



Working for a circular bioeconomy at
local and regional level

Innovations proposed by the **DECISIVE** project



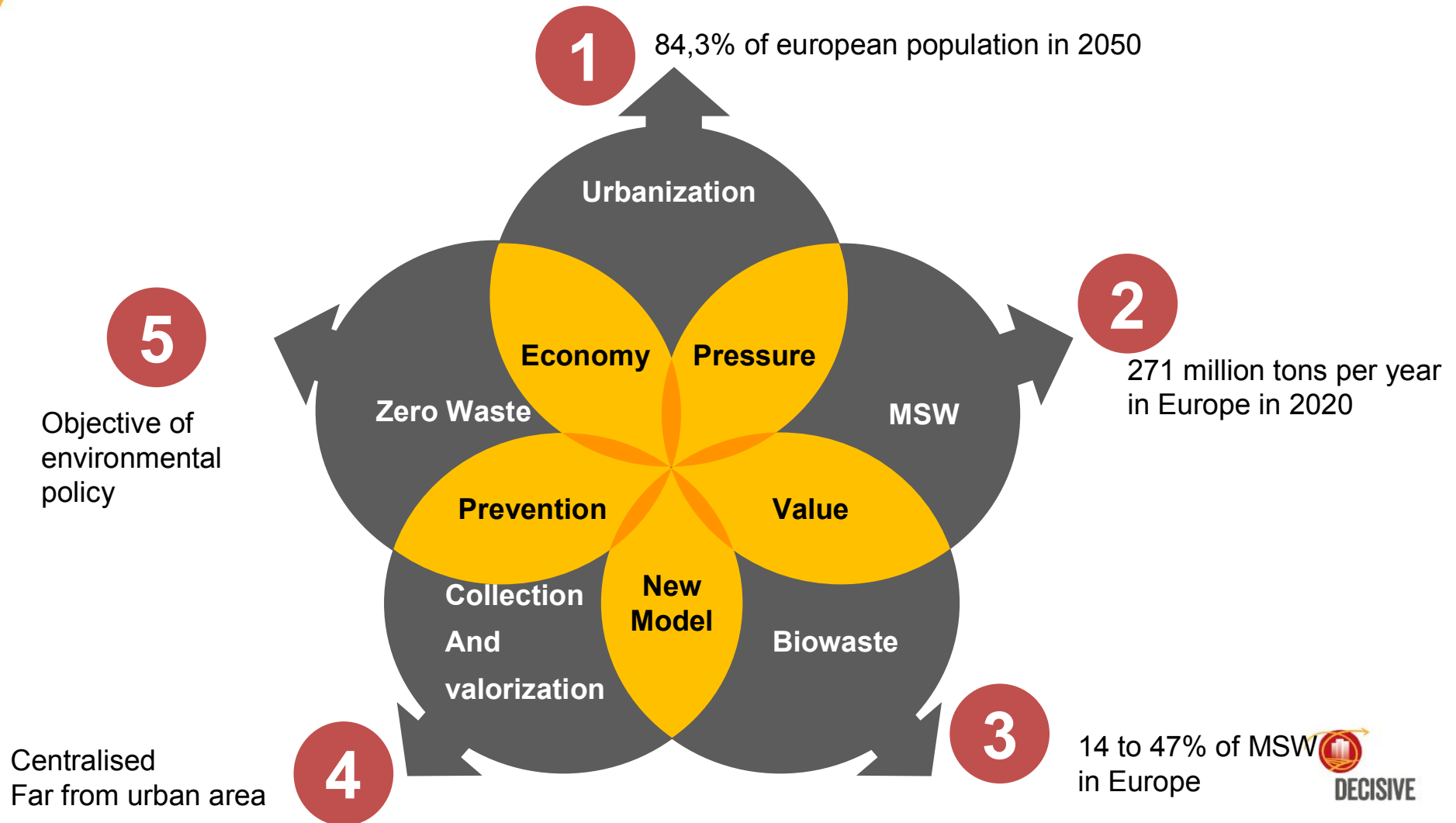
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DECISIVE

