What are Serious Games?

A Serious Game is a game designed to achieve a primary objective rather than just entertainment. Serious Games are tools for teaching, learning, and education. They help players learn experientially though play in order to put concepts into use. Serious games provide learners with the opportunities to transform experience into knowledge.

Why include Serious Games in Decision-Making?

Decision-making processes imply discussion and co-creation among multi-disciplinary subjects. Through Serious Boardgames, decision-makers can obtain a more interconnected perspective of what a retrofit scenario should include. Enhancing structured discussion, brainstorming and ideation, Serious Boardgames help to draw out ideas, risks, approaches, and clarity that can lead to better scenario designs and better outcomes during implementation while engaging in a fun gameplay.

Urban QUEST
A Decision-Making Challenge

What is Urban Quest?

Urban Quest is a Serious Boardgame with the objetive of instructing participants in the Decision-Making Methodology, phase by phase. Through enhanced role-play discussion and co-creation, participants identify issues, targets to achieve, retrofit scenarios to improve the presented urban area at the neighbourhood scale.

Urban QUEST
A Decision-Making Challenge

Sustainable MED Cities

Urban QUEST
A Decision-Making Challenge

The 7 key phases of Decision-Making

Aim: To illustrate all seven phases of the decision-making methodology through an interactive role-play board game.

Game Timeline

	0	**1 Initiation**	**2 Preparation**	**3 Diagnosis**	**4 Strategic Definition**	**5 Retrofit Scenarios**	**6 Decision-Making**	**7 Retrofit Concept**
Phase								
Aim	To present the instructions of the game and the urban area.	To assign each group member a stakeholder role.	To prioritize the issues and categories to assess based on the understanding of the area.	To establish the strengths and weaknesses of the urban area.	To set the sustainability targets to be achieved for each category.	To select alternative scenarios per issue that fulfill the defined targets.	To select the best solutions in terms of energy and cost efficiency as well as the budget assigned.	To detail the best scenario through a report containing the description of the chosen solutions.
Time	10 minutes	10 minutes	15 minutes	15 minutes	15 minutes	20 minutes	10 minutes	5-10 minutes x group
Game Instruction		Each group member randomly picks a card from the Stakeholder Cards Stack on the board. **Note:** each card will describe the role and interest for each group member to assume during the discussions.	Based on the contextualization of the urban area choose five out of ten issues. Then from the five chosen issues pick one category per issue considering the ones that relate better to the strengths and weaknesses of the area.	A diagnosis card will be given to the participants. The cards contain a diagnosis score for each category based on their performance on the urban area. This score will help participants to prioritize their decisions later on.	Organize on the board the selected Category cards depending on the target score desired to achieve and the diagnosis score given (On a scale from 0 to 5 zero being the minimum acceptable performance and five the highest performance).	Select 2 out of 3 solutions per category from the Retrofitting Scenario Cards based on the impact, cost and time of each solution that responds better to the defined targets.	From the previous selected solutions choose one final solution per each issue that represents the best option to reach the defined sustainability targets and also fit accordingly to the budget specified.	Each group presents their final results.

Urban QUEST
A Decision-Making Challenge

Sustainable MED Cities

¡LETS PLAY!

Phase 0
Contextualization

To present to the participants the instructions of the game as well as the description of the urban area.

Time:
10 Minutes

Urban
QUEST
A Decision-Making Challenge

Sustainable MED Cities

Context of the Urban Area
¡Welcome to DecisionHood!

