

# INTRODUCTION TO THE EUROPEAN BIOECONOMY STRATEGY

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*This presentation shall neither be binding nor construed as constituting commitment by the European Commission*

# HISTORY/CONTEXT

- 2005: FP7 programme “Knowledge-based Bioeconomy”

Integrating R&I on primary production, food and non-food (bio-based) research into one programme

- 2007: Cologne declaration on Bioeconomy under DE Presidency
- 2010: Germany launches National Bioeconomy Strategy
- 2012: EU Communication on Bioeconomy

Food security, sustainable management of natural resources, climate change mitigation, reduced fossil-dependence, jobs creation and EU competitiveness

- 2017: Review of Bioeconomy Strategy

good delivery on R&I investments, objectives still relevant, increasing importance, more focussed actions for evolved context (SDGs, industrial policy, circular economy, rural development, ...)

- 2018: Communication on updated Bioeconomy

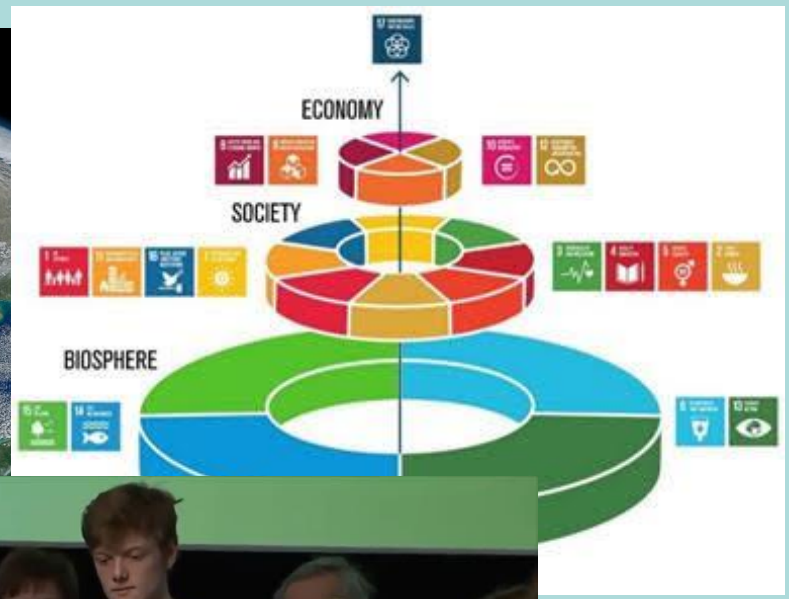
part of CWP 2018 and coordinated by the Secretariat General and DG Research and Innovation together with the departments for agriculture, environment, marine, industry, energy and others (DGs AGRI, ENV, MARE, GROW, JRC, ENER...)

**ipcc**  
 INTERGOVERNMENTAL PANEL ON climate change

# Global Warming of 1.5°C

An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

**Summary for Policymakers**



Thousands of people take part in a demonstration on climate change, in Brussels, Belgium, on Dec 2, 2018. PHOTO: EPA-EFE

