



European
Commission

Circular Economy

Closing the loop

*Nicolas Dandois
Counsellor for Agriculture
Delegation of the European
Union to China*

What are the limitations of a Linear Economy?

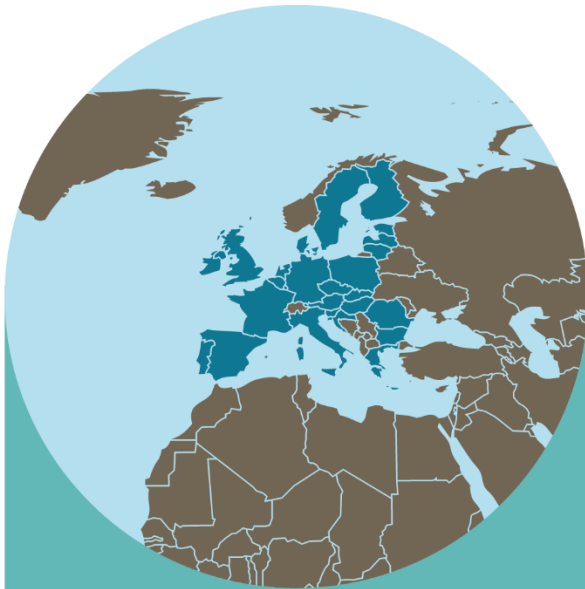
- *lost value of materials and products*
- *scarcity of resources, volatile prices*
- *waste generated, environmental degradation & climate change*



2

The EU is heavily dependent on imported raw materials

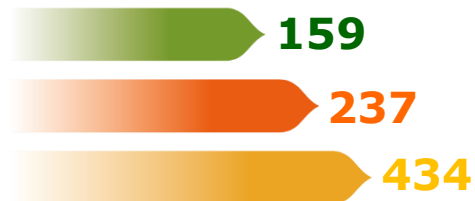
European Union (EU-28)



Total trade EU-28 to ROW




In 2004: 455 million tonnes
In 2014: 640 million tonnes

EU-28 exports (2014)



EU-28 imports (2014)



-  Biomass
-  Manufactures (finished manufactured products)
-  Fuels and mining products (fossil energy, metal ores and non-metallic minerals)

Rest of the world (ROW)

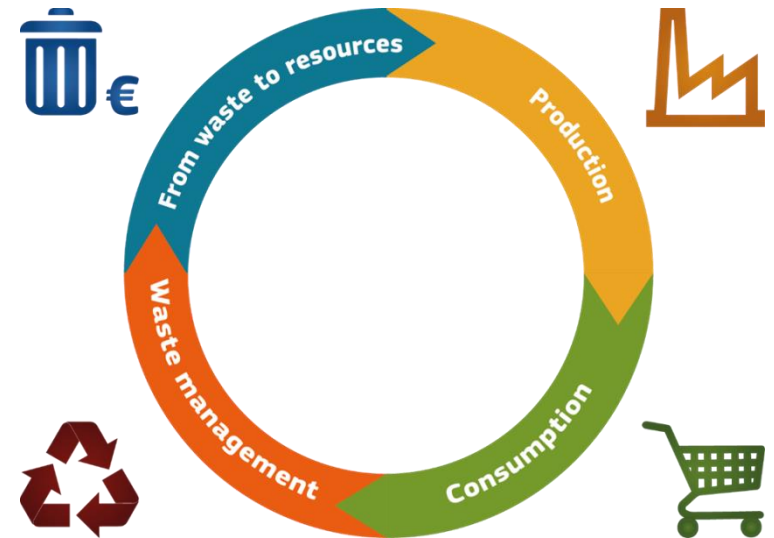


Total trade ROW to EU-28

In 2004: 1664 million tonnes
In 2014: 1534 million tonnes

What is a Circular Economy?

