

A **DEC**entralized management **S**cheme for **I**nnovative **V**alorization of urban biowaste**E**



DECISIVE

A DECENTRALISED MANAGEMENT SCHEME FOR
INNOVATIVE VALORISATION OF URBAN BIOWASTE



This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 689229.

A european project: H2020-Waste-6a-2015

Title of the call:

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

Objectives of the call:

- Boosting eco-innovative solutions to prevent waste generation and promote the use of waste as a resource
- Enhancing the natural and living environment in urban and peri-urban areas
- Integrated urban metabolism approach with active engagement of all stakeholders

Specific expectations in terms of Eco-innovative solutions

- Demonstration at an appropriate pilot scale, and market replication, of integrated eco-innovative cost- and energy-efficient technologies, processes and services for waste prevention, treatment, enhanced collection, recycling and recovery of high-grade valuable materials from waste.
- Technological and non-technological solutions: economic and social approach

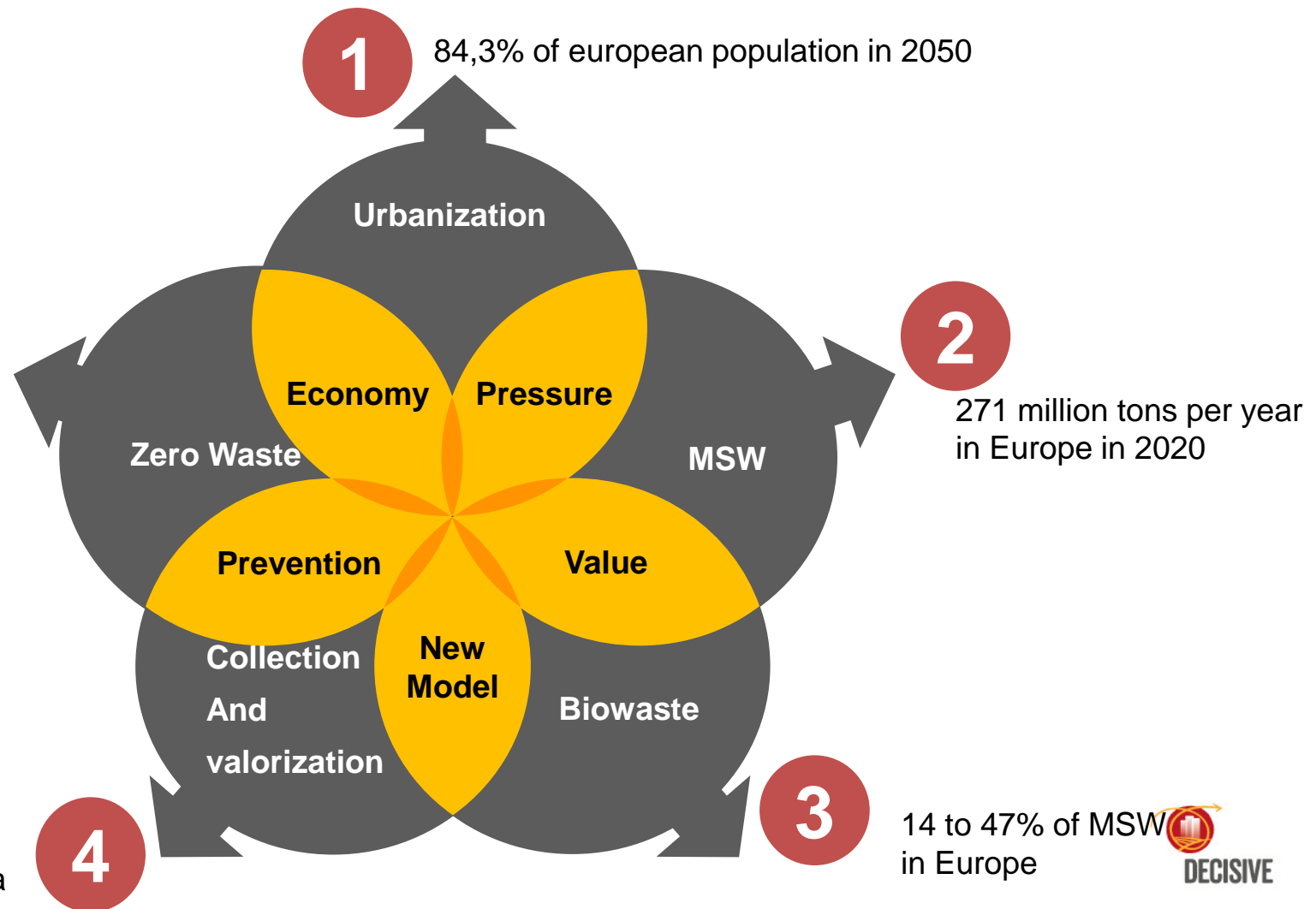
Project launched
on 1/09/2016

Project
coordination:
Irstea, France



The proposal of the DECISIVE project

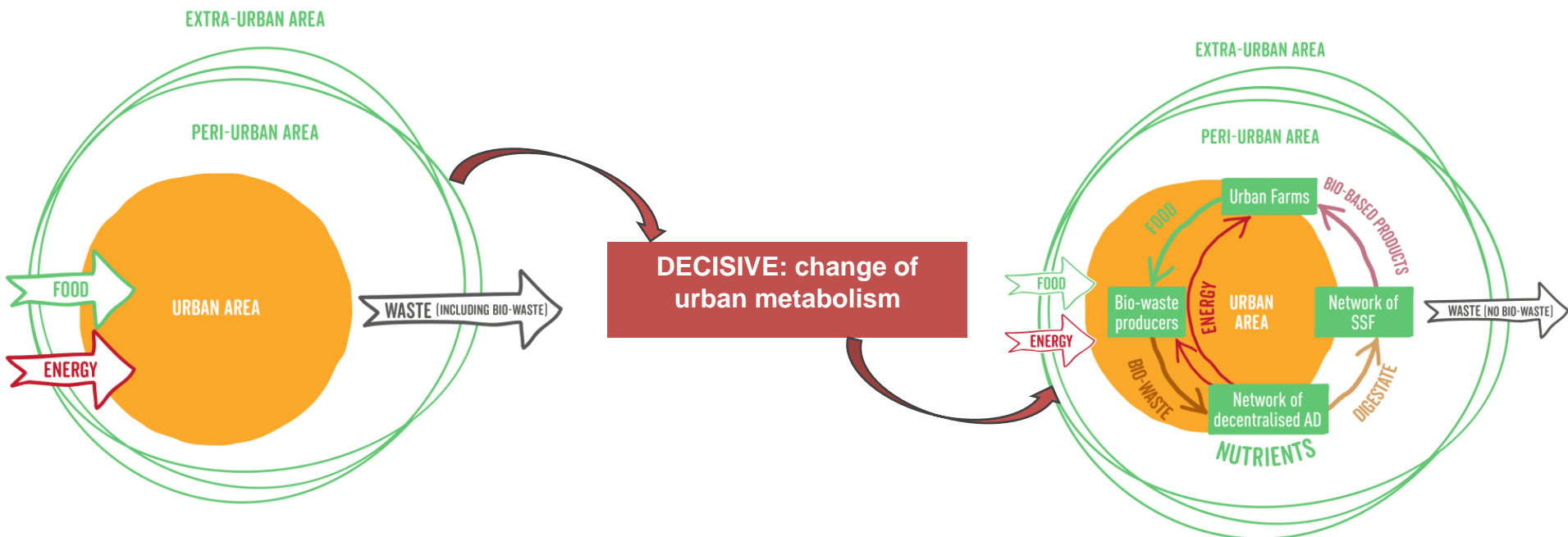
What is DECISIVE about?



What is DECISIVE about?

A new paradigm of urban organic waste management :

- promotion of decentralised treatment points networks
- short circuits and circular economy in the urban space



Proposed innovation in DECISIVE?