Immigrant families financially struggling

Intense heatwaves

High energy consumption

River overflows during rain season

Lack of alternative means of transportation
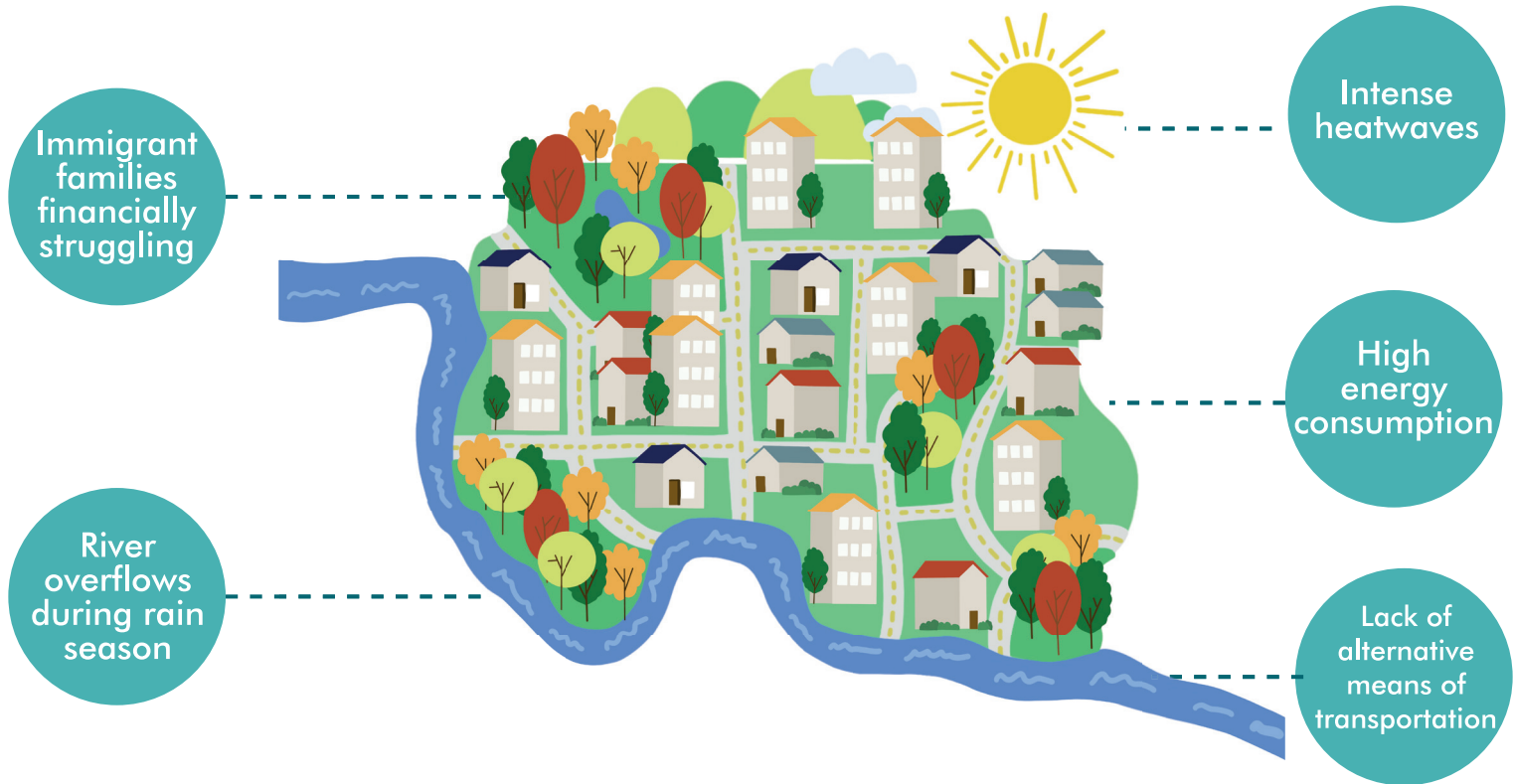
Urban QUEST
A Decision-Making Challenge

Phase 1

Initiation

Each group member randomly picks a card from the Stakeholder Cards Stack on the board.

Note: each card will describe the role and interest for each group member to assume during the discussions.

