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UniverCity Action Lab

Step 2: Understand your Local Environment



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IDENTIFY THE LEARNING AND TEACHING METHODS WHICH CAN BE USED IN THE PROGRAMME

1. CHALLENGE IDENTIFICATION: which are the main urban and social problems at stake?

Ideas for **innovation** are often sparked by events or new information that create a new **societal challenge** or **societal need**.

The most important task at this stage is to **identify the right problem** by framing or reframing the question at play from a different perspective.

Thus, in order to better understand your environment and related challenges, the following steps should be considered:

1. Create a **common vision** of the challenge at stake and the **desired outcome**
2. Define the **end-goals** and **KPIs** (key performance indicators)

1. CHALLENGE IDENTIFICATION: define the end-goals and KPIs

Once a vision is clearly outlined, the challenge-owners need to formulate:

- **Specific goals** that they want to achieve
- **Key Performance indicators** that will be used to measure progress towards these goals

Important!

The goal of the innovation process is to achieve meaningful results that aim to create a structural and lasting impact. To this end, these goals should address:

- Physical or institutional structures
- Mental models
- Root causes that are at the basis of the functioning of the system.

1. CHALLENGE IDENTIFICATION: types of challenges

The challenges that are defined can also be categorised according to the following criteria:

Internal Challenges of the HEIs

- Design or implementation of University Strategic Plans
- Implementation of Specialisation Strategies
- Ad-hoc procedures
- Other internal challenges

External challenges that have influence on the HEIs/

- Local strategic plans (urban, county or province)
- RIS3 strategies
- EU strategies

Scale challenges range of challenges, in terms of impact and execution time

- Project-scale challenges (short term)
- Programme-scale challenges (medium term)
- Strategic-scale challenges (long term)

Side note: check out our roadmap annex 10 for templates to identify challenges according to your institution

Case study examples – Challenges that were identified

DriveGreen – The challenge of supporting sustainable mobility and the reduction of greenhouse gas emissions.

RUARDI - How to enlarge, optimise, and integrate an existing city airport into the local environment and community.

Remining-Lowex - How to use local available low-valued renewable energy sources from water in abandoned mines

IDENTIFY AND CONNECT WITH EXTERNAL STAKEHOLDERS

2. ECOSYSTEM IDENTIFICATION: which are the potential urban stakeholders to work with?

The complexity of **urban & social challenges** requires the involvement and consideration of a **different variety of stakeholders**, with influence in **different physical areas** (*region, municipality, metropolitan areas, neighbourhoods, etc.*)

Furthermore, it is essential to map the stakeholders' network as it can highlight new synergies. Mapping should identify the following about the actors:

- Who they are
- Their physical and organisational position
- Challenges they are facing on an individual and collective level
- Their capacity to provide solutions

Thereafter, the necessity to define:

- **Different types of stakeholders** (following the quadruple helix model)
- **Different Potential Role of network partners**

2. ECOSYSTEM IDENTIFICATION: types of stakeholders

1. The institutional and public administration:

- They are the principal organism that manage the city and territories
- They are organised in different areas of expertise
 - Help gather general ideas of what the main challenges of a city are
- Key actor in the challenge identification

Important!

- Consider institutions of different scale or rank:
 - Regional
 - Metropolitan
 - Local

Examples of institutional and public administration (but not limited to) within the urban context:



2. ECOSYSTEM IDENTIFICATION: types of stakeholders

2. The industry:

- It helps concretise and frame the challenge definition
- It provides financial investments

Important!

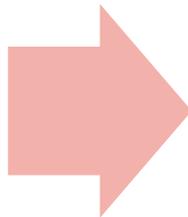
- The industry must be represented with different types of organisations:
 - Start-ups & spinoffs
 - Consolidated industrial companies with capacity to invest

3. The citizenship and local organisations:

- They are the target of the innovation
- They have a crucial role in challenge identification and test & evaluation process

Examples of citizenship and local organisations (but not limited to) within the urban context:

Local open access societies
/networks/coalitions



NGOs focusing on co-created innovation in urban matters (including water, energy, housing, mobility, social inclusion, and so on) that are closely connected to the Commissions' Urban Agenda items

2. ECOSYSTEM IDENTIFICATION: types of stakeholders

4. The education sector:

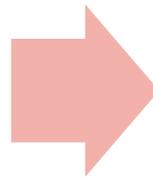
- Higher Education Institutions (HEIs)

Important!