# The next wave in our economic development

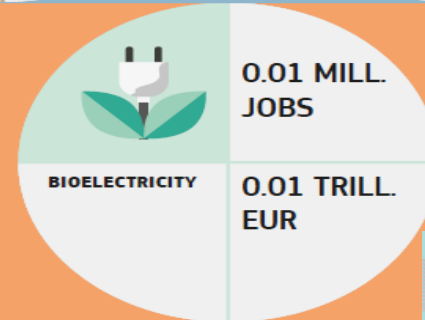
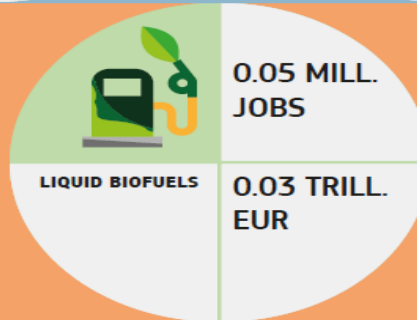
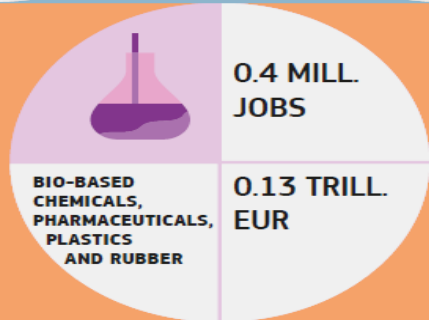
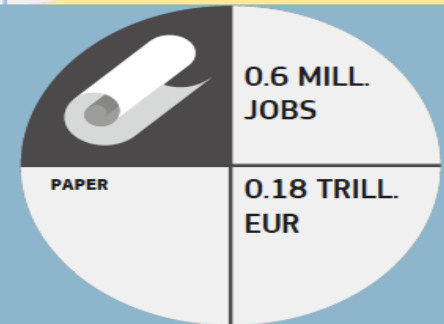
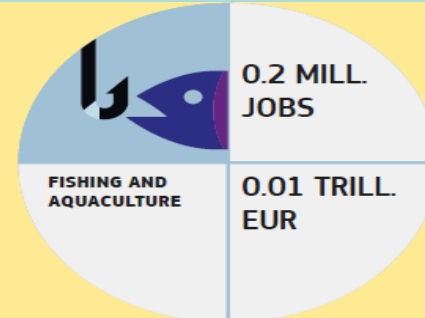
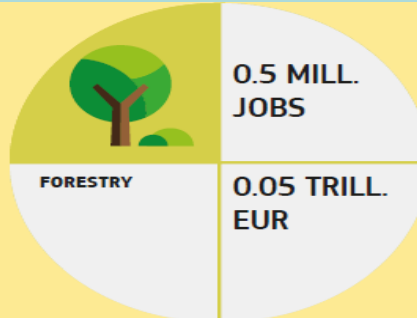
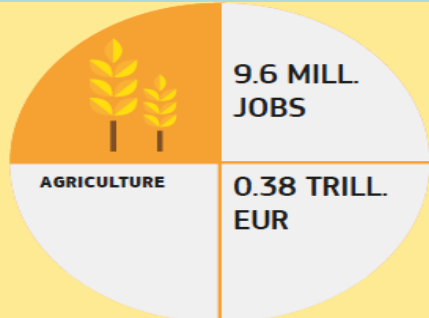
A SUSTAINABLE AND CIRCULAR  
**BIOECONOMY**

The European way to use  
our  
natural  
resources



Source: European Commission's Knowledge Centre for Bioeconomy

# The Bioeconomy in the European Union



Source: Bioeconomy Report 2016, Joint Research Centre, EC

# What is the EU's understanding of the Bioeconomy.....

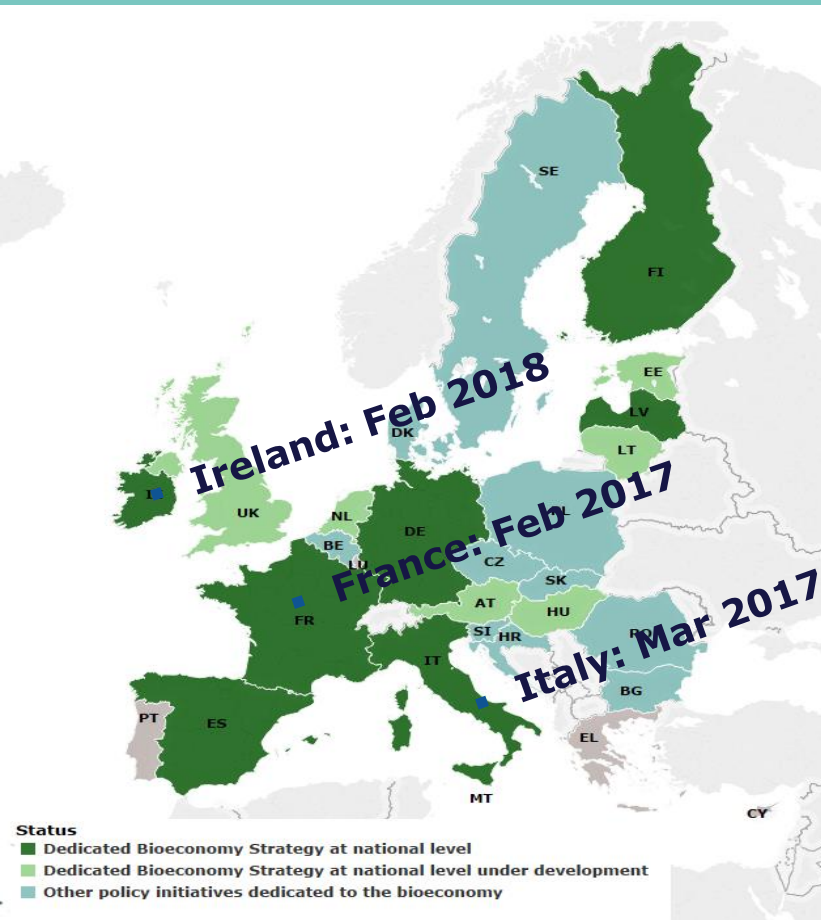
All sectors & systems that use / produce / process / are driven by biological resource