Time: 10 Minutes

Urban QUEST
A Decision-Making Challenge

Sustainable MED Cities

ENI CBCMED
Cooperating across borders in the Mediterranean

Project funded by the EUROPEAN UNION

REGIONE AUTÒNOMA DE SARDIGNA
REGIONE AUTONOMA DELLA SARDEGNA

Stakeholder Cards

STAKEHOLDERS

| 1 | Municipality's local authorities |
| 1.1 | Building Stock Manager |

Description:
Responsible for the approval process of building plan applications and the enforcement of statutory requirements regulating buildings

INITIATION

Stakeholder group name

Stakeholder name

General description

Urban QUEST
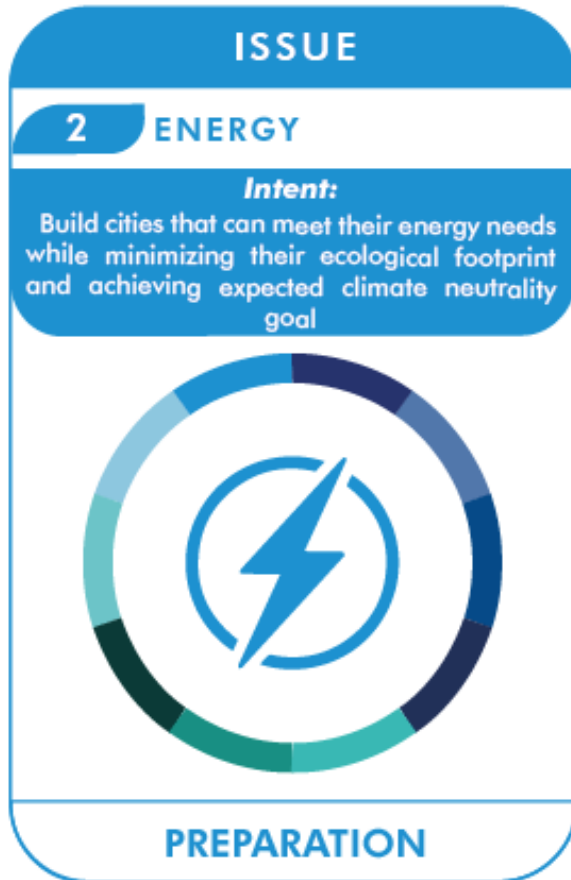A Decision-Making Challenge

Phase 2

Preparation

Based on the contextualization of the urban area choose five out of ten issues. Then from the five chosen issues pick one category per issue considering the ones that relate better to the strengths and weaknesses of the area.

Time: 15 Minutes

Sustainable MED Cities

Urban QUEST

A Decision-Making Challenge

Issues Cards

ISSUE

2 ENERGY

Intent:
Build cities that can meet their energy needs while minimizing their ecological footprint and achieving expected climate neutrality goal
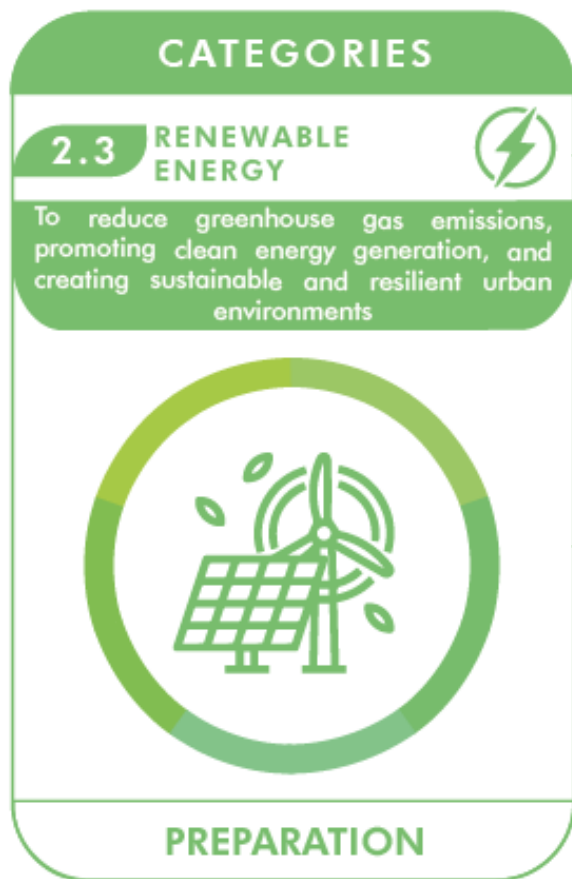
PREPARATION

Issue name

The issues are a description of general themes, recognized as relevant for assessing the sustainability of a neighbourhood.