A DECENTRALISED MANAGEMENT SCHEME FOR
INNOVATIVE VALORISATION OF URBAN BIOWASTE

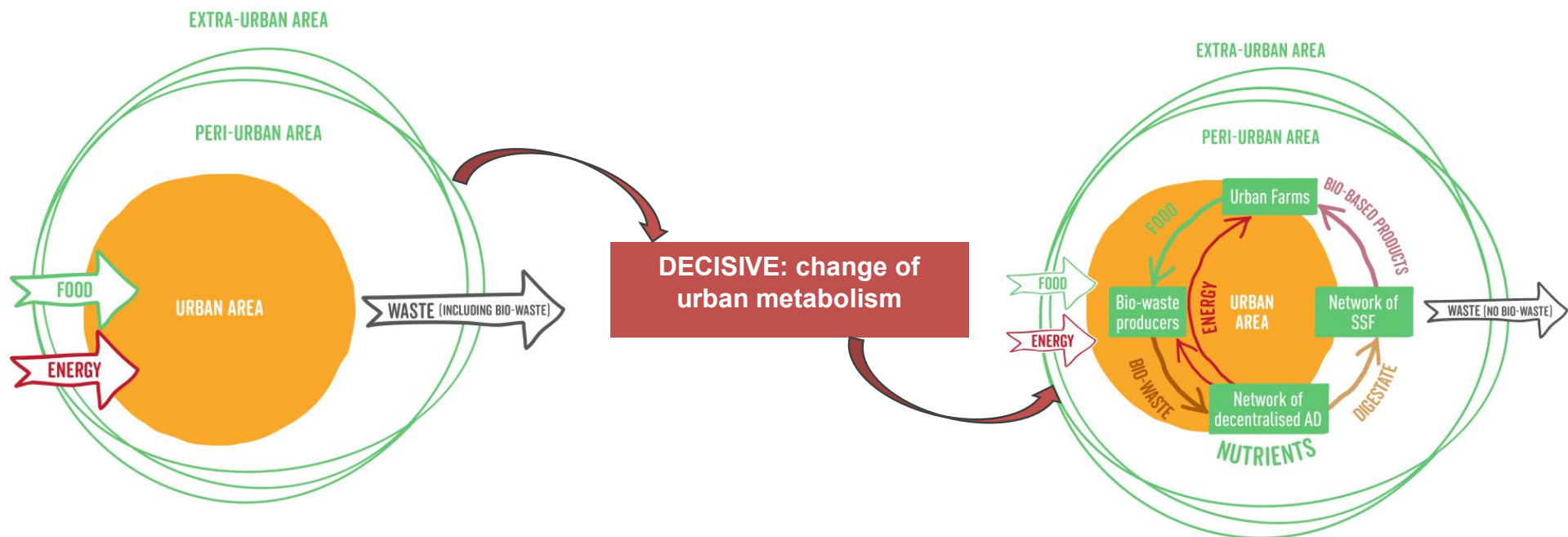
What is DECISIVE about?



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





What impact on a local/regional level?

Renewable
energy

Local valorization
of heat and
electricity

Circular
economy

Concept of a
resilient city using
organic waste to
develop urban
farming and
circular economy