Organisational innovation:

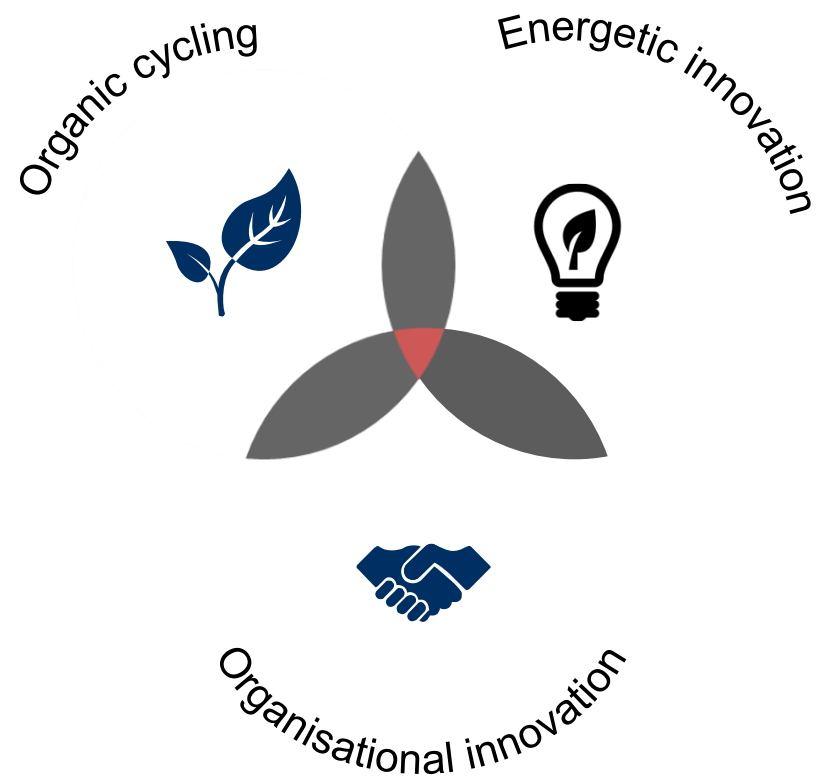
- A method to plan efficient (enough simple and accurate) decentralised management scheme for urban organic solid waste based on urban metabolism study

Technological innovations:

- Micro-AD and biogas local valorisation
- SSF

Policy and economic innovation

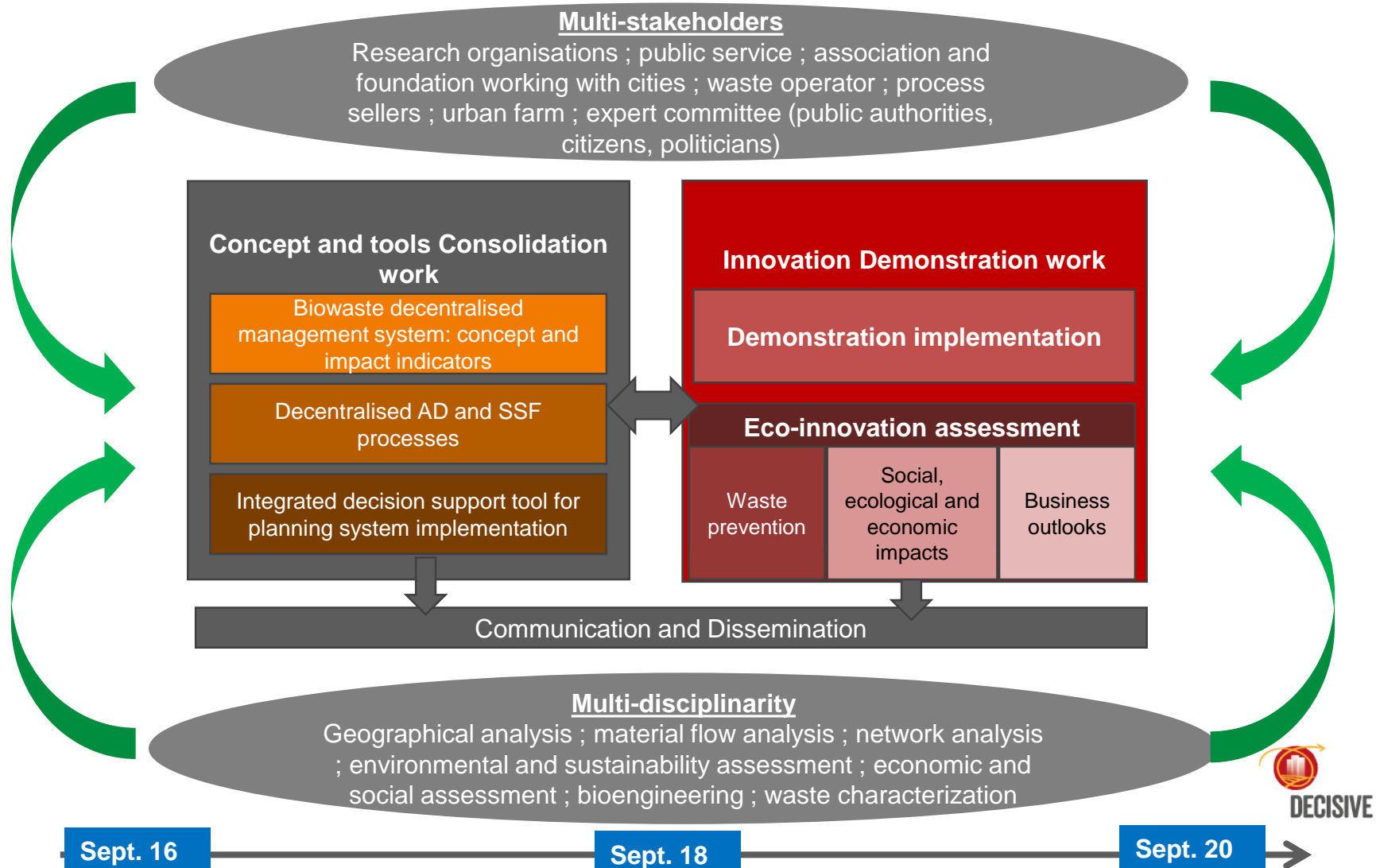
- Guidelines/advices for environmental Policy
- Urban farm concept
- New waste business