Logo issue

Sustainable MED Cities

Urban QUEST
A Decision-Making Challenge

Categories Cards

CATEGORIES

2.3 RENEWABLE ENERGY

To reduce greenhouse gas emissions, promoting clean energy generation, and creating sustainable and resilient urban environments

PREPARATION

Category name

Intent

concern particular aspects of issues. There are 29 categories

Urban QUEST
A Decision-Making Challenge

Phase 3

Diagnosis

A diagnosis card will be given to the participants. The cards contain a diagnosis score for each category based on their performance on the urban area. This score will help participants to prioritize their decisions later on.

Time: 15 Minutes

Sustainable MED Cities

Urban QUEST
A Decision-Making Challenge

Diagnosis Cards

DIAGNOSIS

1.1 USE OF LAND

Diagnosis Score
2.5

−1 0 1 2 3 4 5

Lowest achievable performance

Highest achievable performance

DIAGNOSIS

Category name.

Diagnosis score assigned to the specific category (From -1 being the lowest performance to 5 being the highest performance)

Score scale for an easier visualization of the performance of the category in the urban area.

Urban **QUEST**
A Decision-Making Challenge

Sustainable MED Cities

Phase 4
Strategic Definition

Organize on the board the selected Category cards depending on the target score desired to achieve and the diagnosis score given (On a scale from 1 to 5 zero being the minimum acceptable performance and five the highest performance).

Time: 15 Minutes

Board

STRATEGIC DEFINITION

Define the meaningful targets. Assign each category a score from 1 to 5 based on the desired performance.

