Global drivers in shaping the future bio-economy

Driving sustainable food system transformation through research and innovation

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Drivers of change - a "Perfect Storm"

- 9 billion to feed by 2050
- 60% more food demand by 2050
- 2 billion overweight & obese
- 795 million underweight
- Yet 33% food wasted

PRODUCING FOOD
- Uses 70% H2O
- Uses 30% Energy
- Delivers 25% GHG

Zero Hunger (SDG)
- ↓ Food waste by 50% (SDG)
- ↓ CO₂ by 1.5-2°C (COP21)

2030 GOALS
• Need for a systemic approach to future-proofing food systems by structuring, connecting and scaling-up R&I.

• To provide evidence for policies and solutions (knowledge, methods, technologies, services, business models, etc) addressing 4 priorities.

Priorities

- **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

Drivers

- Research breakthroughs
- Innovation and Investment
- Open Science
- International collaboration
FOOD 2030 - New level of ambition, impact & focus

- Food system approach
- New partnerships with Member States, business, society and other stakeholders – all levels (local-int'l)
- Map & close R&I investment gap
- Connect R&I from 'farm-to-fork-to-gut-and back', land & sea (including seafood catches & aquaculture products)
- Game changing technologies, approaches, business models
- Support policies, align with & deliver on Int'l commitments (SDGs, etc)
Horizon 2020 & Horizon Europe

- The EU Framework Programmes as implementation tools for FOOD 2030
- Horizon 2020 – making use of WP calls for proposals
- Horizon Europe (2021+) discussions ongoing – Food and Natural Resources Cluster
- How do we convene in the area of Food Safety?
### Examples of R&I

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Food Safety 2030

**Needs:**
- Nutrition and health claim tools
- Assessment tools for novel foods
- Assessment tools for cocktail mixtures in foods and reduce the toxicological impact
- Networks of excellence
- Assessments/real time assessments

**How:**
- (Meta)Genomics, microbiome
- Blockchain for Authenticity & Safety
- Reduce, Replace, Reorganize (3xR)
• Food safety is at the heart of the European democracy and at the heart of the food systems

• Opportunities for R & I to invest on a food safety platform engaging all relevant actors and addressing governance and public trust

• The platform should be based on a common approach and shall harness the R & I results and develop the kit tools for food safety
Thank you!

Website bioeconomy directorate: http://ec.europa.eu/research/bioeconomy

Twitter: #FOOD2030EU