- value of products, materials and resources is maintained in the economy
- waste generation is minimised
- new business opportunities, products and services



Circular Economy Package

Adopted by the Commission 2 December 2015



Action Plan
Communication



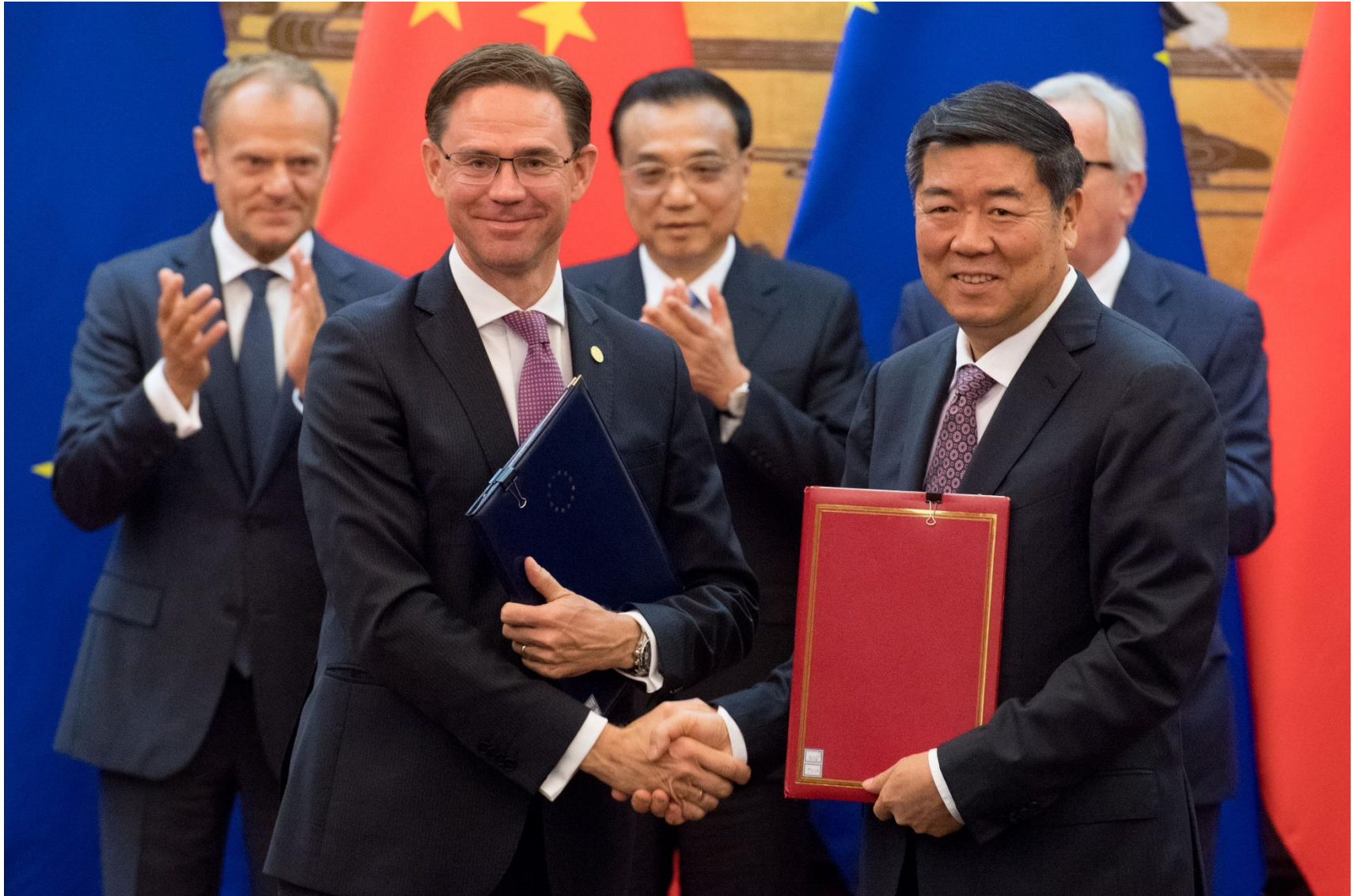
List of Follow-up
Initiatives (Annex)



4 Legislative
proposals on waste

MoU on Circular Economy between China (NDRC) & European Commission

- Common challenges in developing more resource efficient policies
- High level policy dialogue on circular economy to promote understanding and cooperation
- Yearly dialogue



Areas for intervention

Production

Product design; production processes
(e.g. sustainable sourcing of raw materials)

Consumption

Consumer information / Eco-labelling;
Green Public Procurement,...