Within the UCityLab dimension, it is allowed to work exclusively with one institution. Nonetheless, it is recommended to increase complexity by working together with several HEIs. This will allow a more transversal approach and the possibility to create interdisciplinary teams of students or cross different grades and educational programmes.

Examples of educational organisations (but not limited to) within the urban context:

**Vocational education
institutions (VET)**



**Independent Continuous
Learning Institutions (e.g.
Academies)**

2. ECOSYSTEM IDENTIFICATION: types of stakeholders

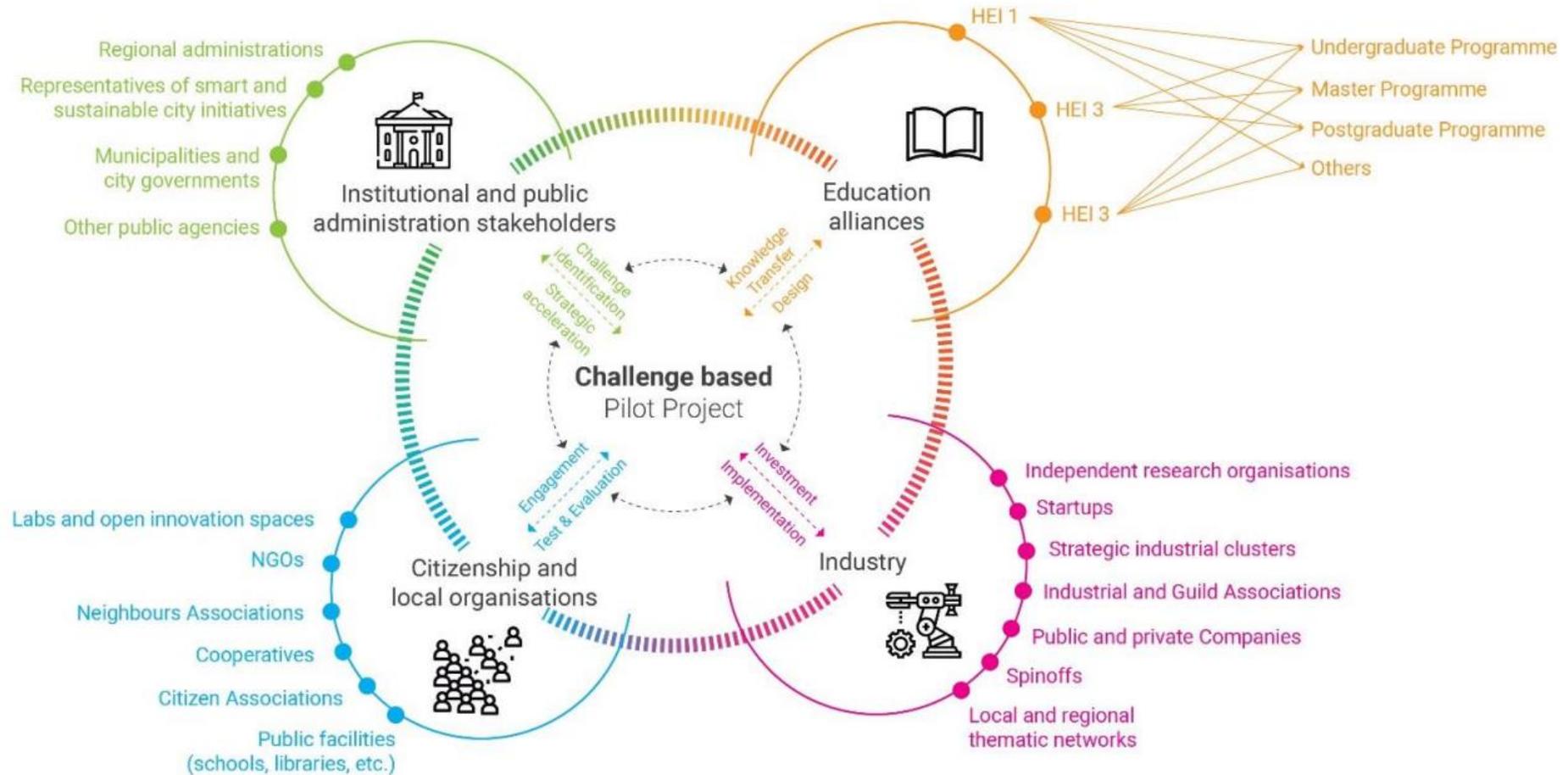


Image 1: Types of stakeholders according to the principal categories

Source: (UCityLab network roadmap 2020, p10). [Link to the document](#).

