


Market potential for NBS solutions

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Contents

1. Purpose of Deliverable	5
5.1.7.1 - Analytical Deviations	5
2. Executive Summary	7
3. Definitions	8
Nature Based Solution (NBS).....	8
Market potential.....	8
4. Method	9
4.1 Overview of Research Process	10
4.2 Criteria for selecting relevant stakeholders.....	10
4.3 Criteria for selecting NBS projects	11
4.4 NBS Business Analysis.....	11
4.5 Workshops	13
4.6 Survey Questionnaire.....	13
4.7 Interviews with NBS Start-ups	16
5. Sofia	18
5.1 Introduction to Sofia	18
5.2 Introduction to Nadezhda and the Healthy Corridor of Sofia.....	18
5.3 Empirical research in Sofia	20
5.3.1 NBS Business Analysis	21
5.3.2 Survey	27
5.4 Shortlisting NBS Solutions.....	34
5.5 Conclusion.....	35
5.6 Results.....	37
6. Nantes	39
6.1 Introduction to Nantes	39
6.2 Introduction to Nantes Nord and the Green Corridor of Nantes.....	39
6.3 Empirical research in Nantes	40
6.3.1 NBS Business Analysis	41
6.3.2 Survey	46
6.4 Case Study: The Ecosolies in Nantes	59
6.5 Shortlisting NBS Solutions.....	61
6.6 Conclusion.....	67
7. Porto	69
7.1 Introduction to Porto	69
7.2 Introduction to Campaãha and the Green Corridor of Porto	69

7.3.1 Empirical research in Porto.....	70
7.3.2 Survey	78
7.4 Case Study: LIPOS and Community Gardens.....	93
7.5 Shortlisting NBS Solutions.....	97
7.6 Conclusion.....	97
8. Main Findings and Results	98
9. Conclusions.....	100
Appendix	101
Organisations investigated in Sofia.....	101
Organisations investigated and interviewed in Sofia with the SWOT Business Canvas ...	106
Organisations investigated in Nantes	127
Organisations investigated and interviewed in Nantes with the SWOT Business Canvas	140
Organisations investigated in Porto.....	143

1. Purpose of Deliverable

Task 7.1 reveals interviews with local stakeholders who are engaged in implementation of the NBS to identify and validate costs, benefits and key enabling features (M18-M30).

The purpose of this task is to identify and validate costs, benefits and key enabling features of best practice NBS by conducting a web-based survey and more in-depth interviews with the stakeholders involved in the implementation of NBS and articulated in WP2. These key stakeholders include, but are not limited to, start-ups, citizens, city administration, corporate clients, URBiNAT experts, researchers, and technical experts.

The compilation of a multi-stakeholder analysis enables us to identify key community stakeholders and determine who are the key stakeholders (public, private and civic) engaging and collaborating on NBS project delivery in each front-runner city. With the assessment of local public, private and civic stakeholders' ability to collaborate on implementation of best practice NBS, we can estimate the intangible costs and benefits of implementation, whilst the tangible costs and benefits are revealed in task 7.3 that focuses on writing up business cases for the most marketable and bankable NBS solutions.

In this task, we consider the local context, such as the ability to compromise and collaborate, and the ability to depoliticise vital actions and operations for NBS implementation. The aim is to identify key enabling features, both in terms of individuals and certain favourable modus operandi. To assess financeability of each NBS project, data is gathered on qualitative and quantitative costs and benefits enabling comparisons and benchmarks across best practice NBS. In-depth one-to-one interviews with the stakeholders enable us to understand at a more granular level the costs, benefits, roles, and responsibilities and to reveal the costs, benefits and key enabling features of each NBS project delivery, however, while acknowledging that the key enabling features may be different for each NBS depending on the local context of each city.

The interviews conducted in Sofia, Nantes and Porto reveal that there are still challenges in gaining support for green solutions in general, including nature-based solutions. Public support, including setting up platforms and initiatives that can further develop these solutions could be improved. In Nantes, an organisation like Les Eccosolies is a successful example of an institution/platform that can play this role.

Task 7.2 offers an analysis of interviews with primarily start-up representatives. Some of the start-ups are for-profit, some are non-profit, and some are public entities. Together they are tasked with implementing the NBS that have been identified during the course of the URBiNAT project.

5.1.7.1 - Analytical Deviations

Due to the COVID pandemic, it was not possible to host one community workshop in each of the three front-runner cities, - only in Sofia and Porto. The COVID breakout had a negative impact on the online survey, as the survey prerequisites the municipality already having a well-established engagement and dialogue with the local community to reach the survey target segment.

This is evident in the high response rate of Sofia, where it was possible to host the workshop prior to COVID. In contrast, the survey was also conducted in Nantes, but because no

workshop was held in Nantes due to COVID, there was also no well-established engagement and dialogue with the local community prior to conducting the survey. Thus, we only sourced 18 responses in Nantes. Only recently did society reopen in Porto, which enabled us to host the workshop. This led to the collection of 34 responses in Porto.

Due to these inconsistencies caused by COVID, we have decided to include all the activities held to date in task 7.1 to compile a more comprehensive data collection and subsequently a more complete analysis. The below table provides an overview of the activities conducted and included in this analysis:

Activity	Sofia	Nantes	Porto
Workshop	Completed prior to the breakout of COVID	Not completed due to COVID	Completed after society had reopened
Surveys	47 responses gathered	18 responses gathered	34 responses gathered
Interviews captured in 7.2	Completed	Completed	Completed

Table 1: Overview of the activities conducted in the cities. Source: City Facilitators
 Based on this reasoning, we would kindly ask the reader to consider this deliverable 7.1 as also covering task 7.2. Task 7.2 narrowly focussed the analysis of the interviews that has been included in this report.

2. Executive Summary

The investigations in Sofia, Nantes and Porto were conducted in 2020 and 2021, and therefore, they were heavily influenced by the COVID lockdown in all three countries. Unfortunately, COVID had a major impact on the possibility of collecting empirical data through surveys, interviews and fieldwork. Desktop research has been an important source of data, but only to a limited extent has it been possible to properly validate data revealed during desktop research using surveys and interviews. In Sofia, Nantes and Porto, surveys were conducted, but we met challenges concerning the distribution of the questionnaire to residents.

Based on the desktop research and business analysis, a range of different private companies and non-profit associations were identified in each front-runner city. These are highly relevant to introduce and support in relation to the healthy corridor projects in Nantes, Porto and Sofia, and later in the follower cities.

In this task, we have shortlisted the three most successful NBS business start-ups based primarily on how advanced each business is under the hypothesis that the most advanced and evolved NBS business start-ups are perceived the ones that are the most likely to have attained a market position, met regulatory requirements, weathered COVID and so on. That does not mean that there are no newcomers in the NBS business landscape that can grow and evolve into more mature companies. In task 7.3, these shortlisted start-ups are granted business coaching centred on working out the specifics of their business case through a discounted cash flow model that has been developed for the URBiNAT project.

The interviews the surveys reveal that there are still challenges in gaining public support for green solutions, including nature-based solutions. Public support, including setting up platforms and instigating initiatives that further develop and expand NBS solutions, could be improved. However, certain examples stand out, such as in Nantes, where an organisation like *Les Eccosolies* is a successful example of a publicly initiated institution and platform that further NBS and its awareness.

Commercial companies that are based on a conventional business model (e.g., the need to earn revenue for their survival) should have a commercial incentive to engage. To promote this incentive, non-profit intermediaries like *Les Ecossolies* in Nantes play the vital role of enabler of local platforms for dialogue and shared social, cultural and economic activities. Such intermediaries are the nexus of a trustful, long-term relationship between private, public and civic organisations that are interested in developing NBS solutions for city areas such as Nantes Nord, Sofia Nadezhda and Porto Campanha.

3. Definitions

Nature Based Solution (NBS)

The definition of an NBS in the URBiNAT project is quite broad compared to the definition by the EU Commission. According to the EU Commission an NBS is:

“Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions.”¹

In URBiNAT, however, NBS is broadly defined encompassing technical, territorial as well as participatory and social and solidarity economy-based solutions. In this report, we use the NBS organisation as an umbrella term that includes for-profit companies as well as non-profit organisations that use nature, social and solidarity economy as core elements of their product and service. However, as a reflection of the broad definition of NBS used in URBiNAT, we also include organisations that use participation as a core element of their product and service.

In sum, we find it meaningful to use a term that encompasses both *for-profit* and *non-profit* organisations, which is captured by the term “NBS organisation” (differing from the *ConnectingNature* terminology). We distinguish between two types of NBS organisations based on whether they are for-profit or non-profit: *NBS companies* are for-profit, and *NBS associations* are non-profit.

Market potential

According to Oxford English Dictionary a market potential is: *“the estimated potential demand for and sales of a commodity, product, or service”*.² When working on NBS solutions, however, and with the definition that we have proposed including both the for-profit and non-profit dimensions, a narrow definition of market potential should be avoided. Accordingly, there are other kinds of value creation that need to be highlighted. Nevertheless, for the purpose of laying the ground for the subsequent task 7.3 (Write up business cases for the most marketable and bankable NBS solutions), our intention with task 7.1 is to estimate the market potential in the ‘classic’ definition focusing on the for-profit potential.

¹ https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en

² https://www.lexico.com/definition/market_potential

4. Method

A key criterion for determining the best practice NBS is the market potential of each individual NBS solution (e.g., product or service). We evaluate the following to assess the market potential of a given NBS:

- Whether it satisfies a market need.
- Market competition.
- Presence of potential customers.
- Prices and production costs – in relation to the price at which the solution is sold.
- The innovation aspects.

From a social innovation perspective, we also considered:

- The material and immaterial needs of communities.
- The community potential to achieve business opportunities. We acknowledge that the local community and citizens should determine the market potential of each NBS solution, because they are the users of the NBS solutions. Thus, it is a prerequisite that the selection of best practice NBS solutions and business start-ups has community recognised value to ensure the market potential of the solution. This, of course, brings us back to the challenges that have emerged in the wake of COVID that have largely prevented us from engaging and attaining input from local communities and citizens.

To assess the market potential for the NBS in URBiNAT, we had the intention of conducting a market survey with the following three parts:

1. An online survey for each front-runner city targeting the local community and citizens to understand the size of the potential market as well as the needs of the communities and the potential to achieve business opportunities.
2. An open invitation workshop with the participation of the local community and citizens in all three front-runner cities.
3. A NBS business analysis to assess the market competition, prices and production costs. In addition to this analysis, we provide evidence of which types of products and services can compete on market terms and which NBS solutions rely on public funding or voluntarism to survive.

To analyse the business models of sustainability-driven companies and organisations in the intervention cities, a series of face-to-face interviews were conducted in Sofia and Porto and surveys were conducted in Sofia and Nantes. The goal was to identify the enabling features that spur the creation and growth of social and sustainability-driven businesses as well as barriers that might hinder said business growth.

4.1 Overview of Research Process

The below figure illustrates the process used for the entire work that has been started and is fully or partially completed. This work covers tasks 7.1, 7.2 and 7.3, all of which are close interdependent.

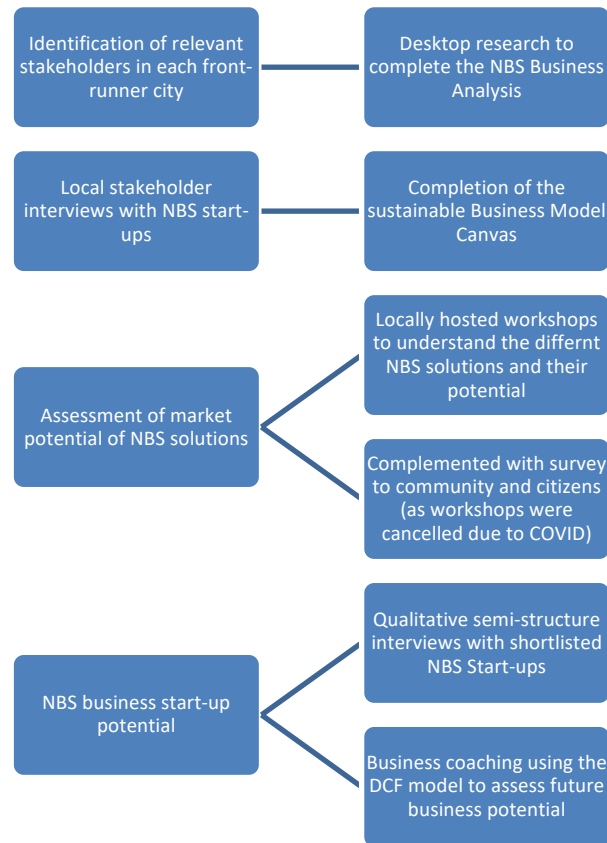


Figure 1: Overview over the methods deployed for WP7. Source: City Facilitators.

4.2 Criteria for selecting relevant stakeholders

This work package is build using the below visual as its guideline. The figure illustrates that at its core community start-ups and citizens play a crucial role at enhancing the spread and strengthening the position of NBS in cities. In total, between 24-26 NBS start-ups were identified in each front-runner city.

URBiNAT experts, including business coaches, help start-ups and citizens embrace NBS, including understanding the business potential for NBS. Essentially, with a strong business proposition, NBS start-ups can market their solutions to the broader market of public and private clients. At this point, we have not identified NBS start-ups that at this more advanced stage of business.

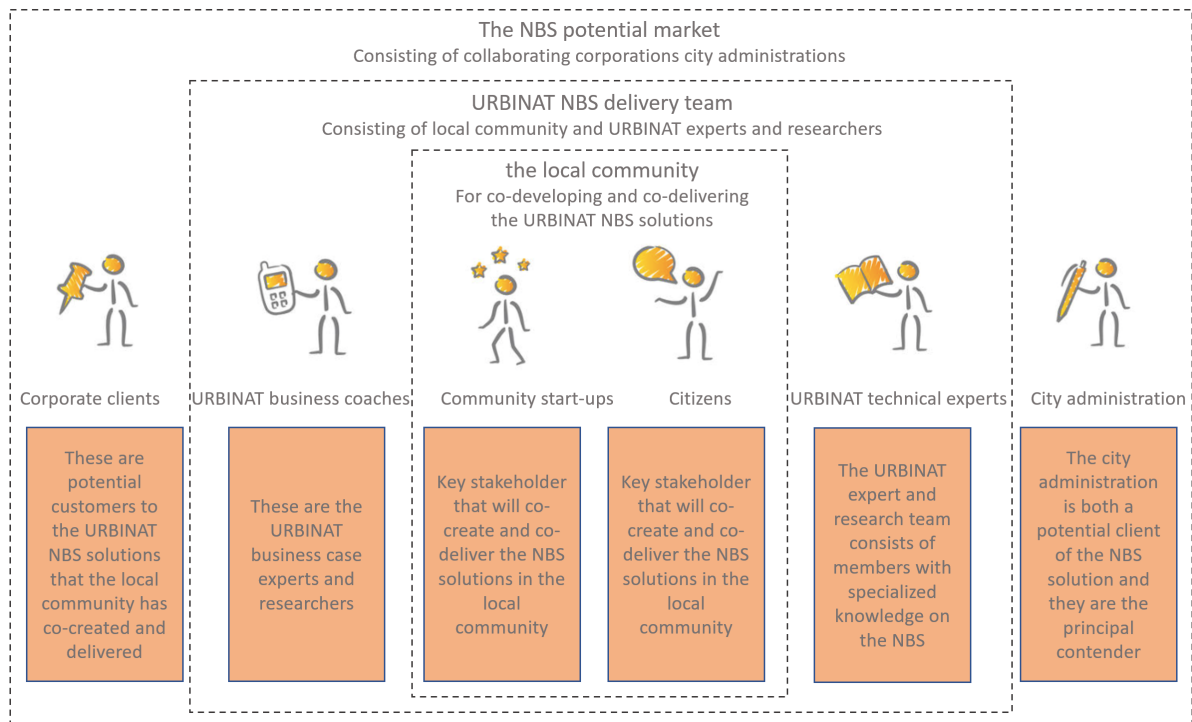


Figure 2: Overview of the broad scope of URBiNAT stakeholders. Source: City Facilitators.

4.3 Criteria for selecting NBS projects

The criteria for selecting best-practice NBS projects was based on primarily three aspects:

1. Delimitation process: We had the intention to use the results of the co-creation process in the three front-runner cities, namely the NBS chosen for implementation in the healthy corridors, to delimit which NBS solutions to focus on in this analysis. As previously mentioned, the NBS chosen for the corridors in each of the front-runner cities reflect which of the NBS (from the NBS catalogue), the local community finds most valuable.
2. Questionnaire input: We used the output from questionnaire to shortlist the NBS projects. We asked: what type of NBS projects and business opportunities do the local community identify as most important to them? And which of these opportunities hold business potential that the community is interested in seizing? In the subsequent in-depth interviews, we sought to gain further insight into each NBS business and solution to better understand the business and market potential of each NBS solution.
3. Business analysis: Based on the result of the NBS business analysis, we were able to identify which types of NBS organisations have an already proven track record evidencing that they can operate on the local market; thus, demonstrating the existence of a market potential for the given type of NBS business/project.

4.4 NBS Business Analysis

The purpose of this analysis was to identify which types of NBS organisations that already exist in the three front-runner cities prior to and independent of the URBiNAT project. The analysis has two aims: 1. to discover the potential competition for the NBS projects in

URBiNAT, and 2. to identify which types of NBS businesses and organisations have a proven track record of being successful in the three cities, as success is based on achievements to date.

By analysing which types of NBS start-up organisations that exist in the cities, the intention is to identify which types of business/association that have a proven business case and identify potential strongholds in the city (for example the existence of a cluster to foster further growth within an area) thereby gaining insights into which types of businesses are successful today and can be successful in the future.

The identification of NBS organisations was primarily made through desktop research, engagement with the front-runner cities, input from local URBiNAT partners and communities and citizens (e.g., surveys and interviews). We followed a snowball approach, where identification of one relevant organisation led to identification of others, and we looked at relevant clusters of organisations or hubs in the cities (for example Les Ecosolies in Nantes). We verified our results through desktop research for relevant organisations using terms such as “sustainability Nantes, “Social and solidarity economy Porto” in English as well as native languages.

Sometimes, it was a challenge to decide whether an organisation could be described as an NBS organisation or not. For example, if a large company has some of its activities based on NBS while other activities are not centred on NBS, it is challenging to categorise that company. Generally, we took an inclusive approach to count and include all local organisations that have NBS activities.

For each front-runner city, we developed a matrix with key information about the local NBS organisations, as well as categorised each of the organisations in terms of for-profit/non-profit, type of NBS, theme (water, food, education, etc.) to identify trends and strongholds in each of the three front-runner cities. Again, some organisations are difficult to classify, if their activities span multiple themes, and they work both for-profit and with non-profit in the Social and Solidarity Economy (SSE). Thus, there were also some organisations that did not fit any of the categories but still work with sustainability and NBS in a broad sense. We made further in-depth analysis of some of the most interesting organisations, such as those that have an interesting business model, a large potential revenue or in other ways stand out.

The sustainable SWOT analysis was based on a regular SWOT analysis but has some added aspects to capture the sustainability of the organisation, namely *eco-social costs and benefits*. “Eco-social” refers to qualities of the environmental and social local (living) environment that can be affected negatively or positively by a particular business model.

To conduct this sustainable SWOT analysis, the “Sustainable business model canvas” framework was used. This framework gives an overview of key variables regarding a particular NBS solution and is recommended as a tool for follower cities. The framework is presented below:

Sustainable SWOT Business Canvas		Company: X		
Problem <i>List 1-3 problems that you want to solve</i>	Solution <i>Outline a possible solution for each problem</i>	Unique Value Proposition <i>Clear and compelling message that states why this solution is different and worth paying attention to</i>	Unfair Advantage <i>Something that cannot easily be bought or copied</i>	Customer Segments <i>List your target customers and users</i>
Existing Alternatives <i>List how problems are solved today</i>	Cost Structure <i>List your fixed and variable costs</i>	Revenue Streams and Upscaling <i>List your sources of revenue</i>	Channels <i>List your path to customers (inbound or outbound)</i>	Early Adopters <i>List the characteristics of your ideal customers</i>
Eco-Social Benefit (Strength) <i>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</i>	Eco-social Costs (Weakness) <i>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</i>	External & Internal Obstacles (Threats) <i>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</i>	Enablers (Opportunities) <i>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</i>	Additional Information <i>Name aspects that are crucial, but haven't been covered yet.</i>

Figure 3: Sustainable SWOT Business Canvas Source: City Facilitators

The completed business canvases are presented in the subsequent chapters about the front-runner cities.

4.5 Workshops

At the workshops, the intention was that local citizens should participate for us to hear their responses and identify the most valuable achievements to date and future potential of the NBS solutions. The plan was to have in situ workshops in all three front-runner cities to get local community input on market potential of different NBS solutions. Due to the COVID restrictions, unfortunately, it was only possible to conduct the first workshop in Sofia, after which lockdowns were implemented.

The first workshop was planned for Sofia (in collaboration with WP3) and held as planned. Please see the description of the workshops in Sofia in section 3.3.1.

The workshops for Nantes and Porto were originally planned for Spring 2020, but they were postponed for Fall the same year due to the outbreak of COVID and following lockdowns in most European countries. However, restrictions remained during early Fall 2020, which meant that only a very small number of people were allowed to gather in both Nantes and Porto. Nevertheless, we managed to host the workshop in Porto and gather 34 survey responses that are presented and analysed in this report.

4.6 Survey Questionnaire

The market survey in the front-runner cities was implemented as an online questionnaire. The goal of the questionnaire was to collect data that could give input on the market potential of NBS solutions that could potentially be chosen for the healthy corridors in the front-runner cities. The input from the citizens would show possible business opportunities, as well as details about which features of the business the citizens like or dislike. The questionnaire also includes questions about the willingness of citizens to engage in the implementation of these business opportunities and participate as volunteers.

The questionnaire is a quantitative exploratory research method with a non-representative sample of population. Ideally, the sample of the population should be representative. The questionnaire was distributed through channels of persons in the URBiNAT network and to as many as possible. As a result, there was a deviation of the initial ambition of having a representative sample of the residents of the specific areas. This deviation occurred due to COVID, as the local URBiNAT representatives did not have the close ties to the local communities and citizens as previewed. It had simply not been possible to foster such close

relationships due to the COVID lockdowns. Therefore, the questionnaire was only distributed online. Had it been distributed by targeted postal service / mails or by a person on site encouraging citizens to respond, the number of respondents could probably have been significantly higher. Due to the COVID restrictions, however, the only possibility was to distribute the questionnaire online with the obvious limitations that this caused.

The questionnaire questions were closed format that primarily required a simple “yes/no” reply. This was chosen to make the questionnaire as easily accessible as possible to complete, including completing the questionnaire on a mobile phone, where more extended explanations can be difficult to type.

The intention was to find respondents living in the intervention areas of the front-runner cities, or individuals who often circulate, use or visit the intervention area (e.g., for work, mobility, recreation, outdoor exercise, etc.).

Initially, the intention was to balance gender (same number of female and male) and age. However, we decided to deviate from these criteria and questions about these characteristics were not included in the questionnaire, as it was perceived imprudent to pose such questions.

Initially, it was decided that the period for data collection was February to March 2021. Unfortunately, there were unforeseen challenges in distributing the questionnaire (due to COVID), and the period was extended to April 2021. Nevertheless, we were able to complete both interviews and surveys prior to the deadline of this deliverable.

For each front-runner city, a goal of approximately 40 respondents was set. However, only Sofia met (and exceeded) that goal. We also used the input from the in-depth interviews with relevant stakeholders from three front-runner cities to compile our analysis, as there is an overlap between the survey and interview questions.

The questions of the survey and interviews target the different NBS solutions to-be-implemented in the healthy corridors of the front-runner cities. These solutions were chosen by the municipalities and citizens through the co-creation process. It was, therefore, decided to focus solely on the NBS solutions chosen for each of the front-runner cities rather than all the NBS solutions presented in the URBiNAT NBS Catalogue. The reason for this was to limit the number of solutions that the respondents must consider. Also, we presume that some of the NBS solutions that are *not* available in the respondents' city, - but are in the URBiNAT NBS Catalogue, are unfamiliar to the respondents.

The questionnaire introduced several business aspects for each NBS solution centring on the market potential and job creation potential of each NBS solution, such as selling food in a park or a job as a teacher on a playground.

The questionnaire assessed the material and immaterial needs of the local community and citizens centring on the potential of each the NBS solution for creating local business opportunities and/or social engagement. This was done by asking if the local citizens would

be interested in exploiting these business opportunities themselves (e.g., purchasing the product or service) - or if they would perhaps engage on a voluntary basis.

The surveys of all three front-runner cities were both translated to local languages.

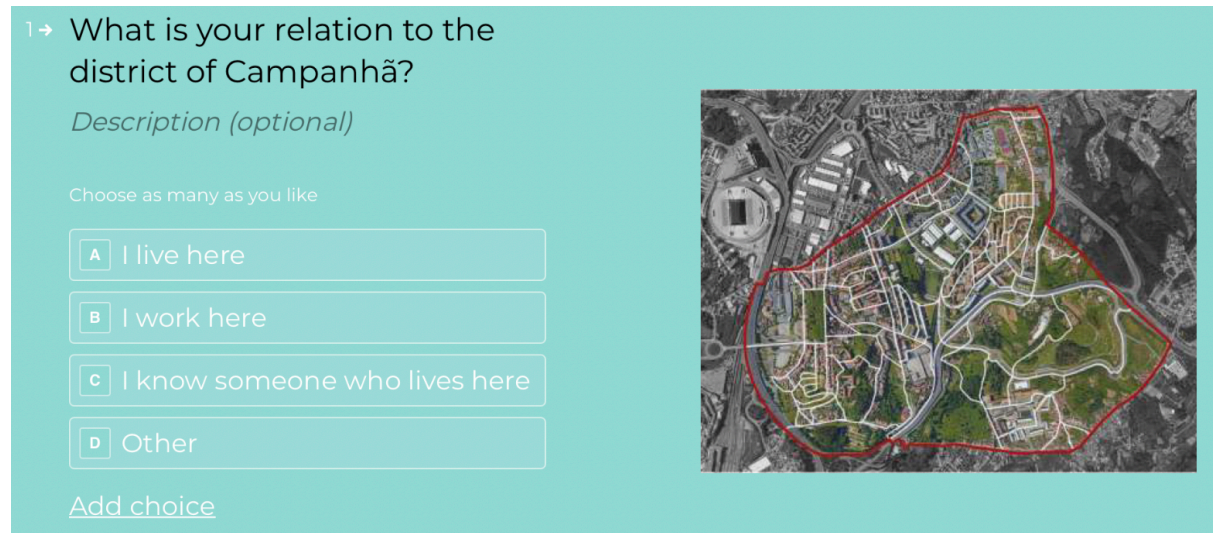


Figure 4: Screenshot of a survey question. Source: City Facilitators.

The following questions are asked during the survey for Porto. Please note that all the survey questions are multiple choice. Please also note that the survey questions are tailored to each front-runner city:

- What is your relation to the district of Campanhã?
- Which of the following features would you consider to be most important for a green area?
- Choose when you would be most likely to purchase food?
- What type of food would you prefer that the food trucks serve?
- On a scale from 1-5 how important is it to you that the food is organic?
- On a scale from 1-5 how important is the cleanliness of the food trucks and surrounding area to you?
- On a scale from 1-5 how important is it to you that there is a nice seating area by the food trucks?
- Would you be interested in having a food truck to sell food?
- When are you most likely to use the playground?
- On a scale from 1-5, how important is it to you that the playground has pedagogical staff to supervise and engage with the children?
- On a scale from 1-5, how important is it to you that the playground also has some indoor facilities?
- On a scale from 1-5, how important is it to you that the playground has toilet facilities including facilities for changing diapers?
- On a scale from 1-5, how important is the cleaning and maintenance of the playground to you?
- Would you be interested in cleaning or maintain the playground either as an employee or volunteer?
- On a scale from 1-5, how important is it to you that there is a wide range of equipment for physical exercise?
- On a scale from 1-5, how important is it to you that there is a wide range of exercise classes offered?
- On a scale from 1-5, how important is it to you that there are classes for children or senior citizens?
- When should the classes be scheduled in order for you to attend?
- Would you be interested in being an instructor for a class?
- On a scale from 1-5, how important is it to you that the park has native plants that can contribute to increased biodiversity in the city?
- On a scale from 1-5, how important to you is it that the area is maintained in a sustainable manner for example using sheep to graze the area?
- Would you be interested in helping maintain the area?
- Which types of events would you be most interested in participating in?

On a scale from 1-5, how important is it to you that you can buy food at an event?
 On a scale from 1-5, how important is it to you that you can buy ice cream, candy and similar?
 On a scale from 1-5, how important is it to you that there are booths with games at an event?
 On a scale from 1-5, how important is it to you that there are events targeting specific groups such as children, seniors, etc.?
 Which of the following features would you consider most important for the path?
 When is it most important that the guards are present?
 Would you be interested in being a guard by the path?
 What are the best opening hours of food trucks?
 What type of food would you prefer that the food trucks serve?
 On a scale from 1-5, how important is it to you that the food is organic?
 On a scale from 1-5, how important is the cleanliness of the food trucks and surrounding area to you?
 On a scale from 1-5, how important is it to you that there is a nice seating area by the food trucks?
 Would you be interested in having a food truck to sell food?
 On a scale from 1-5, how important is it to you that the path is surrounded by native plants that can contribute to increased biodiversity in the city?
 On a scale from 1-5, how important to you is it that the area is maintained in a sustainable manner for example using sheep to graze the area?
 Would you be interested in helping maintain the area?
 Which of the following features would you consider most important for the vegetable garden?
 Would you be interested in growing your own vegetables in such a garden?
 Would you be interested in buying any of the vegetables if there is a small shop?
 On a scale from 1-5, how important is it to you that a wide range of different vegetables are grown in the garden?
 What type of art/performance are you most interested in?
 On a scale from 1-5, how important is it to you that the artistic performances also target children?
 On a scale from 1-5, how important is it to you that it is local artists who perform/display their work?

Please see the complete survey for **Porto** (in English) here:

<https://admin.typeform.com/form/cjVejmmH/create?block=5171314c-92d7-42a8-b106-6177007c8f70&typeform-source=admin.typeform.com>

Please see the complete survey for **Sofia** (in English) here:

<https://admin.typeform.com/form/up0YBqOc/create?block=5171314c-92d7-42a8-b106-6177007c8f70&typeform-source=admin.typeform.com>

Please see the complete survey for **Nantes** (in English) here:

<https://admin.typeform.com/form/Uf8X32G8/create?block=5171314c-92d7-42a8-b106-6177007c8f70&typeform-source=admin.typeform.com>

4.7 Interviews with NBS Start-ups

The interview guidelines were semi-structured, which allowed both interviewer and interviewee to pose pressing questions along the way. In this process, although the interviewer prepares a list of predetermined questions, semi-structured interviews unfold in a conversational manner offering participants the chance to explore issues they feel are important. This interview format allows for a more open discussion between interviewer and interviewee while at the same time guiding the conversation towards addressing the most pertinent topics. Therefore, we mainly used open-ended questions that were tailored to each NBS solution, start-up and individual. Each interview took approx. 1-2 hours.

The interview guideline is presented below:

General Information:

1. What is the name of your organisation?
2. What is your position in the organisation?
3. How old is your organisation?
4. How big is your organisation (number of locations, employees etc.)?

Ambition and future perspective:

5. What are your main customer segments/target groups?
6. What is your organisation's mission?
7. What do you want to accomplish in the next 12 months?

Business model:

8. What is your business model (not-for-profit or for profit)?
9. Do you generate profit? If yes, how? If no, could you generate profit with a different model?
10. Is your business focussed on buying and selling and if yes, what do you buy and sell?
11. How do you approach your customers (marketing strategy)?

Social and Solidarity Economy:

12. Does your organisation contribute to the improvement of socio-environmental challenges, such as climate change, water security, water pollution, food security and human (mental) health? Please describe how.
13. Do you know other companies that develop technologies or offer services that are based on the concept of nature-based solutions? If yes, please name a few.
14. Are there online knowledge-sharing platforms and physical innovation hubs in Sofia/Nantes/Porto, where you can connect with other organisations that base their business model on improving the environment or social inclusion?

Green Local Policies in Sofia/Nantes/Porto:

15. Does your local government incentivise the creation of businesses that aspire to improve socio-environmental challenges (green organisations)? If yes, what means are deployed by the local government (e.g., by offering tax incentives)?
16. Does your local government offer programmes or initiatives that help create more green organisations? If yes, in which ways?
17. What are your suggestions for the local government to make it easier for green organisations to grow?

URBiNAT:

18. What are your hopes and wishes for the URBiNAT project?
19. What is a specific action that you would like to be implemented in the very near future?

5. Sofia

5.1 Introduction to Sofia

Sofia is the capital of Bulgaria. It has around 1.2 million inhabitants. Sofia is located at the heart of the Balkan Peninsula in the western part of Bulgaria. It is located at the crossing of many historical routes and currently important elements of the Trans-European Transport Network. There are many green spaces around the city's perimeter and there are mountains at the edge of the city which are widely visited during weekends.

Sofia contributes about 30% to the national GDP, which makes the city a social and economic metropolitan centre with a leading position in policy making. Sofia Municipality joined the Covenant of Mayors initiative in 2011 and committed to reducing the CO2 emissions by 22% by 2020 compared to the baseline year 2007.

Prior to the URBiNAT project Sofia has implemented several NBS solutions, for example rebuilding four of the main urban parks, investing in new infrastructure, furniture and greenery maintenance. Also, different initiatives and competitions have been organized such as design competitions for landscaping projects in individual households and a competition for innovative ideas for the green future of Sofia.

Another example is the Sofia Development Association established by Sofia City Council in 2010. It aims to support permanent dialogue between civil society, business, government, and local administration) and to promote sustainability as a leading value for future urban development.

Most of the initiatives and projects that can be characterized as an NBS have been implemented in the south of Sofia and very few are in the northern part of the city where Nadezhda (the district where the study area is) is located.

5.2 Introduction to Nadezhda and the Healthy Corridor of Sofia

The URBiNAT study area in Sofia is the Nadezhda district in the northern part of Sofia. The population of the study area is almost 38,000 people.

The housing in the study area is mostly mid- to high-rise apartment buildings built in the 1950-80s. Most plots (75 %) are owned by the municipality. There are many semi-public spaces in the area such as the areas around the blocks of flats, but the state of the public green areas is generally relatively poor due to lack of maintenance. In the study area there are 3 green areas which serve as urban gardens.

The population in the Nadezhda district is 47.4 % male and 52.6 % female. The age distribution is as follows:

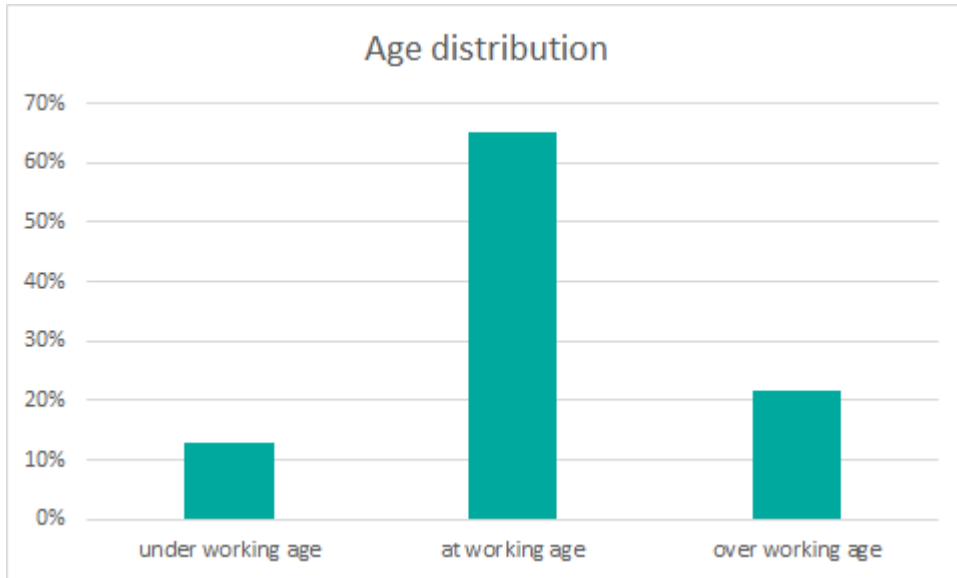


Figure 5.1. Source: Tasheva, M. (2019) Local Diagnostic Sofia Stage 1.