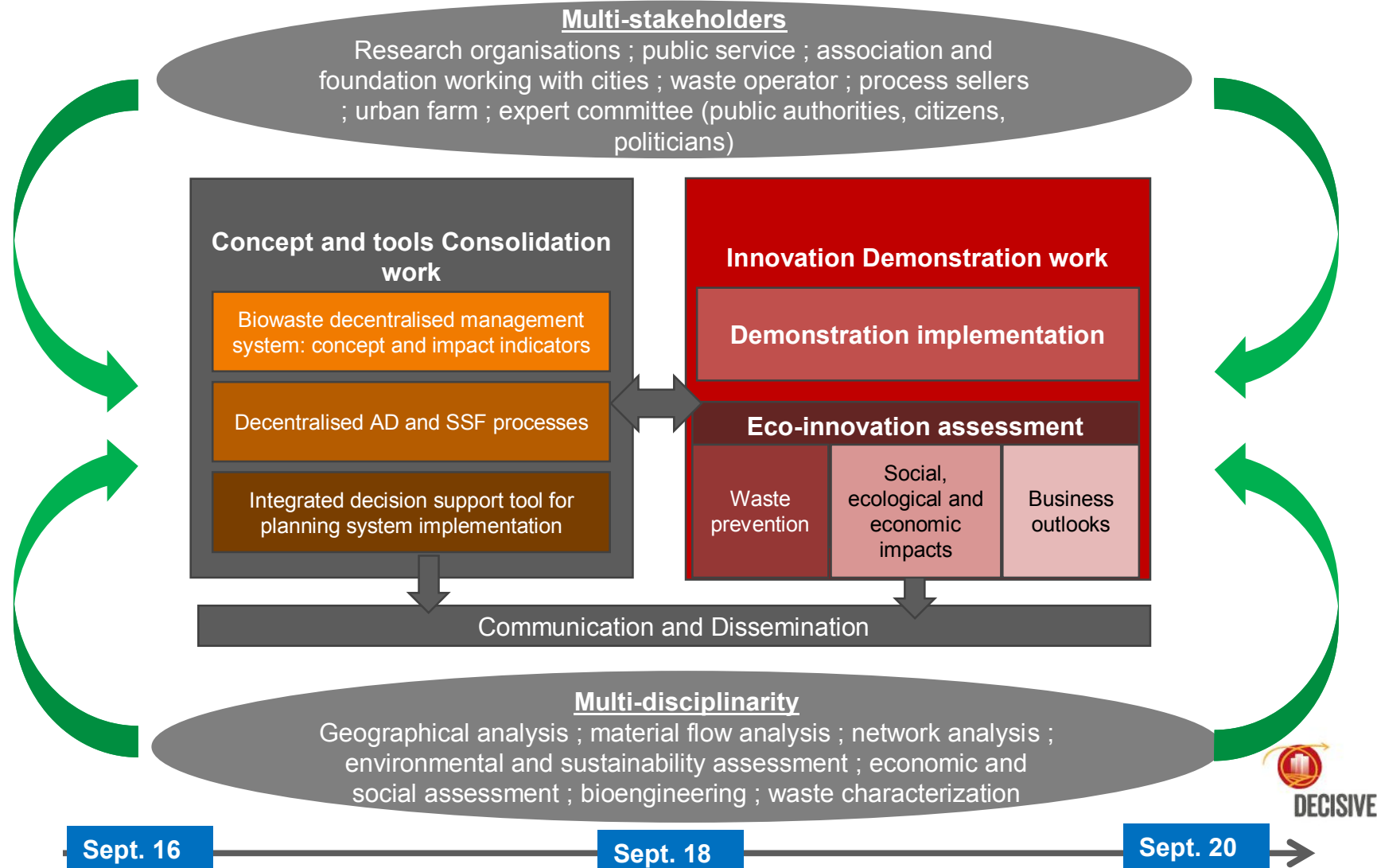
Urban
planning

Eco-quarter
Urban
rehabilitation

Waste
Prevention

Increase of citizen
awareness

How do we do this?



DECISIVE: partnership



Proposed innovation in DECISIVE?

Organisational innovation:

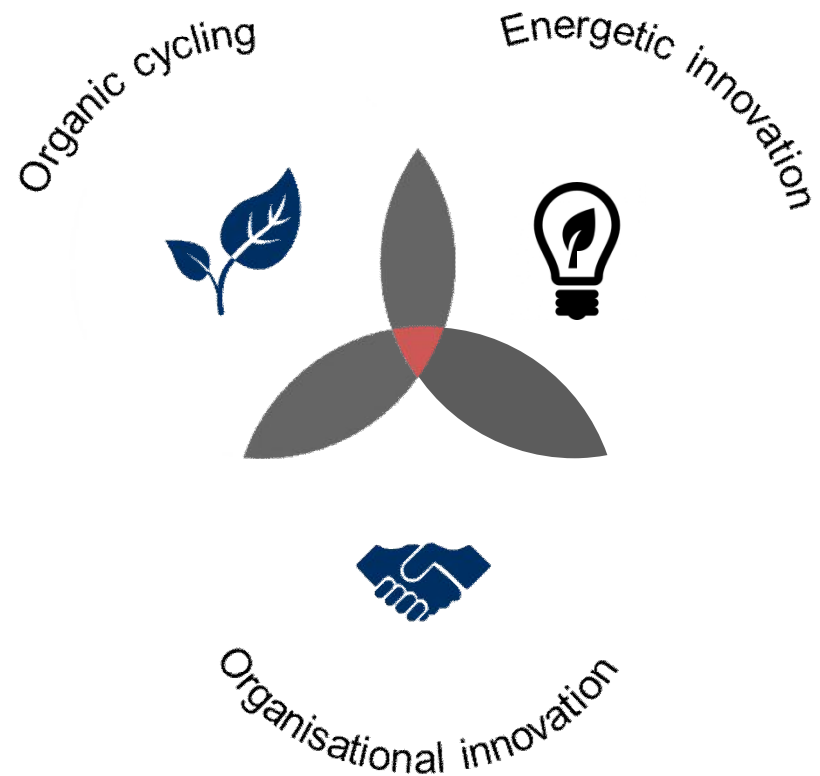
- A method to plan efficient (enough simple and accurate) decentralised management scheme for urban organic solid waste based on urban metabolism study

Technological innovations:

- Micro-AD and biogas local valorisation
- SSF

Policy and economic innovation

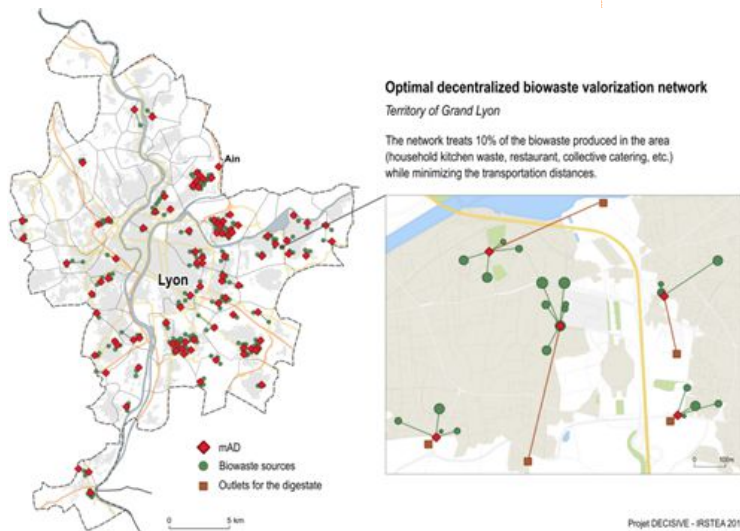
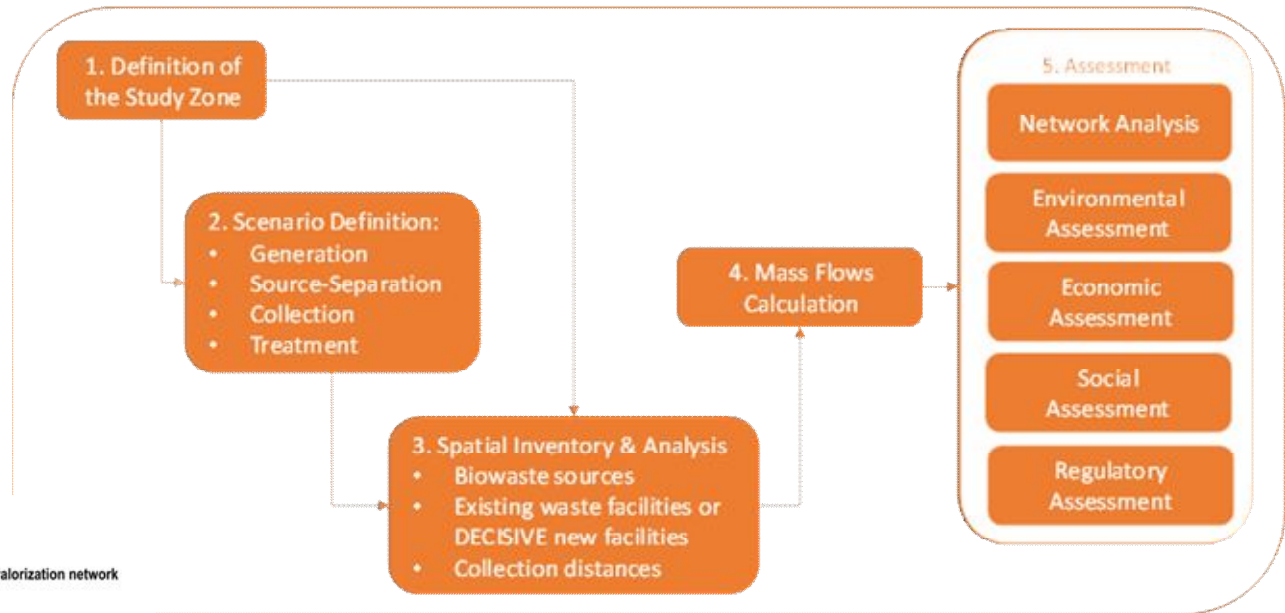
- Guidelines/advices for environmental Policy
- Urban farm concept
- New waste business