- Ecosystems on land and sea
- Primary production systems - agriculture, forestry, aquaculture / fisheries – **incl. waste/side streams**
- Food, feed, fibres, bio-based industry, fuels and bio-energy



# National Bioeconomy Strategies



## Bioeconomy in EU - Great diversity... - Wide variety...

- 7 MS have a dedicated bioeconomy strategy  
(*Finland, Latvia, Germany, Italy, France, Spain, Ireland*)
- 6 MS in the process  
(*Austria, Estonia, Hungary, Lithuania, the Netherlands and UK*)
- 10 MS from CEE plan to develop bioeconomy Strategy under the **Bioeast initiative**  
(*Bulgaria, Croatia, Czech Republic, Poland, Romania, Slovakia, Slovenia, Estonia, Lithuania, Latvia*)
- >50 regions have a bioeconomy-related strategy  
Almost all foresee R&I in their RIS3 (*CoR Opinion*)
- **Only a few cities have bioeconomy-related priorities in their policies ....**

Source: European Commission's Knowledge Centre for Bioeconomy



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# The updated Bioeconomy Strategy





# WHAT does the updated Bioeconomy strategy aim to achieve....

- **Link the sustainable use of renewable biological resources for food, feed, bio-based products and bioenergy, with the protection and restoration of biodiversity, ecosystems and natural capital across land and water.**
- **Step up action to ensure that the Bioeconomy provides a long-term balance of social, environmental and economic gains.**

## .... and HOW

- **A SYSTEM-wide approach,**
- **expanding beyond research and innovation,**
- **delivering on policies across sectors, addressing trade-offs**
- **strengthening CIRCULARITY and SUSTAINABILITY**
- **delivering for the citizens - on jobs, sustainable growth, well being - and on planetary health**
- **in LOCAL contexts, valorising local resources and adapted to local needs**



# DRIVING EU POLICY PRIORITIES

- **Job creation** – e.g. Bio-based industries could create up to 1 million jobs by 2030 (industry estimate), in particular in rural and coastal areas
- **Climate mitigation** – through use of bio-energy/ bio-based materials/ecosystems services; e.g. the use of 1 ton of wood instead of 1 ton of concrete in construction can lead to 2.1 ton CO<sub>2</sub> reduction
- **A renewed and strengthened EU industrial base** – Global leadership position in bio-chemicals and substitutes for fossil raw materials (plastics, packaging, cosmetics, consumer goods) based on research and innovation
- **Circular economy** – e.g. cutting food waste, recycling of high value organic waste
- **Healthy ecosystems and biodiversity** – e.g. through restoring degraded soils



# Actions

1

## STRENGTHEN AND SCALE-UP THE BIO-BASED SECTORS, UNLOCK INVESTMENTS AND MARKETS



**Mobilise** stakeholders in **development** and **deployment** of **sustainable bio-based solutions**



Launch the **EUR 100 million** Circular Bioeconomy Thematic **Investment Platform**



**Analyse enablers and bottlenecks** for the deployment of **bio-based innovations**



Promote and develop **standards, labels and market uptake** of **bio-based products**



Facilitate the **development of new sustainable biorefineries**



**Develop new biodegradable products**, including bio-based plastic substitutes



# Actions

2

## DEPLOY LOCAL BIOECONOMIES RAPIDLY ACROSS EUROPE



**Launch a Strategic Deployment Agenda** for sustainable food and farming systems, forestry and bio-based products



**Launch pilot actions for the development of bioeconomies** in rural, coastal and urban areas



**Support regions and Member States** to develop Bioeconomy Strategies



**Promote education, training and skills** across the bioeconomy



# Actions

3

## UNDERSTAND THE ECOLOGICAL BOUNDARIES OF THE BIOECONOMY



Enhance **knowledge** on biodiversity and ecosystems



Monitor **progress** towards a sustainable bioeconomy



Promote **good practices** to operate the bioeconomy within **safe ecological limits**