It is not an ethnically diverse district as Bulgarian ethnoses make up 97 % of the population. The population is quite well educated as can be seen in the below diagram:

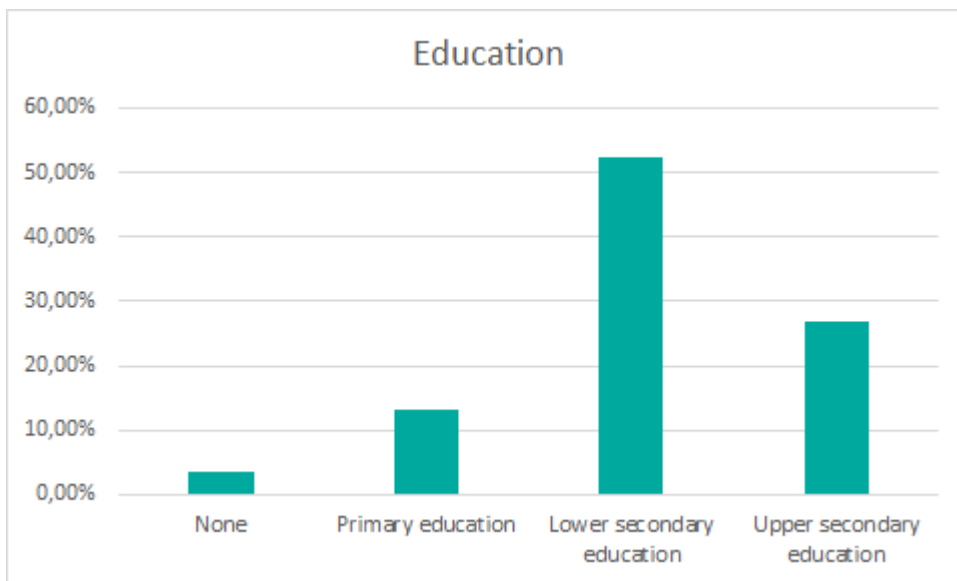


Figure 5.2. Source: Tasheva, M. (2019) Local Diagnostic Sofia Stage 1.

There is not a high unemployment rate, as 91 % of the economically active population are employed. The largest sector of employment is services (wholesale, retail, and repairs) in which 25 % are employed, while 12 % work in manufacturing. 30 % of the households are one-person households, while 24 % are households with children.

The average monthly income for Nadezhda is € 903, making it one of two districts in Sofia with the lowest income. More information about Sofia and the Nadezhda district can be found in URBiNAT D2.1 Local Diagnostics Report.

The NBS selected through the co-creation process that might be implemented in the healthy corridor in Sofia are:

Technological NBS:

- Ceramic Green Wall
- Multi-use Wood Structure
- Luminescent Path
- Food Production and Leisure Pavilion
- Grow Tile

Territorial NBS:

- Tree Planting Solution – Groasis
- Urban Vegetable Gardens
- Wildlife Park / Urban Park / Urban Wetlands
- Autochthonous Urban Forest
- Green wall
- Thermal water swimming pool

Participatory NBS

- Super Barrio
- World Café
- Photovoice
- Forum Theatre
- Community workshops

Social & Solidarity Economy NBS

- Farmers Markets Network
- Repair-Cafés

There was a need to minimize the number of NBS which we included in the survey for the local community to ensure that the questionnaire would not be too long for the citizens to want to participate. We therefore grouped some of the solutions into categories. For example, most of the territorial solutions can be grouped within green areas/parks.

We have omitted some solutions from the questionnaire, as they seem to entail very limited business opportunities for the local community. For that reason, the participatory NBS solutions were left out of the questionnaire. This does not mean that going forward, some of the participatory NBS solutions cannot deploy a revenue earning business model, such as crowdfunding, in the future. It only means that if the NBS organisation does not *today* earn revenue (either as for-profit or non-profit), we have not included it in this analysis for the business and market potential.

5.3 Empirical research in Sofia

As we began work in Sofia as the first of the three front-runner cities, the approach for this city differed slightly from that of Nantes and Porto. Firstly, a workshop in Sofia was held before the outbreak of COVID.

5.3.1 Workshop

The workshop in Sofia was held in collaboration with WP3 of the URBiNAT project.

There were approximately 20 participants which were citizens living in the area, schoolteachers, citizens with citizens driven by NBS activity small and large, citizens doing stuff elsewhere in Sofia.

We asked the participants the following three questions:

1. What did they like in the area and why?
2. What would they like to change and why?
3. How would they like to change it, not considering the role of the municipality and what could they contribute?

This gave us input in terms of what the citizens preferred: the park, the school and community centre and the people in the area. What they did not like: rubbish lying around, cars parked in green areas, crime, traffic & noise, ugly buildings, playgrounds needing repair and upgrading.

In terms of what could be done without the municipality, there were some good ideas in terms of the school and after school club being able to do activities as well as the bread club organising events and neighbourhoods organising greening and planting events.

The local research group in Sofia has progressed with these and many other ideas in further dialogue with citizens and stakeholders.

5.3.1 NBS Business Analysis

During this analysis, 10 for-profit and 15 non-profit organisations were analysed. The 25 organisations were working in very different areas (e.g., education, food, social and solidarity economy, nature, and sustainability in a broad sense).

Interestingly, many of the organisations have educational activities. Their goal is to educate people, especially children, on the impacts of climate change and how to improve the personal way of living towards a more balanced approach between consumption and protecting the environment, e.g., through growing organic vegetables in private gardens.

Only 3 companies were working in the field of innovation, which was explained by the respondents as partly due to a lack of networking platforms and hubs for companies with a sustainability focus, the lack of support by the national and local government to invest into the research of new technologies, and the general lack of knowledge in the field of nature-based solutions amongst Bulgarians.

The tables below present three NBS organisations analysed in Sofia by using the Sustainable SWOT Business Canvas (the complete list is in the appendix). Each one of the SWOT Business Canvases are the result of a one-to-one interview. In addition, we did extensive desktop research before (in preparation) and after (to verify) the interview.

The following NBS start-up in Sofia were one-to-one interviewed:

ZAEDNO Foundation

Sofia GREEN

Mr. Green Walls
 Zelenika
 BAOPN Ornamental Plants Nurseries
 Bread House Zdrava

For background information, we interviewed a representative of the Sofia Centre of Education and Culture and the municipal department in charge of urban greening.

Sustainable SWOT Business Canvas		Company: Za Zemiata (Friends of the Earth - Bulgaria) (http://www.zazemiata.org/)		
 Problem <i>List 1-3 problems that you want to solve</i> Climate change, environmental education, food independence, trade policy, resource efficiency, clean energy, responsible extraction, and zero waste	 Solution <i>Outline a possible solution for each problem</i> Za Zemiata runs campaigns that advocate for solutions or policy recommendations regarding these topics.	 Unique Value Proposition <i>Clear and compelling message that states why this solution is different and worth paying attention to</i> Za Zemiata is committed to: Suggesting and developing sustainable alternatives to socially and environmentally harmful activities and projects; Actively involving in civil society building and raising grassroots awareness about existing environmental problems; Networking and co-operation between local and international non-governmental groups.	 Unfair Advantage <i>Something that cannot easily be bought or copied</i> It has a substantial volunteer base of over 800 supporters who participate in field projects, help with information campaigns, mobilise for direct action and give a hand with office work.	 Customer Segments <i>List your target customers and users</i> Citizens, NGOs, government officials
 Existing Alternatives <i>List how problems are solved today</i> Other groups that advocate for environmental and social issues and educate the public on these topics	 Cost Structure <i>List your fixed and variable costs</i> Cost of running campaigns and holding events, administrative costs	 Revenue Streams and Upscaling <i>List your sources of revenue</i> Za Zemiata's work is funded almost entirely by fundraising through grant applications to national and international, private and public foundations, EU funds and donations from supporters.	 Channels <i>List your path to customers (inbound or outbound)</i> Website, fliers, recommendations from local groups	 Early Adopters <i>List the characteristics of your ideal customers</i> Citizens that care to learn more about pressing issues in Bulgaria, NGOs that want to network with other organizations to develop solutions and initiatives
 Eco-Social Benefit (Strength) <i>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</i> Through campaigns, Za Zemiata raises public awareness about critical topics that involve society's interaction with the environment and offers solutions for people and businesses. By combating the exploitation of people and nature, Za Zemiata contributes to a greener and more equitable society.	 Eco-social Costs (Weakness) <i>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</i>	 External & Internal Obstacles (Threats) <i>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</i> Since Za Zemiata is primarily engaged in grassroots campaigns, their success depends on their ability to generate public interest and enthusiasm for their mission. If people do not care about these topics or are unwilling to be engaged, then the campaigns won't succeed.	 Enablers (Opportunities) <i>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</i> Local governments could provide more financial support to make Za Zemiata's campaigns more widespread and robust. They could also provide physical space for Za Zemiata to hold events and gatherings as part of the campaigns	 Additional Information <i>Name aspects that are crucial, but haven't been covered yet.</i>

Figure 5.3: Sustainable SWOT Business Canvas for Za Zemiata, Bulgaria. Source: City Facilitators

Sustainable SWOT Business Canvas		Company: Mr. Green Ltd. (www.mrgreenwalls.com)		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p> <p>There isn't enough green space in buildings. Construction takes away green space and doesn't replace it.</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p> <p>Install vertical gardens inside or on the exterior of buildings to provide greenery. Eventually normalize this and other green design practices.</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>Vertical gardens improve interior microclimate, acoustics, and visual environment. They have a positive influence on mental health. For larger urban environments, the benefits include improving the microclimate, reducing the heat island effect, and reducing energy consumption</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p> <p>Mr. Green was the first vertical garden construction practice in Bulgaria</p>	 <p>Customer Segments</p> <p>List your target customers and users</p> <p>Corporate offices, shopowners (especially restaurants, hotels, bars), private homes, public buildings</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p> <p>Placing regular potted plants in interior spaces; rooftop gardens</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p> <p>The price is determined by the individual needs and specific requirements: area of use, availability of lighting & water systems</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p> <p>Consultations and individual units designed, installed, and maintained</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p> <p>"Our works speaks for us. We have many green walls in public spaces."</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p> <p>Companies that emphasize wellbeing; Shops and businesses that promote sustainability and a pleasant interior atmosphere</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>Vertical gardens improve interior microclimate, acoustics, and visual environment. They have a positive influence on the mental health. For the larger urban environment, vertical gardens improve the microclimate, reduce the heat island effect, and reduce energy consumption. People who inhabit the spaces with vertical gardens are most directly impacted but everyone in the urban environment also benefits</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p> <p>Maintenance of internal green spaces could require a lot of water consumption</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>Society is slow to accept this green design practice as normal. Many business aren't yet willing to invest in the benefits of vertical gardens. The local government offers no tax incentives or benefits to promote the growth of companies like Mr. Green</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>We need more economic incentives, such as tax reductions for the usage of green material. We also need less restrictions in terms of construction regulations and policy restrictions</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>

Figure 5.4: Sustainable SWOT Business Campus for Mr. Green Walls. Source: City Facilitators

Sustainable SWOT Business Canvas		Company: Bread Houses Network Program		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p> <p>Many people in the community, especially groups that are at-risk, sometimes lack the support to establish social connections and discover or develop their creative potential</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p> <p>Offer as a service bread-making events and other activities that nurture respect, inclusion, connection, and creativity. And/or run a bakery that employs people from at-risk groups</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>We drive positive social change through bread-making services and high-touch therapies that nurture respect, inclusion and creativity in the local community. We also enable people to discover their creative potential and identify their local assets (people, cultural traditions, natural resources) for problem solving. All we need is love!</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p> <p>The special feeling of belongingness and understanding that is created in these events</p>	 <p>Customer Segments</p> <p>List your target customers and users</p> <p>Main users are vulnerable groups that need better social inclusion such as: minorities, people with disabilities, refugees, children, and elderly people, and imprisoned youth. Event clients would be schools, companies, non-profits or private users.</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p> <p>There are social programmes, but none of them use bread making as a form of socialising</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p> <p>Financed by activities, e.g. birthday parties, company events, workshops etc.</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p> <p>Event offerings, bakery products sold, paid trainings, educational board game units sold,</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p> <p>We reach customers through social media and the websites of the organization, as well as by email campaigns. However, most of the clients of the paid services choose us due to word-of-mouth recommendations.</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p> <p>Anyone who wants to get involved in/with the community more</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>We promote social inclusion through bread making events aimed at overcoming stereotypes, establishing connections in an informal and spontaneous way. People with disabilities can meet volunteers, improve their social and manual skills, and feel accepted and respected. We also promote awareness of social problems, development of creative potential, and promotion of healthy eating and preservation of the environment.</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>It is very difficult to get in contact with marginalised people. The segregation and separation could lead to a bigger social divide</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>These are other organizations we could connect with: Bulgarian Biodiversity Foundation, with their various initiatives aiming at gathering resources for initiatives such as selling of branded products; WWF Bulgaria, with their project of educational board game which will serve both as awareness raising tool and a social entrepreneurship product; Food Not Bombs, with their initiative for Solidarity Kitchen; and Urban gardening – Sofia, with their initiative to provide possibilities for food growing to people in risk</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>

Figure 5.5: Sustainable SWOT Business Canvas for Bread Houses Network. Source: City Facilitators

Sustainable SWOT Business Canvas		Company: Bioprogramme (http://www.bioprogramme.bg/)		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p>	<p>Customer Segments</p>  <p>List your target customers and users</p>
<p>People want to use supplements in their food, tea, or medicine but they don't have an option that is natural or healthy.</p>	<p>Offer packed herbs for people to use in teas, foods, medicines, etc.</p>	<p>The main goal is to use knowledge of the healing properties of herbs, infusions, and food supplements, offering natural products that can improve customers' health and lifestyle.</p>	<p>Bioprogramme is a company with traditions in the production of herbal products and has proven its reliability as a stable business partner.</p>	<p>Individuals interested in using organic herbs, infusions, and supplements to improve their health. Companies such as pharmaceuticals or food/beverage looking to use herbs as an ingredient</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p>
<p>Artificial supplements or mass-produced herbs (tea leaves)</p>	<p>Growing, harvesting, packaging, transporting products. Advertisement. Warehouse maintenance and utilities costs</p>	<p>Individual product sales and contracts with businesses</p>	<p>Advertisement, word of mouth, local markets</p>	<p>Individuals interested in using organic herbs, infusions, and supplements to improve their health. Companies such as pharmaceuticals or food/beverage looking to use herbs as an ingredient</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>Bioprogramme promotes the consumption of plant-based supplements that are known to have health benefits, including healing qualities. This encourages people to use ingredients that are natural and organic rather than artificial, which leads to a greener society.</p>	<p>Herb production and processing can use a lot of water and energy. Packaging uses a lot of plastic, which is made from a non-renewable resource and can be harmful to the ecosystem if not recycled. Shipping products is also high in carbon emissions.</p>	<p>Large food companies can dominate the market share through better brand recognition, more efficient operations, and contracts with local retailers.</p>	<p>Offer some incentives for growing green businesses such as tax incentives or other financial support so that these companies can compete with the larger commercial companies.</p>	

Figure 5.6: Sustainable SWOT Business Canvas for Bioprogramme. Source: City Facilitators

Sustainable SWOT Business Canvas		Company: ATD Fourth World (https://www.atd-fourthworld.org/where-we-are/europe/bulg)		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p> <p>There are people in deep poverty and there is lack of awareness about this or knowledge about how to help people overcome poverty.</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p> <p>Develop understanding of deep poverty in south east Europe by meeting different people who are undertaking anti-poverty activities. Facilitate meetings and communication among these groups. Work with ongoing initiatives at the local level and enable young people to learn more about ATD Fourth World and get involved. Enable</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>ATD Fourth World has been in Bulgaria since 2015, learning from the life of people living in poverty in south eastern Europe. The ATD team is learning about existing initiatives struggling to overcome poverty in the region by getting involved with people who themselves are experiencing poverty.</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p> <p>Engagement at the individual level allows the organization to gain a raw and tangible understanding of poverty in Southeast Europe.</p>	<p>Customer Segments</p>  <p>List your target customers and users</p> <p>People and groups who are undertaking anti-poverty initiatives and activities</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p> <p>Local and national anti-poverty programs, food banks, social welfare</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p> <p>Holding events and workshops, transportation, administrative costs</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p> <p>Funding from national government, donations</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p> <p>Through local events, fliers, references from other poverty related organizations</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p> <p>People in poverty or people devoted to fighting poverty in the community</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>ATD Fourth World gathers knowledge about the nature of poverty in Bulgaria, as well as the conditions for people trying to fight poverty in Bulgaria. This allows ATD Fourth World to spread awareness about the situation of poverty and facilitate the exchange of knowledge about fighting poverty. This results in a greater effectiveness in tackling the challenge of poverty.</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p> <p>Holding events and workshops can require a lot of transportation, which means an increase in pollution and carbon emissions.</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>Lack of funding from the government</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>Give a channel for organizations like ATD Fourth World to give policy recommendations or discuss issues regarding poverty by holding meetings or panels. That way municipalities could be more engaged in solving poverty.</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p>

Figure 5.7: Sustainable SWOT Business Canvas for ATD Fourth World Source: City Facilitators

Name Characteristics	Bread Houses Network Program	Boyana	Center for Arts, Culture and Education	Zaedno	Zelenika
Brief description	Connecting people through bread making and accompanying art forms	Nursery Stock Business	Youth council academy for arts, technology, leadership, time management and financial literacy	Educational, voluntary and social programmes and risk prevention activities	Pro-Bono research on achieving sustainability and environmental preservation
Age	11 Years	8 Years	19 Years	6 Years	8 Years
Expanse	19 Countries across 5 continents; 8 Bread houses in Bulgaria	Bulgarian nurseries and universities	24 municipalities across Sofia	Small community based organisation	Sofia
Team Size	6 people	25 full members + 7 associated stakeholders	70 employees (60 teachers + 5 admin + 5 utilities)	No fixed team and no office space; works on a voluntary and project basis	3-7 Employees
Target Groups	Minorities, differently abled, refugees, young prisoners, social volunteers, local activists	Politicians, Municipalities, landscape architects, urban designers, universities, green cities	Children from 6-18 years, minorities, disadvantaged children	Children, young people, girls, young mothers and underprivileged communities from remote or highly urban areas	Active citizens, children, young people, municipalities, SMEs
Ambition	Bringing positive social change and nurturing respect, inclusion and creativity via community bread making	Stimulating business initiatives, innovation and modern eco-friendly production, urging people to plant more, not using chemicals for insects and connecting green businesses	Developing talents in arts for discovering passion and making a living	Harmonious development and positive life change for young people	Demonstrating the potential of green work in Sofia, implementing environmental friendly concepts, equitable use of natural resources and active participation in civic activities and governance processes
1 Year Plan	Developing the social entrepreneurship model and forging partnerships with international organizations	Set a quality standard of plants for public procurement, green awareness	Integration of ethnical groups, inviting specialists and developing partnerships	Using an organic educational garden for social integration and therapy for disadvantaged children	Strengthening demonstration tools for implementing nature based solutions in areas of local livelihoods and SMEs Establishing social enterprises for eco-production of mushrooms, aquaponics and usage of plastics Environmental education for children and improving air quality and noise reduction
Socio-environmental challenges addressed	Social Inclusion and awareness, creative development, nutrition	Climate change	Preservation of nature, organic farming, imbibing ecological principles	Holistic educational approaches	Voluntary involvement, collection and promotion of applicable nature-based solutions
Business Model	<p>The revenue gained is used for social inclusion projects</p>	<p>NGO with the sole purpose of connecting members, and not for profit</p>	<p>The law was changed for centralizing services and adapting to the European education system.</p>	<p>No concrete business model</p> <p>The funds are used to support new initiatives for educational gardens</p>	<p>Seminars, workshops and consulting with municipal officials</p> <p>Uploading small cases on sustainable cities</p> <p>Citizen networks such as Green Capital Sofia</p> <p>Not for profit; no concrete business model; Hoping to get EU Support</p>
Marketing Strategy	Social Media, email campaigns, local event enterprises, word-of-mouth recommendations	Connecting with other branch organizations, emails, mouth-to-mouth, Facebook	Visiting schools to distribute brochures, advertisements and social media	Website and Facebook Groups	Website, Networking, Personal contacts

Figure 5.8: Outline of Nature-Based firms in Sofia Source: Interviews by City Facilitators

5.3.2 Survey

The survey was implemented as a questionnaire as described above. Several ways to get the questionnaire distributed to the citizens were considered. Initially it was considered to distribute the questionnaire through URBiNAT's media platforms such as the website. It was also considered that the citizens of the intervention area should be reached by telephone with the telephone interviewer typing in the answers in the online questionnaire form.

The questionnaire was distributed online to citizens with the assistance of the local URBiNAT team and with the help of the local Rotary Club after they had been reached out to. An attempt to reach out to other local organisations active in the area was also made. Through Facebook several local platforms were identified and contacted. Only the local Rotary club, who had posted several stories on Facebook about initiatives in Nadezdha responded positively and assisted in distributing the questionnaire.

In total 47 positive responses were received in Sofia. 71 respondents began the questionnaire, and 47 respondents completed the entire questionnaire, resulting in a

completion rate of 66,2%. 20 responses were completed on desktop/laptop, while 27 responses were completed on phone. On average, the respondents used 5 minutes and 32 seconds to complete the questionnaire. The questionnaires were completed between March 15 and April 3, 2021. There were approximately 50 questions in the questionnaire which were presented in Bulgarian (see illustration below).

In the following, the responses from the questionnaire in Sofia will be presented. A separate report with the responses is included in the appendix.

5 → Доколко важно е за вас да имате широка гама от упражнения?

1 2 3 4 5

най-ниско

28% completed

Powered by Typeform

Figure 5.9: Example of a question and options to indicate answers in the online questionnaire. Source: City Facilitators

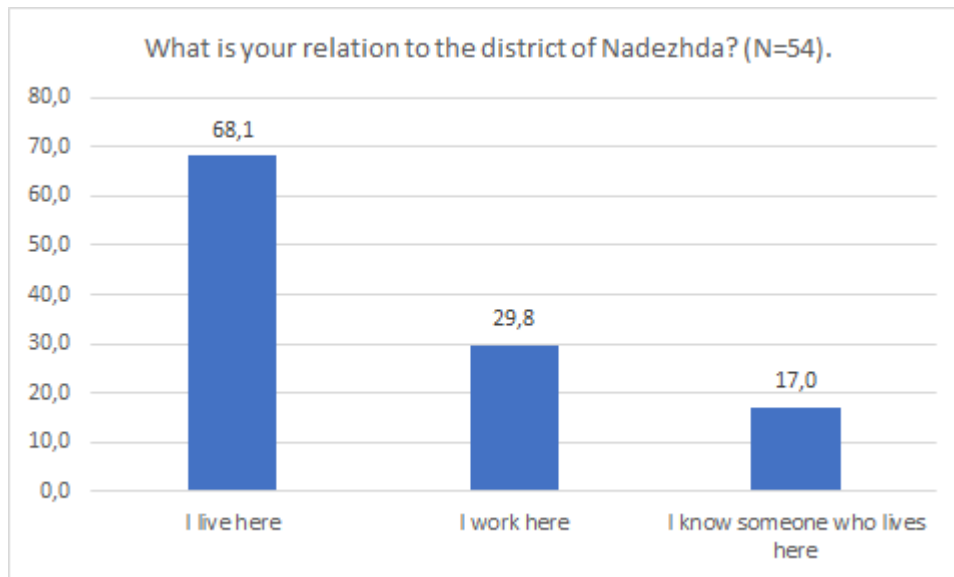


Figure 5.10: Relation of the respondents to the district of Nadezhda, Sofia. Source: City Facilitators Typeform Survey

As figure 5.10 shows, most of the responses (68,1%) came from residents of the Nadezhda area, while a little less than one-third of the responses came from people working in the area (29,8%).

On the introductory question concerning which features that the respondents were most interested in for the green area of Nadezhda (figure 5.11), the answer with the highest percentage (40,4%) was that the area is 'well maintained with beautiful plants'.

This was followed by 'sport facilities' and 'educational facilities', however with a significantly lower percentage of the responses (both 14,9%). Answers in favour of a 'playground' and 'community garden' then followed (respectively 12,8% and 10,6%), while there was low interest in 'an area where you can buy food' (4,3%) and 'events' (2,1%).

This indicates that the activities of highest interest are mainly non-commercial, while potential local businesses-initiatives like a food truck or events have considerably lower interest among the residents and people working in Nadezhda.

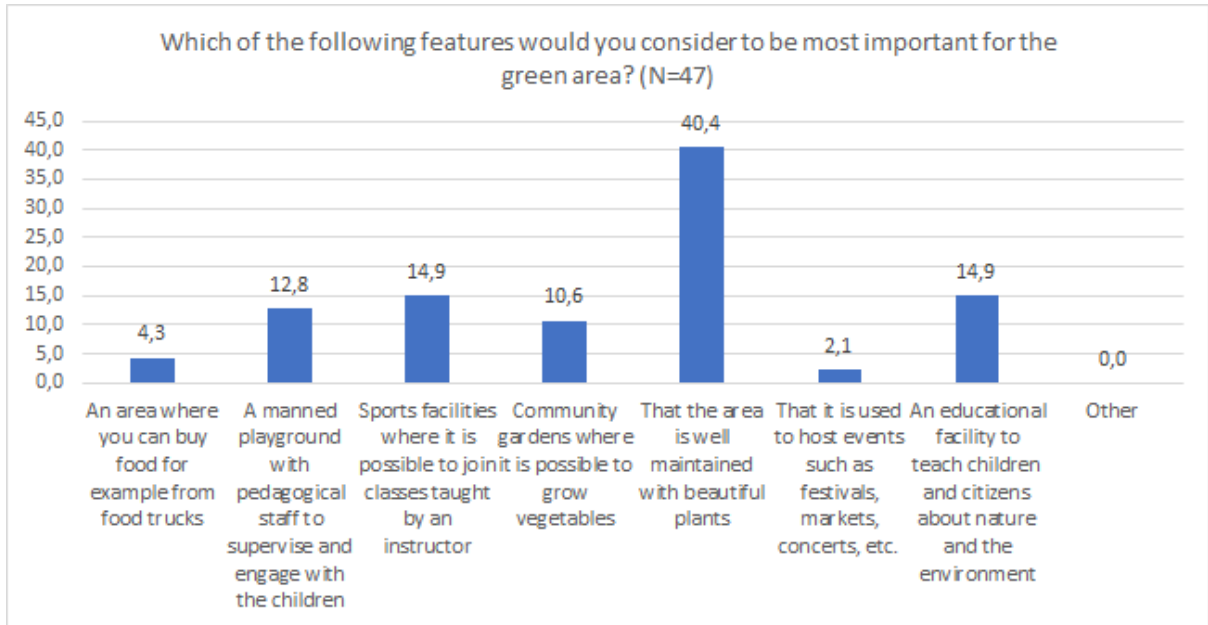


Figure 5.11. Most important features of green areas. Source: City Facilitators Typeform Survey

Focusing on a potential new path of the green areas in Nadezhda (figure 5.12), the answers reveal that safety (35,6%) and maintenance (53,3%) are the most important features.

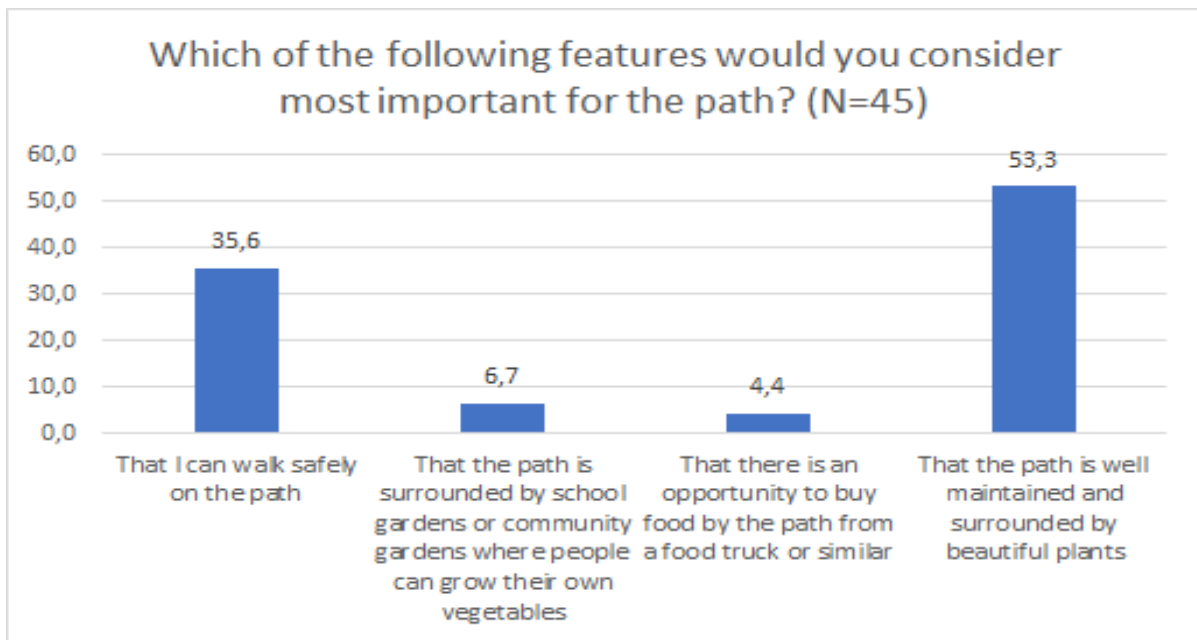


Figure 5.12. Important features of the green path. Source: City Facilitators Typeform Survey

On the question regarding a potential vegetable garden in the green area, there was a vast majority that were interested in a pedagogical initiative for kids, while other ideas had very only minor support (figure 5.13), while the possibility of buying vegetables in a small shop was also very popular (figure 5.14).

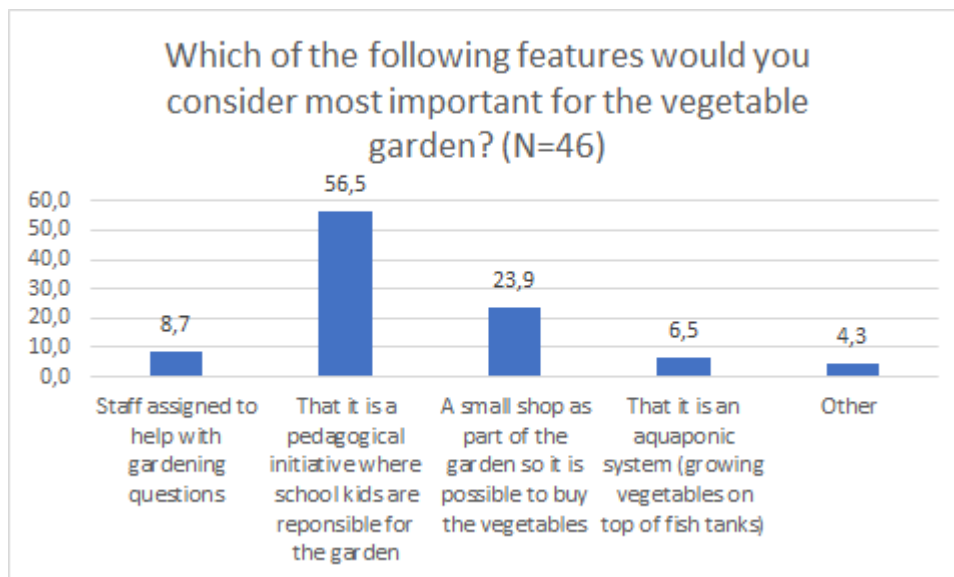


Figure 5.13: Important features of vegetable gardens. Source: City Facilitators Typeform Survey

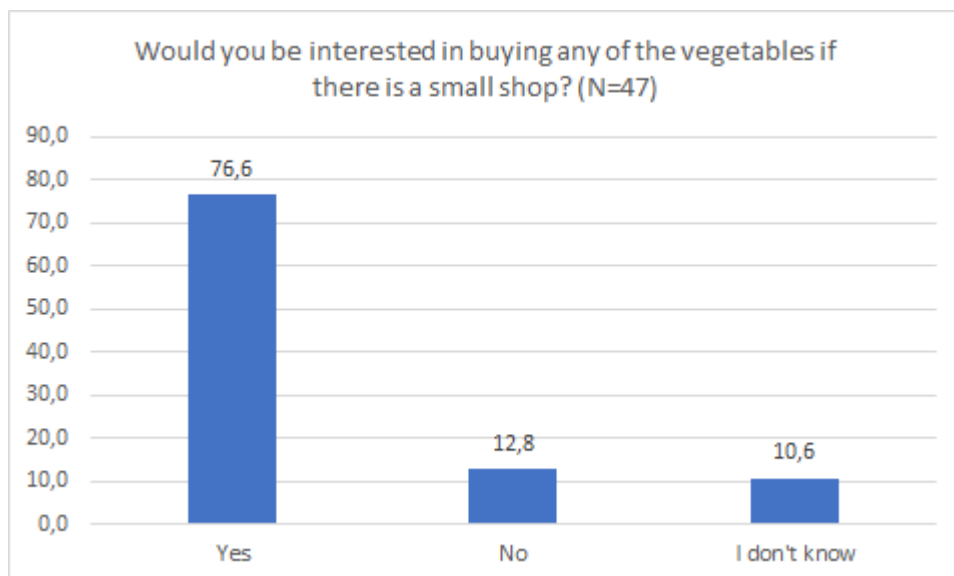


Figure 5.14: Interest in purchase of garden-produced vegetables. Source: City Facilitators Typeform Survey

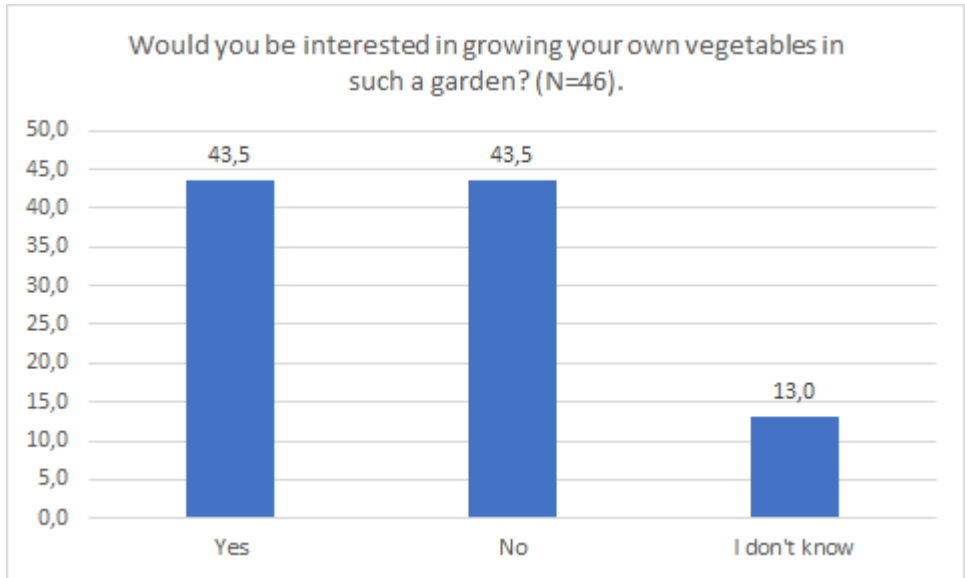


Figure 5.15: Interested in growing vegetables in the garden. Source: City Facilitators Typeform Survey

The interest for a local farmers market was also very significant, and the respondents preferred that the market should take place not only every weekend, in fact both days every weekend (figure 5.16). A market more seldom showed only modest support. This indicates clearly that the respondents would be very much in favour of a farmer market, with local products (figure 5.17).