Sustainability Target: +5 — Highest achievable performance

Sustainability Target: +4

Sustainability Target: +3

Sustainability Target: +2

Sustainability Target: +1 — Minimum achievable performance

Look in the board for the Strategic Definition section. There are Five blank spaces, each one with a different sustainability target score. Place in every blank space one category card depending on the prioritization of issues you discussed with the other participants and assign each card a target score to be achieved. (From 1 being the minimum achievable performance to 5 being the highest achievable performance).
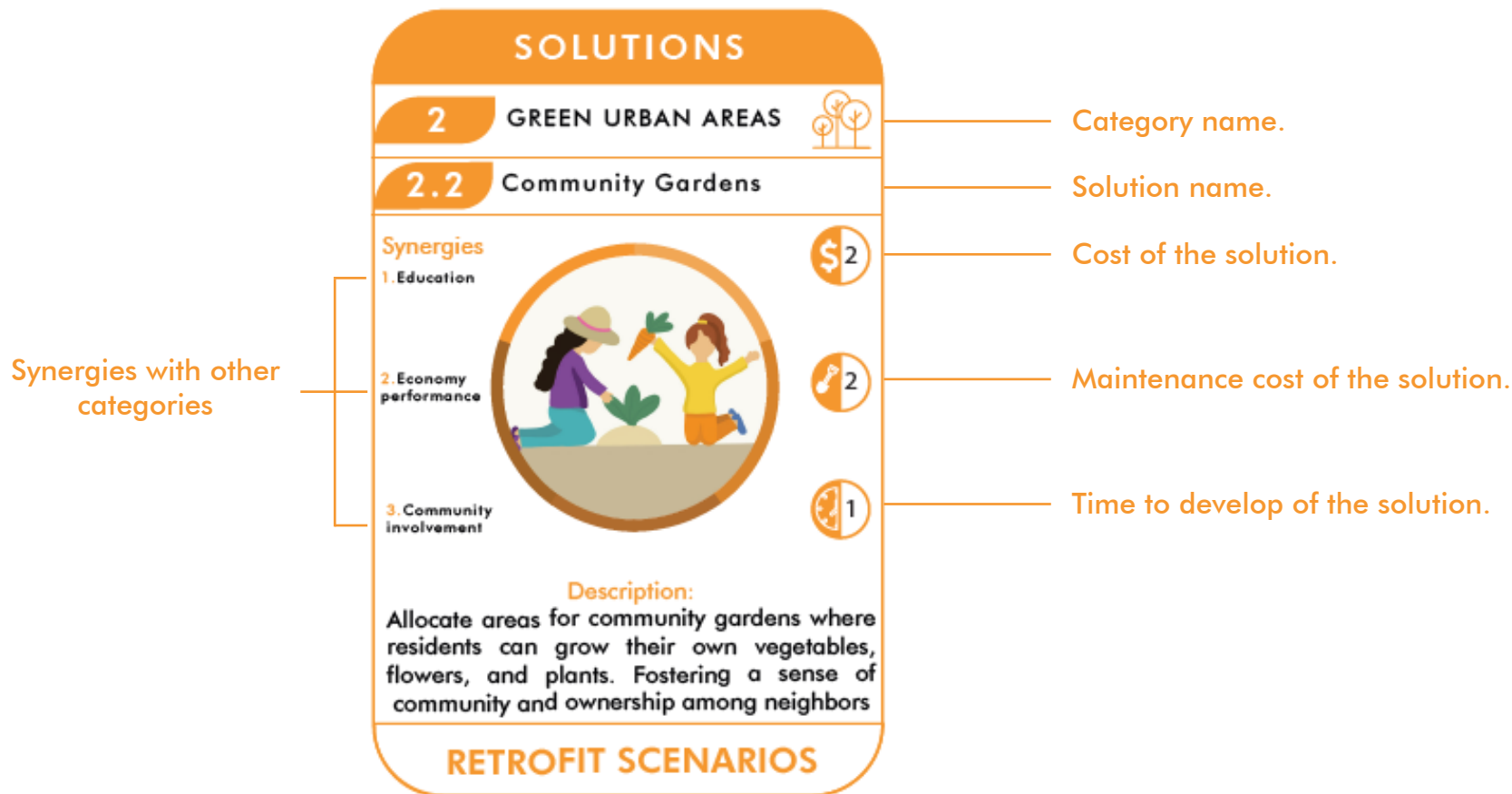
Urban QUEST
A Decision-Making Challenge

Phase 5

Retrofitting Scenarios

Select 2 out of 3 solutions per category from the Retrofitting Scenario Cards based on the impact, cost and time of each solution that responds better to the defined sustainability targets.

Time:
20 Minutes

Urban QUEST
A Decision-Making Challenge

Sustainable MED Cities

Solution Cards

SOLUTIONS

| 2 | GREEN URBAN AREAS — Category name.
| 2.2 | Community Gardens — Solution name.

Synergies
1. Education
2. Economy performance
3. Community involvement

Synergies with other categories

$2 — Cost of the solution.

2 — Maintenance cost of the solution.

1 — Time to develop of the solution.

Description:
Allocate areas for community gardens where residents can grow their own vegetables, flowers, and plants. Fostering a sense of community and ownership among neighbors

RETROFIT SCENARIOS

Urban **QUEST**
A Decision-Making Challenge

Sustainable MED Cities

Phase 6
Decision–Making

From the previous selected solutions choose one final solution per each issue that represents the best option to reach the defined sustainability targets and also fit accordingly to the budget specified.

Cost budget: $12

Time:
10 Minutes

Sustainable MED Cities

Urban QUEST
A Decision-Making Challenge

Board

SOLUTIONS

Select the best energy and cost efficiency solution for each category

Final Solution Category N°1

Final Solution Category N°2

Final Solution Category N°3

Final Solution Category N°4

Final Solution Category N°5

Look in the board for the Solutions section. There are Five blank spaces, each spaces is designated for participants to put the final selected solution per each category. This will help participants to visualize the strategies chosen that correspond to the scenario proposed by the group members for the urban area.

Urban QUEST

A Decision-Making Challenge

Phase 7
Retrofit Concept

Each group presents their final results.

Time: 5–10 Minutes/ Group

Sustainable MED Cities

Urban QUEST
A Decision-Making Challenge