Project progress: DST for decentralised management planning

WORKING FLOW

- Decision support tool
 - Current situation
 - Scenario proposals
 - Assessment



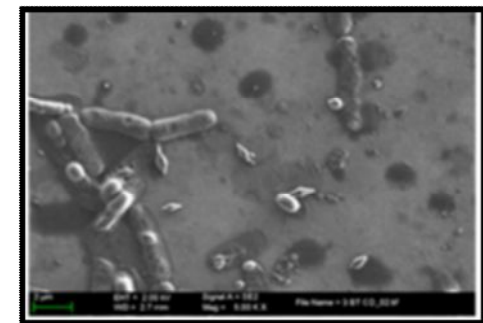
- Spatial optimization of decentralised networks
 - Inventories of sources, locations, valorization points, surrounding farming
 - Optimization on distance, regulatory obligations, etc.



Project progress: technologies

- **Micro-anaerobic digestion (mAD)**
 - Target 50 to 200 t biowaste / y
 - Existing offer => challenge for lowest scale
 - New development for robust dry mAD in progress at pilot scale

- **Solid Substrate Fermentation**
 - Post-valorization of digestate
 - Lab-test OK; pilot scale in test
 - Product target: Biopesticide (Bt)



Bt and parasporal crystals.

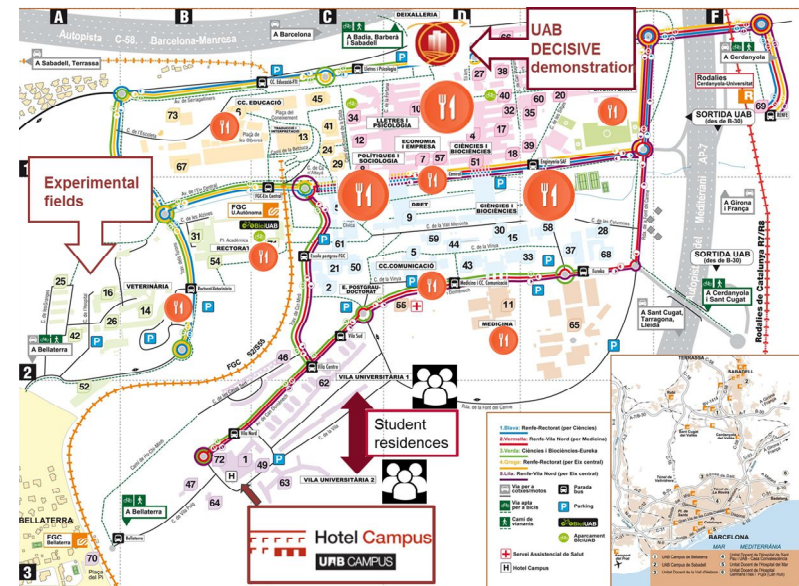
Project progress: Demonstrations in preparation

Expected spring 2019

- France, Lyon
 - Urban hydroponics Farm Refarmers + horticol school
 - Restaurant and school canteens => 50 t/y
 - Valorization on the farm