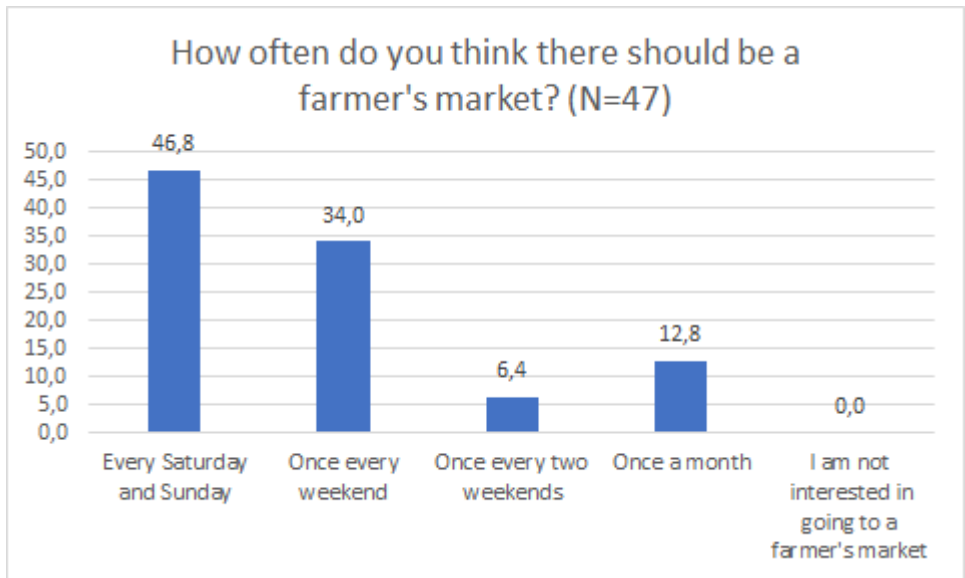


Figure 5.16. Frequency of the farmers' market. Source: City Facilitators Typeform Survey

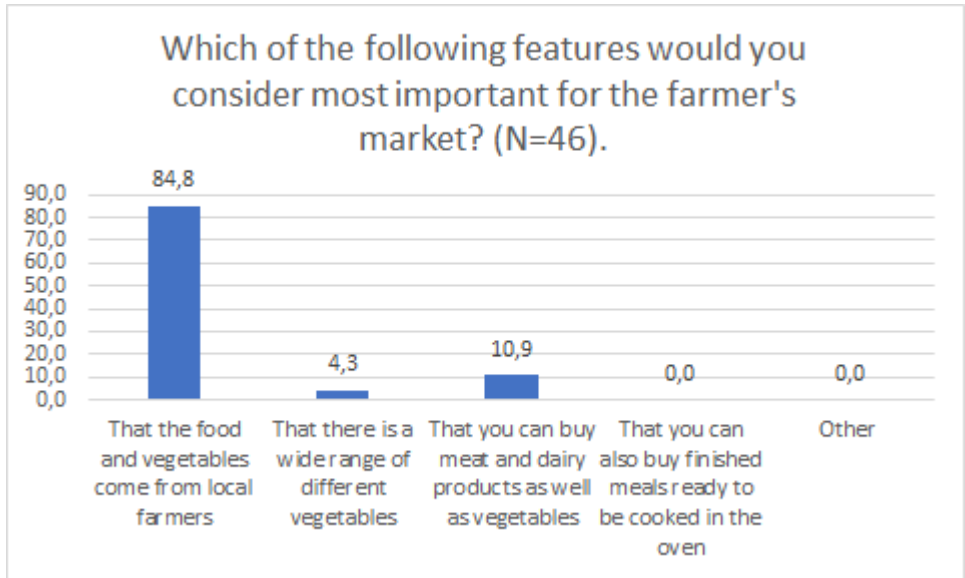


Figure 5.17: Important features of the farmers' market. Source: City Facilitators Typeform Survey

Finally, the respondents were also asked when they would be interested in visiting a repair café in the area. Here about half of the respondents preferred during the weekend (figure 5.18), while there was a broad interest in services that the repair café should offer (figure 5.19).

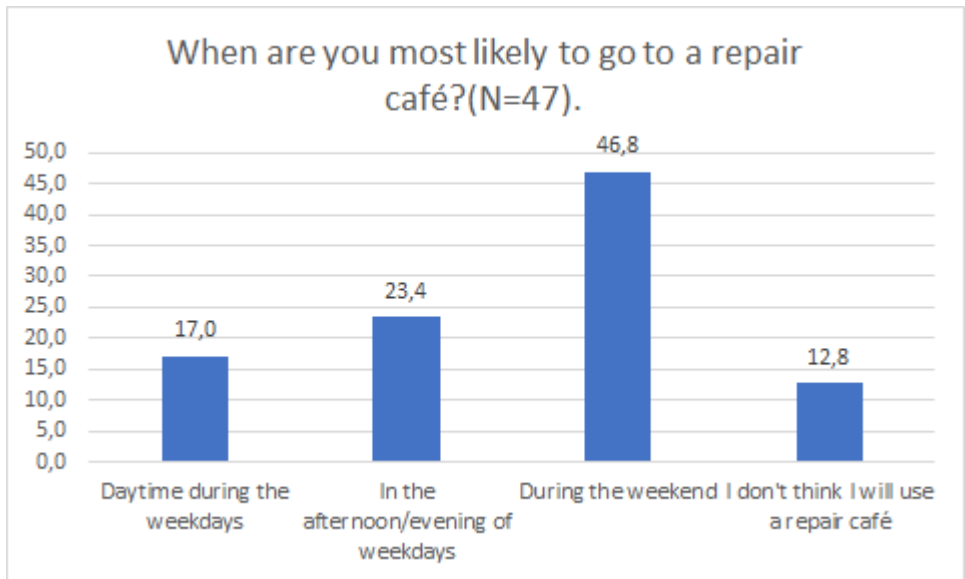


Figure 5.18: Reasons for visiting a repair café. Source: City Facilitators Typeform Survey

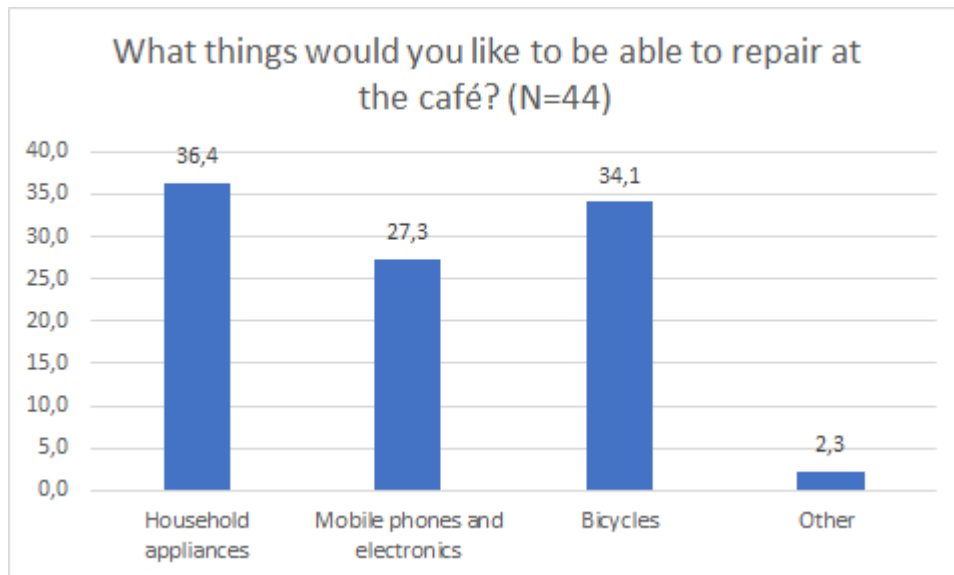


Figure 5 19: Services offered by a repair café. Source: City Facilitators Typeform Survey

5.4 Shortlisting NBS Solutions

Based on the results of the questionnaire, it was clear that there was a preference for beautiful plants and greenery instead of other activities like sport facilities in the green area. This indicates that the activities of highest interest are mainly non-commercial, while potential local businesses-initiatives have considerably lower interest among the residents and people working in Nadezhda. Asked about the interest in a local farmers market, there was a high interest among the respondents, especially if local products were for sale and if the market takes place on both days of the weekend.

Several of the companies analysed are today successful profitable companies, however they have only a remote or no relation to the Nadezhda area (in the appendix, the complete list of companies analysed are presented). A company like IZEB, that works with solar facades on residential buildings, could have a potential business opportunity in Nadezhda on providing more sustainable energy provision to the apartment blocks of the area.

A company like Bread Network/NadEzhko on the other hand, has a relation to the Nadezhda area, but can hardly be characterized as an NBS. An organisation like Food, Not Bombs is part of an international network of non-profit networks that helps the underprivileged with food. Potentially this organisation can be active in Nadezhda and the food can be locally based, however, it can hardly be categorized as an NBS.

Of the companies and organisations analysed, it became clear that they did not fit a narrow definition of an NBS. The two companies Harmonica Organic Foods and Hrancoop Farmers Market, however, are examples of local producers and sellers of food that potentially could be sold on a local farmers market, which the respondents of the questionnaire were interested in. The company Mr. Green Walls could potentially also have a local demand for its products in the area and potentially also involve residents either as volunteers or as employers, just like Organic Foods and Hrancoop Farmers Market.

As a result, the three NBS that potentially could be relevant based on the questionnaire and the analysis, are:

- A territorial NBS: An organic food producer (Organic Foods)
- A territorial NBS: An organic food seller and provider (Hrancoop Farmers Market)
- A technological NBS: A company focusing on green walls, inside buildings and on facades (Mr. Green Walls).

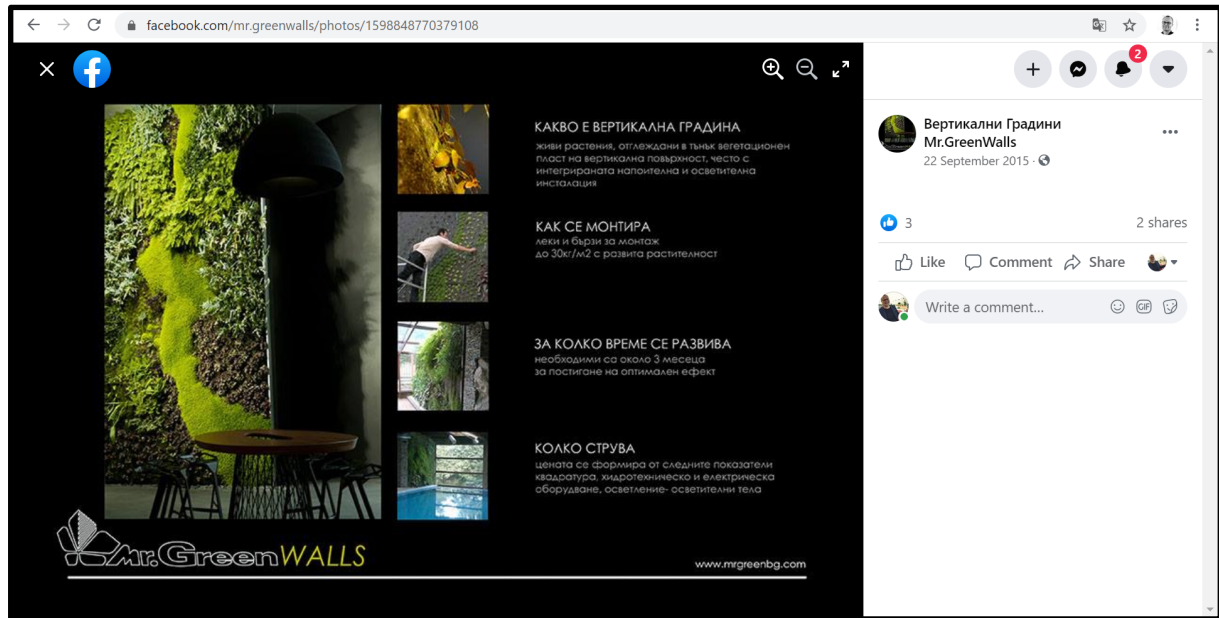


Figure 5.20: Mr. Green Walls, Facebook-post, April 2021. Source: <https://www.facebook.com/mr.greenwalls/photos/1598848770379108>

Most companies and organisations analysed are financially supported by donations and voluntary work and do not live up to the criteria of a traditional business model. Instead, they could qualify as examples of organisations of the social and solidarity economy where non-commercial value creation.

5.5 Conclusion

Firstly, we established contact with local green and social businesses. This was accomplished by communicating with the local municipality and other locally based partners from the URBiNAT project. The most fruitful occasion was a physical meeting with green and social companies as well as citizens living in the intervention area of Sofia. This meeting took place in January 2019. In this participatory workshop, all participants shared their challenges and hopes for the intervention area. Several participants wanted to create their own green start up or grow their green and social businesses further by receiving support from the national and local governments as well as the URBiNAT project.

After creating a compilation of all the green and social businesses in Sofia and conducting a market assessment analysis of each business using a detailed SWOT analysis, the founders were contacted, and the qualitative face-to-face Skype interviews were set up and conducted. The interview answers were used to fill detail the SWOT and compile a Sustainable Business Model Canvas (see below). This model helped to identify the eco-social

costs and benefits the companies are instigating. By evaluating and comparing eco-social costs and benefits, it was possible to create an overall assessment.

During this analysis of Sofia, 10 for-profit and 15 non-profit organisations were analysed. The 25 organisations were working in very different areas (e.g., education, food, social and solidarity economy, nature, and sustainability in a broad sense). Interestingly, many of the organisations have educational activities. Their goal was to educate people, especially children, on the impacts of climate change and how to improve their own way of living towards a more environmentally balanced approach between consumption and natural resources, e.g., through growing organic vegetables in private gardens.

The investigation of potential NBS's in Sofia was based on an online survey (47 responses) as well as analyses of total 25 profit and non-profit organisations. Due to the regulations of Corona, unfortunately, it was impossible to conduct more in-depth investigations and get closer to the empirical material. The 47 responses on the survey, however, did reveal some clear preferences among the respondents. In general, they responded that they were mostly in favour of non-profit activities, if they should choose. The respondents were particularly focused on the development of the local economy and imparting environmental education in a practical manner.

The investigation also revealed that several of the companies interviewed were NBS relevant, however, they did not have any activities in Nadezhda, but of course, they potentially could have. The three NBS's that seemed potentially most relevant for an initiative like a healthy corridor in an area like Nadezhda, were two territorial NBS's related to the food sector, while a technological NBS within the field of landscape architecture and ceramics, also showed a clear business potential.

Only three companies were working in the field of innovation. This modest number can potentially be explained by the lack of networking platforms and hubs for companies with a sustainability focus, the lack of support by the national and local government to invest in research of new technologies, and the general lack of knowledge in the field of nature-based solutions amongst Bulgarians.

Two examples of green and social companies stand out in Sofia. The first one is called ZAEDNO ('Together'), which is a non-profit organisation that aims at educating citizens and especially children aged 3-12 years on how to apply Permaculture Design to regenerate urban waste land by creating intensive small-scale edible gardens. The organisation is providing workshops for local communities, kindergartens and schools on how to design, plant and maintain their own edible gardens. Participants learn how to apply Permaculture Design ethics and principles to grow organic food, in addition to learning how to respect and protect Nature.

Mr Green Walls is another example of an innovative business that is building and selling vertical walls for the interior and exterior to improve microclimate, reduce the heat island effect and energy consumption. Its main struggle lies in adhering to the strict requirements and building regulations when implementing vertical walls or gardens. The process of registering and gaining permissions can often take several months, which is making it

difficult to sell and install the products. In this case, the local government could try to ease the building approval procedures for green walls and create financial (tax) incentives for green and social companies to spur the growth of these businesses.

5.6 Results

We assessed the obstacles, opportunities and enabling activities identified by the interviewees representing green and social business in Sofia:

Obstacles: The green business owners and founders were disappointed by the lack of funding and support of their projects by local and national governments. There was also a general insufficiency of encouraging initiatives, such as workshops or events, to educate people in Sofia on environmental challenges and how these can be tackled through nature-based solutions. Another deficiency was the lack of innovation hubs or platforms for green businesses to cooperate, co-create or co-design NBS and to learn from each other - as well as places where they can test/implement their solutions in real life.

Opportunities: Several of the interviewees acknowledged a slow shift in people's perception on the importance of protecting the environment. They also recognised more and more sustainable and social organisations that were being established. Interviewees also said that the general acceptance and willingness of Bulgarians towards complying with European Union regulations is very high, and they have a lot of hope in European Union funded projects, such as URBiNAT, in Sofia, which help raise the awareness of potential funding opportunities for NBS.

Enablers: The following enabling activities that can be pursued by the local government to help spur green and social business growth in Sofia include:

- Increase taxes on green-house gases and align them to the European strategies and regulations.
- Explore options but also impacts of reducing taxes and introducing compensations for renewable energies and nature-based solutions.
- Foster research to assess mechanisms for stimulating more public-private entities, for instance, offer publicly owned land and buildings for temporary usage of NGOs.
- Create platforms for idea exchange and business growth (connecting different NGOs, networking and creating a social innovation hub for young people).
- Encourage communal identity by creating publicly accessible community spaces for different ethnic groups to meet to overcome cultural differences and stereotypes.
- Create financial incentives for green businesses. In instance, local government could support NGOs that give jobs to unemployed people in urban gardening in the deprived neighbourhood, water collecting and purification system, and air purification initiatives.
- Educate people on environmental issues and offer guidelines on how-to live-in balance with the environment, including create vegetable gardens, compost toilets, and enhance biking.
- Explore mechanisms to stimulate the implementation of green facades.

- Provide alternatives to car ridership by creating cycling infrastructure, providing reliable public transport, intermodality and optimising car parking space at disparate transportation hubs, such as train stations.

6. Nantes

6.1 Introduction to Nantes

Nantes is in the north-western part of France around 50 km from the Atlantic Ocean. Nantes Métropole has 638,000 habitants. Nantes is a major centre of higher education. The territory offers a considerable range of training in many areas.

Nantes was elected EU green capital in 2013 and second greenest city of France in 2016. Each inhabitant in Nantes is no more than 300 metres from a public green space, and Nantes describes itself as a green city by choice where nature has a central role in all projects. Nantes has quite extensive experience with implementing NBS and already has solutions such as urban agriculture, tree nursery, floating gardens, stormwater management facilities inventory, much experience with participatory solutions, and many organisations working within the social and solidarity economy.

6.2 Introduction to Nantes Nord and the Green Corridor of Nantes

As the name suggests Nantes Nord is in the north-western part of the city. Nantes Nord is around 7.6 km² and is divided into 9 subdistricts. It has around 24,900 inhabitants and it is a very heterogeneous district in terms of socio-demographic characteristics.

With nearly 62 m² of green space per inhabitant, the district Nantes Nord is often presented as the greenest district of the City of Nantes. More than 60 % of the district area is green spaces; around ⅔ of this is housing greenery.

40 % of the inhabitants live in social housing, while 25 % are homeowners. 36 % of the buildings in the district were built between 1971-1990. There are very few dwellings with strong heritage interest.

Nantes Nord, being an entrance district to the city, has very good access to the main road network, while the secondary road network has some issues making the crossing of the district difficult. The car is the primary source of transportation (used by more than half of the working residents) although the district has a network of bicycling paths.

The gender distribution of Nantes Nord: 51 % men and 49 % women. It is a quite young neighbourhood as can be seen from the diagram below.

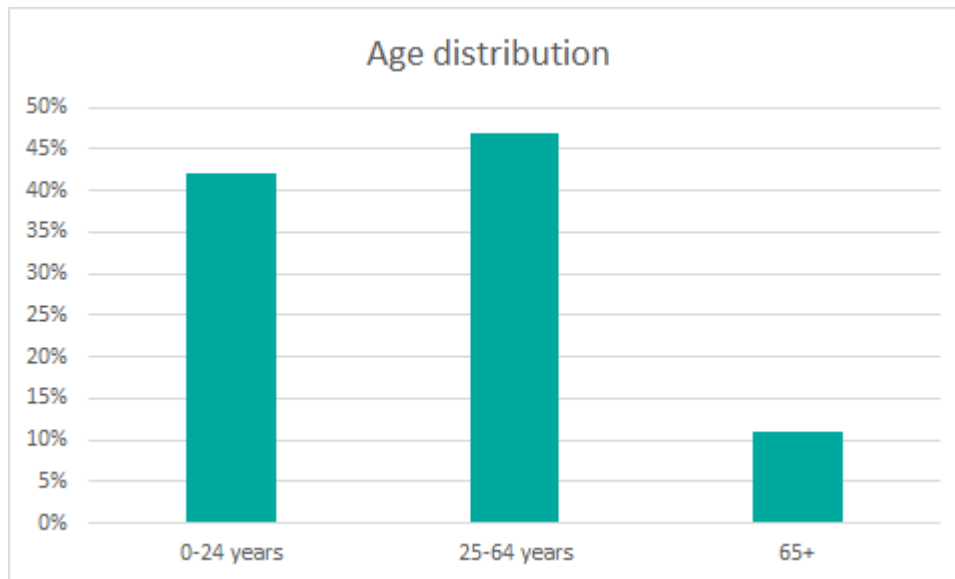


Figure 6. 1. Age distribution in Nantes Source: URBiNAT (2019) Local Diagnostics Report, Nantes.

It is an ethnically diverse district, as 12 % of the population is of foreign nationality and 14 % have an immigrant background.

The unemployment rate in Nantes Nord is approximately 17 % but reflects quite large differences between the different micro districts which goes from 9-25 %. The largest employment sectors in the district are public administration/education/public health/ social action and commerce/transport/services.

56 % of the households are one-person households, which reflects the large number of university students living in the district, and 40 % of families are single-parent households.

The median monthly household income in Nantes Nord is € 1378€ (2011), and the poverty rate ranges from 7.3 % to 45.4 % in the different subdistricts.

Compared to the study areas in the two other front-runner cities, Nantes is much more ethnically diverse than Sofia and Porto.

More information about Nantes and the Nantes Nord district can be found in URBiNAT D2.1 Local Diagnostics Report.

6.3 Empirical research in Nantes

Our research of Nantes was a combination of a survey in the form of an online questionnaire primarily targeting the population of Nantes Nord as well as an NBS business analysis conducted as a mix of desktop research and interviews.

The NBS selected through the co-creation process that is expected to be implemented in the healthy corridor in Nantes are:

- Renovation of park
- Pedestrian path

- Urban garden
- Water course restoration³

6.3.1 NBS Business Analysis

In total 56 local companies and organisations in Nantes were investigated, partly by doing desk-research and reading about their activities on their websites, and partly by interviewing representatives of some of the companies and organisations. Business leaders and representatives of four companies and organisations were interviewed (Bio-T-Full, Compostri, Phytolab and Faltazi).

Characteristically, Nantes has many non-profit organisations within the social and solidarity economy and some of these organisations are highly active and are conducting activities that could potentially be relevant for a healthy corridor project in Nantes Nord.

Below, the businesses and organisations analysed by using the Sustainable SWOT Business Canvas in Nantes is presented. Each one of the SWOT Business Canvases are the result of a one-to-one interview. In addition, we did extensive desktop research before (in preparation) and after (to verify) the interview.

The following NBS start-up in Nantes were one-to-one interviewed:

Bio-T

Compostri

Les Moutons

Vite Mon Marché

Phytolab

Faltazi

For background information, we interviewed a representative of Nantes City Lab and Nantes Metropole.

³ This solution is not expected to be implemented as part of the URBiNAT project but will perhaps be at a later stage.
















Sustainable SWOT Business Canvas		Association: Compostri		
Problem  <i>List 1-3 problems that you want to solve</i>	Solution  <i>Outline a possible solution for each problem</i>	Unique Value Proposition  <i>Clear and compelling message that states why this solution is different and worth paying attention to</i>	Unfair Advantage  <i>Something that cannot easily be bought or copied</i>	Customer Segments  <i>List your target customers and users</i>
Lack of reuse of resources Environmental impact from waste collection Lack of sense of community in neighborhoods	Collective composters to valorize biowaste and create community	Compostri's shared composting solution offers a means to valorize biowaste while improving social wellbeing by creating a sense of community and it may also help create jobs for the local community.	Close connection with Nantes Métropole	Adult citizens in cities (and their families) Schools (to a smaller extent)
Existing Alternatives  <i>List how problems are solved today</i>	Cost Structure  <i>List your fixed and variable costs</i>	Revenue Streams and Upscaling  <i>List your sources of revenue</i>	Channels  <i>List your path to customers (inbound or outbound)</i>	Early Adopters  <i>List the characteristics of your ideal customers</i>
Lack of solution on the large scale: Biowaste not reused, sent to combustion People with gardens might have their own, private composting system	Fixed costs for materials for composters, administration staff, training of composters	Can generate income from municipalities who want to sort and valorize their biowaste. Income from municipalities from developing events, working with schools, etc.	Word of mouth, homepage, events, volunteer ambassadors	People eager to compost their waste
Eco-Social Benefit (Strength)  <i>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</i>	Eco-social Costs (Weakness)  <i>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</i>	External & Internal Obstacles (Threats)  <i>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</i>	Enablers (Opportunities)  <i>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</i>	Additional Information  <i>Name aspects that are crucial, but haven't been covered yet.</i>
Ecological benefits: valorization of waste Social benefits: improved wellbeing and possibly also generation of jobs (master composter)	It can be difficult to find volunteers/mobilize the inhabitants	Regulations can impede Compostri's ability to operate such as regulation on waste handling, rules for protection of listed building. When the law on waste sorting is implemented the handling of biowaste might be taken over by big corporations.	New law in France making sorting of biowaste mandatory is a big opportunity	

Figure 6.2: Sustainable SWOT Business Canvas of Compostri. Source: City Facilitators



Figure 6.3: Compostri operations. Source: www.compostri.fr

Sustainable SWOT Business Model Canvas			URITROTTOIR	https://uritrottoir.com/principle-en/?lang=en
Problem	Solution	Unique Value Proposition	Unfair Advantage	Customer Segments
List 1-3 problems that you want to solve	Outline a possible solution for each problem	Clear and compelling message that states why this solution is different and worth paying attention to	Something that cannot easily be bought or copied	List your target customers and users
- wild-peeing in urban e.g. on trees, walls, fences and other - unpleasant odor in the city - puddles on the ground	- civilise wild peeing in urban environments - avoid odor and puddles - take advantage of fertilising property of urin	- THE solution for wild peeing - easy-to-install pissoirs in several models - low maintenance thanks to automatic fill measure (remote monitoring) - saves water	- local infrastructure of maintenance	- "Everywhere, where communities have to deal with nuisances associated with the influx of people; in city centres, at outdoor events, camping sites
Existing Alternatives	Cost Structure	Revenue Streams and Upscaling	Channels	Early Adopters
List how problems are solved today	List your fixed and variable costs	List your sources of revenue	List your path to customers (inbound or outbound)	List the characteristics of your ideal customers
- stationary WCs - mobile toilet cabins with chemicals - lack of solution	- construction cost for devices (fix) - monitoring and maintenance (variable)	- one-time cost for installing - running costs for maintenance	- website - city network? - testimonials (festivals, events, ...)	- cities, event companies, ...
Eco-Social Benefit (Strength)	Eco-social Costs (Weakness)	External & Internal Obstacles (Threats)	Enablers (Opportunities)	Additional Information
What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?	What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?	What are external threats that could prevent the green business from being successful (e.g. policy restrictions or competitors)?	What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBiNAT project?	Name aspects that are crucial, but haven't been covered yet.
- civilises wild peeing - city/ event visitors benefit - potential customers are municipalities and city governments, event organisations and all, who engage with outside events with high influx of people		- cultural circumstances - public acceptability of the solution - local regulations preventing the solution		

Figure 6.4: Sustainable SWOT Business Campus of Uritrottoirs. Source: City Facilitators



Figure 6.5: The first “Uritrottoirs” was installed in Nantes in 2017. Source: www.twitter.com

Sustainable SWOT Business Model Canvas			Ô Bocal	http://obocal.com/
Problem	Solution	Unique Value Proposition	Unfair Advantage	Customer Segments
List 1-3 problems that you want to solve	Outline a possible solution for each problem	Clear and compelling message that states why this solution is different and worth paying attention to	Something that cannot easily be bought or copied	List your target customers and users
- too much packaging, mostly plastics for consumerables - a lot of waste generation for products that don't need single-use material for its packaging	- using containers that can be reused continuously - design grocery shopping in a way it is as convenient without compromising on the variety of foods		- location/ property advantage - customer base willing to bring own containers	- everyone who does grocery shopping
Existing Alternatives	Cost Structure	Revenue Streams and Upscaling	Channels	Early Adopters
List how problems are solved today	List your fixed and variable costs	List your sources of revenue	List your path to customers (inbound or outbound)	List the characteristics of your ideal customers
- food is often packed in paper, cardboard or (most often) different types of plastics to prevent them from turning bad or getting damaged	- rent, salaries, maintenance (fix) - purchase of goods (may vary), marketing (if applicable)	- sale of goods	- word of mouth, homepage, press	- customers who want to reduce waste from packaging - people who are willing to carry containers for shopping
Eco-Social Benefit (Strength)	Eco-social Costs (Weakness)	External & Internal Obstacles (Threats)	Enablers (Opportunities)	Additional Information
What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?	What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?	What are external threats that could prevent the green business from being successful (e.g. policy restrictions or competitors)?	What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?	Name aspects that are crucial, but haven't been covered yet.
- Massive reduction of packaging material - awareness creating about food and handling - benefit on city scale: less reduction (given more shops adopt this model)	- customers may have to switch behaviour - initial shop set-up is expensive since all the containers have to be installed	- lack of adoption/ shift of mindset on customer side		

Figure 6.6: Sustainable SWOT Business Model Canvas of O Bocal. Source: City Facilitators

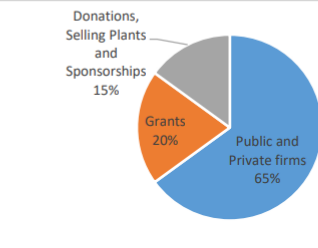

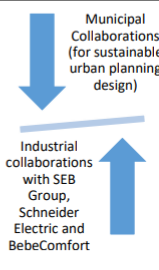
Name Characteristics	Bio-T-Full	Compostri	Faltazi	Phytolab
Size	4 employees and 250 volunteers; 65 members of the association	9 Employees and 300 composters; 60-120 persons per composter	1 office; 2 permanent employees	22-24 employees
Recruitment and on boarding strategies	Workshops and events, newsletters	A composting site is opened only when atleast five families are committed to the project; the association that provides the composters is local and has a social engagement like professional integration of people who have been long term unemployed or people with disabilities	Creation of a new employment pool that is knowledgeable, agricultural and urban including event organisers, garden managers, chefs, scholars and other peripheral professions	Traditional recruitment (application and interviews)
Age	6 years	14 years	19 Years	28 years
Sector	Territorial, Social and Solidarity economy	Social and Solidarity Economy	Technological, Industrial design	Territorial
Social/Environmental issues addressed	Local solutions to environmental, social and economic problems	Utilization of biowaste, reduction in the environmental impact in waste collection, strengthening of social ties, job creation	Sustainable urban planning, achieving energy efficiency, efficient human waste disposal	Improving urban microclimate and alternative uses of rainwater; improving urban ecosystems for psychological gains
Solutions	<ul style="list-style-type: none"> Urban Garden Project Management and Management of Biowaste Citizen Workshops Awareness regarding personal urban gardens 	<ul style="list-style-type: none"> 3-Level ISO Certified training for volunteers, compost ambassadors and master composters App development for compost tracking and community events Project management 	<ul style="list-style-type: none"> Uritrottoir: public urinals for converting urine into compost Uritonnoir: Dry urinal Les Ekoveres: sustainable solutions for farm districts Various other sustainable design solutions 	Landscape solutions for river and maritime shoreline territories and complex architectural and urban projects such as bank development and construction of urban public spaces
Target Group	Social projects and private customers	Local families and schools	General citizens and industries	Urban citizens in the Atlantic and Mediterranean regions
Marketing strategies	No advertisements, purely driven by the demand of the inhabitants to implement vegetable gardens	Community events conducted by compost ambassadors	Social Media handles and press articles/online blogs	Active website and Press coverage
Ambition	Developing urban agriculture with participation from citizens	Valorisation and environmental impact reduction of food waste collection, creating social cohesion	Combining commercial industrial and economic vision	Developing close-to-nature solutions and improving urban life
Execution points	Materials and knowledge of urban gardening, project management and citizen engagement	Materials and knowledge about composting, guidance on municipal regulations	Industrial collaborations and innovative designing	Team of town planners, architects, road and building engineers, ecologists, biologists
For Profit/Not for profit	Social Projects are not-for-profit, while private customers are for profit	Not-for-Profit	For-Profit	For-Profit
Financing				Traditional client-contractor model with tenders or direct orders

Figure 6.6: Outline of NBS Businesses in Nantes. Source: Interview by City Facilitators

6.3.2 Survey

The questionnaire was made accessible on an online platform (Typeform) that residents could access through a simple online link. The questionnaire included approximately 50 questions that were all presented in French (see example below).

Distributing the link for the online survey targeting the residents of Nantes Nord, however, did meet significant difficulties. The link was distributed through the URBiNAT network, just like in Sofia, but the responses in Nantes were highly unsuccessful. Thus, it has not been possible to get much feedback from respondents unlike Sofia.



Figure 6.7: Example of a question in the questionnaire aimed at residents in Nantes Nord. Source: City Facilitators

The survey had a total of 18 responses with a completion rate of 47.4%. The questions were designed to study the reception of nature-based solutions and to help present concrete suggestions to increase awareness among citizens regarding sustainable urban planning.

