



# *Resource efficiency: On the way to a more systemic approach*



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# RESOURCE EFFICIENCY & FP7

- 2011-2012 - calls on '**Eco-innovation**' and on '**Improving resource efficiency**' with a total budget of 100 MEUR
- 2013 – Call on '**Turning waste into a resource**' and '**Eco-innovative Demonstration Projects**', with a total budget of about 50 MEUR

# SOME OUTCOMES

## Demonstration projects

- APSE - *eco-innovative design of asphalt pavements*
- ELICiT - *application of magnetic cooling technology*
- ManureEcoMine - *treatment and reuse of animal husbandry waste*



MANURECOMINE

# SOME OUTCOMES

## Turning waste into resource

In total 10 projects

- PlasCarb - *Transformation of food waste into graphitic carbon and renewable hydrogen*
- REEcover – *Recovery of REE from magnetic waste*
- ResCoM - Resource conservative manufacturing – closed-loop product systems



PLAS  
CARB



ResCoM

# RESOURCE EFFICIENCY & H2020

**Societal Challenge: Climate action, environment, resource efficiency and raw materials**

✓ Transition towards a green economy through eco-innovation

## WP2014-2015

- WASTE 131 M€
- WATER 163 M€
- SMEs 36 M€

# RESOURCE EFFICIENCY & H2020

A wider set of support instruments

- Research & Innovation action
- Innovation action (demonstration, prototyping)
- Support for Public Procurement
- SME instrument
- Inducement prizes
  
- Support to EIPs & other policy initiatives
- Support to PPPs ( SPIRE)

# BEYOND ECO-INNOVATION

## Council Conclusion 24-25 October 2013

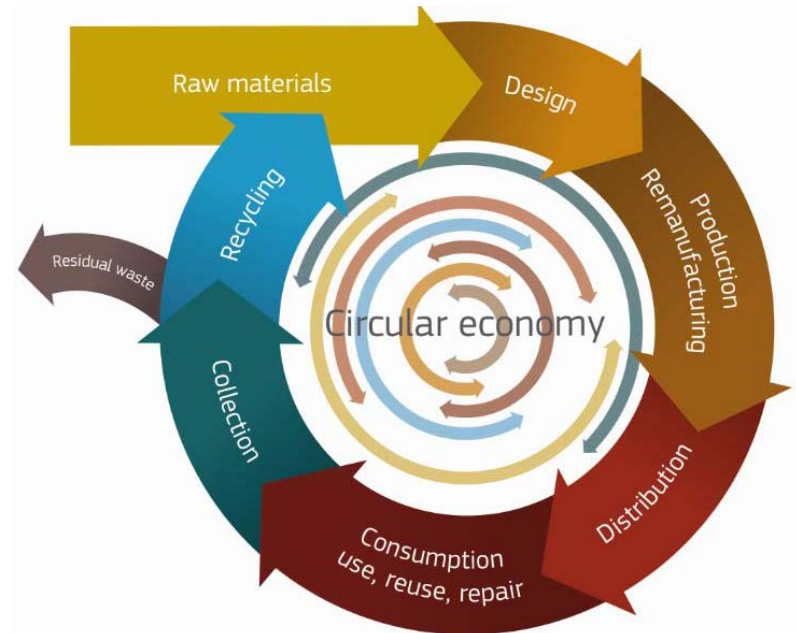
- special attention should be paid to the role of the **public sector in enabling systemic innovations**, especially in the cleantech and biotech sectors.

## Resolution of the **European Parliament** of 12 December 2013

- the EU is asked to **develop a systematic approach to eco-innovation** “with sound framework conditions enabling a level playing field for eco-innovation in businesses and an infrastructure, that allows businesses and consumers to make sustainable choices”

# Towards a circular economy: A zero waste programme for Europe

**A Circular Economy<sup>1</sup>** that implies a **fully systemic change**, and **innovation** not only in technologies, but also in organisation, society, finance and policies



<sup>1</sup>COM(2014) 398 final





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## Where we are moving to

### **SYSTEMIC ECO-INNOVATION**

when all societal stakeholders  
generate and share economic  
and environmental benefits

and

where all kind of innovations are  
addressed in combination with  
new organisational and  
managerial arrangements

<http://bookshop.europa.eu/en/systemic-eco-innovation-pbKI0214461/?CatalogCategoryID=h2YKABstrXcAAAEjXJEY4e5L>

**HORIZON 2020**

Research and  
Innovation



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# SYSTEM APPROACH to ECO-INNOVATION

- Cross-sectoral
- multi-stakeholders
- innovation in all forms
- design strategies
- circular models



- incremental -> transformative
- product -> services
- owning->sharing
- waste -> resources
- depletive -> regenerative

# What has to be done

**H2020** - Climate action, environment, resource efficiency and raw materials - **Transition towards a green economy through eco-innovation**

Towards a **circular economy**: A zero waste programme for Europe



- set up an enabling policy framework
- support large scale innovation projects, skills development, and market application of innovative solutions
- ensure synergies between the different funding instruments,
- establish a partnership to support research and innovative policies

# Waste-1-2014

Moving towards a circular economy through industrial symbiosis (Innovation action)

*(cross-sectoral approach leading to closed-loop processes...)*

- 44 MEUR indicative budget
- 55 proposals received in 1<sup>st</sup> stage, 19 proposals to be evaluated in the 2<sup>nd</sup> stage

# Waste-6-2015

Promoting eco-innovative waste management and prevention as part of sustainable urban development

- a) Eco-innovative solutions (Innovation action)
- Deadline for 1st stage: 21/04/2015
- Indicative budget: 30 MEUR



# HORIZON 2020

**Thank you  
for your attention!**