Waste management

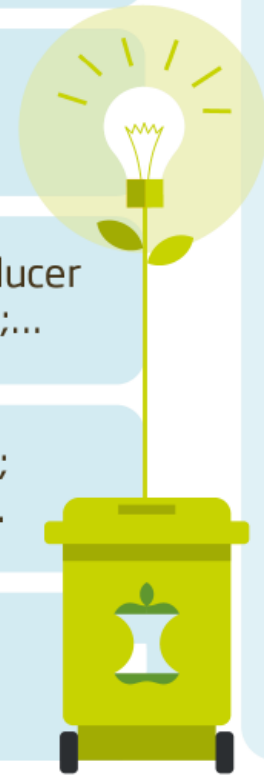
Long-term recycling targets; Extended Producer
Responsibility schemes; energy recovery;...

Secondary raw materials

Recycled nutrients (e.g. organic waste);
wastewater reuse; quality standards,...

Sectorial interventions

Including: food waste; biomass and
bio-based products;...



Horizontal supporting measures
Horizon 2020, LIFE+, COSME, EFSI, Structural funds
(Rural Development, including the EIP-AGRI)

Implications for the agricultural sector

- A key role in the circular economy
 - ✓ A fossil-based economy cannot be circular → bio-based an alternative
- The farming sector itself has to be more circular
 - ✓ Reduce / valorise waste
 - ✓ Recover and reuse nutrients,
 - ✓ Water, use efficiency

Implications for the agricultural sector

- New fertiliser regulation
 - boost the use of organic & waste-based fertilisers
- Reuse of waste waters
 - Minimum requirements proposed by Commission
- Circularity a driver across EU funding programmes (e.g. Horizon 2020, LIFE, EAFRD...).

A new Bioeconomy Strategy for a sustainable Europe (2018)



A European Strategy For Plastics in the Circular Economy (2018)



R&I within the policy context

- Global commitments



United Nations
Framework Convention on
Climate Change

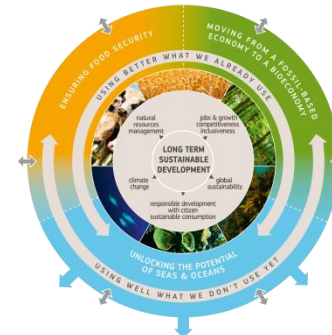
- European policies



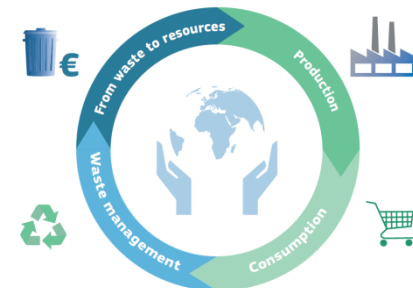
CAP & EIP-AGRI



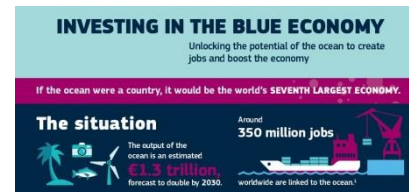
Climate & energy



Bioeconomy strategy



Circular economy



Integrated Maritime and common fisheries policies



Digital single market

EU-China FAB Flagship Initiative



FAB FLAGSHIP = A comprehensive research and innovation cooperation programme to tackle sustainable agriculture, food security and safety in the EU and China

Priority Areas of mutual interest for EU China research and innovation collaboration are jointly identified and agreed by European and Chinese policy makers and experts and projects are co-funded

- 1. Food related issues**
- 2. Sustainable agriculture**
- 3. Biotechnologies**

NoAW - No Agro-Waste

- **NoAW Innovative approaches to turn agricultural waste into ecological and economic assets**
- **Coordinator: Professor Nathalie Gontard INRA, Montpellier France**
- **48 months as of 1 October 2016**
- **EUR 6,887,570.00**
- **www.noaw2020.eu**





AGROCYCLE for a circular economy

- **AgroCycle for a Circular Economy - Sustainable technoeconomic solutions for the agricultural value chain**
- **Coordinator Professor Shane Ward University College Dublin, Ireland**
- **36 months as of *1 June 2016***
- **EUR 6,960,293.75**
- **www.agrocycle.eu**