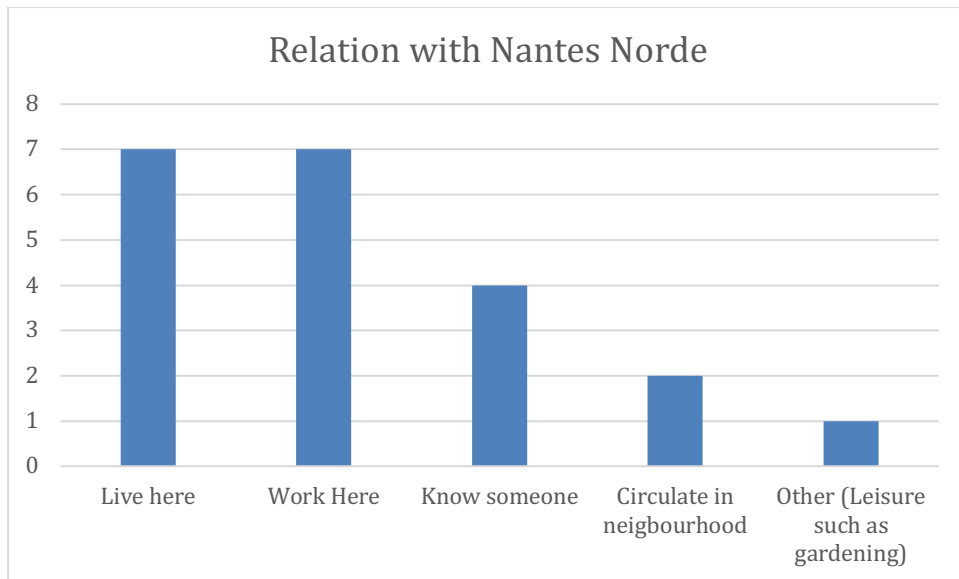


Figure 6.8: Relation of the respondents with Nantes Norde. Source: City Facilitators Typeform Survey

33.3% of the respondents reside in the city of Nantes Norde while 33.3% work in the city. Around 20% people have some acquaintance within the city while the rest either pass through the neighbourhood or are only present in the city during their leisure activities.

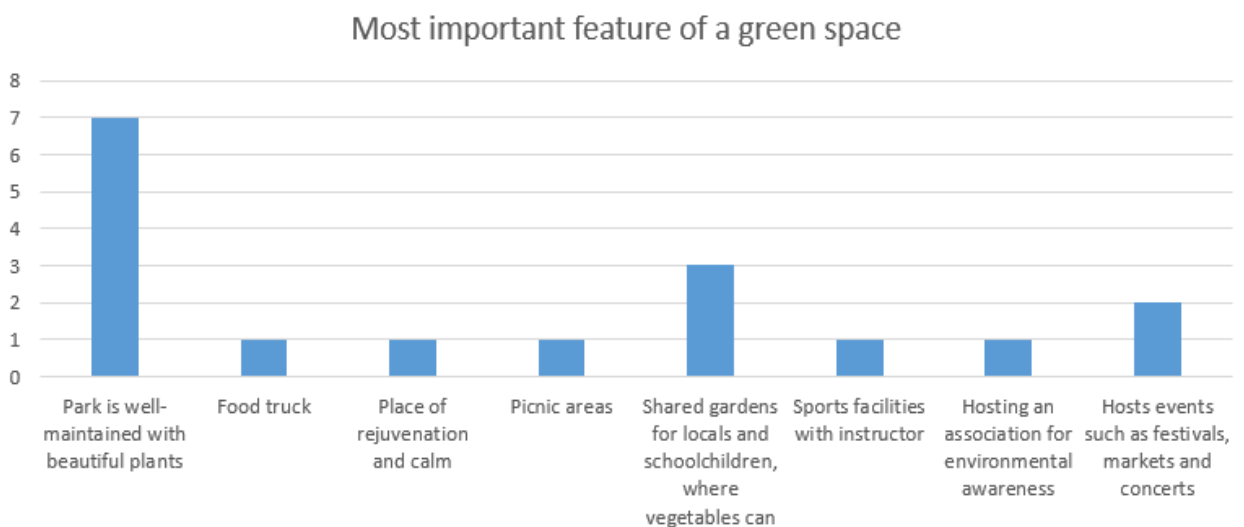


Figure 6.9: Important features of green spaces. Source: City Facilitators Typeform survey

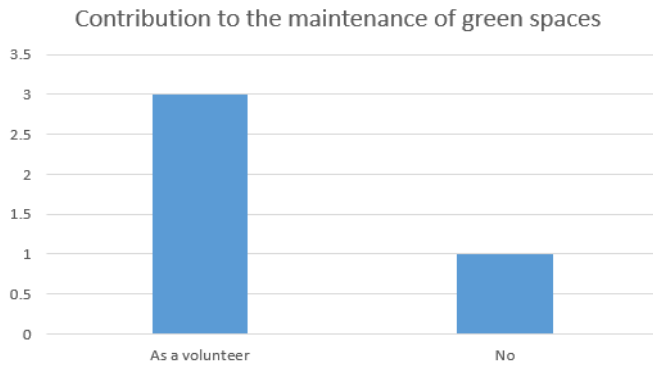


Figure 6.10: Contribution of respondents to green space maintenance. Source: City Facilitators Typeform survey

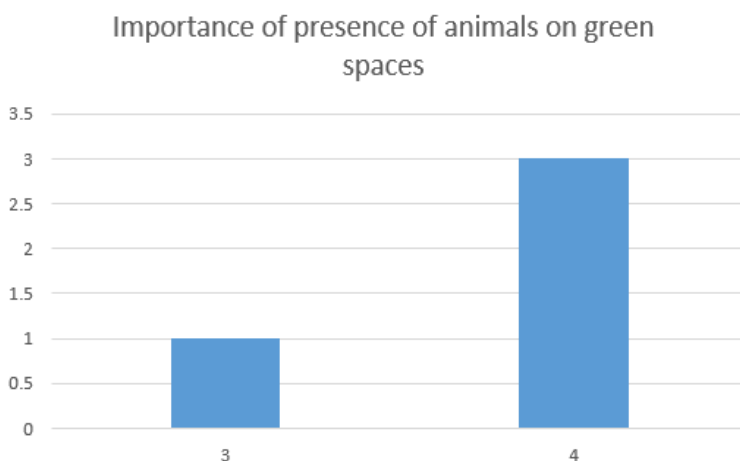


Figure 6.11: Importance of animals on Green spaces. Source: City Facilitators Typeform survey

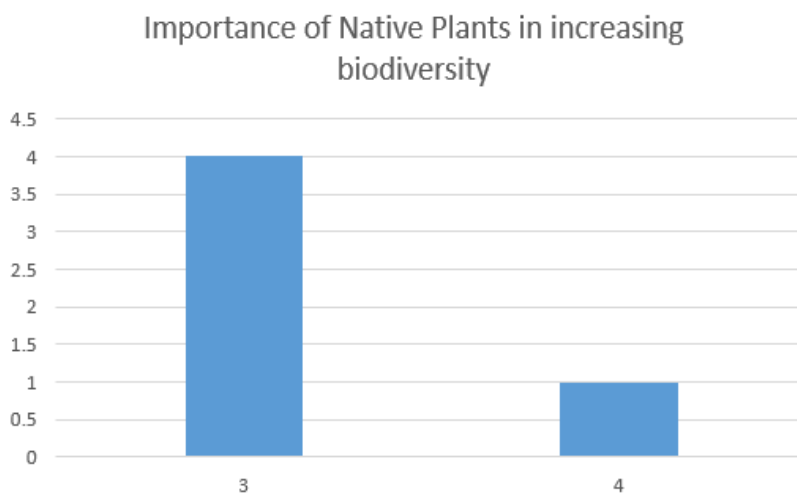


Figure 6.12: Importance of native plants for biodiversity. Source: City Facilitators Typeform Survey

There were four queries related to the expectations from green spaces. The respondents cited the most important feature which a green space should explicate should be immaculate maintenance with beautiful plants (41.1%) followed by the development of shared community gardens for locals (17.64%). Some respondents also mentioned the

presence of food trucks, picnic areas, sports facilities (with an instructor) and areas for hosting environmental awareness events (such as festivals, markets or concerts) and associations. When asked about importance of native plants and animals, 80% of the respondents voted 3 on a scale of 1 to 5 for the contribution of native plants in increasing biodiversity, while 75% voted 4 on a scale of 1 to 5 regarding the presence of animals on green spaces. For maintaining green spaces, 3 respondents agreed to volunteer.

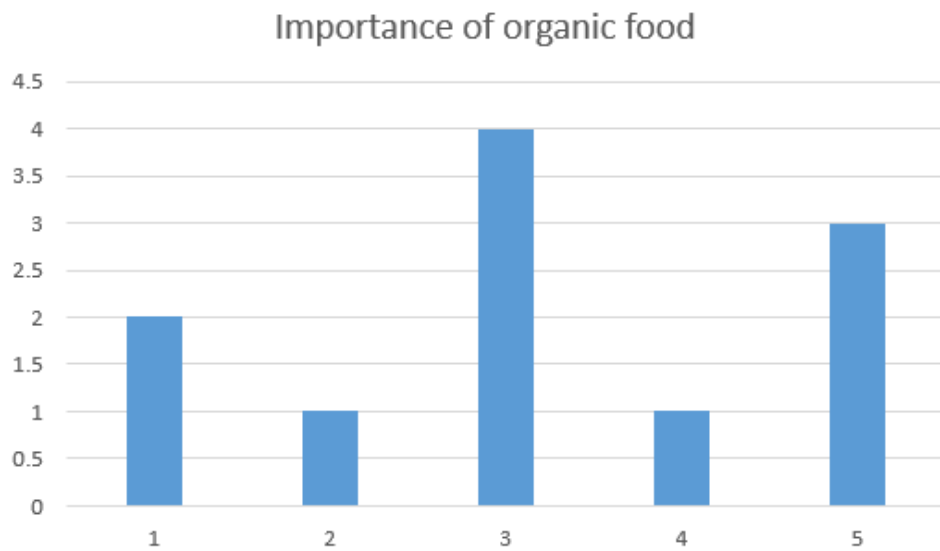


Figure 6.13: Importance of organic food. Source: City Facilitators Typeform survey

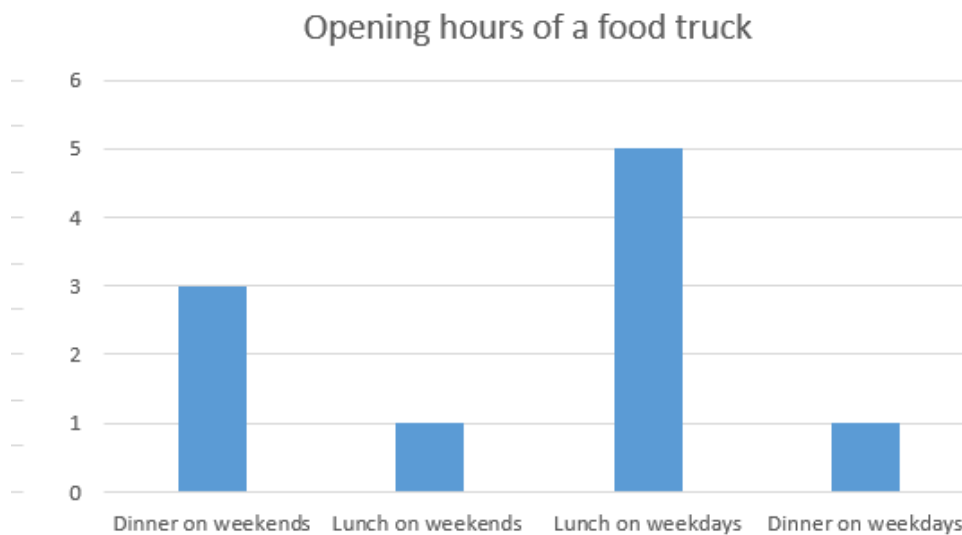


Figure 6.14: Preferred opening hours of food trucks. Source: City Facilitators Typeform survey

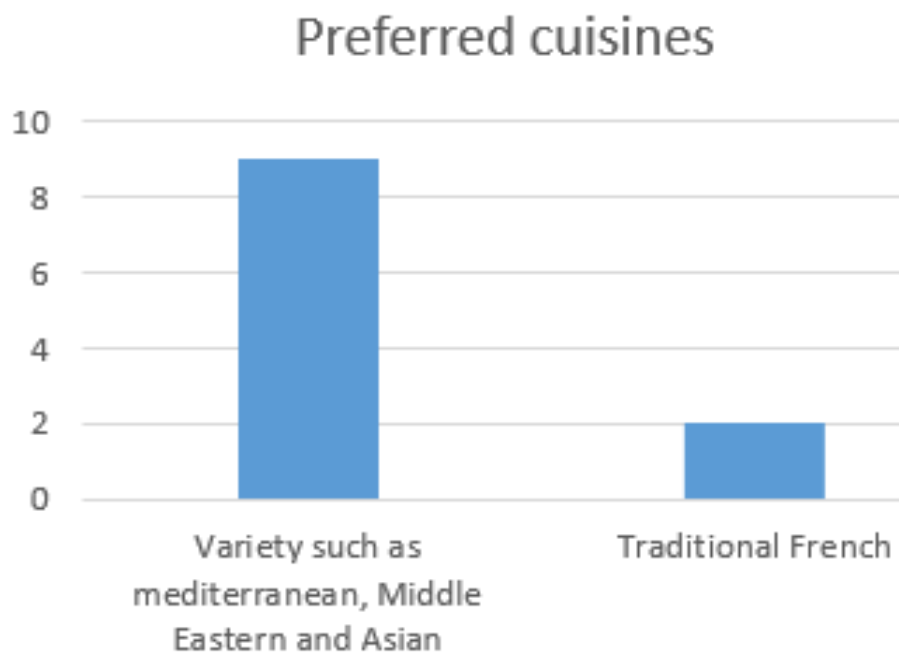


Figure 6.15: Preferred Cuisines. Source: City Facilitators Typeform survey

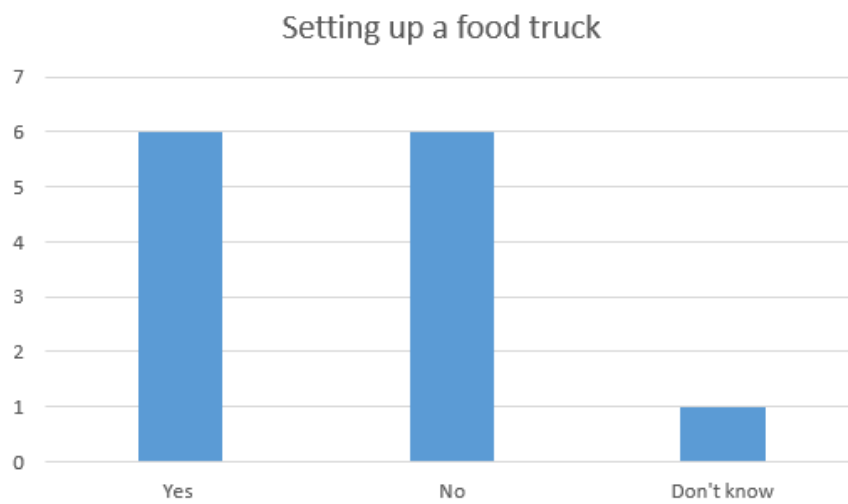


Figure 6.16: Interest of the respondents in setting up a food truck. Source: City Facilitators Typeform survey

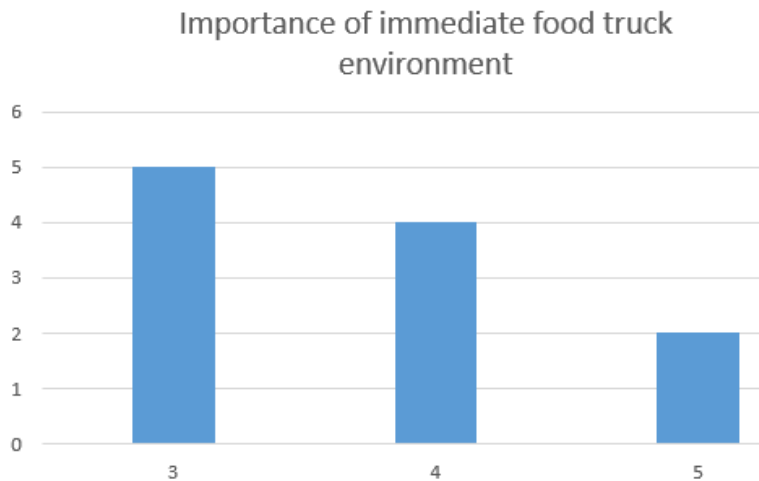


Figure 6.17: Importance of immediate Food truck environment. Source: City Facilitators Typeform Survey

Next, there were five queries regarding foodtrucks. On a scale of 1 to 5, 36.3% respondents put up 3 while 27.2% respondents put up 5 as the score allotted to the importance of organic food. 81.8% of the respondents preferred a variety of Mediterranean, Middle Eastern and Asian cuisines, bringing out the cosmopolitan mind-set of the respondents. But the initiative on setting up food trucks was divided with almost 50% of the respondents agreeing while an equal proportion of respondents backing out. 50% of the respondents preferred the opening hours of the foodtruck to be on weekdays during lunch while 30% prefer it on weekends during dinner. The immediate food truck has been regarded of prime importance with majority (45%) of the respondents attaching a weight of 3 on a scale of 1 to 5.

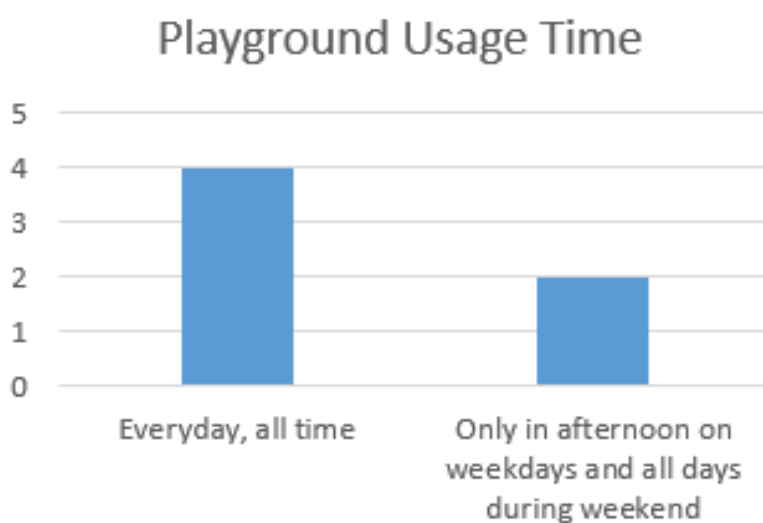


Figure 6.18: Preferred usage time of playgrounds. Source: City Facilitators Typeform Survey

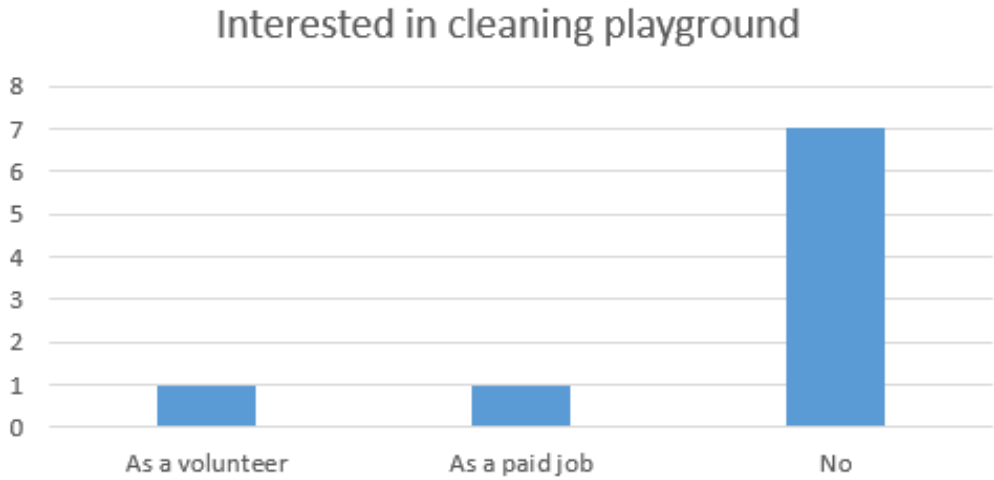


Figure 6.19: Interest of respondents in cleaning the playgrounds. Source: City Facilitators Typeform Survey

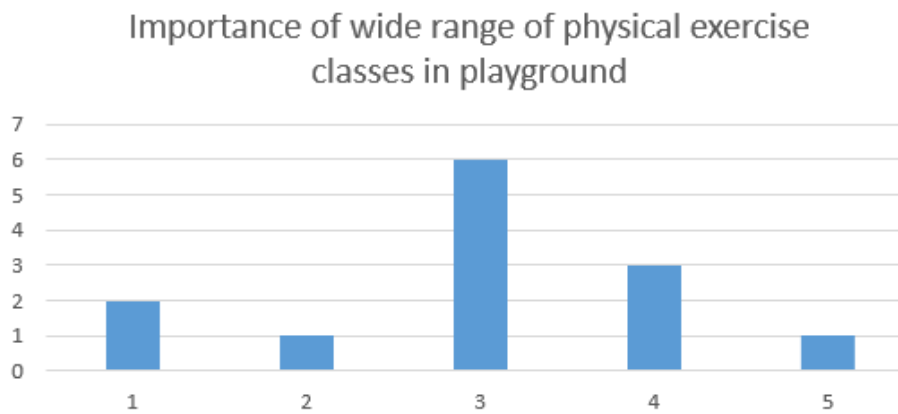


Figure 6.20: Importance of physical exercise classes in playground. Source: City Facilitators Typeform Survey



Figure 6.21: Importance of supervising staff on playground. Source: City Facilitators Typeform Survey

Importance of cleaning and maintenance of playground

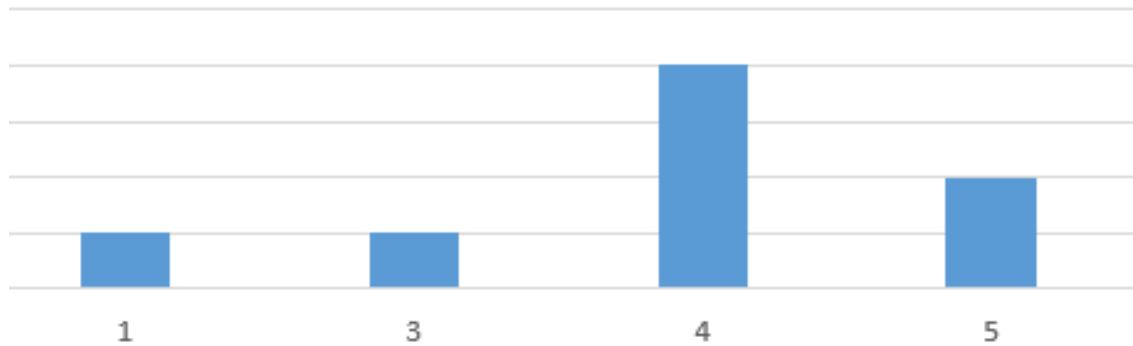


Figure 6.22: Importance of cleaning and maintenance of playground. Source: City Facilitators Typeform Survey

Importance of toilets and changing spaces in playground

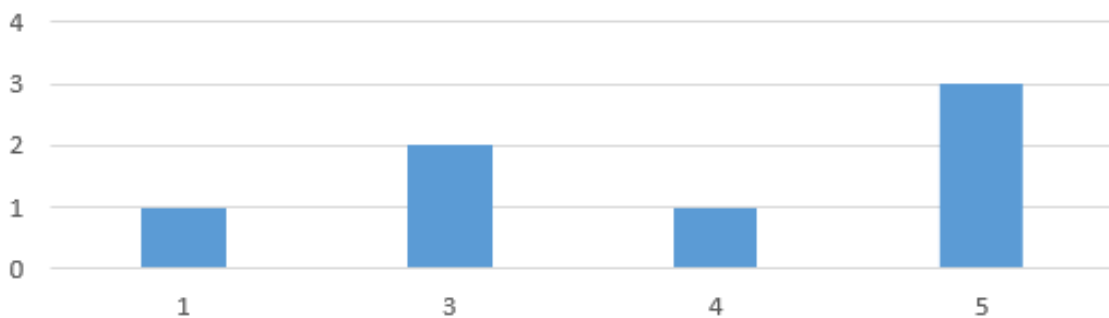


Figure 6.23: Importance of toilets and changing spaces in playground. Source: City Facilitators Typeform Survey

Importance of wide range of equipment for physical exercises

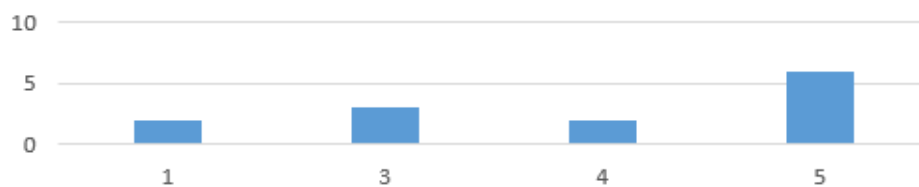


Figure 6.24: Importance of physical exercise equipment. Source: City Facilitators Typeform Survey

Subsequently, there was a set of queries on the opinion of residents regarding playgrounds in the city. 50% of the respondents attached a score of 4 to the importance of cleaning

playgrounds while 25% attached a score of 5, on a scale of 1 to 5, but a significant asymmetry was observed in 77.77% of the respondents not willing to clean playgrounds. Toilets and changing spaces were also given significant weightage with 43% voting 5 on a scale of 1 to 5. Physical exercises on the playground were also given significance with 83.33% respondents allocating a score of 3 or above to the importance of a wide range of physical exercise classes in the playground and 60% of the respondents attaching a weight of 5 to the importance of availability of wide range of equipment for physical exercises, both on a scale of 1 to 5.

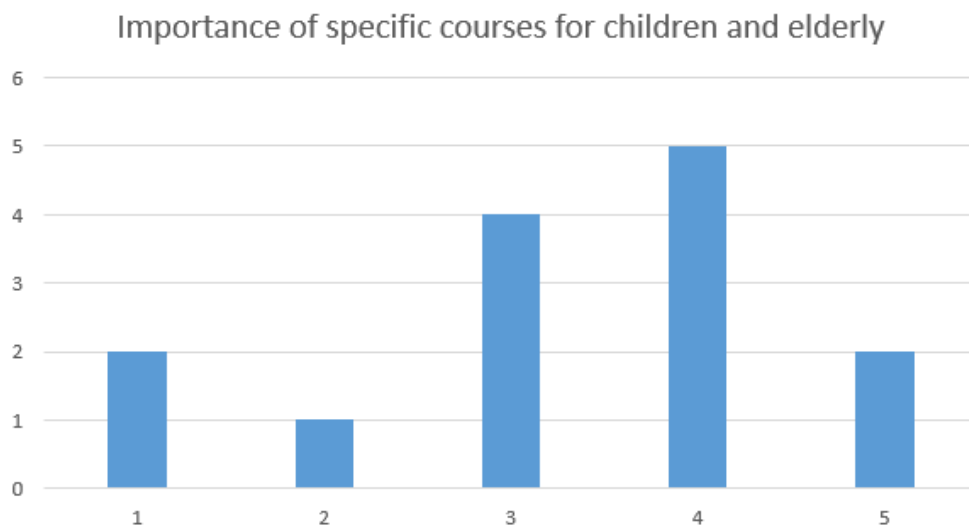


Figure 6.25: Importance of specific courses for children and elderly. Source: City Facilitators Typeform survey

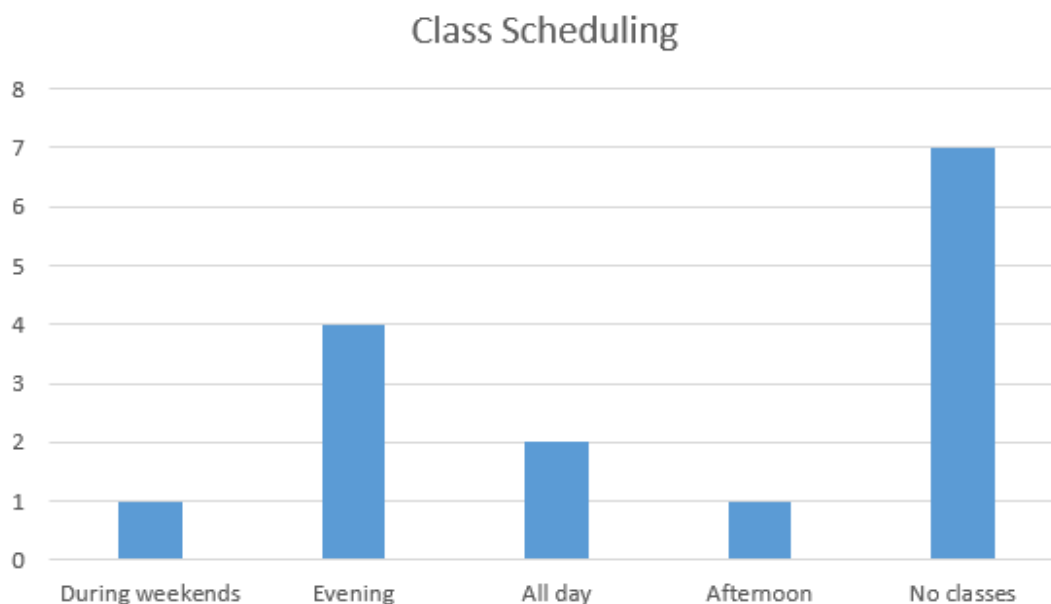


Figure 6.26: Scheduling time of classes. Source: City Facilitators Typeform survey

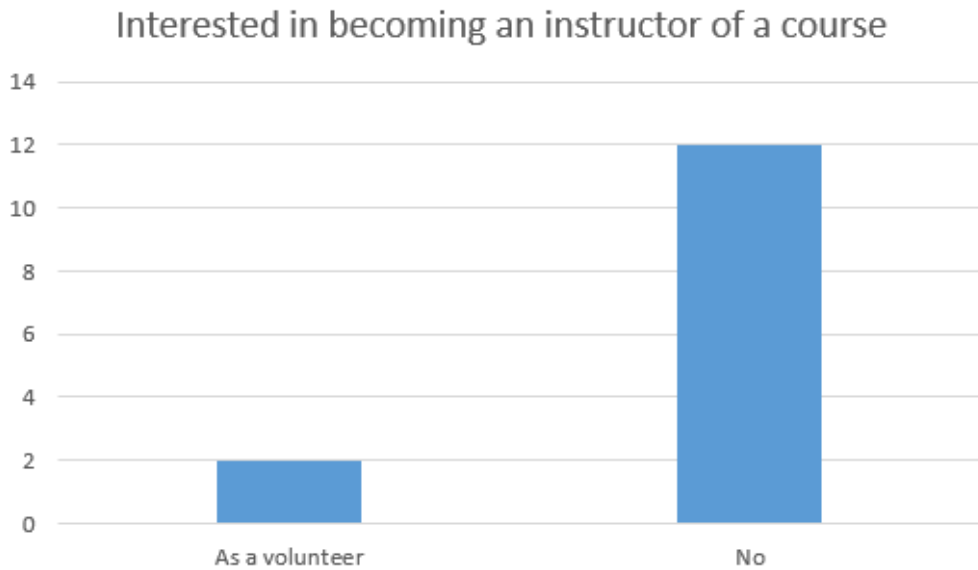


Figure 6.27: Interest of the respondents in becoming a class instructor. Source: City Facilitators Typeform Survey

50% of the respondents attached a score of more than 4 to the conduction of courses for children and elderly, but approximately 50% of the respondents voted for “no class” when asked about schedules. Also, 85.7% of the respondents were not interested in instructing a particular course.

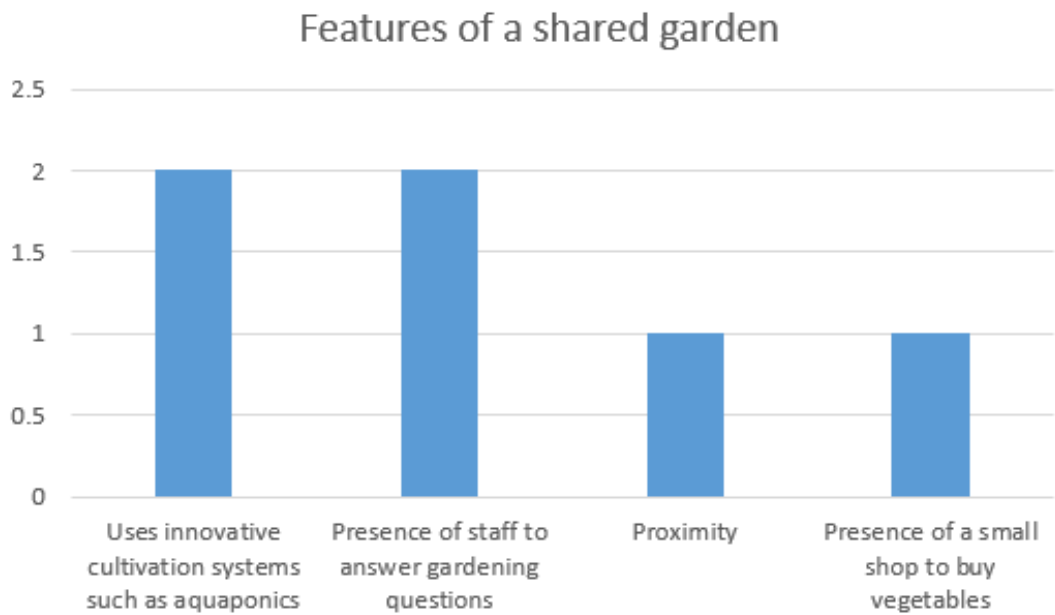


Figure 6.28: Features of a shared garden. Source: City Facilitators Typeform Survey

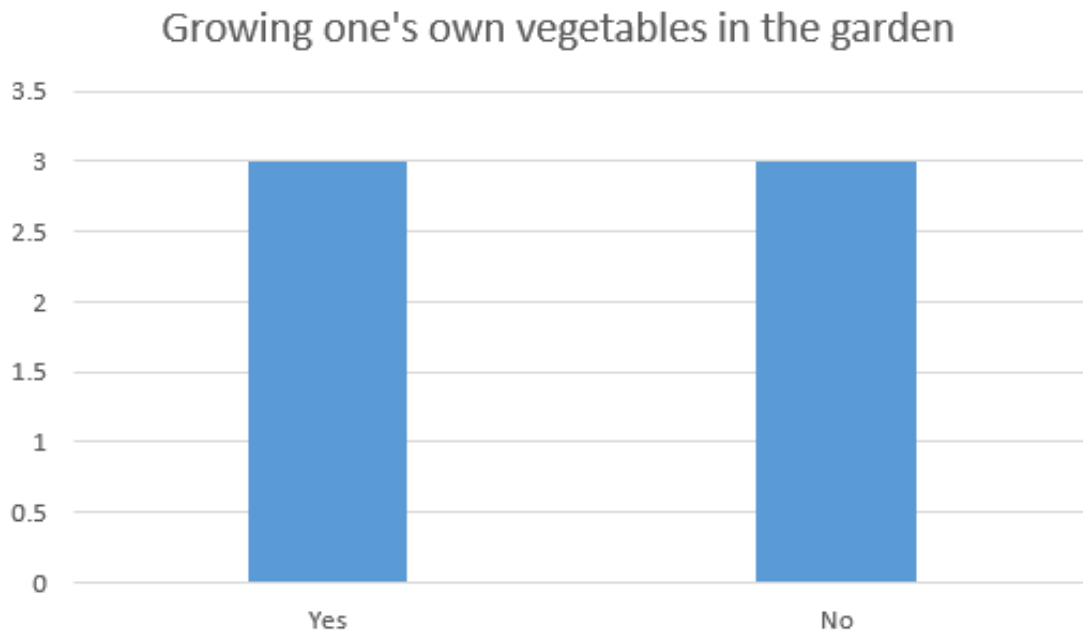


Figure 6.29: Interest of respondents in growing one's vegetables in the shared garden. Source: City Facilitators Typeform Survey

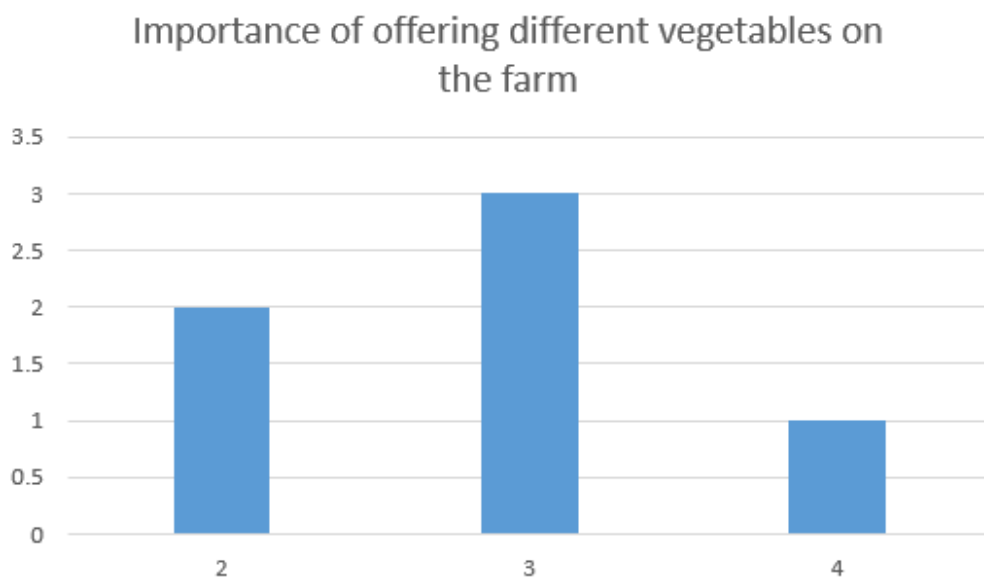


Figure 6.30: Importance of different vegetables on the farm. Source: City Facilitators Typeform Survey

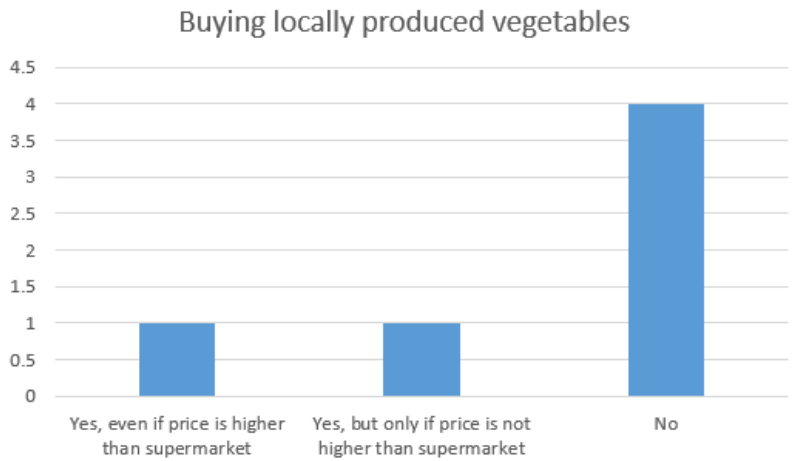


Figure 6.31: Interested in buying locally produced vegetables. Source: City Facilitators Typeform Survey

33% respondents suggested the use of efficient and innovative cultivation systems while another 33% required the presence of staff to answer gardening questions. Other responses such as proximity and the presence of a small shop to buy vegetables were given importance by the rest. On the question of the variety of vegetables to be offered on a farm, 66.6% respondents voted for a score of 3 and above. On the opinion of growing one's own vegetables in the garden, the respondents were divided with 50% agreeing. But when the question on the interest in buying locally produced vegetables was asked, 66.6% respondents disagreed.

