

MED'INNOVANT 2022

5 challenges to overcome



5 challenges

Challenge #1: Create solutions to promote circular economy in urban planning and development

Topic: Construction and materials

Sponsor: Saint-Gobain Bâtiment Distribution France

Challenge #2: Develop solutions that promotes decentralized management and the reuse of water in the city at the scale of an eco-district or a building, within the sustainable mediterranean city context

Topic: Water in the city

Sponsor: EIFFAGE & Saint-Gobain Bâtiment Distribution France

Challenge #3: Determine cooling and refreshing needs of an already existing building as part of a future connection to an urban cooling network

Topic: Energy needs

Sponsor: ENGIE

Challenge #4: Provide solutions to better control costs at the scale of a building or a block

Topic: Sustainable building

Sponsor: REDMAN

Challenge #5: Set-up conditions for a relocation of the industry at the local urban scale and organize its connectedness

Topic: The manufacturing city

Sponsor: ICI MARSEILLE



Challenge #1 - SAINT-GOBAIN DISTRIBUTION BATIMENT FRANCE

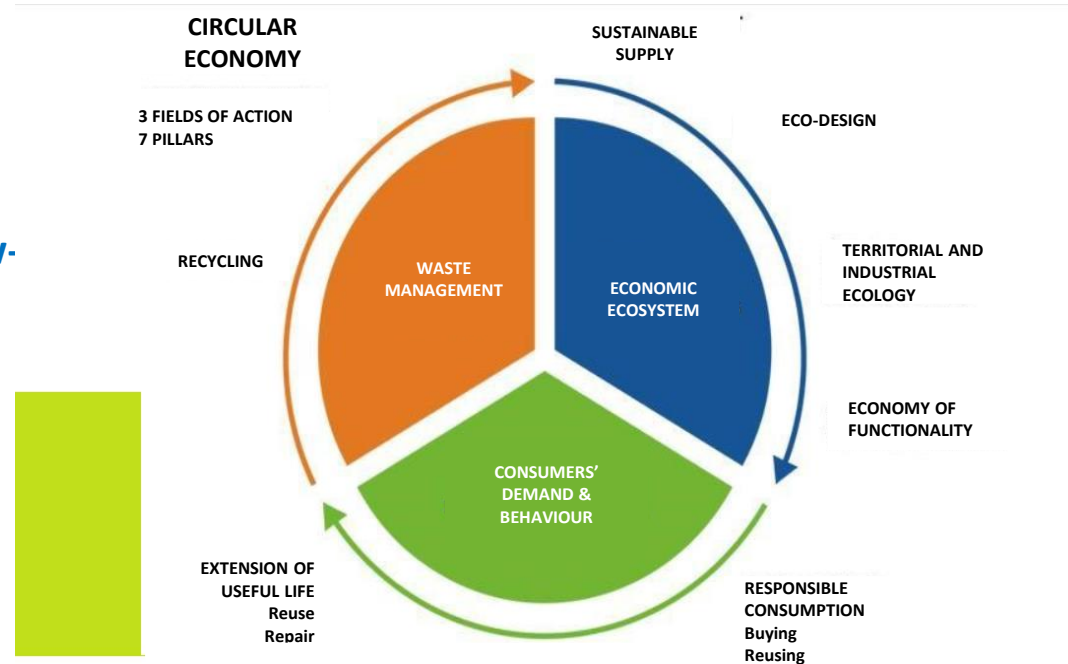


TOPIC: Construction and materials

➤ **Challenge:** Create solutions to promote circular economy in urban planing and development

➤ **Examples:**

- Facilitate eco design in construction & urban planing and development
- Participate to the emergence of low-tech and low-carbon construction systems
- Structure chains and optimize supply
- Facilitate the deconstruction and reuse of materials
- Anticipate the end of life of the building in order to ease its recycling





Challenge #2 - EIFFAGE & SAINT-GOBAIN DISTRIBUTION BATIMENT FRANCE

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TOPIC:

Water in the city

- Challenge: Within the sustainable Mediterranean city, develop mechanisms that promote decentralized management and reuse of water in the city at the scale of an eco-district or of a building

- Context: For decades, water used in the city have been channeled, bussed and/or hidden using heavy infrastructures. Water can once again become an asset and no longer a constraint for urban development projects. It has to be considered as an essential, living and sustainable element in the city. Water can also be considered as a catalyst for urban comfort to tackle urban heat islands effect during heatwaves

- Examples :
 - Phytoremediation
 - Bioremediation
 - Local gray water management
 - Rain water collection and reuse
 - Innovative solutions in the management of sewage and rainwater infrastructures

 **EIFFAGE**
IMMOBILIER


SAINT-GOBAIN



Challenge #3 - ENGIE

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TOPIC:

Energy needs

- **Challenge:** Determine cooling and refreshing needs of an already existing building as part of a future connection to an urban cooling network

- **Context:** The objective is to determine and measure cooling needs that will have to be addressed when connecting an existing building to a cooling network. It is necessary to identify a solution (process, method of calculation or estimation, analytical tools, etc.), which makes it possible to determine cooling and refreshing needs of an existing building, whatever its use: tertiary, housing, commercial, etc.

- **Examples:**
 - BMS / BAS indicating cooling and refreshing needs of an existing building
 - Collection and analysis of energetic data targeting cooling needs
 - Energy consumption monitoring, targeting cooling needs
 - Management of energy related data, targeting cooling needs





Challenge #4 - REDMAN

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TOPIC: Sustainable building

- **Challenge:** Provide solutions to better control costs at the scale of a building or a block
- **Context:** In order to improve the use of resources within buildings or blocks (tertiary, residential, mixed, etc.) it is necessary to identify new action levers to optimize financial costs, while limiting unnecessary consumption.
- **Examples:**
 - Equip users with tools allowing them to easily visualize and understand their expenses
 - Enable residents to better control the charges related to the use of their homes
 - Provide tertiary users and residents with action capacities to reduce their recurring costs and expenses
 - Generate new sources of revenue at the building or block level





Challenge #5 - ICI MARSEILLE

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TOPIC :

The manufacturing city

- Challenge: Set-up conditions for a relocation of the industry at the local urban scale and organize its connectedness

- Context:
 - Create necessary infrastructures to foster a « FabCity » ecosystem
 - Generate, maintain and develop terms of use of “Shared” items inside the city: areas, resources, tools, projects, etc.
 - Accelerate the development of local production units *inside* and *for* the city, in a territorial and industrial ecological approach
 - Go a step further in the re-manufacturing of the city

- Examples:
 - Proportionate technologies
 - Local productive economy
 - Local industry and urban compatible production
 - Fab city & Manufacturing city
 - Accompanied self-construction & DIY