- Spain, Barcelona
 - UAB Campus
 - Campus restaurants; Residencies => 100-200 t/y
 - Valorization on the campus



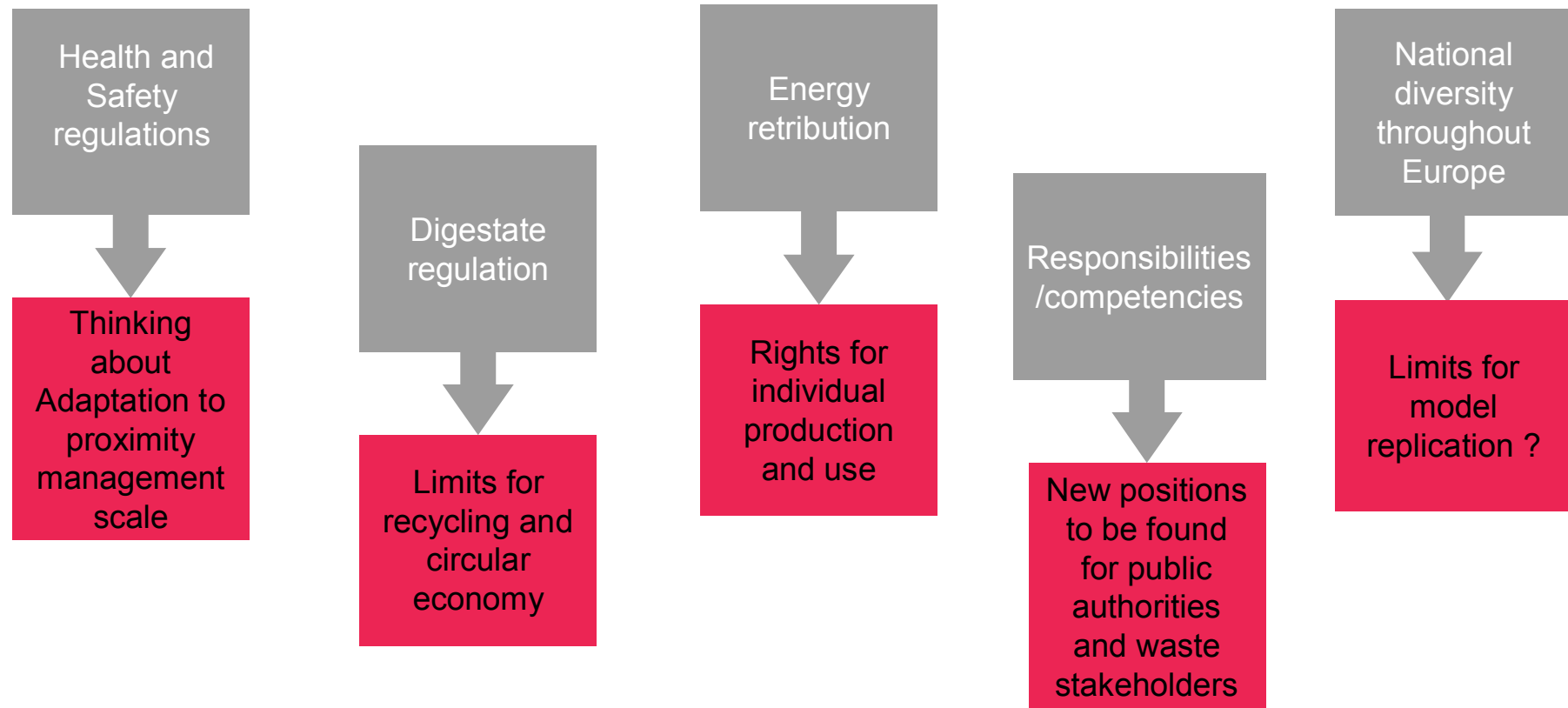


Opportunities for local Economy

- **New offer for services:**
 - Diagnosis for waste management
 - Local waste collection management
 - Processes supply
 - Urban agriculture and food delivery

- **Linked jobs**

Current limits for advancing the innovations



To overcome limits: synergy with over projects ; proposals for policy makers

Contact

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