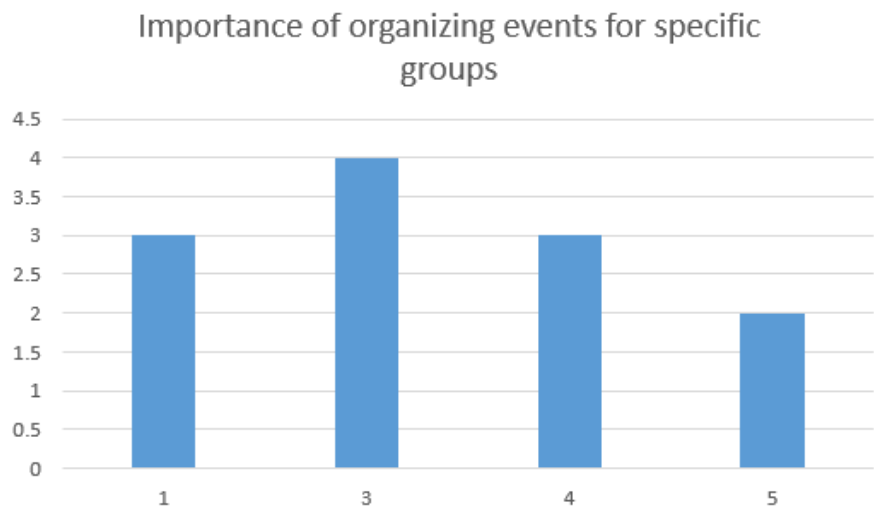


Figure 6.32: Importance of organizing events for specific groups. Source: City Facilitators Typeform Survey

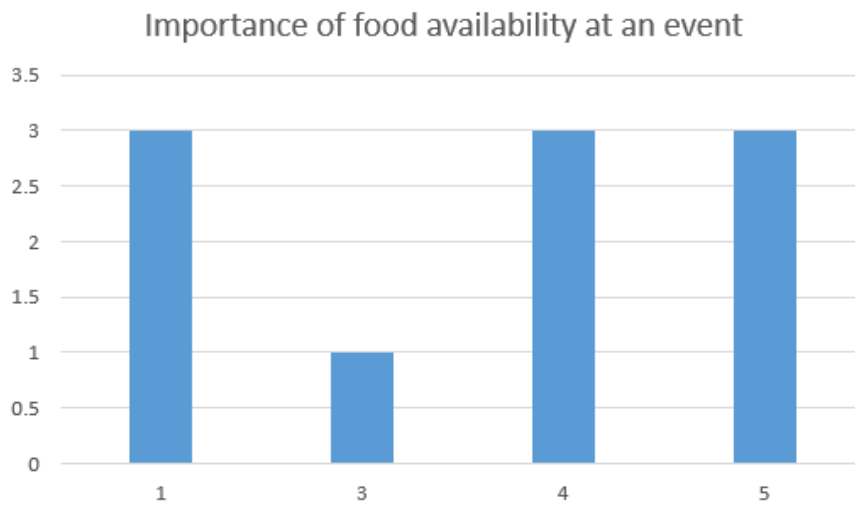


Figure 6.33: Importance of availability of food at events. Source: City Facilitators Typeform Survey

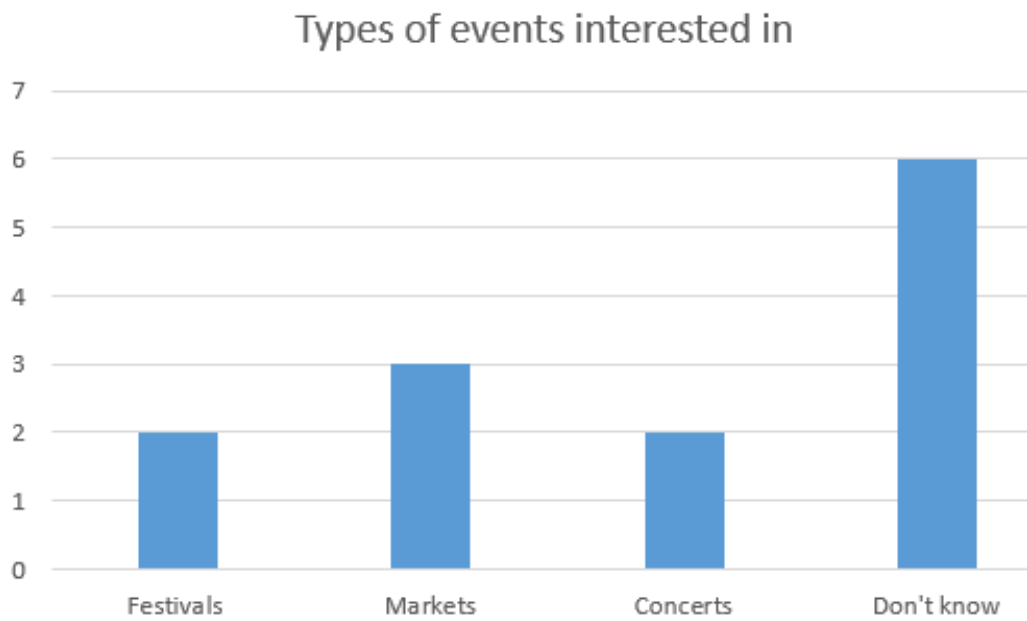


Figure 6.34: Interest of respondents in event types. Source: City Facilitators Typeform Survey

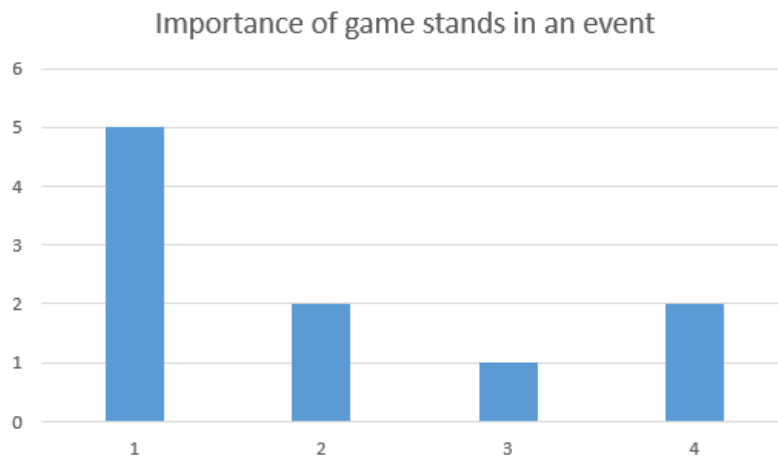


Figure 6.35: Importance of game stands in an event. Source: City Facilitators Typeform Survey

75% of the respondents, on a scale of 1 to 5, attached a weightage of 3 to the importance of organizing events for specific groups, and 25% voted for setting up markets. 60% of the respondents allocated a score of 4 and above regarding the importance of availability of food at an event, while 50% respondents attached the least weightage of 1 regarding the presence and importance of game stands in an event.

6.4 Case Study: The Ecosolies in Nantes

In the subsequent section, we describe the key findings of an interview with Laurence Garnier, Nantes Metropole. At this point, due to the COVID pandemic, we only have 9 interviews.

The concept of Solidarity Economy in Nantes

Since 2001, the Social and Solidarity Economy (SSE) has been supported by local government and plays a key part in public policies in Nantes. The vision of the SSE has evolved over the past decade through continued political support and concrete policies.

The initiatives supported by the SSE program

Local government prioritises the following sectors for SSE that also counts green and solidarity businesses: food, short circuits, waste resources, reuse, bio-waste, services for families, living and building. SSE Coordination of Nantes is managed by Nantes Metropole that has been particularly active in creating new forms of housing through eco-construction.

Under the guidance of Nantes Metropole, Ecosolies provides support to the prioritised sectors. However, Nantes Metropole and Ecosolies are also exploring new venues in other sectors, such as mobility, health and energy. Their work focusses on how to enhance SSE through the development of municipal activities together with the SSE business start-ups.

When Ecosolies was established in 2006, it was a small association. Today, however, it is an important economic actor in Nantes. Ecosolies is an association that is partly financed by the city government, but also by the region, European funds, ADEM, banks and mutual insurance companies. Ecosolies implements the action plan designed and planned by the

city, Ecosolies and SSE business start-ups. It is a cooperative approach that helps cement and expand the local green and solidarity economy network that, in turn, implements and organises the action plan. In this way, both the design, planning and execution is secured by a network consisting of the city, Ecosolies and SSE business start-ups.

Opportunities from metropolis and public policies

The elected representatives have decided to position SSE as a central part of the economic development strategy and action plan of the greater region of Nantes. As such, Nantes strategy and action plan are a commitment with the development of sustainable green and solidary companies to bring new services and products to the region and city:

“The alliance of territories is a process initiated during the previous mandate by Johanna Rolland, who is the mayor president. We know very well that the work cannot be done solely on the scale of the metropolis and that we are going to have to work with the neighbouring territories to develop structured approaches [to the development and expansion of SSE businesses]. (...) To put these different areas in touch with each other on specific issues to work together and be able to offer a service that meets expectations”
Interview with Laurence Garnier, Nantes Metropole.

SSE is perceived by the public, private and civic actors of the Nantes SSE network as the opportunity to improve or revitalise social relations and usages of urban public space. Local government is deliberately exploring the use of transitional real estate for the benefit of the Social and Solidarity Economy. There are activities centred on reusing and recycling of transitional real estate and creating associated services, such as short circuits, food, urban logistics, low carbon, bicycle logistics, to name but a few. These services enhance people visiting the transitional real estate areas. This city approach facilitates access to a maximum of SSE services and other offerings for the broader public, which allows SSE business start-ups to straddle and grow their businesses on.

Opportunities

Social and Solidarity Economy network is perceived an economic cluster that invites citizens to do (living, working, and regenerating) in another and more sustainable way. It is a long-term economic vocation. In the context of Nantes, urban regeneration is used to leverage SSE opportunities in a collaborative and collective way. SSE becomes part of local neighbourhoods, even before new neighbourhoods emerge.

Enablers

Ecosolies has developed a whole range of support services for the development of projects and businesses, including training developers and managers.

“We measure the effects and the impact of all these initiatives that participate in the urban transitions on the scale of the entire Nantes territory. Beyond this conviction and these words, it is concretely how we measure it in terms of coordination of actors, collaborations...In my opinion, this co-creation approach also integrates the beneficiaries from the start, who are part of this process, so that they can be the guarantors and ambassadors of this co-creation in the territory” Interview with Laurence Garnier, Nantes Metropole.

Challenges

SSE work is located at the scale of all the municipalities of the metropolis. However, there are sometimes strong local municipal territories and networks that are (only) concerned with the opportunities within their own municipality. This can give rise to conflicts within the greater metropolis.

In the present, the Ecosolies operates in a neighbourhood that is characterised by high unemployment, which has worsened during the COVID lockdowns reinforced by limited access to and skills with digital technology.

Another challenge concerned with the future of the Ecosolies network is its ability to continue to carry out collective actions with other SSE network actors from the conventional economy, researchers, academics, and thereby expand SSE to the whole territory.

Relation with HC NBS

There are SSE start-ups involved in urban agriculture. They focus on developing concepts for food gardens at a metropolitan scale. These are important vis-à-vis the Healthy Corridor of Nantes that expands beyond the territory of the Ecosolies.

6.5 Shortlisting NBS Solutions

As the results of the questionnaire with the intention of gathering input from residents of Nantes Nord were unsuccessful, it is not possible to convincingly conclude on the potentials of various NBS. Based on the desk-research investigation as well as the interviews conducted, there are however some obvious activities that existing companies and organisations in the Nantes region that could become relevant for a healthy corridor initiative in Nantes Nord, and later in the follower cities.

Local food production to some degree could be one initiative, although this business area is highly regulated due to food security. Currently it is not legal for family gardens to sell the vegetables grown on for instance allotment gardens or by professional food producers.

An interesting initiative is the *Atelier de la Fée au Duc*, located in the north-western part of Saint-Herblain neighbourhood of Nantes. The focus of this building and the initiative is to welcome schools and students to learn about the local circuit of vegetable foods. The house included production units, offices, storage and educational spaces. There are various sustainable technologies in the building as well, including a wastewater treatment system that makes it possible to reuse the water used for pre-washing the vegetables. The facilities were built in 2015 and financed by the Region of the Loire (Conseil Régional des Pays de la Loire et Agence Régionale des Pays de Loire) and as such do not directly represent a market-based business model.



Figure 6.36: The Atelier de la Fée au Duc, located in the Saint-Herblain neighbourhood of Nantes, is a processing workshop that has been operational since 2015. This workshop offers local organic vegetables: washed, peeled, cropped, cut (cubes, strips, etc.). Source: <https://rieffel.paysdelaloire.e-lyco.fr/atelier-de-transformation-de-legumes-bio-et-locaux/>

Among the companies and organisations investigated, the association *Bio-T-Full* lives up to many relevant characteristics of a potential NBS for the healthy corridor initiative in Nantes Nord, including heightening local awareness of sustainable activities, social inclusion, education as well as the contribution to innovative economic activities.

The aim of Bio-T-Full is to promote urban agriculture, including activities that involve education, accompaniment, transmission of environmental awareness, citizen engagement and the maintenance of vegetated spaces. The mission is to ‘put agriculture and nature back at the heart of our cities’ and the target group for the activities are both professionals and the public. As stated by Bio-T-Full on their website (translated from French): ‘We offer civic, fun and positive activities about agriculture and edible vegetation.’ The Bio-T-Full association is located at the Solilib facilities in Nantes Nord and is also associated with the non-profit organisation Les Ecosolies.

NOS ACTIVITÉS

 <p style="color: #e67e22; font-weight: bold; margin-top: 10px;">PRODUIT ET EXPERIMENTE</p> <p style="font-size: small; margin-top: 10px;">Avec les bénévoles Bio-T-Full, nous cultivons dans notre pépinière « PépiLab » le végétal comestible. Nous créons également des modules d'aquaponies « AquaLab ».</p> <p style="font-size: small; margin-top: 10px;">Pour le plaisir d'acquérir de nouvelles connaissances et d'échanger, nous expérimentons de nouvelles techniques culturelles, d'irrigations...</p>	 <p style="color: #e67e22; font-weight: bold; margin-top: 10px;">SENSIBILISE</p> <p style="font-size: small; margin-top: 10px;">Nous proposons des Ateliers Citoyens d'Education à l'Agriculture Urbaine (A.C.E.A.U.).</p> <p style="font-size: small; margin-top: 10px;">Ces ateliers sont créés sur-mesure et grâce auxquels chacun peut apprendre à jardiner, construire, concevoir en lien avec le végétal.</p> <p style="font-size: small; margin-top: 10px;">A destination de tout public : citoyens, professionnels, école.</p>	 <p style="color: #e67e22; font-weight: bold; margin-top: 10px;">ACCOMPAGNE</p> <p style="font-size: small; margin-top: 10px;">Bio-T-Full accompagne les collectivités, bailleurs sociaux, groupe d'habitants, entreprises dans divers projets comme la création de jardins partagés.</p> <p style="font-size: small; margin-top: 10px;">Nos compétences nous amènent à proposer des solutions clés en main, en 5 étapes : de l'étude stratégique, concertation, co-conception, co-construction et en passant par le suivi de projet / animation.</p>
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Figure 6.37: Screenshot from the Bio-T-Full website. Source: <http://bio-t-full.org/>

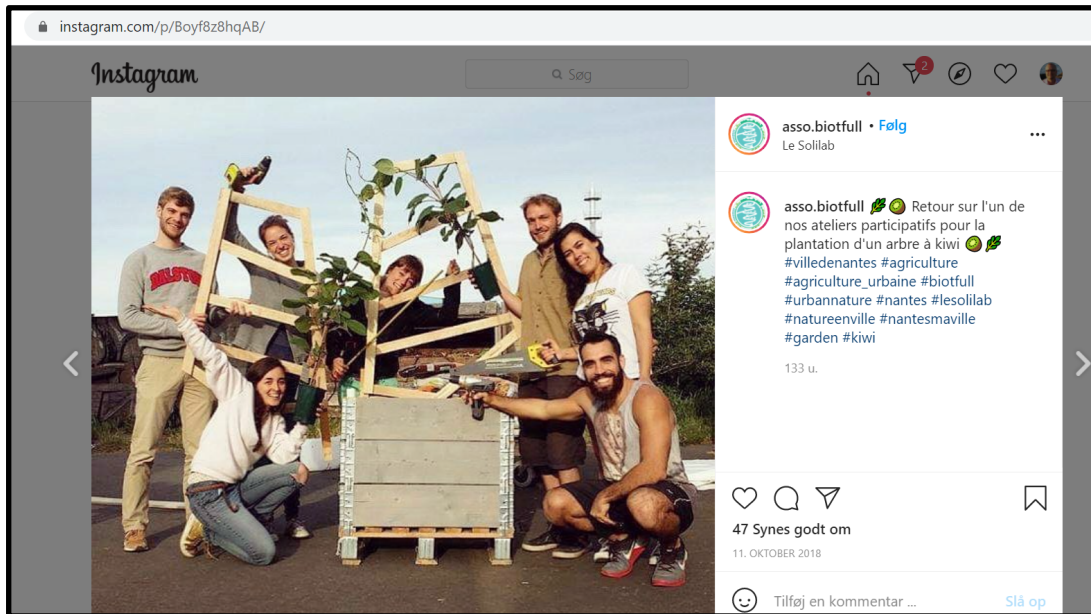


Figure 6.38: Public post on the Instagram-profile of Bio-T-Ful, April 2021. Source: <http://bio-t-full.org/>

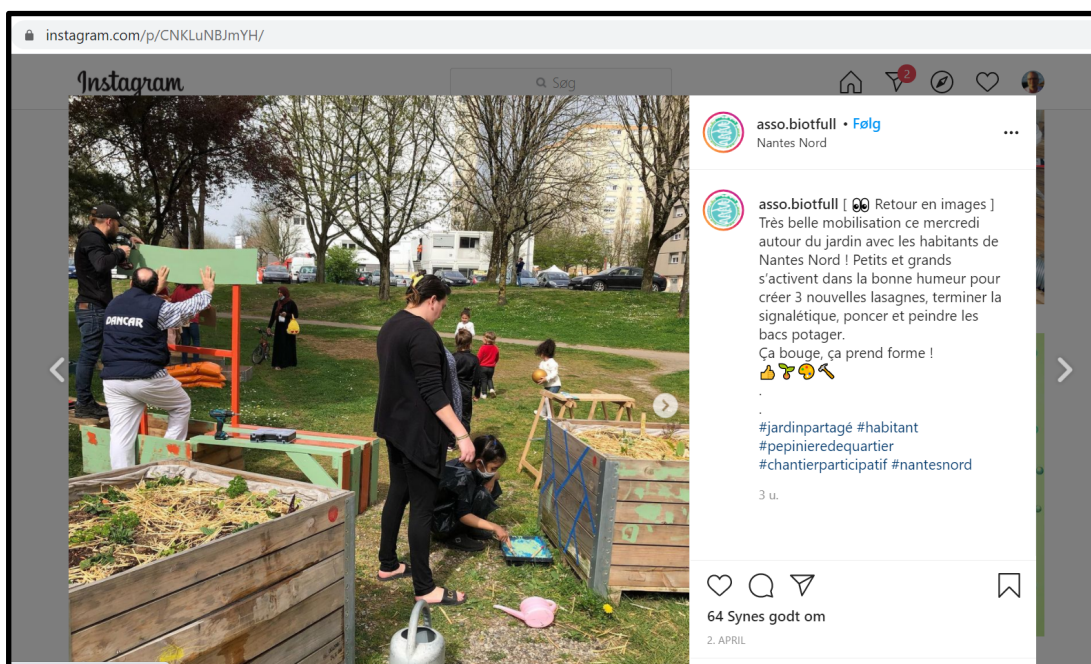


Figure 6.39: Public post on the Instagram-profile of Bio-T-Ful, April 2021. <http://bio-t-full.org/>

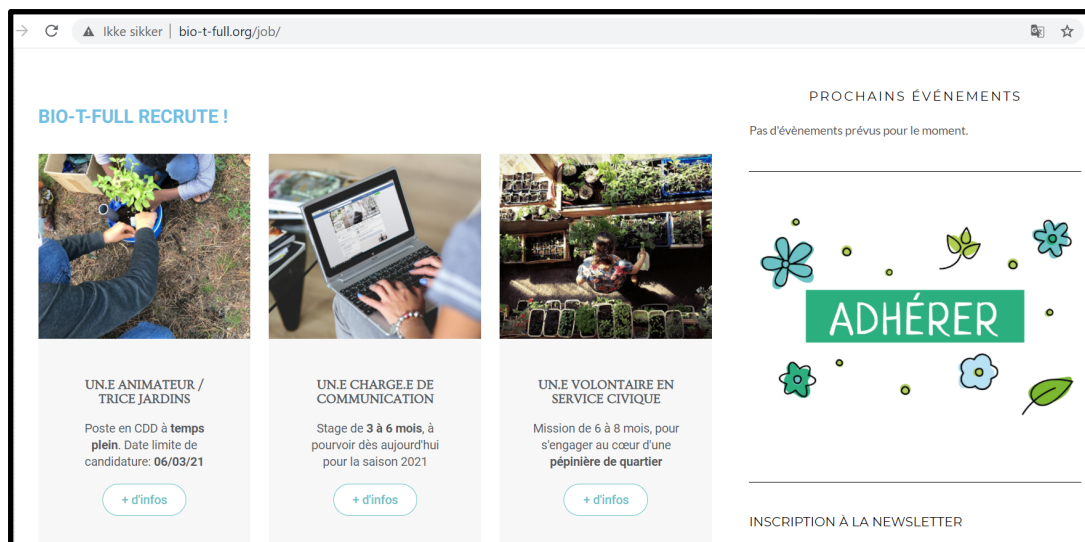


Figure 6.40: Screenshot from the Bio-T-Full website with employment possibilities, April 2021. Source: <http://bio-t-full.org/>

As mentioned, the Bio-T-Full association is closely connected with the initiative Les Ecosolies, a non-profit organisation set up to support small and large corporations who cooperate to promote the social & solidarity economy. The Les Ecosolies among other things runs the "Le Solilab", a workspace for 235 people, where there are events, a store and food, an incubator, and place for the Bio-T-Full association to develop activities as well.

Another potential NBS for the Nantes Nord healthy corridor, is the company *Les Moutons de l'Ouest (Sheeps from the West)* which offers 'eco-grassing- by sheep in urban environments and it that way helps to maintain green areas while at the same time introduces the feature of sheep in an urban environment. The company essentially works like a landscaper by offering a fixed annual cost to maintain an area. Customers can avoid using mowers and brush cutters and improve the green surroundings in a sustainable way.

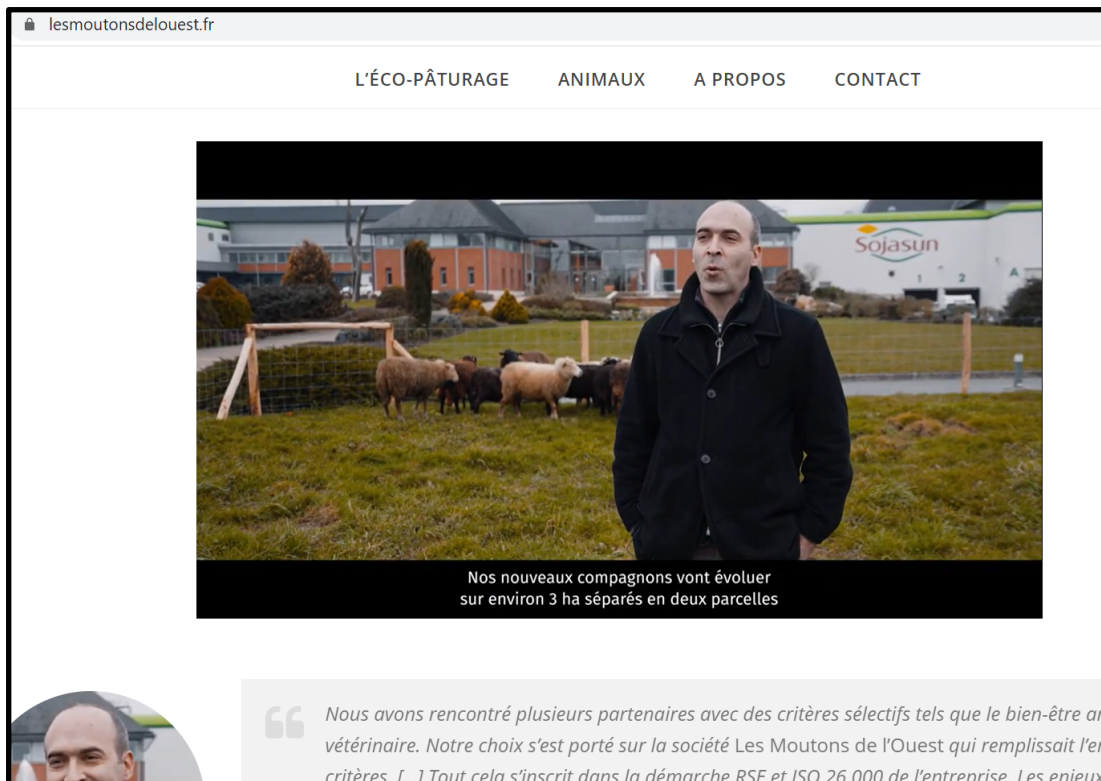


Figure 6.41: Screenshot from the website of the company Les Moutons de l'Ouest, April 2021 Source: <https://lesmoutonsdelouest.fr/eco-paturage/>



Figure 6.42: Screenshot from the website of the company Les Moutons de l'Ouest, April 2021 Source: <https://lesmoutonsdelouest.fr/eco-paturage/>

A third initiative relevant for a possible healthy corridor in Nantes Nord, is *The Kiosque Paysan (The Farmers Store)*, which aims to simplify access to local quality products from the

Nantes region and guarantee a fair price to producers and consumers. The initiative delivers to specialized stores as well as drop-off points in the region which reduces logistic costs for all players in the value chain. The initiative also organizes shared customer deliveries. With its logistical concept, the aim is to reduce transportation and logistical costs and reduce the carbon footprint. The initiative, which is also an association, was born in 2016 from the consultation between key actors among organic farmers and peasants of the Pays de la Loire. The association Les Ecossoles in Nantes was a key enabler of the Kiosque Paysan association.

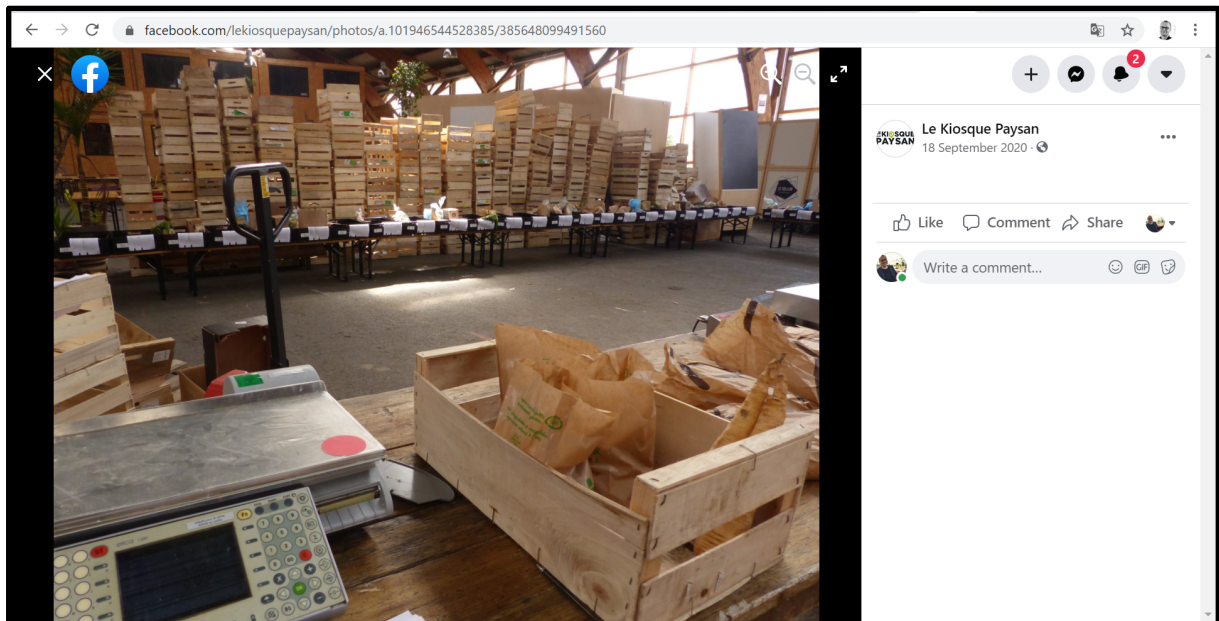


Figure 6.43: Screenshot from the Facebook-site of Le Kiosque Paysan, April 2021. Source: <https://www.facebook.com/lekiosquepaysan/photos/a.101946544528385/385648099491560>

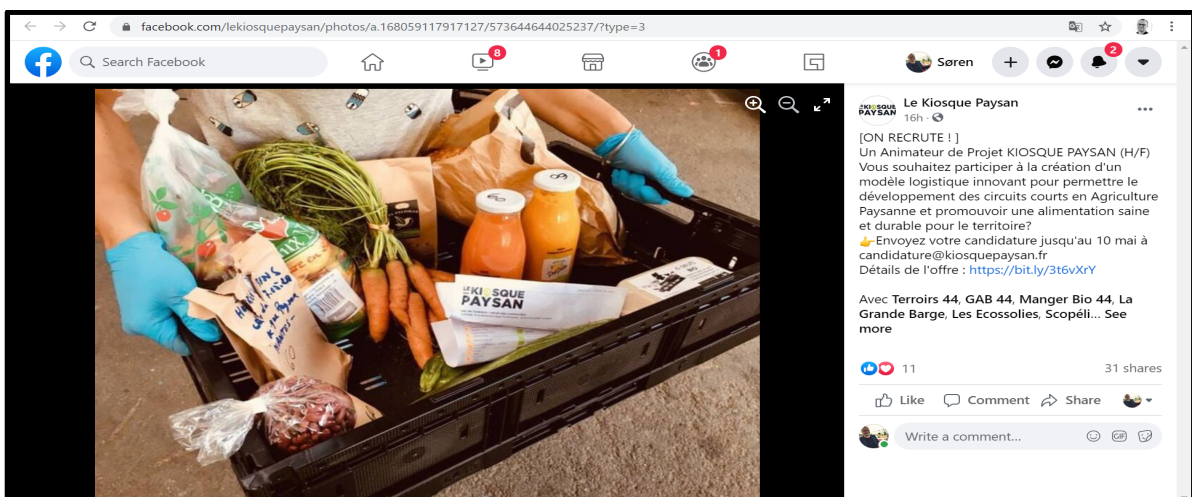


Figure 6.44: Screenshot from the Facebook-site of Le Kiosque Paysan, where it is stated that there are vacant positions. April 2021. Source: <https://www.facebook.com/lekiosquepaysan/photos/a.101946544528385/385648099491560>

6.6 Conclusion

As the results of the questionnaire with the intention of gathering input from the residents of Nantes Nord were unsuccessful, it is not possible to convincingly conclude on the potentials of various NBS. Based on the desk-research investigation as well as the interviews conducted, there are however some obvious activities that existing companies and organisations in the Nantes region that could become relevant for a healthy corridor initiative in Nantes Nord or inspire follower cities.

Local food production is a central theme in the proposed relevant cases from Nantes. There are certainly other sectors that could be relevant, and a questionnaire among the citizens of Nantes Nord revealed some interesting trends regarding the opinions of the populace regarding sustainable and nature-based solutions. Though it is observed that the respondents had a certain degree of awareness about the importance of sustainability, but the inherent nature of volunteering seems to be absent, which may be improved by the creation of social agencies. Majority were in favour of developing green spaces and playgrounds, food trucks, community gardens and solidarity markets, and hence a governmental or private initiatives would surely operate successfully provided sufficient number of citizens are roped in for volunteering and maintenance. The responses of the survey might be skewed due to the low number of responses owing to the COVID-19 pandemic.