Expected impacts

- Waste prevention:
 - Residual waste reduction between 10 and 40%
- Biowaste capture rate:
 - Up to 80%
- Energetic valorization:
 - Energy recovery of 90% of the produced biogas
- Environmental impacts:
 - Reduce fossil-fuel consumption: Waste transport reduction; Replacement of fossil-energy by bioenergy
 - Reduce landfills emissions
 - Replacement of chemical molecules production
- Economic impacts:
 - Business and employment development: sale of technologies; take off for urban farms business concept; new offer of waste management
 - Decrease of waste management cost

How do we do this?



DECISIVE: partnership



The consortium

COMPLEMENTARY ORIGINS AND COMPETENCIES

Development and validation of concepts

France

Irstea, SE, Refarmers

Spain

UAB, AERIS, ENT, ARC

Development of technologies

Belgium

PSUtec, ACR+

Lead users

Danemark

Univ. Aarhus – ENVS

Communication and political impacts

Germany

TUHH, GEOMAR

Project management

Italy

ITS



Project genesis

- FP7 – ENV – 2013 – Two-stage: REFEEED a first attempt
 - Succeed in 1st stage ; failed in second
 - Review of the project underlined:
 - ☺ the innovative idea
 - ☹ A project that focused to much on technological questions
 - ☹ Impacts that were not clear enough
- H2020: a second chance => DECISIVE
 - Based on REFEEED
 - With a bigger effort on the valorization system: organisational innovation
 - A new consortium: Basis of REFEEED + new partners to represent all stakeholders of the valorization system

REFEEED Idea
Mid 2012

3.5 years...

DECISIVE
funding decision
End of 2015

Project assessment

- Excellence: 4/5

- 😊
 - Clarity and credibility
 - innovative approach => organisational innovation
 - Demonstration phase
- 😞
 - Difficulty to measure achievement of the objectives

- Impact: 3,5/5

- 😊
 - Topics expectations well addressed, comprehensive, quantitative
 - Companies involved = specialists
 - 2 locations for demonstration
- 😞
 - Lack of measures to improve replicability
 - Lack of concrete actions concerning IPR

- Implementation: 4,5/5

- 😊
 - Very clear and thoroughly described workplan
 - Management structure and risk assessment
- 😞
 - Quantification of the milestones

Contact

www.decisive2020.eu

✉ info@decisive2020.eu

🐦 #DECISIVE2020