2. ECOSYSTEM IDENTIFICATION: Potential Role of network partners

The role of different stakeholders during the implementation of the programme can vary according to their typology, needs and commitment with the challenge and the programme itself.

Furthermore, the UCityLab Project proposes an **interdisciplinary** and **crossed approach** to the programme and its development. For this reason, it must be considered that **each stakeholder can take part of more than one action in different moments along the process.**

Some of the principal actions may include...



2. ECOSYSTEM IDENTIFICATION: Potential Role of network partners

...as well as:



3. ECOSYSTEM / NETWORK CONFIGURATION

All ecosystems, can be described using two characteristics, structure and function:

1. Structure

- The way the relationships between the system's elements/actors are expressed
- How they can be understood as a result of the sum of these relationships

They may furthermore be:

- Open or closed systems
 - Do they permit interaction and influence from external sources?
- Hierarchical or non-hierarchical
 - Depending on the relations of power among actors
- Complex systems
 - Depending on the number and nature of actors' interrelations
- Triple or quadruple Helix ecosystems
 - depending on the number of sectors that are involved



3. ECOSYSTEM / NETWORK CONFIGURATION

2. Function:

The function of the ecosystem describes the collective aim of the stakeholders

- How does it come about?
 - Predetermined, according to strategic challenges
 - As a result of natural interactions and collaboration

The function may address different challenges and are determined by the qualitative characteristics of the ecosystem:

Challenges → e.g. social innovation, business innovation

Qualitative characteristics → competitive, collaborative, synergetic

4. INTERVENTIONS / ACTIVITIES

Another important step is to define a calendar with a package of concrete activities and interventions. It should:

- Include an order and timing which helps reach the end-goals
- Prioritise the impacts
- Address the end-goals by changing processes and behaviours through interventions

Effectiveness and feasibility are key characteristics.

Issues to be taken into account when looking at the interrelationships between interventions may include:

- Trade-offs
- Dependencies
- Reinforcing or weakening effects

A *systems thinking approach* can ensure that the measures used will have positive effects on one another, creating knock-on changes throughout the system for the duration of the process and further.

4. INTERVENTIONS / ACTIVITIES

It is important to select measures that are appropriate and do not have negative trade-offs.

- Symbiotic advantages reinforce each other's effect
- 'Enabling interventions' should be selected at an early stage

Examples of steps that can be taken with regards to the interventions/activities to be organised:

- Decide on different interventions
- Determine sequence in which they should be implemented
- Plot their implementation on a timescale
 - Defining their time of execution
 - Their relationship with other interventions

How to avoid undesirable trade-offs path-dependencies, and lock-ins?

- Consider implications of individual measures on the dynamics of the whole system
- Delays in individual interventions and within the system need to be considered

Keep in mind that these processes are not linear and should be dynamic. **Continuous re-evaluation is essential.**



4. INTERVENTIONS / ACTIVITIES

Continuous reflection

- Ensures stakeholders can make necessary course adjustments in complex processes

Continuous monitoring

- Ensures effectiveness of interventions

Continuous learning and **observation** of how system behaves

- Ensures that measures are adapted or removed
- Ensures new options for the system

Re-evaluation of end-goals, vision and values may also be necessary at some point.

Case study examples – Ecosystems and stakeholders

CDS & U

- Project topics from external entities, including business and local government partners.
- Interdisciplinary co-operation of students from different faculties.
- Particular emphasis on IT and business.

AI4All

- Students, academics, businesses, city or regional government as stakeholders.
- Most significant impacts of the project → collaborative effort between departments, faculties of the university and external actors.

Porto Living Lab

- Aimed to turn Porto into a lab for urban sciences and technologies for smarter cities
- Used a large consortium of urban stakeholders