First, a pavilion or building for educational purposes like The Atelier de la Fée au Duc, could be a significant site for local activities, although it could require considerable public financing. A physical milieu for the local activities seems highly relevant. It can also be a milieu like the one offered by The Solilab in central Nantes, organized by the initiative Les Ecosolies, seems highly important, even for activities in Nantes Nord 6-8 kilometres away.

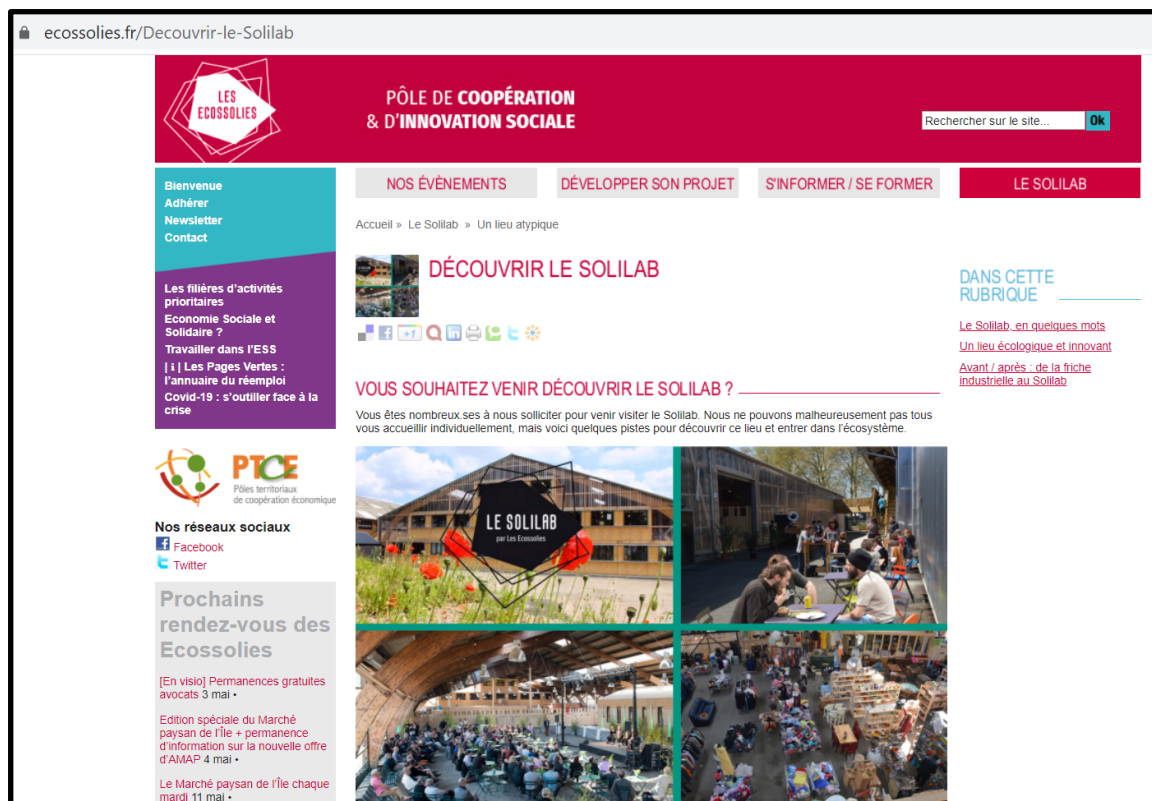


Figure 6.45: The Solilab Facilities in Nantes. Screenshot, April 2021. Source: <https://www.ecosolies.fr/Decouvrir-le-Solilab>

The concrete NBS solutions suggested for the healthy corridor initiative in Nantes Nord, could be activities like the ones offered by *Bio-T-Full*, *Les Moutons de l'Ouest* and *Le Kiosque Paysan*. The three NBS all have a strong territorial dimension and focus on place-bound assets that potentially can be activated in the Nantes Nord area. Les Moutons de l'Ouest is based on a classic commercial business model, while the two other organisations are associations that includes both commercial and non-commercial actors and activities and as such has a more blurred, but also innovative business model and value creation.

Based on the material collected in Nantes, the three kinds of NBS solutions that could be relevant for a healthy corridor project in Nantes Nord, are:

- Bio-T-Full
- Les Moutons de l'Ouest
- Le Kiosque Paysan.

In the analysis, other NBS solutions (Compostri and Uritrottoir) were presented that also provide examples of commercial products and services and therefore, that could have been relevant to implement in follower cities. However, we selected the most promising NBS solutions in terms of their proved track record.

7. Porto

7.1 Introduction to Porto

Porto is a city located in the northwest part of Portugal by the Atlantic Ocean. Porto Metropolitan Areas is home to about 1.76 million inhabitants. Its geographical location close to the airport and seaport gives it good accessibility and has made it a hub of tourist flows. The historic centre of Porto is a UNESCO World Heritage site. In addition, Porto is also home to an esteemed university complex, especially within health science.

Nature-based solutions adopted in Porto include planting more examples of trees of native or local species; expanding the network of municipal vegetable gardens with the introduction of aquaponic techniques and self-watering beds; studying the potential for green roofs in the city (through the Fifth Facade Project) and installing them in municipal buildings; re-naturalisation of water courses and integrated management of the whole water cycle; and conducting research into cleaning up water bodies by means of phytoremediation.

7.2 Introduction to Campaãha and the Green Corridor of Porto

The Campaãha parish is in the eastern end of the municipality of Porto and is approximately 8.05 km². The population of the parish is around 32,700 residents. The study area where the green corridor is to be implemented makes up 2.1km² of the parish and has approximately 4,500 inhabitants. The area is characterized by having a relatively high degree of social housing administered by the organisation DomusSocial.

Around 50 % of the area is occupied by buildings, while 34 % of the study area is abandoned plots or plots with no use, most of which are privately owned, and 15 % is parks and gardens. The relatively small area of the study area means that most of it is within walking distance. Nevertheless, most of the transport within the area is by car.

The inhabitants of the study area in Campaãha are 55.4 % women and 44.6 % men. The age distribution can be seen in the diagram below:

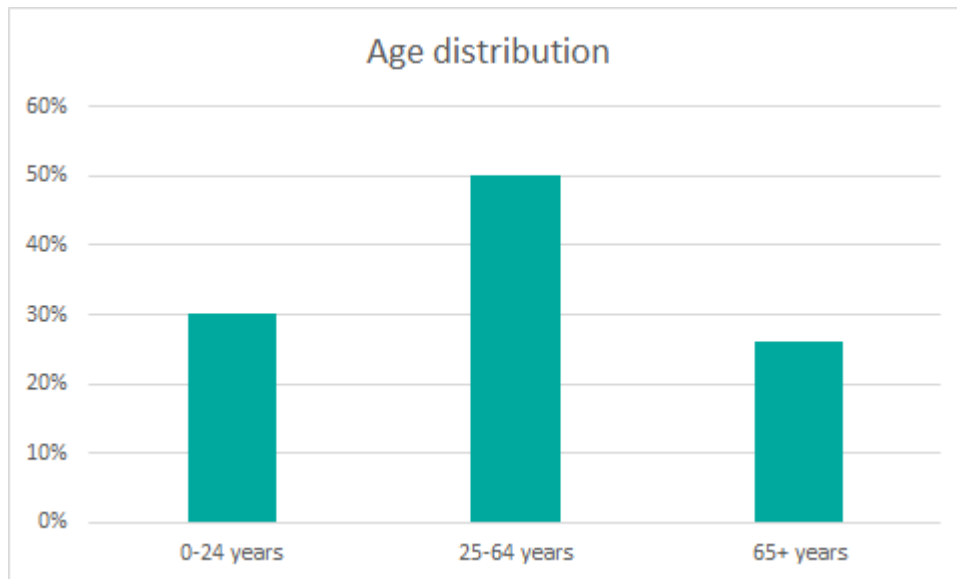


Figure 7.1. Source: URBiNAT (2019) Local Diagnostics Report, Porto.

There is no official data on the ethnicity of the district. The educational level is: Basic education: 50 %, secondary education: 30 %, and higher education: 30-50 %. The unemployment rate in the study area is between 20-50 %. The two largest sectors of employment are the service sector (75%) and industry (30%). 25 % of the households in the study area are one-person households, while single mother families are 22 %. Average monthly household income across the three municipal neighbourhoods in the study area (Cercos do Porto, Falcão, and Lagarteiro) is €701, but covers a relatively large difference between the three neighbourhoods.

The study area is crossed and surrounded by heavy road structures and natural topographic barriers isolating it from the rest of the city. This fact translates not only on a physical barrier but also a psychological one that has deeply influenced local dynamics through the years. These physical barriers create difficulties for the population in accessing the more central places where there is employment, equipment and services essential to urban life.

Campanhã has an active community that enjoys and cares about their environment and is interested in being involved in the promotion of local traditions and values. They are also active when discussing territorial interventions. Extensive participatory activities in the community's life are mainly promoted by formal and informal organisations or public institutions, that create engaging spaces and activities, following the residents' needs. The human and creative potential that is present in the Campanhã area, could lead to new approaches to the participatory processes in urban regeneration. Concerning well-being, in general the citizens use their neighbourhood's public spaces for socializing although some discomfort about their quality and maintenance is general.

7.3.1 Empirical research in Porto

As mentioned above it turned out to not be possible to have the anticipated workshop as well as a survey (questionnaire) in Porto due to COVID and the following lockdowns of the city. Input from Porto to this deliverable stems primarily from desktop research of the potential NBS organisations in Porto. Interviews from Porto have not been available.

The investigation focused on 43 companies and initiatives relevant for a potential healthy corridor project in Porto, some private and some public initiatives, and some for profit while other initiatives are non-profit.

The following NBS start-up in Porto were one-to-one interviewed:

- CidadeMais
- Hortas
- Noocity

For background information, we interviewed a representative of the Porto municipal department in charge of entrepreneurship and start-ups.

An initiative that could potentially be relevant for a future healthy corridor in Porto Campanha, is the AMAP (Associações para a Manutenção da Agricultura de Proximidade), an association of local communities that support local agriculture. AMAP relates to REGENERAR, an initiative that has brought together 7 AMAP's across Portugal. In this network, approximately 25 farmers and 300 consumer-groups, or co-producers, are organized. Around Porto, AMAP is active in four locations.



Figure 7.2: The AMAP-initiative. Screenshot from website, April 2021. Source: <https://amap.movingcause.org/>

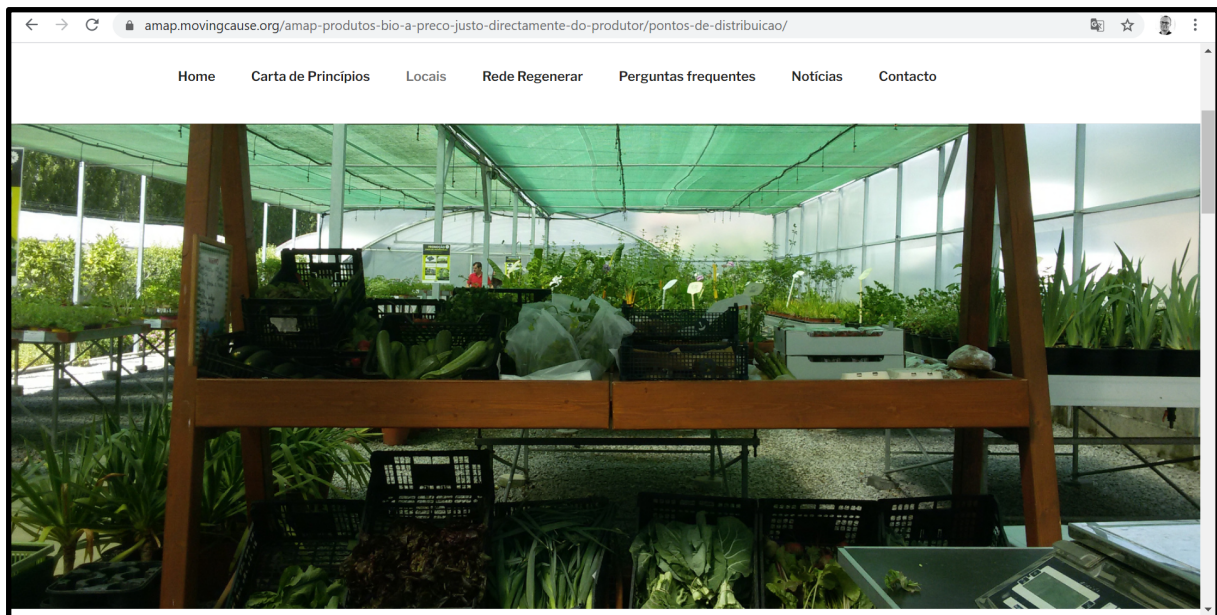


Figure 7.3: The AMAP-initiative. Screenshot from website, April 2021. Source: <https://amap.movingcause.org/>

The company *Noocity* is a private company offering private homes and corporate gardens, including roof-top solutions. It is based in Porto and has expanding activities across Portugal. For a company like Noocity to be involved in a healthy corridor initiative in the Campanha area, there must be a commercial incentive.

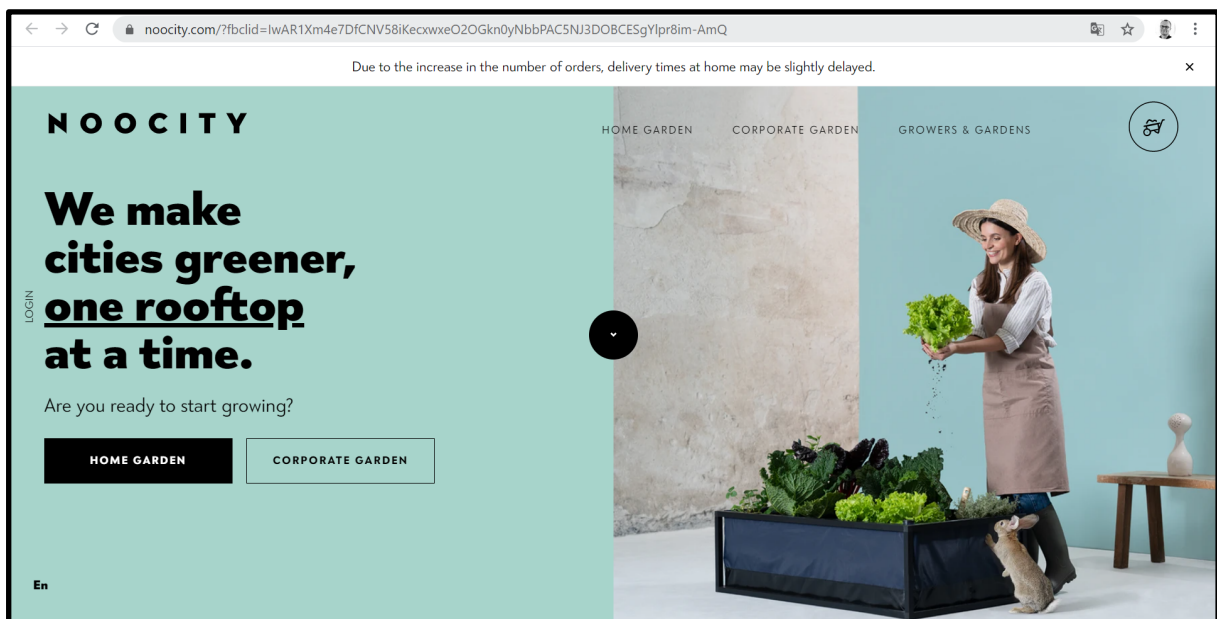


Figure 7.4: Noocity corporate website, April 2021. Source: www.noocity.com

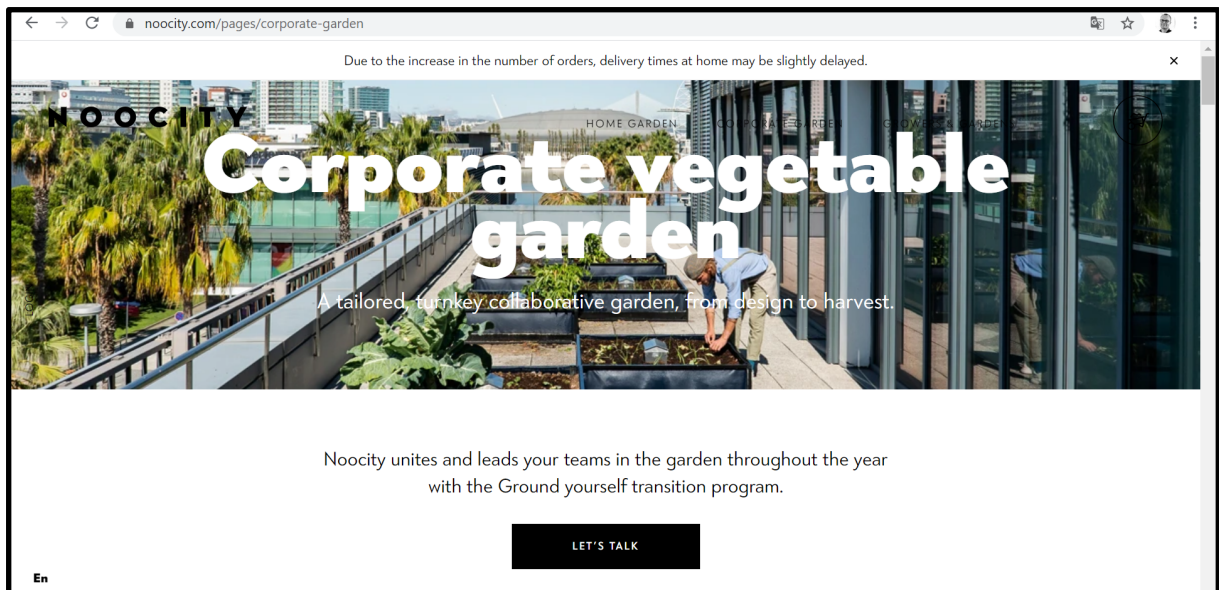


Figure 7.5: Noocity corporate website, April 2021. Source: www.noocity.com

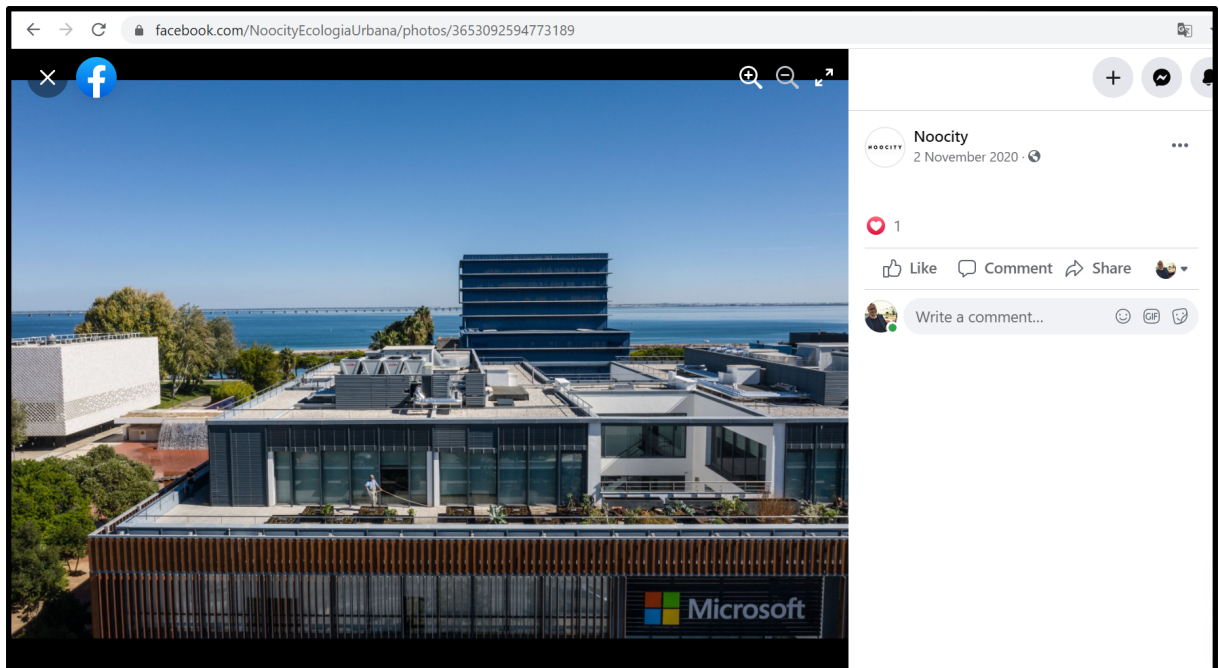


Figure 7.6: Noocity corporate Facebook-site, post April 2021. Source: https://www.facebook.com/NoocityEcologiaUrbana/?ref=page_internal

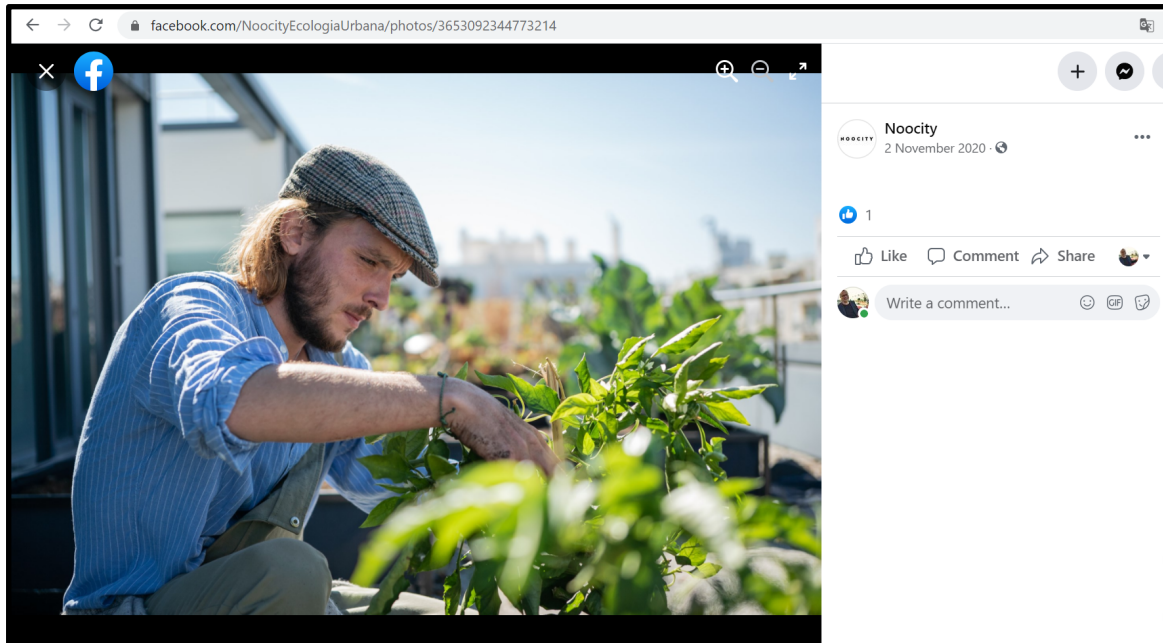


Figure 7.7: Noocity corporate Facebook-site, post April 2021. Source: https://www.facebook.com/NoocityEcologiaUrbana/?ref=page_internal

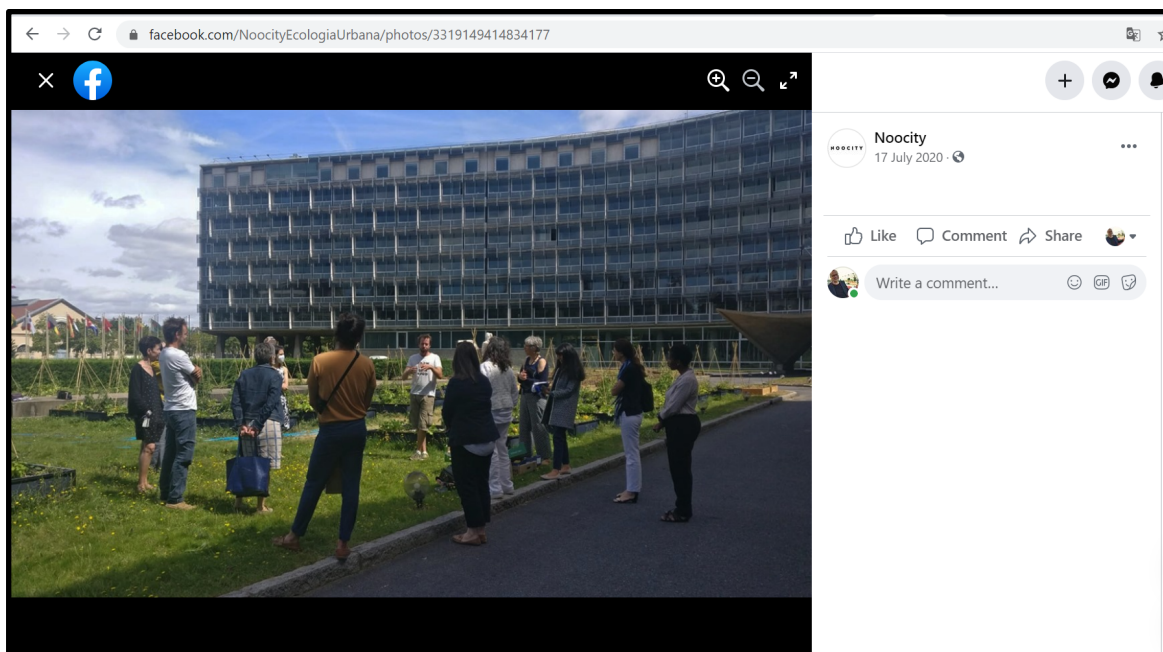


Figure 7.8: Noocity corporate Facebook-site, post April 2021. Source: https://www.facebook.com/NoocityEcologiaUrbana/?ref=page_internal

Below, the Sustainable SWOT Business Canvas has been applied to Noocity.















Sustainable SWOT Business Canvas		Company: NooCity		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p>	 <p>Customer Segments</p> <p>List your target customers and users</p>
<p>1) Cooling of rooftops, buildings and urban spaces. 2) Effective use of public and private spaces, for vegetation, including food-production.</p>	NIA	<p>Noocity Ecologia Urbana is a Portuguese start-up with head office in Porto (Portugal), focused on developing intelligent services and products for domestic Urban Agriculture. We want to enable Urban Farmers to plant more and better produce, anywhere, and in a practical, efficient and ecological manner. We believe Nature plays a crucial role in the cities of the future and in the daily lives of our communities. When integrated into our daily habits in an intelligent and sustainable way, we will be able to share all the goodness it has to offer.</p>	NIA	<p>Primarily private companies and private customers.</p>
 <p>Current Solutions</p> <p>List how problems are solved today</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p>	
<p>Very often roofs are un-used.</p>	NIA		<p>Website, sales department.</p>	<p>Kindergartens, schools, teachers, parents, NGO working in youth & social sector.</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>Mainly eco-benefits.</p>	NIA	NIA	NIA	NIA

Figure 7.9: Sustainable SWOT Business Canvas for Noocity. Source: City Facilitators

Another initiative investigated was the CidadeMais festival, a 4-day festival focusing on showcasing sustainable solutions of various kinds, and being a platform for dialogue, collaboration and co-innovation for private companies, university researchers, civil officials and citizens. The festival is primarily funded by support from public agencies and sponsorships. Below, the Sustainable SWOT Business Canvas has been applied to the CidadeMais initiative.
















Sustainable SWOT Business Canvas		Company: CidadeMais		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p>	 <p>Customer Segments</p> <p>List your target customers and users</p>
<p>A platform was needed in Porto for showcasing and co-working on sustainable solutions.</p>	<p>An open space - a festival - where everyone interested can join, contribute and collaborate.</p>	<p>A festival of 4 days showcasing sustainable solutions of various kinds, where representatives of different sectors can meet - private, public, research, citizens.</p>	<p>NIA</p>	<p>Representatives from private, public, research, citizens, in the Porto area.</p>
 <p>Cost Structure</p> <p>List how problems are solved today</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p>	 <p>Revenue streams and upscaling</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p>
<p>NIA</p>	<p>NIA</p>	<p>Mainly revenue from sponsorships from the local government.</p>		
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>Companies, organisations and individuals who engage in the festivals benefit from increasing awareness and also, potentially, concrete improvements of their products and services.</p>	<p>NIA</p>	<p>The constant building and nurturing of networks to partners and potential partners is crucial.</p>	<p>An organisation like the Porto Innovation Hub could perhaps do more to support community development.</p>	<p>NIA</p>

Figure 7.10: Sustainable SWOT Business Canvas of CidadeMais. Source: City Facilitators

A relevant public initiative, partly supported by the EU, is the FUN Porto initiative focusing on urban forests in Porto. The purpose is to increase trees in Porto to enhance sustainability, biodiversity, resiliency, an urban healthy environment, and strengthen the green infrastructure and cohesion. Residents can apply for trees by application. According to the project website, so far more than 1300 applications have been received and approximately 6000 trees have been given to approximately 1000 families. In the 2021 round, another 2900 native trees are being made available for residents.



Figure 7.11: Screenshot from FUN Porto website, April 2021. Source: <https://www.porto.pt/en/news/porto-municipal-plant-nursery-cultivating-portos-urban-forest>

Among the companies, initiatives and organisations investigated, there was a large share of public initiatives, including some that have already set focus on NBS solutions, like Parque Oriental da Cidade do Porto and the Foz do Douro Urban Park, however not with the same intentions of revitalising a deprived area like Campanha.

Name Characteristics	CidadeMais	Horta (Green Structure Department)	Noocity
Brief Description	Conducts festivals for addressing and discussing upon sustainability issues	Constructing and educating about vegetable gardens, organic farming and composting bins	Developing intelligent services and products for domestic urban agriculture
Age	8 Years	18 years	7 Years
Team Size	15-16 Employees and 30-40 Volunteers	1 employee and connections with different departments	8-9 employees in Porto and 3 employees in France
Participatory, priority and target groups	City population concerned with infusing sustainability with initial restrictions on political officials	City inhabitants	Urban citizens, private firms, restaurants, hotels and urban farmers
Organization type	Social Enterprise	Territorial	For-Profit
Social/Environmental issues addressed	Open dialogue and collaboration on sustainable development	Efficient waste disposal, biodiversity promotion, soil waterproofing, carbon capturing	Community integration, water conservation, circular economy development, urban microclimate improvement and reduction in the use of plastic
Objectives and Mission	Creating a platform that would bring together various actors who think about sustainability and social change	Increasing cultivation areas by 30% from 144 plots to 200 plots; Optimizing vegetable garden locations; Expansion of vegetable gardens according to green spaces;	Create solutions for developing sustainable cities and connecting people to nature, and provide urban farmers the ability to generate profits and support the local economy
Actions created	Initiating point for strengthening networks; Showrooms with exhibitions, business centre and workshops; a range of sustainability festivals	Six municipal vegetable gardens; wooden shelters; Individual composting bins to reduce conflict; Limiting use of herbicides and pesticides through training	Self-Watering private vegetable gardens using capillary irrigation; Social and Therapeutic Horticulture; Liga-te a Terra to focus on building connections with nature, society and individual
Impacts	Regarded as Municipality's laboratory; Construction of Vegetable gardens; Barring Glyphosphate in green spaces; FUN (Florestas Urbans Nativas) Project focused on native urban forests	Compost bins save 165 tons of waste on average (LIPOR Study); 300 Euros are saved by an individual by using the vegetable garden (LIPOR and an English University study)	80% of water volume is reduced that would be needed to produce the same amount of food in a conventional system; 20-30 Kilos of horticultural products per square meter; For every ton of produced food there are 2 kilos of CO ₂ saving; Reducing the residues used for packaging food items to nearly zero; Reduction of 5-6 degrees of roof temperature leading to better urban microclimate
Resources needed	Persons linked to politicians and businessmen; accounting support; volunteer management; Local spaces	Inspections and land evaluations, training on organic farming, an initial capital of 1500 euros per plot	Urban farmers, local and corporate connections, trainers and installers for providing customer services
Financing	Sponsorship; Private companies with government contracts; Porto City Council; Revenue from events, business centre and food court	Public Purse; Corporate donations	Revenue generated from selling vegetable gardens to private customers, restaurants and hotels. Various municipalities and LIPOR may also fund if the approved project is within their scope
Present collaborations and future opportunities	Ellen Macarthur Foundation (since 2016); Letter of Famalicao (signed by several associations working on same themes)	LIPOR (Association encompassing several municipalities of Porto) and The Chamber	Microsoft, Nitixis and UNESCO Headquarters in Paris. LIPOR helps in contributing to annual budgets

Figure 7.12: Outline of NBS organizations in Porto. Source: Interviews by City Facilitators

7.3.2 Survey

The questionnaire was made accessible on an online platform (Typeform) that residents could access through a simple online link. The questionnaire included approximately 30 questions that were all presented in Portuguese (see example below). The link was distributed through the URBiNAT network.

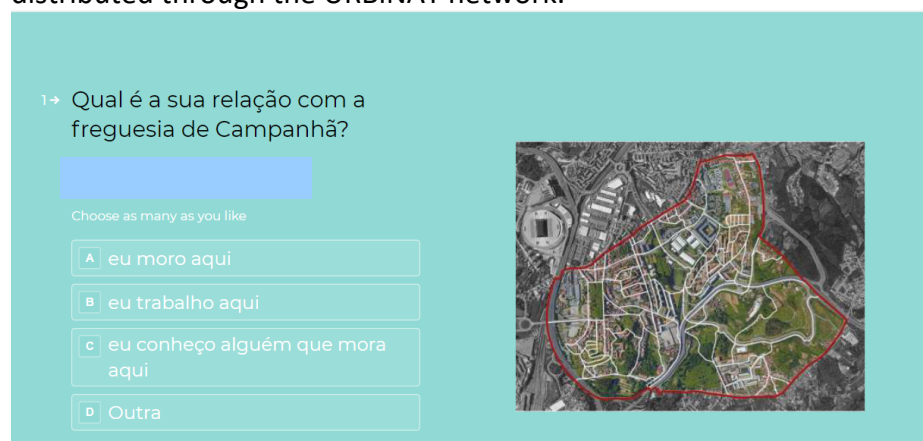


Figure 7.13: Example of a survey question conducted in Porto. Source: City Facilitators

The survey had a total of 30 responses with a completion rate of 59.3%. The questions were designed to study the reception of nature-based solutions and to help present concrete suggestions to increase awareness among citizens regarding sustainable urban planning.

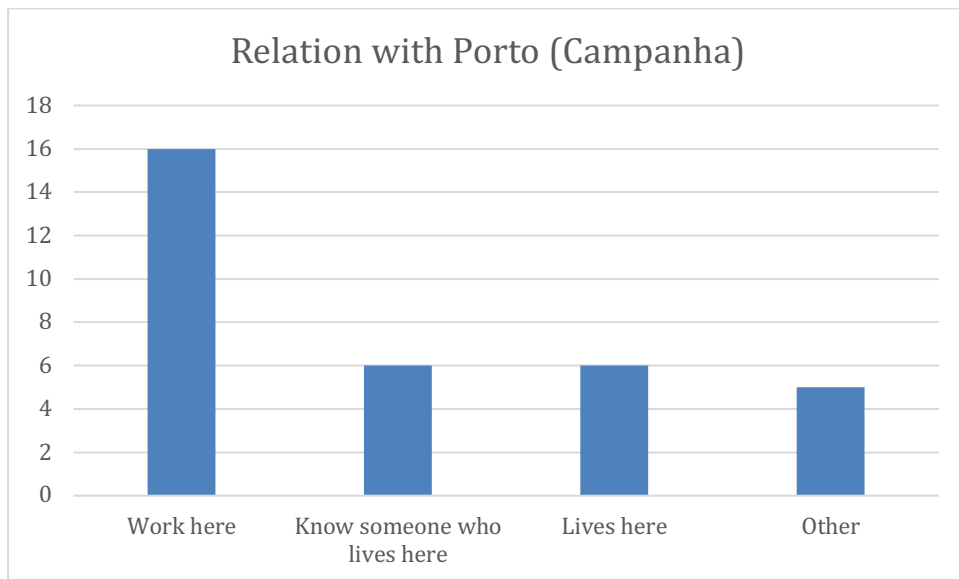


Figure 7.14: Relation of respondents with Campanha district, Porto. Source: City Facilitators Typeform Survey

Out of the respondents, nearly 50% work in the Campanha area while 36% reside or know someone who resides in this area.