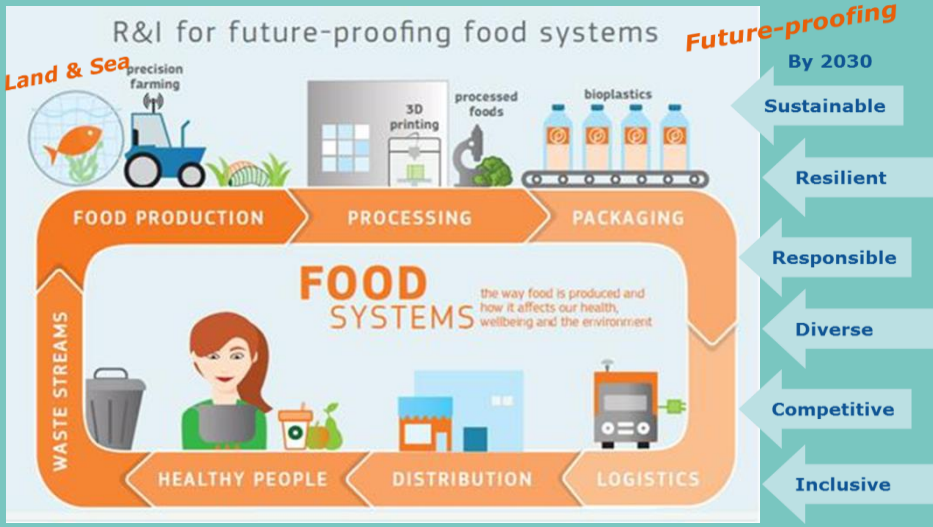
Enhance the **benefits** of biodiversity in **primary production**





# FOOD 2030

## R&I for tomorrow's nutrition & food systems



### 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

- **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

#FOOD2030EU



# Horizon Europe, Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment

- **Addressing under one cluster the interlinked challenges** of eco-systems, health of our planet, sustainable agricultural, forest and marine production, and sustainable consumption
- **Strong linkages with key EU programmes and SDGs**
- **Bringing together the concepts of circular economy, bioeconomy and blue economy**, with a coherent contribution of R&I to EU policies in these areas
- **Mainstreaming** a participatory approach to R&I, working on the overall **system**, and exploitation of big data



# CLUSTER 6: 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





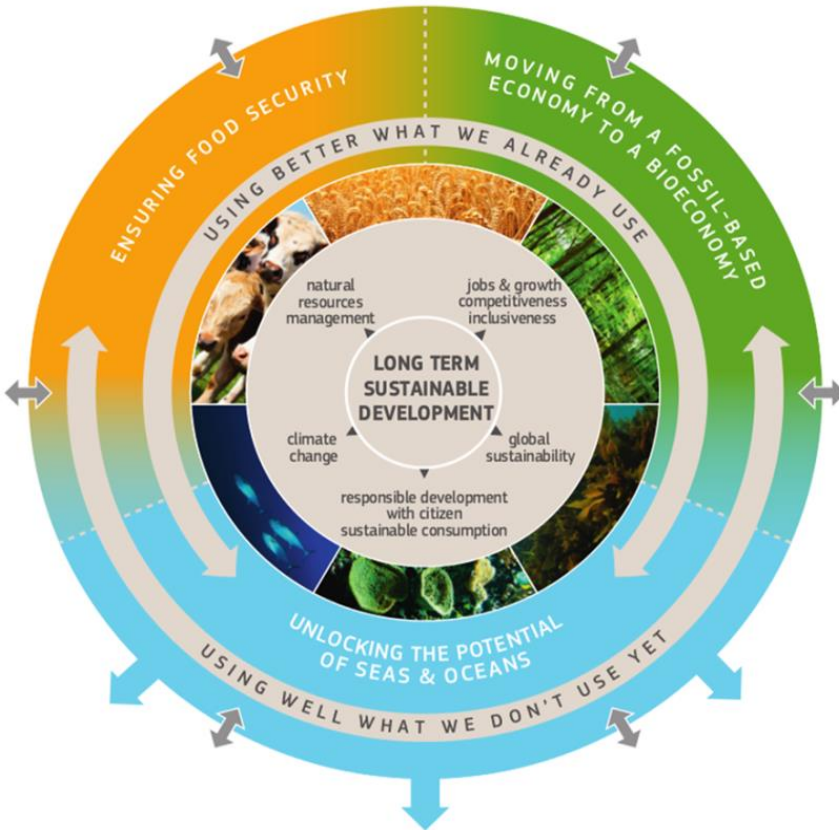
# The bioeconomy in the context of recent policy developments

EU Communication „A clean Planet for all –A strategic long-term vision for a prosperous, modern, competitive and climate neutral economy“ acknowledges the central role of the bioeconomy to a carbon neutral future, both through the transition to a sustainable food system and through its role as carbon sink – but possible conflicts between energy, climate, biodiversity and food security objectives

EU reflection paper „Towards a sustainable Europe by 2030“ highlights the vital role of the food systems to achieve sustainable development and key SDGs (2,12,13) and the bioeconomy for balancing economic, social and environmental objectives in achieving SDGs.



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# Thank you for your attention



For more information:

[www.ec.europa.eu/research/bioeconomy](http://www.ec.europa.eu/research/bioeconomy) construed as constituting commitment by the European Commission