Co-funded by the European Union

GREEN SKILLS FOR CITIES

TfT DESIGN GAME:

Guiding Questions

Developed by WU, IAAC & UNIGE

WU Wirtschaftsuniversität Wien Vienna University of Economics and Business

Advanced Architecture Group | Iaac

Università di Genova

alda European Association for Local Democracy

CONTENTS

1. HOW TO USE THE MATERIAL

These guiding questions should be used as support material for the Design Game. Due to the overlap between the Design, Botany and Technology Dimensions, these questions have been combined following the design stages. After the 'Site Analysis' section, the Business Dimension questions should be applied parallel to the Design, Botany and Technology Dimension as there are questions that overlap between the different disciplines. It helps if a delegated person is in charge of ensuring the overlaps and synergies of the different disciplines are implemented.

2. DESIGN, BOTANY & TECHNOLOGY DIMENSIONS

2.1. SITE ANALYSIS

➔ What are the positives and negatives about the site?

➔ Can you describe the social dynamics that characterize the space?

- What is the level of human interactions within the site?

➔ How can you relate these social dynamics to the spatial configuration?

- Are they influenced by the space microclimate?

➔ Are there any public facilities / urban furniture present on the site?

- Are they influencing the social dynamics?

➔ Are there any awareness communication strategies already exploited within the site?

➔ What kind of materials are present on the site?

- Are they influencing the local microclimate?
- Are they influencing the social dynamics?

➔ What path does the sun follow?

- Where does the site experience the most sun exposure/shade?
- Is there any relation between sun exposure and social dynamics?

➔ Is there any kind of nature present in the space, for example, biodiversity, vegetation, fauna etc?

- Are they influencing the local microclimate?
- Does it provide any ecosystem services?
- Are they influencing the social dynamics?

➔ Where does the water flow?

- Is the water collected or exploited for any use in the space (irrigation, nebulisation etc)?

➔ If you are not able to find the necessary information ad hoc, where do you research this information or who could you ask?

2.2. WHAT KIND OF NATURE-BASED SOLUTIONS OR URBAN REGENERATION STRATEGIES CAN BE IMPLEMENTED?

➔ Which kind of vegetation could be potentially implemented (trees, shrubs, grasses)?

➔ What kind of ecosystem services could be provided on the site?

➔ What could be the impact, both short term and long term, on the ecosystems and social dynamics?

➔ Which kind of solutions could be implemented to improve biodiversity (bees, butterflies, birds, etc)?

➔ Are there any relevant species that can be used/harmonized within the site, taking into account ecosystem services and disservices that they can provide?

➔ Which kind of design strategies can support the implementation of nature?

➔ Which kind of technologies (computational and parametric design, digital fabrication, etc) can support the implementation of nature?

➔ Are your nature-based solutions designs high-tech or low-tech?

➔ How will irrigation and drainage work?

➔ Which co-design strategies can you implement in your design proposal (e.g involving schools or neighborhood associations etc)?

➔ If you are not able to find the necessary information ad hoc, where do you research this information, or who could you ask?

2.3. WHAT ARE THE MAIN FEATURES OF YOUR DESIGN PROPOSAL?

➔ Are you including public facilities in your design proposal?

- How do you expect them to influence the social dynamics?

➔ Are you modifying or adding shading devices?

- How do you expect this to influence social dynamics?

➔ What are the materials you plan to use in your design proposal?

- How do you expect them to influence local microclimate and social dynamics?

➔ What are the biotic components that you would like to support?

➔ If you are not able to find the necessary information ad hoc, where do you research this information, or who could you ask?

2.4. HOW CAN THE SITE AND NATURE-BASED SOLUTIONS BE MONITORED AND MAINTAINED?

➔ Which kind of maintenance operations are needed?

➔ Is there any strategy to reduce the maintenance operations?

➔ Who will be responsible for the maintenance?

- Is there any co-maintenance strategy that can be applied?

➔ Which indicators can be used to assess the project impact (social, environmental, economic impacts, etc)?

➔ Which data has to be collected to analyze the impact of the project?

➔ How will data be collected (sensors, open-sourced data, etc)?

- Is there any strategy to involve local actors in data collection (e.g citizen science)?

➔ Who will analyse the data and how will it be used (e.g adjustment to the project, etc)?

➔ If you are not able to find the necessary information ad hoc, where do you research this information, or who could you ask?

3. BUSINESS DIMENSION

This first brainstorm will help you to show the value of your idea. We will break it down in more steps and details that will help you to shape and develop your idea further. Ready?

3.1. WHAT IS YOUR SOLUTION?

➔ What are the key features of your solution?

➔ Why is it needed now?

➔ What is its USP? (unique selling proposition)

➔ Which kind of maintenance does it require?

Remember:

You need to consider all aspects and dimensions of your NBS to be able to establish a proper business plan.

To differentiate your solution from others in the market, you need to highlight what makes it special = USP

3.2. FOR WHOM DO YOU DESIGN YOUR NBS?

- ➔ For whom do you solve a problem?
- ➔ Who are your target groups?
- ➔ Who are the direct users?
- ➔ Who else is benefitting from your NBS solution?
- ➔ Which pains (struggles) do they have?

Remember:

The first customer to think of could be the city itself. In the case of NBS (e.g. a park or green wall) very often the paying customers (the city) are not the direct users (the citizens). Other beneficiaries who are not thought of (e.g. businesses, schools, sport clubs etc.) can also benefit from proximity to an NBS, plus also the city as a whole benefits from the provided ecosystem services).

Understanding your target groups allows you to identify 'hidden' beneficiaries as well as potential donors.

For a more differentiated understanding, in a customer value proposition you not only analyse the pains but also needs and gains stemming from your proposed solution.

3.3. WHICH KIND OF VALUE DOES YOUR NBS CREATE?

- ➔ Which value does your NBS create?
- ➔ Socially?
- ➔ Environmentally?
- ➔ Economically?

Remember:

Sustainable projects need to focus on social, environmental and economic sustainability.

True (business) sustainability aims at creating a positive impact and not only at outbalancing its negative ones.

3.4. HOW TO IMPLEMENT YOUR NBS?

- ➔ Which stakeholders need to be involved to implement your solution - and when?
- ➔ What are the required (next) steps?

Remember:

It is crucial to start reflecting in the early stages already how your NBS will be managed on an operational basis as NBS often require the involvement from different partners and beneficiaries alike.

Governance has been identified as one of the biggest challenges to a successful NBS implementation!

Watch out for 'silo' gaps: Internally there is often a lack of communication and strategic alignment between different public sector departments. Environmental and planning departments don't always have same priorities. Budget and maintenance of NBS can also be the responsibility of other departments. How do you bring them on board, where is your entry point?

3.5. HOW WILL YOUR NBS BE FINANCED?

- ➔ How do you plan to cover planning costs?
- ➔ How would you estimate the required capital investment for your NBS?
- ➔ How are the operational costs taken care of?
- ➔ If you are not able to find the necessary information ad hoc, where do you research this information, or who could you ask?

Do not focus too much on the exact numbers but more on where the cost occurs and comes from!