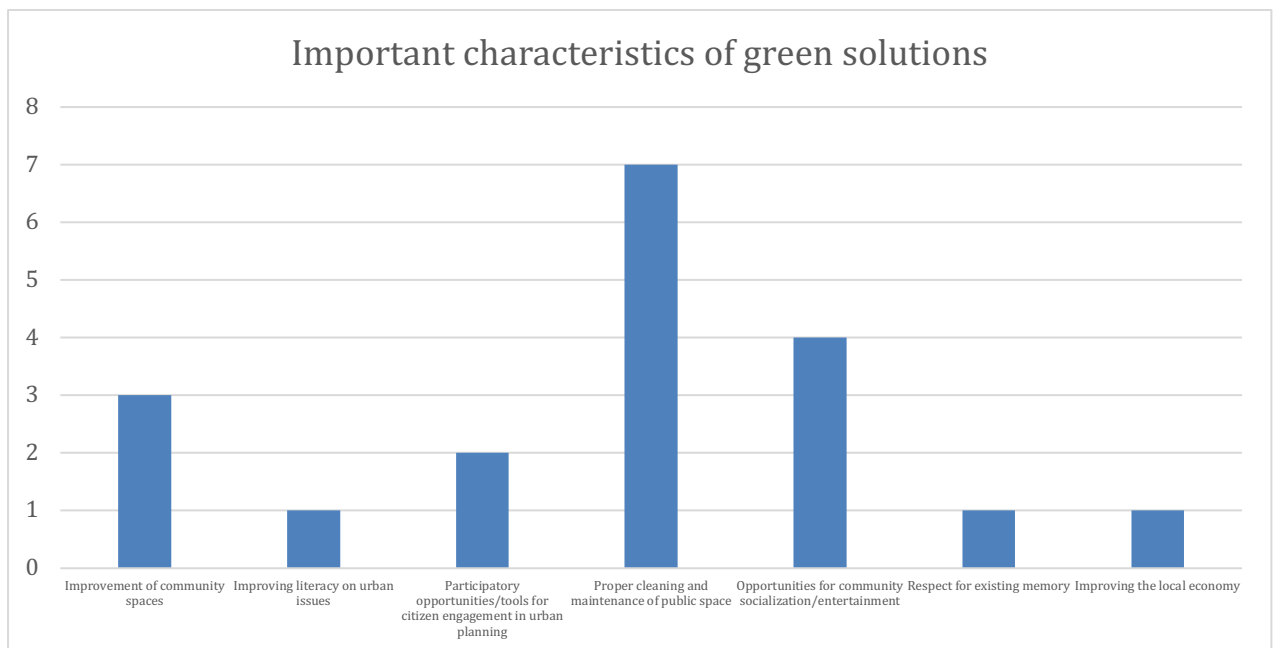


Figure 7.15: Important features of green solutions. Source: City Facilitators Typeform Survey

The first set of questions concerned green solutions and spaces. More than 35% of the respondents attributed proper cleaning and maintenance to be vital, while more than 20% of the respondents looked at green solutions as opportunities for community integration and entertainment. The other choices were improvement of community spaces (15%),

Participatory opportunities for citizens in urban planning (10%), improving literacy of urban issues, respect for existing memory and improving the local economy chosen by 5% of the respondents.

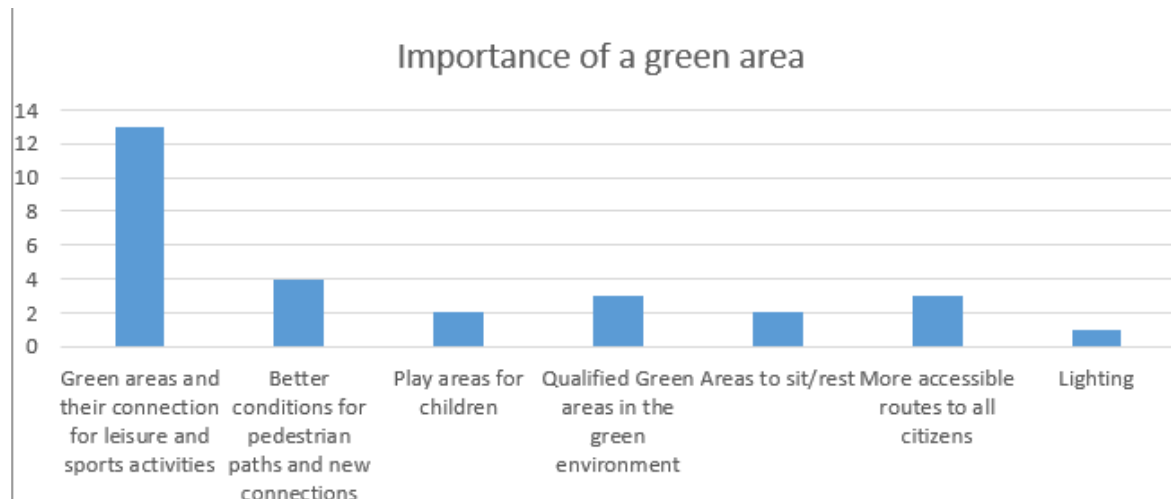


Figure 7.16: Importance of green areas. Source: City Facilitators Typeform survey

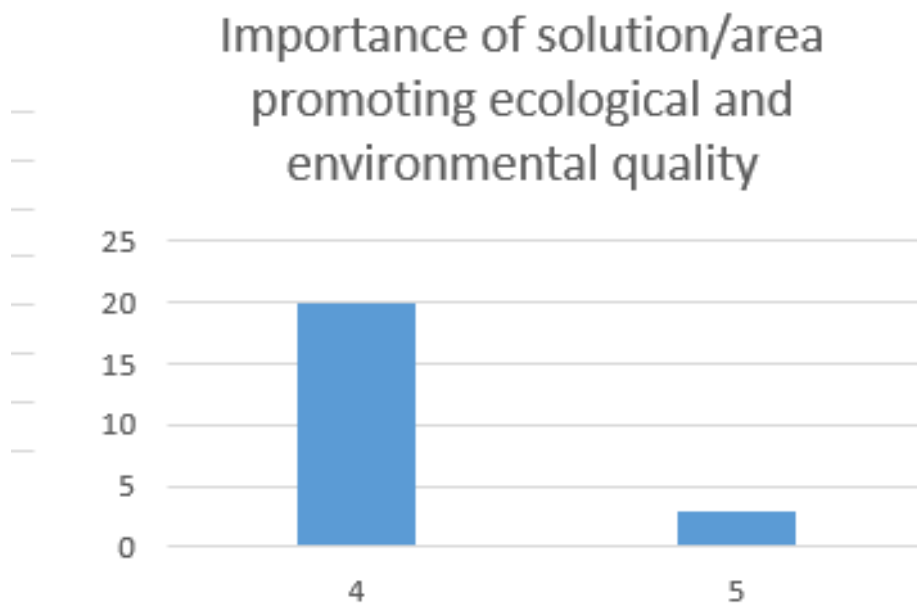


Figure 7.17: Importance of green solutions in promoting ecological and environmental quality. Source: City Facilitators Typeform survey

Wide variety of exercise equipment

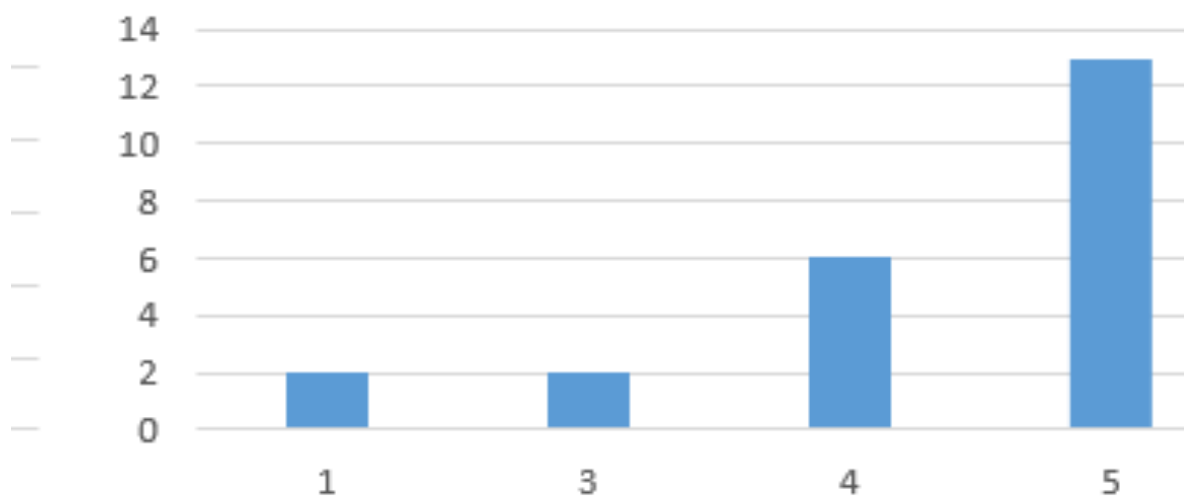


Figure 7.18: Importance of wide variety of exercise equipment. Source: City Facilitators Typeform survey

Importance of public access to green park to be multifunctional and inclusive

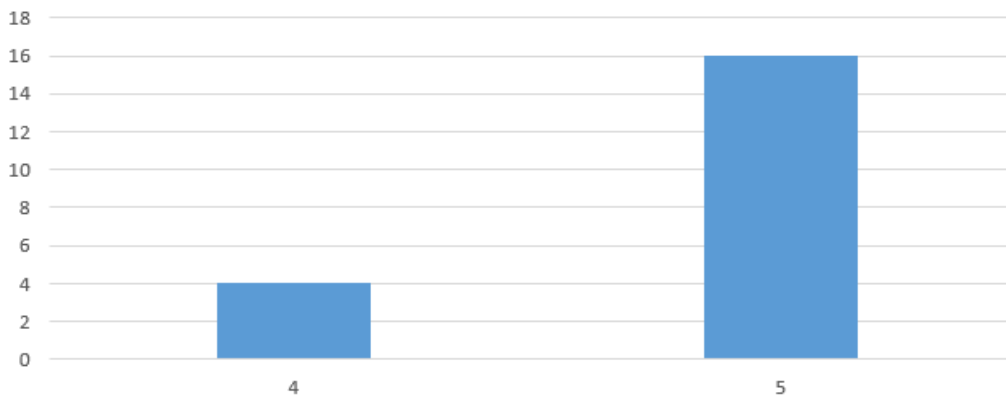


Figure 7.19: Importance of multifunctional and inclusive public access to green parks. Source: City Facilitators Typeform survey

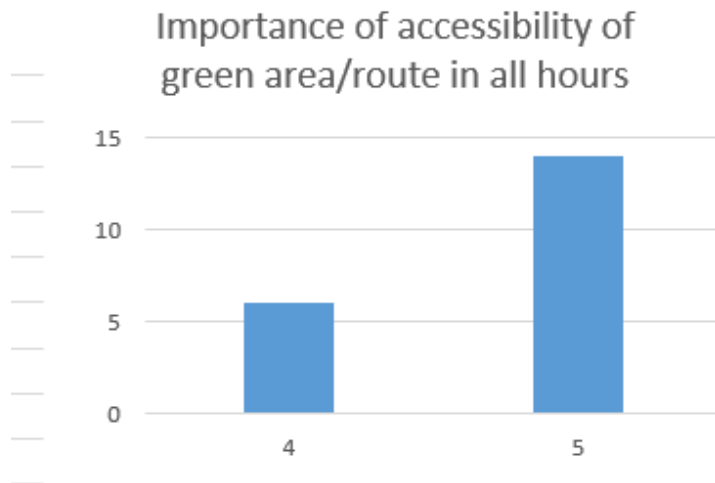


Figure 7.20: Importance of all time accessibility of green areas. Source: City Facilitators Typeform survey

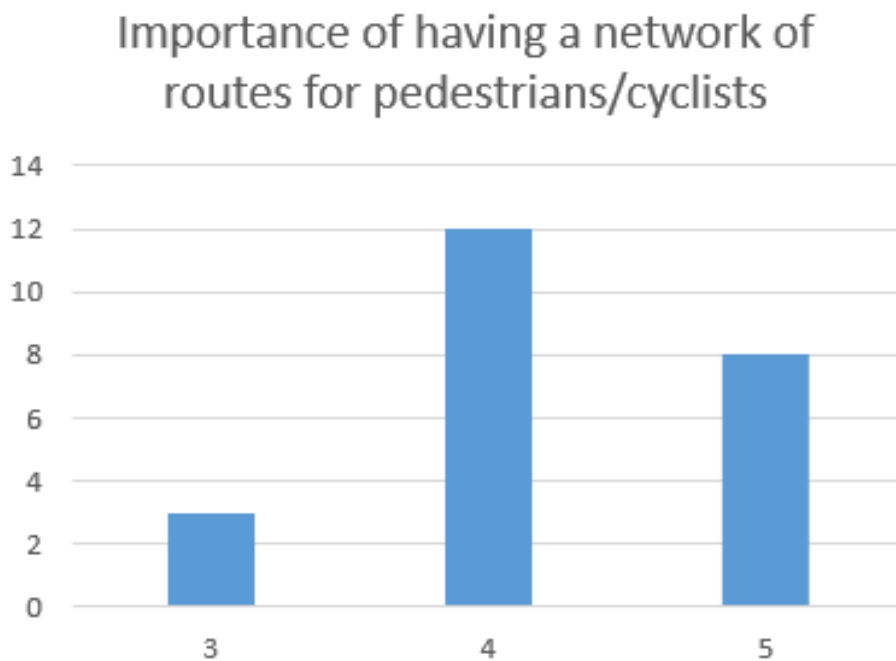


Figure 7.21: Importance of network of routes for pedestrians and cyclists. Source: City Facilitators Typeform Survey

Approximately 50% of the respondents cited the importance of green area to be an area for leisure and sports activities followed by 14% of the respondents mentioning that green areas ensure better conditions for pedestrian paths and the development of new connections. 87% of the respondents allocated a score of 4 on a scale of 1 to 5 on the importance of the green area to promote ecological and environmental quality. Nearly 70% of the respondents attach a weight of 4 or above for the importance of a wide variety of exercise equipment to be available in the green area. 80% of the respondents allocated a score of 5 on a scale of 1 to 5 regarding the significance of public access of parks to be multifunctional and inclusive. 70% of the respondents voted for a score of 5 on a scale of 1

to 5 when asked if the green area or route should be accessible at all times. 87% of the respondents voted for a score of 4 and above on a scale of 1 to 5 when asked about the importance of having a network of routes for pedestrians and cyclists.

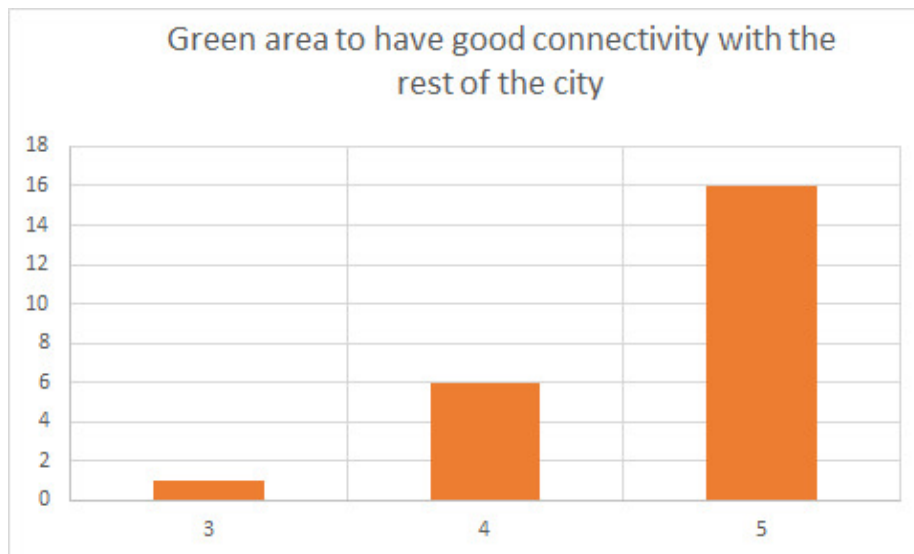


Figure 7.22: Responses on connectivity of green areas with the city. Source: City Facilitators Typeform Survey

Around 70% of the respondents attributed a score of 5 on a scale of 1 to 5 when asked about the degree of connectivity of green areas with the rest of the city.

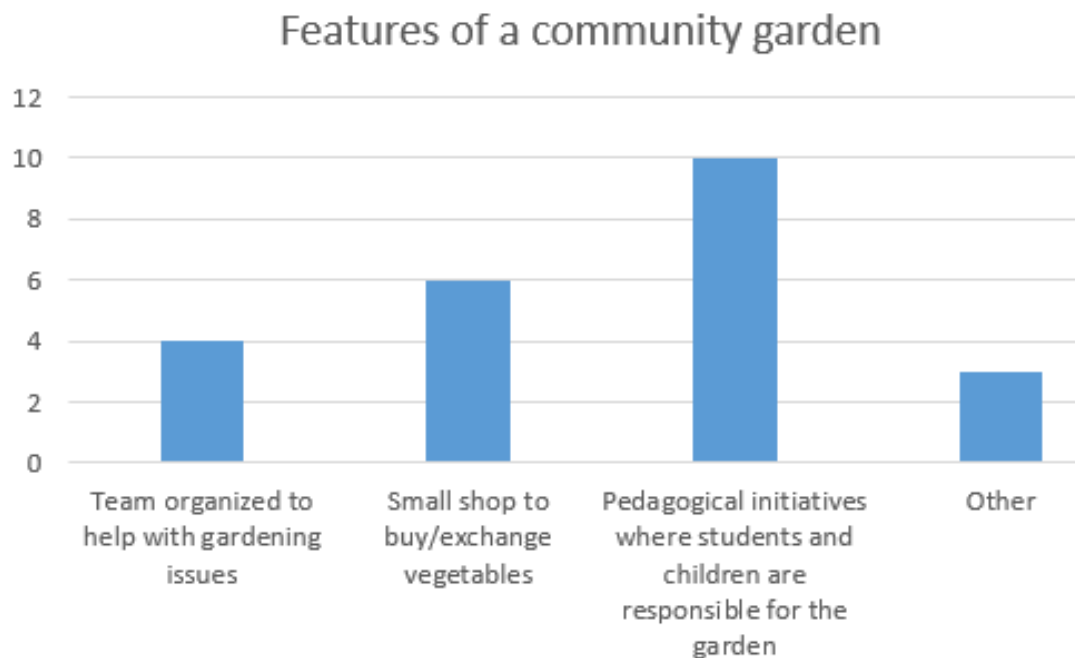


Figure 7.23: Features of community gardens. Source: City Facilitators Typeform Survey

Importance of community gardens

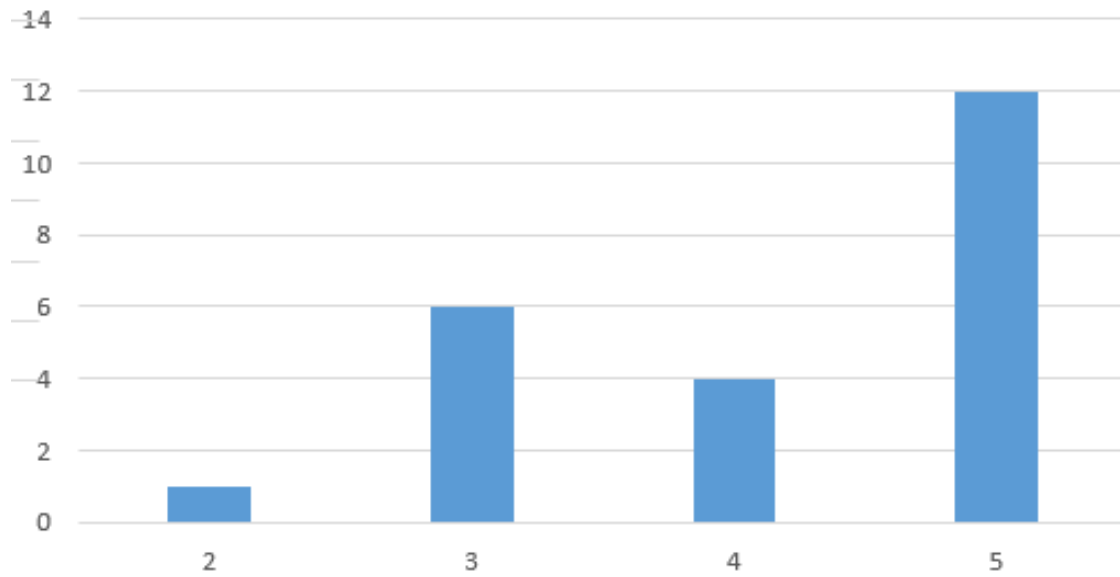


Figure 7.24: Importance of community gardens. Source: City Facilitators Typeform Survey

Maintaining a community garden

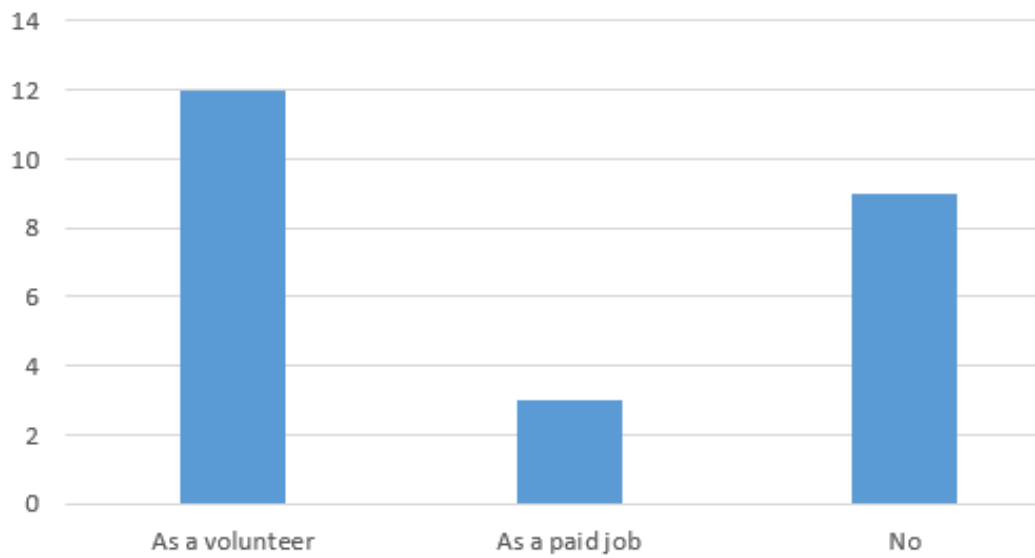


Figure 7.25: Interest of respondents in maintaining a community garden. Source: City Facilitators Typeform Survey

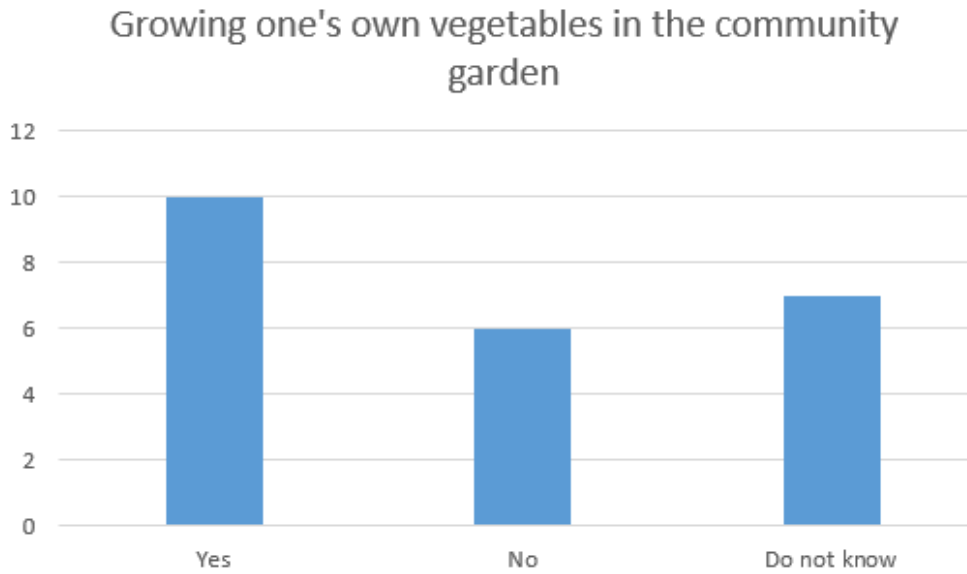


Figure 7.26: Interest of respondents in growing one’s own vegetables in the community garden. Source: City Facilitators Typeform Survey

The next set of questions were about community gardens. More than 50% of the respondents voted for 5 on a scale of 1 to 5 when asked about the importance of community gardens. 43.4% of the respondents mentioned that pedagogical initiatives for instilling a sense of responsibility in students and children regarding the garden is an important feature, followed by the presence of a small shop to purchase vegetables (~25%). 50% of the respondents agreed to act as a volunteer to maintain the community garden, while 13% of the respondents agreed to take up the maintenance as a paid job. 43.4% of the respondents were positive about growing one’s vegetables in the community garden.

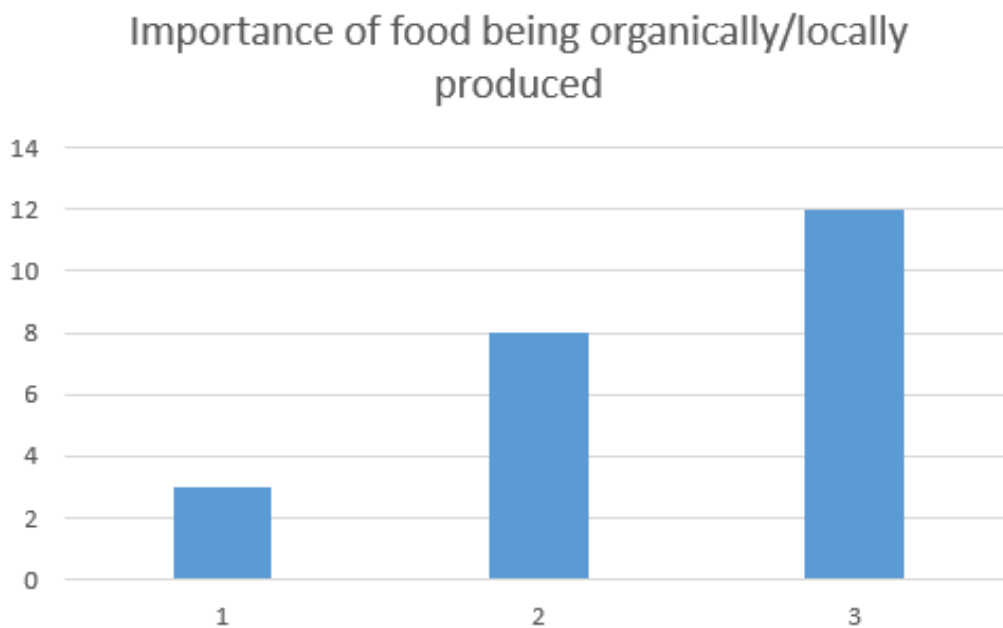


Figure 7.27: Importance of organic and local production of food. Source: City Facilitators Typeform Survey

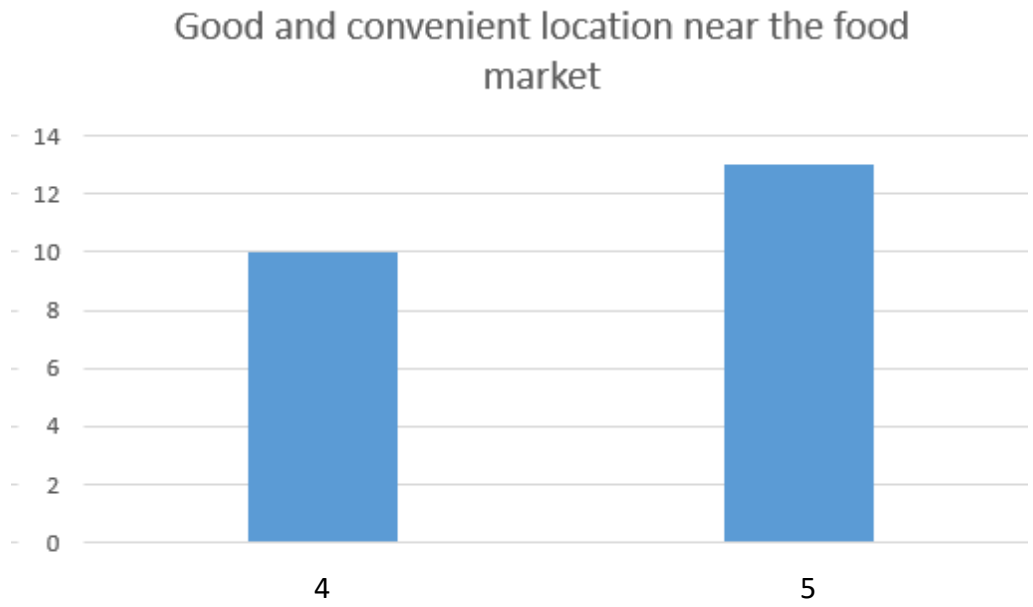


Figure 7.28: Importance of location of the food market. Source: City Facilitators Typeform Survey

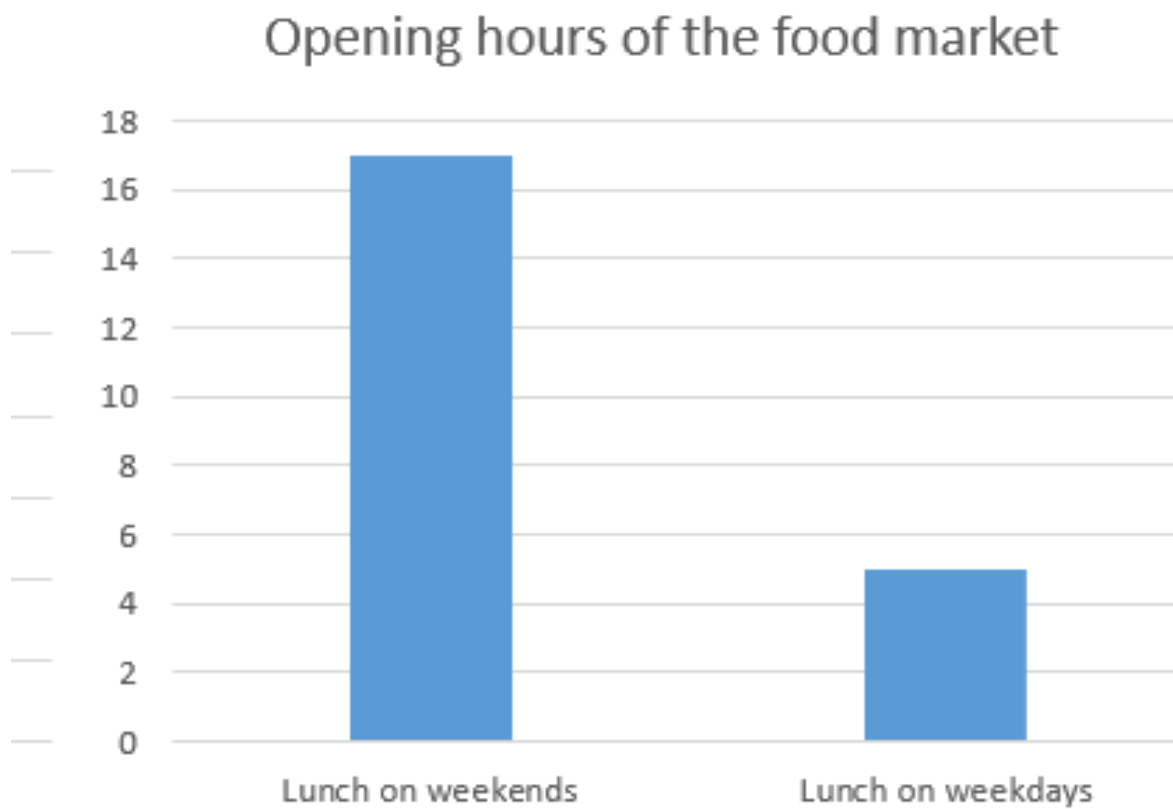


Figure 7.29: Preferred opening hours of the food market. Source: City Facilitators Typeform Survey

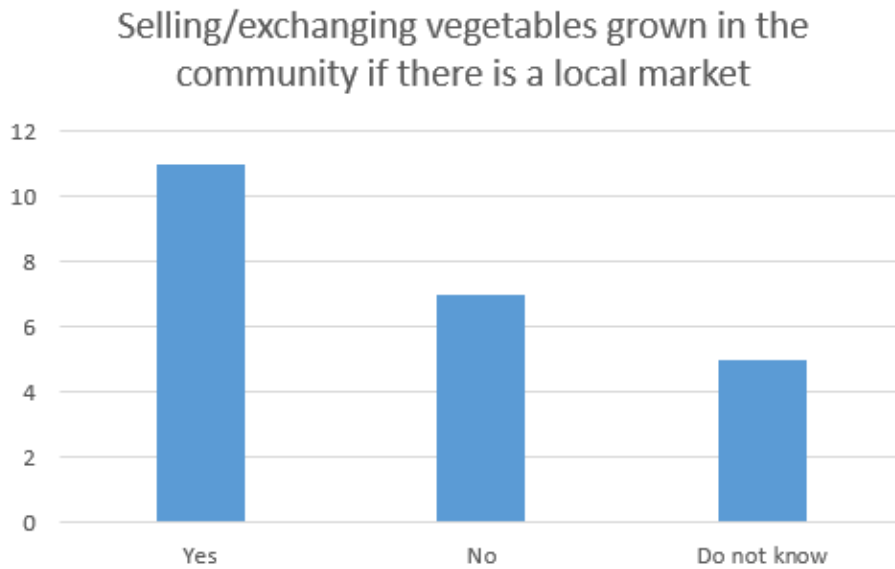


Figure 7.30: Interest of respondents in selling vegetables in the local market grown in the community. Source: City Facilitators Typeform Survey

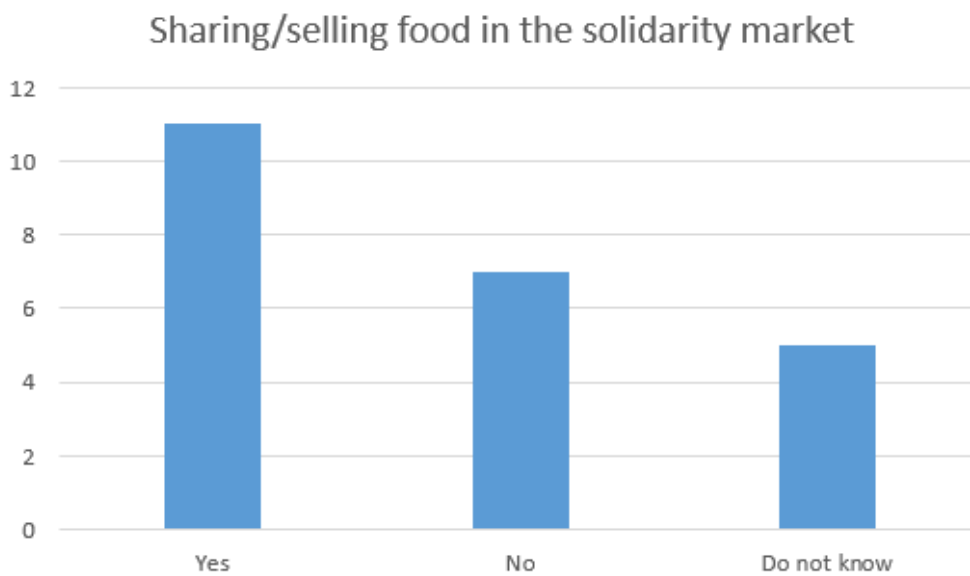


Figure 7.31: Interest of respondents in selling food in the solidarity market. Source: City Facilitators Typeform Survey

Approximately 85% of the respondents attached an importance of 4 and above on a scale of 1 to 5, while all respondents had voted for 4 and above regarding a convenient location of the market. 77.2% of the respondents preferred the opening hours of the market to be lunch on weekends. For both solidarity market and food market, 47.8% of the respondents agreed to be a part of the market as sellers.