AGROCYCLE
for a circular economy

Commission proposal for
Horizon Europe

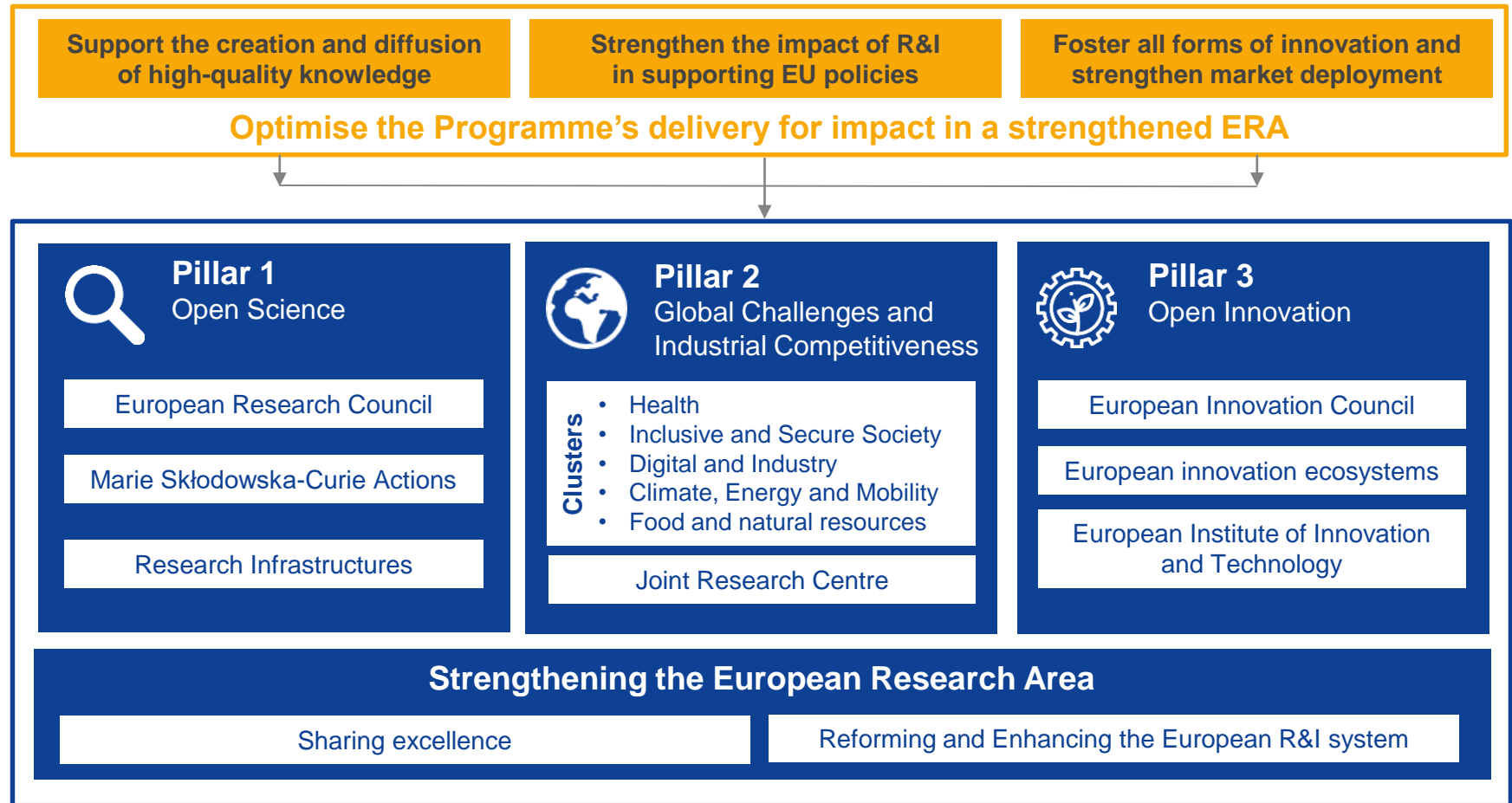
THE NEXT EU RESEARCH & INNOVATION
PROGRAMME (2021 – 2027)

#HorizonEU



Horizon Europe: evolution not revolution

Specific objectives of the Programme



Pillar 2

Global Challenges & Industrial Competitiveness:

boosting key technologies and solutions underpinning
EU policies & Sustainable Development Goals

Clusters implemented through usual calls, missions & partnerships	Budget (€ billion)
Health	€ 7.7
Inclusive and Secure Society	€ 2.8
Digital and Industry	€ 15
Climate, Energy and Mobility	€ 15
Food and Natural Resources	€ 10
Joint Research Centre supports European policies with independent scientific evidence & technical support throughout the policy cycle	€ 2.2



Thank you for your attention!

More information:

http://ec.europa.eu/environment/circular-economy/index_en.htm