD 2030
R&I for tomorrow's nutrition & food systems

- Perfect Storm: climate change, population growth, resource scarcity, malnutrition, obesity & NCDs
- Political opportunity: response to SDGs, COP21+, Junker priorities
- Investment opportunity: EU underinvesting in food & agri R&I despite high returns on investment
- Need for a systemic approach to future-proofing food systems via more impactful R&I

Drivers
- Research breakthroughs
- Innovation and Investment
- Open Science
- International collaboration

NUTRITION for sustainable and healthy diets
CLIMATE smart and environmentally sustainable food systems
CIRCULARITY and resource efficiency of food systems
INNOVATION and empowerment of communities

Future-proofing
By 2030
Sustainable
Resilient
Responsible
Diverse
Competitive
Inclusive
Sustainable food security topics (2020)

From functional ecosystems to healthy food
- Biodiversity in action
- Healthy terrestrial livestock microbial ecosystems for sustainable production
- Integrated health approaches
- Plant Health
- IPM
- Anti-microbials and animal production
- Genome and epigenome enabled breeding in terrestrial livestock

Environment/Climate-smart Food production and consumption
- Emerging challenges for soil management
- Forest soils

Building capacities
- GenRes & pre-breeding
- Agri-Aqua labs
- ERANETs
  - ICT & Agri
  - Climate & Food
  - Veterinary vaccinology

Targeted international cooperation
- EU-Africa
  - Sustainable intensification
  - Diversifying revenue in rural Africa through bio-based solutions
- EU-China
  - Healthy soils for healthy food production

6 topics
2 topics
2 topics – 2 EraNets
3 topics
Societal challenge 2 calls

Rural renaissance topics (2020)

Dynamics & policies
- Agricultural markets and international trade in the context of sustainability objectives

Food & non-food Value chains
- Connecting consumers and producers in innovative supply chains
- Innovative agri-food value chains – boosting sustainability-oriented competitiveness
- Reducing food losses and waste along the agri-food value chain
- Closing nutrient cycles:
  - Bio-based fertilisers from other by products
  - Sustainable wood value chains
  - Resilient forest systems

Taking advantage of the digital revolution
- UNDER LEIT-ICT call
  - DT-ICT-09-2020 Boost rural economies through cross sector digital service platforms

Innovation and human capital
- Thematic networks compiling knowledge ready for practice (2019/20)

+ UNDER LEIT-ICT call
Societal challenge 2 calls

Food and Natural Resources topics (2020)

**Agri**
- Strengthening the European agro-ecological research and innovation ecosystem
- Developing long-term monitoring and evaluation frameworks for the Common Agricultural Policy
- A comprehensive vision for urban agriculture
- Towards a European research and innovation roadmap on soils and land management
- Husbandry for quality and sustainability
- Defossilising agriculture – solutions and pathways for fossil-energy-free farming

**Food**
- FOOD 2030 – Empowering cities as agents of food system transformation
- Supporting the food safety systems of the future
- Sustainability of bio-based products – international governance aspects and market update

**3**
- Pilot action for the removal of marine plastics and litter
- Public engagement for the Bioeconomy
- Prospecting aquatic and terrestrial natural biological resources for biologically active compounds
- Industrial microbiomes – learning from nature
- Bio-based industries leading the way in turning carbon dioxide emissions into chemicals

**Innovation and human capital**
- Innovative textiles – reinventing fashion
- A network of European bioeconomy clusters to advance bio-based solutions in the primary production sector
- Enzymes for more environment-friendly consumer products
- Pilot circular bio-based cities – sustainable production of bio-based products from urban biowaste and wastewater

Food and Natural Resources topics (2020)
## Call deadlines

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*European Commission*
€3.7 billion investments - Operates under H2020 – approx. €120 million per year

Objectives:
- Resource efficiency
- Sustainable low carbon economy
- Increase economic growth in rural areas

Focus
- Feedstock: foster a sustainable biomass supply with increased productivity and building new supply chains
- Biorefineries: optimise efficient processing through R&D and demonstrate their efficiency and economic viability at large-scale demo/flagship biorefineries
- Markets, products and policies: develop markets for bio-based products and optimise policy frameworks
HORIZON EUROPE
THE NEXT EU RESEARCH & INNOVATION PROGRAMME (2021 – 2027)

Pillar II
Global Challenges and Industrial Competitiveness

#HorizonEU
CLUSTER 5: Food and natural resources: what is in it?

7 intervention areas:

- Environmental observation
- Biodiversity and natural capital
- Agriculture, forestry and rural areas
- Sea and oceans
- Food systems
- Bio-based innovation systems
- Circular systems
Key Features:

**CLUSTER 5: Food, Bioeconomy, Natural Resources, Agriculture & Environment**

**Mission: Soil Health & Food**

**Partnerships: Eight partnerships proposed**

- Accelerating farming systems transition: agro-ecology, living labs and research infrastructure
- Animal Health: Fighting Infectious diseases
- Environmental Observations for a sustainable EU Agriculture
- Rescuing biodiversity to safeguard life on Earth
- A climate neutral, sustainable and productive blue economy
- Safe and Sustainable Food System for People, Planet & Climate
- Circular bio-based Europe: sustainable innovation for a new local value from waste and biomass
- Water4all: water security for the planet
Thank you for your attention

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