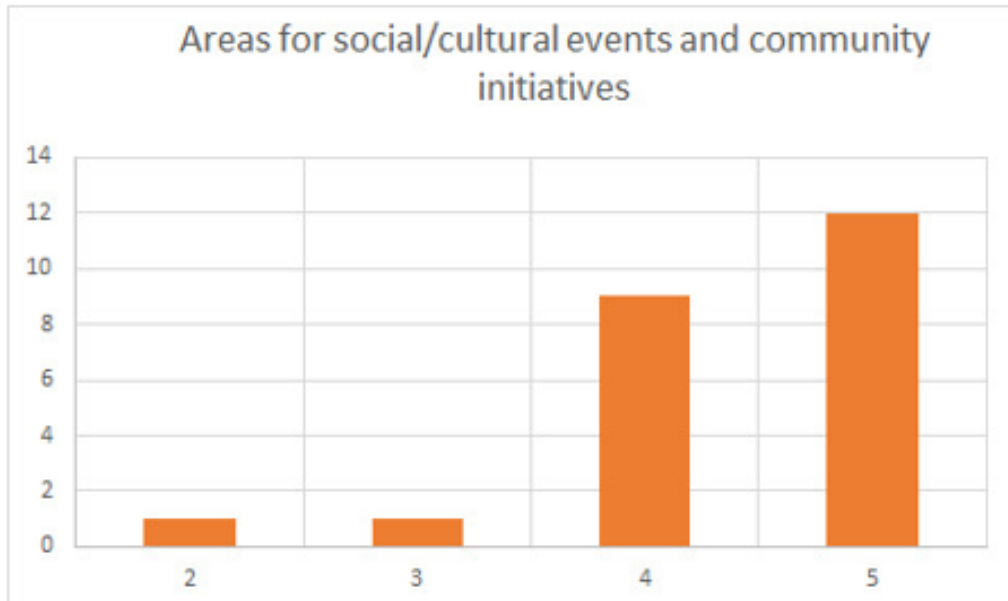


Figure 7.32: Importance of areas for social, cultural and community initiatives. Source: City Facilitators Typeform Survey

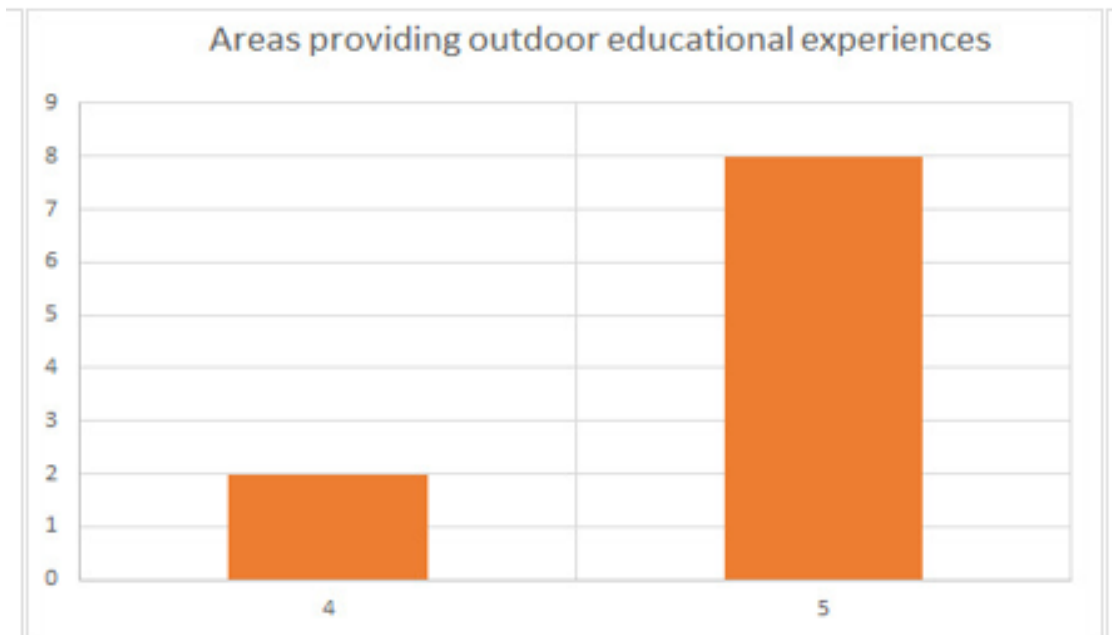


Figure 7.33: Importance of areas providing outdoor educational experiences. Source: City Facilitators Typeform Survey

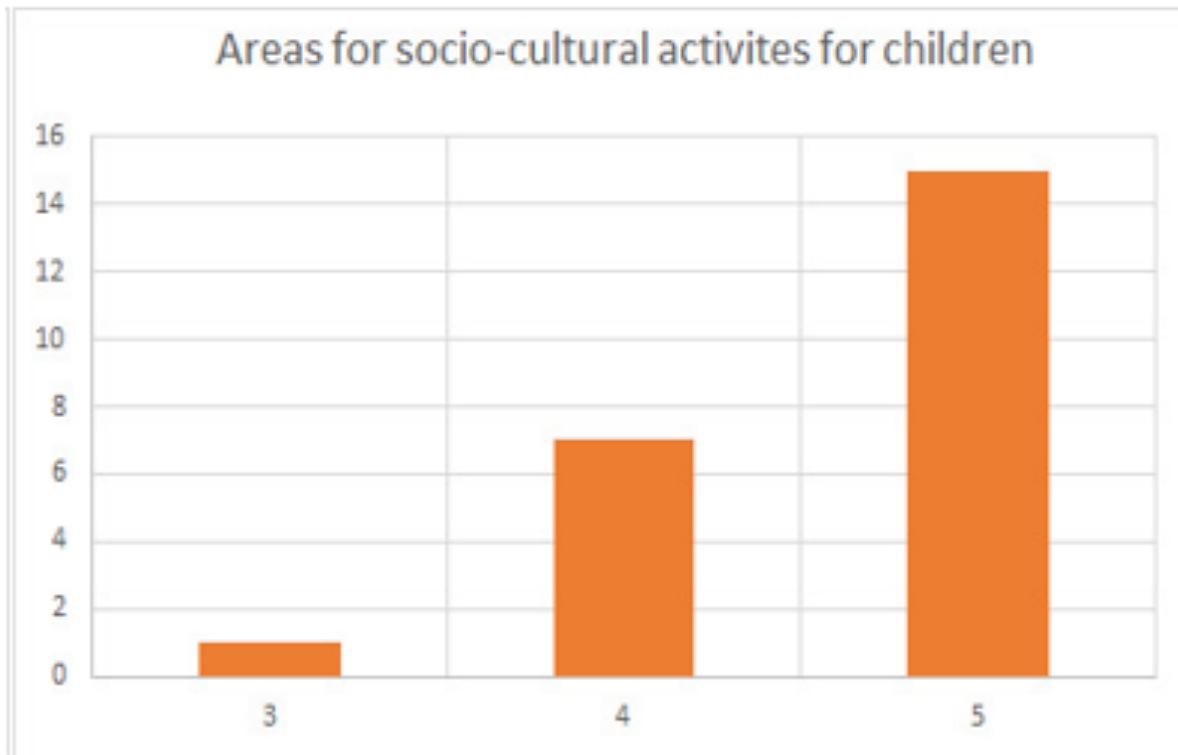


Figure 7.34: Importance of areas for socio-cultural activities for children. Source: City Facilitators Typeform Survey

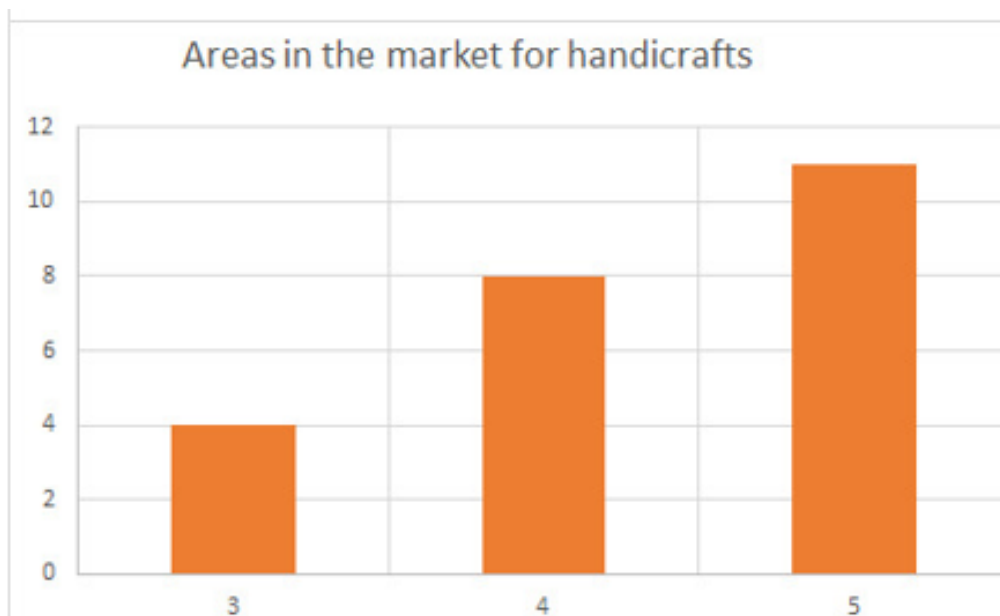


Figure 7.35: Importance of market areas for handicrafts. Source: City Facilitators Typeform Survey

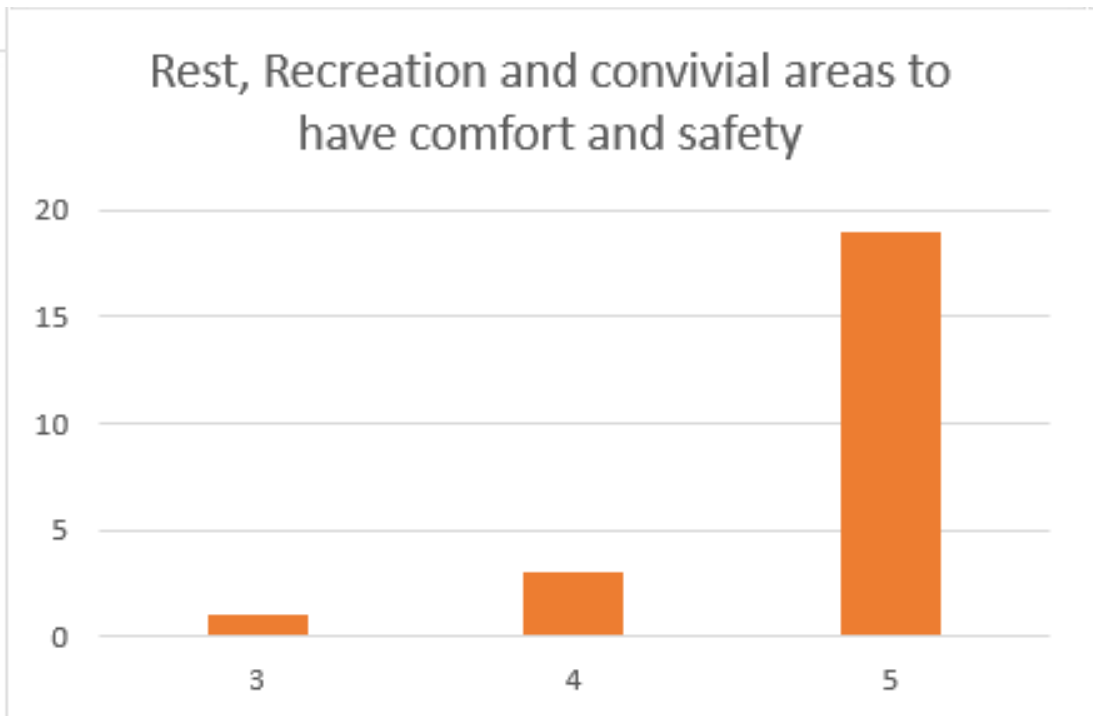


Figure 7.36: Importance of comfort and safety in rest and recreation areas. Source: City Facilitators Typeform Survey

The next set of questions was based on scoring the importance of different types of areas to be present for various groups on a scale of 1 to 5. 52.1% respondents attached a score of 5 for areas for social, cultural and community events. 80% of the respondents voted for 5 regarding areas for outdoor educational experiences. For areas of socio-cultural activities for children, 65.2% voted 5. For an area designated to handicrafts, 82.6% respondents came up with a score of 4 and above. For areas of rest and recreation, again 82.6% respondents voted for 5.

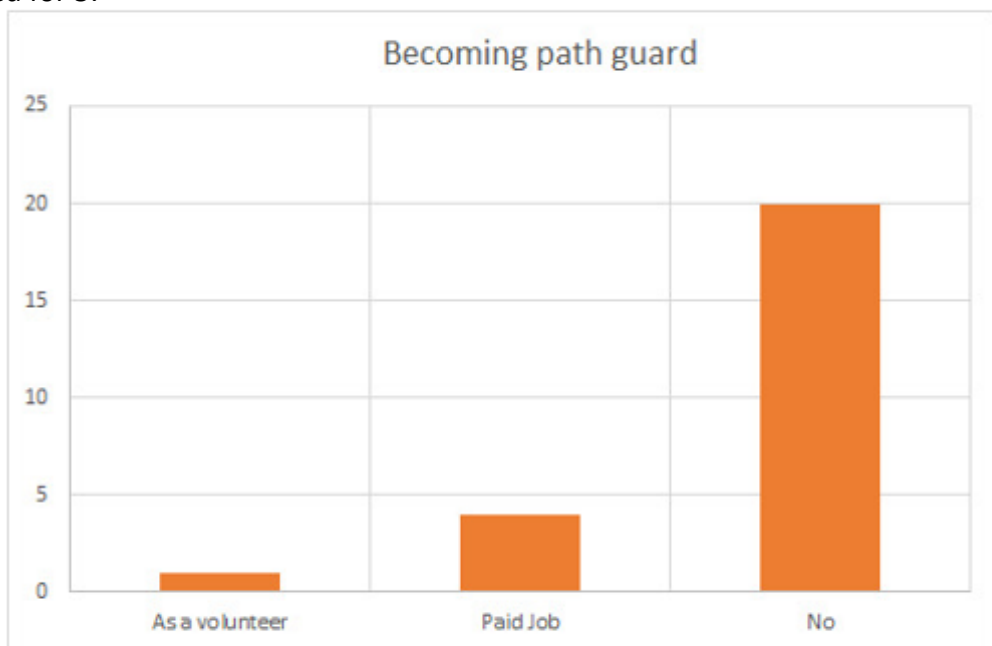


Figure 7.37: Interest in becoming a path guard for a green route. Source: City Facilitators Typeform Survey

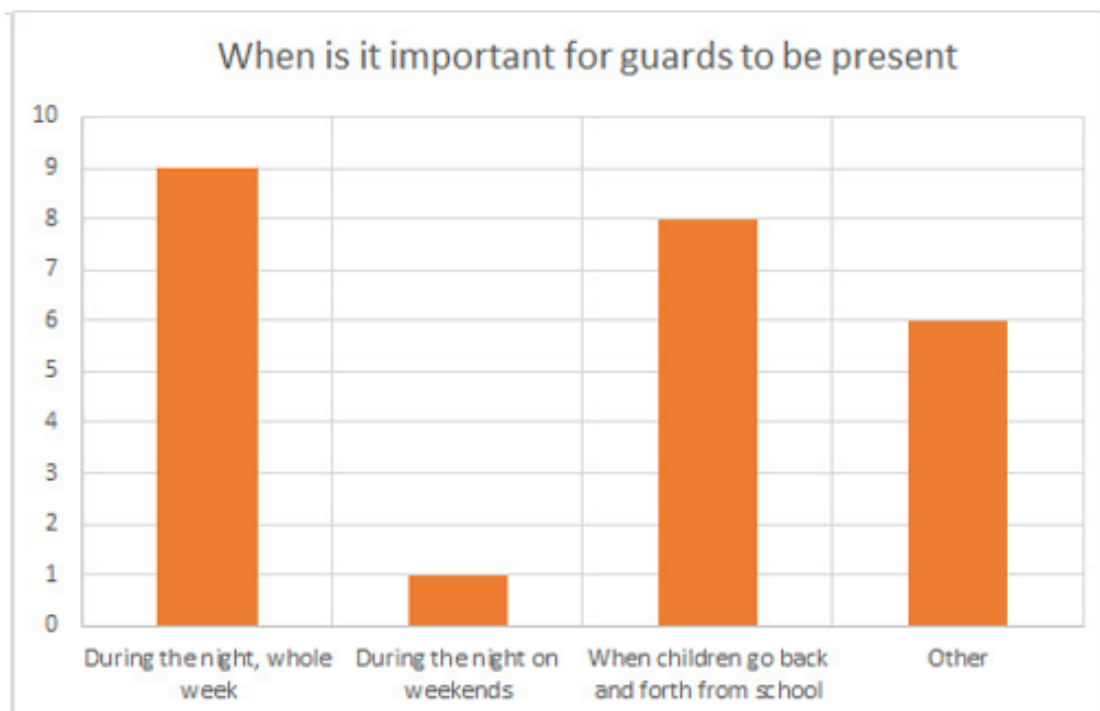


Figure 7.38: Timing of guards to be present on the green route. Source: City Facilitators Typeform Survey

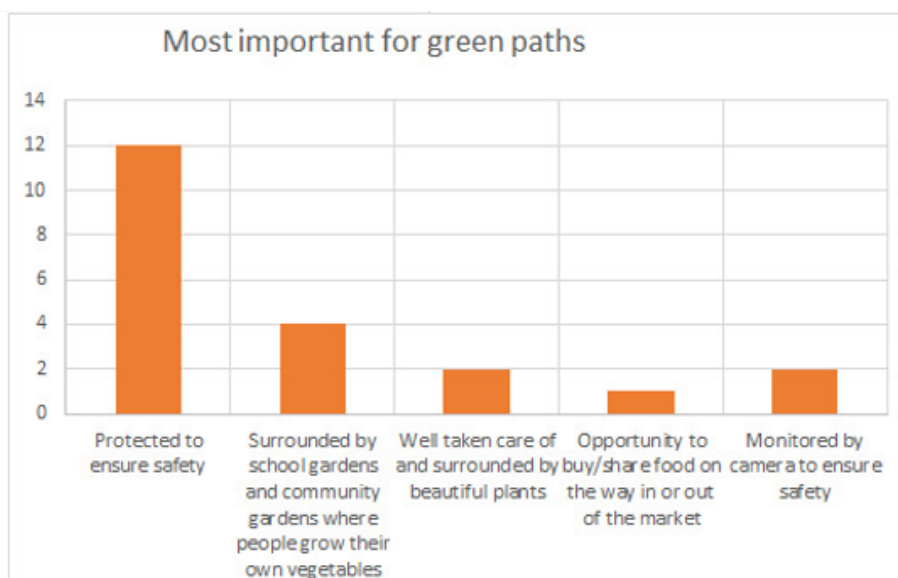


Figure 7.39: Important features of green paths. Source: City Facilitators Typeform Survey

The next set of questions was based on green routes and paths. Around 57.14% of the respondents were concerned about the safety of green paths, but only 9.5% of the respondents suggested the use of camera for monitoring, which led us to asking further questions about posting a path guard. 70.8% of the total respondents were in favour of posting guards during the night on all days and during the time when children traverse between their residence and school. But, when asked about the interest in being a path guard, 80% displayed their unwillingness.

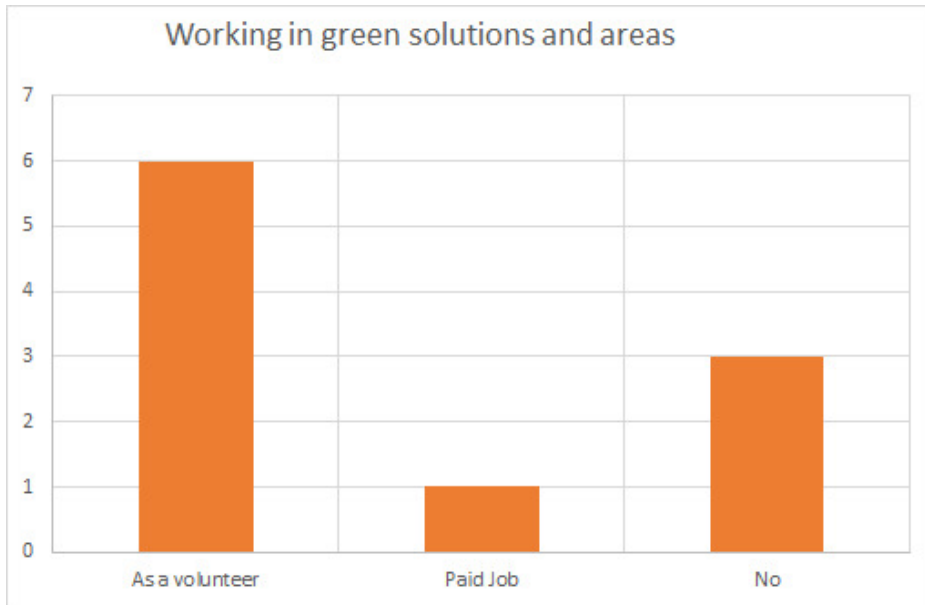


Figure 7.40: Responses on working on green solutions or in green areas. Source: City Facilitators Typeform Survey

There was a question on working on green solutions, and 60% of the respondents agreed to volunteer for the same.

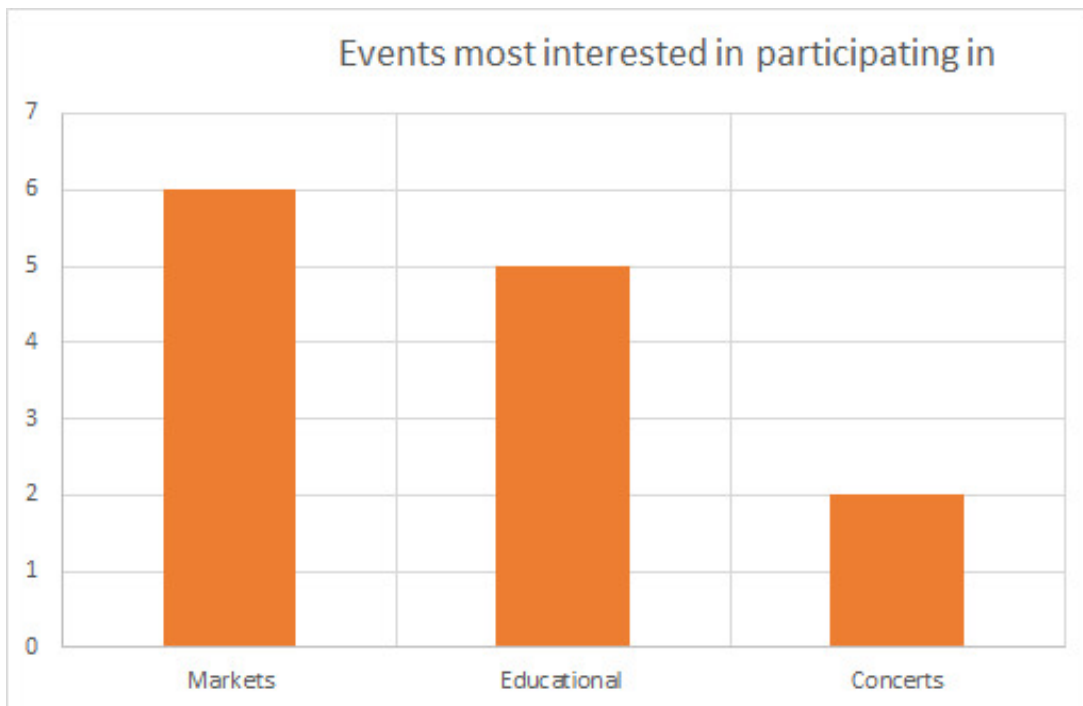


Figure 7.41: Responses on conducting events. Source: City Facilitators Typeform Survey

Around 45% of the respondents were interested in participating in markets, while 38% were interested in educational activities.

7.4 Case Study: LIPOS and Community Gardens

General description

The interview was held with a senior technician and manager for the vegetable garden. The interviewee sits in the local department responsible for green space in Porto city, namely gardening, vegetable gardens and green areas. This department is responsible for 6 vegetable gardens in the city.

According to the interviewee, vegetable gardens have a long historical tradition in Porto. The first case goes back to 2003 “Horta de Aldoar”, which was started through participatory budgeting. There are in the Aldoar vegetable garden zone several social problems, at the same time a strong engagement and commitment of local citizens, who decide to transform deprived rural area to sustainable gardens for the community. For instance, there are Aldoar community members that have been cultivating the gardens daily for almost 20 years. In comparison, Campanhã parish (HC intervention area) is also a neglected district of Porto that, at the same time, allows building many resembling engagements with local citizens. Currently, there are 200 plots of vegetable gardens in the city that promote a mixing of people, cultures, ages and spaces that make people feel good and motivated for mutual learning. In this garden space, the encounter between ancient Portuguese knowledge of gardening and modern knowledge of science happens.

Opportunities

The department has entered partnership with an association called LIPOR, which is responsible of waste management. Under the project “Horta à Porta”, they manage more than two thousand individual member plots in all the municipal vegetable gardens and provide training in organic farming for citizens. There are thousands of citizens on the waiting list for a “Horta à Porta” plot of land and community membership. Membership occurs through the annual concession for the residents to cultivate in a vegetable garden. LIPOR monitors individual compost bins and checks if members are composting organic waste. Each compost bin saves 400 kilos on average – a number according to a LIPOR’s study – from being dumped on waste landfills. At this moment, Porto does the selective collection of the organic waste in restaurants and large chains, but with regards to the individual organic waste, new projects for community organic composting are being invented. According to LIPOR, each plot represents economic savings of €300 euros per person and per year.

Situated in the HC intervention area in Porto, the huge vegetable garden “Olive Tree Vegetable Garden” [Horta da Oliveira] with 80 plots has become such a success that the department is increasing the land available to offer more plots. The department has realised that it should prioritise large community gardens, as the costs to build one garden of thirty plots is almost the same as building one of fifty.

The location of the Healthy Corridor in Porto is in front of the vegetable garden “Horta da Oliveira”, which allows connecting in a few minutes all three neighbourhoods that are part of the Campanhã parish. To enable this, the municipality has created walking and biking paths along green pathways that will foster the connectivity between the three areas. There are also some start up and citizen proposals to work on community agriculture and community kitchens around Campanhã. One such proposal counts managing several plots of

land to promote collective organic food production for people in vulnerable or disadvantaged conditions. Another proposal builds on the positive contribution of vegetable gardens to human mental and physical health.

The vegetable gardens generate effects on economic, environmental, and social issues based on the commitment with the sustainability goals. This occurs through the savings achieved through the human connection with nature and rapprochement to the land, the provision of healthier and organic food harvests, the local treatment of bio-waste through the composting, the incentives for sharing actions and community sense that promotes biodiversity, physical and psychological well-being. One innovative example in Porto is “Noocity”, which makes self-watering [garden] beds. An example of an innovative government program coined Healthy Neighbourhoods” [Bairros Saudáveis] has set up a network of solidarity economy restaurants and hostels in Porto.

Obstacles

Sometimes, people are tempted to use some herbicide and pesticide, which in the context of community gardens is an obstacle. Also, the management of relationships between all the different public, private and civic participants is complicated and not always aligned. One example of an obstacle arising between participants was the transition from community composting to individual composting, which meant that community members had to do the composting themselves and along the guidelines announced by LIPOS.

It is also discouraging that so many people are on the waiting list to a plot of community garden. And it bids the question if the right of individuals is granted a plot. This has been addressed by the adoption of selection criteria for community members, such as the waiting time and residence in the parish, where the vegetable garden is. At a granular level, there is a challenge with school vegetable gardens during the summertime, when the schools are closed. One solution on the table was to implement the gardens in the environmental education centre, the gardeners take care of them, and the schools go there when it is possible.

Enablers

The atmosphere of the community gardens fosters mutual learning, community spirit by knowing who is living in the parish and strengthens the solidarity ties among participants within the gardens. To mobilise the community, the department uses communication tools, such as reports about vegetable gardens in Porto municipality channel "porto.pt".

The most significant funding source is public funding. This funding is considerable, as resources are needed for the vegetable garden deployment: evaluation on location, irrigation systems, shelter, garbage, soils treatment such as bringing land (initial capital amounting to about €1500 euros per plot), technical support, repair costs and organic farming practices.

	Sofia	Nantes	Porto
Costs and obstacles	Lack of funding and support from the	Challenges of accompaniment in the	Externalities (benefits and costs

	<p>government (local and national).</p> <p>Insufficient encouraging initiatives (workshops, events to educate people in environmental challenges and NBS-solutions).</p> <p>Lack of innovation hubs/platforms.</p> <p>Lack of places to test NBS-solutions.</p>	<p>sectors, challenges of training, accompaniment of the actors and the companies.</p> <p>Continue to carry out collective actions and to always work in cooperation with other actors, but also with actors other than the Social and Solidarity Economy, actors from the traditional economy, researchers, academics, and to take the Social and Solidarity Economy out of its confines and go and irrigate the whole territory.</p>	<p>to surroundings) are not captured by prices.</p> <p>Hortas mentions the cost of a lack of use of economy of scale: pilots are often done at such a small scale that margins are lowered since the pilot could be done at a bigger scale with a bigger output at almost the same cost.</p> <p>Hortas competes with both opportunity cost of the land (it could be sold for other purposes), plus Hortas pays for the analysis and research prior to project start and those expenses are not sure to be covered.</p> <p>NooCity shared the challenge of opportunity cost, but also when dealing with private sector clients. Their prime segment, hotels and restaurants, had very high square meter prices and hence it is hard for the clients to justify urban gardening rather than using the space for something else.</p>
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<p>Opportunities and benefits</p>	<p>Shift in the general mindset of people about protecting the environment.</p> <p>Increase in sustainable and social organisations.</p> <p>Positive attitude towards the EU and projects like URBINAT.</p>	<p>SSE as the opportunity to improve or revitalise social relations and the uses of urban public space.</p>	<p>In the Post-COVID era a high demand for nearby nature can be expected.</p>
<p>Key enabling factors</p>	<p>Explore options for reducing taxes/compensations for NBS.</p> <p>Stimulate more public-private entities that own land or buildings to offer them to NBS temporarily.</p> <p>Create platforms for idea exchange and networking.</p> <p>Create financial incentives for green business, e.g. support to NGO's organizing employment activities related to NBS.</p> <p>Educate and train people on environmental issues and new ways of having a greener and more sustainable lifestyle.</p>	<p>Les Eccosolies have developed a range of services and support for the development of projects, has developed a training offer for project developers and managers, which works on the support of projects, on the structuring of the sectors.</p>	<p>In Porto, there is an opportunity to leverage the participatory budget process by engaging the local population who requests more green areas and NBS.</p> <p>There is also an option to request areas from the Municipal Chamber to use for urban gardening. Requested in such a manner, the Municipal Chamber provides the areas for a low rent (300 square metres for 30-40 EUR/month). By changing the culture and mindsets of people, the awareness can also lead to increased popular demand which will lead to a higher demand for NBS.</p> <p>A higher public demand combined with more political</p>

			will can also increase opportunities for NBS in the urban environment. One example is to create public funds dedicated to greening areas where NGOs, citizens, and companies can apply for funding of NBS.
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Table 7.1: Obstacles, opportunities, and enablers in bringing forward green and social business. Source: City Facilitators

7.5 Shortlisting NBS Solutions

Based on the material collected in Porto, the three kinds of NBS solutions that could be relevant for a healthy corridor project in Porto Campanha, are:

- Noocity
- AMAP
- FUN Porto

7.6 Conclusion

The questionnaire circulated among the citizens of Campanha showed a high degree of inclination towards community-based solutions aimed towards sustainable urban planning such as community gardens, green areas and local markets. The majority were in favour of setting up local markets for organic food distribution, and dedicating different areas for social and cultural events, outdoor education, community initiatives, handicrafts and comfortable recreational areas. The focus on development of green spaces weighed upon the improvement in leisure and sports activities. It was also observed that the citizens acknowledged that sustainable economy must be youth-centric and appropriate measures to be taken to impart ecological awareness to them. The principles of equality and inclusion also seem to be ingrained within the citizens, hence it is expected that the nature-based initiatives that would be taken up would be received well by the citizens.

The NBS solutions highlighted in Porto have some different characteristics and as such also different relevance for the Campanha healthy corridor. Noocity is offering solutions that potentially could be attractive on roofs, on walls or on land in the Campanha area, however this type of activity is based on a commercial foundation and on professional and highly competent employees. The initiative AMAP is an association that builds on local communities with a not-for-profit mindset, however, it requires both accessible land and individuals to run the activities. The AMAP association could also qualify as an example of an actor of the social and solidarity economy. The many initiatives by public actors like FUN Port organized by the City of Portugal, are highly important, but rely heavily on public money and as such does not in itself present a solid NBS business model.

8. Main Findings and Results

The investigations in Sofia, Nantes and Porto were conducted in 2020 and 2021 and were heavily influenced by the Corona lockdown in all three countries. Unfortunately, this has had a major influence on the possibility of collecting empirical data, both through surveys, interviews and fieldwork. Desk-research and using online-material has been the primary source of data. In Sofia, a survey was conducted, while the survey was cancelled in Porto and met challenges in Nantes concerning the distribution of the questionnaire to residents.

Based on the material available, the following main findings and results can be summed up:

In Sofia, based on the results of the questionnaire, it was clear that there was a preference for potential NBS activities that were mainly non-commercial, while potential local businesses-initiatives have considerably lower interest among the residents and people working in Nadezhda. The interest for commercial activities was at a local farmers market, especially if local products were for sale and if the market takes place on both days of the weekend.

Among the companies analysed, there were several successful profitable companies, however they only had a remote or no relation to the Nadezhda area. The two companies *Harmonica Organic Foods* and *Hrancoop Farmers Market*, however, are examples of local producers and sellers of food that potentially could be sold on a local farmers market, which the respondents of the questionnaire were interested in. The company *Mr. Green Walls* could potentially also have a local demand for its products in the area and potentially also involve residents, either as volunteers or as employers, just like *Organic Foods* and *Hrancoop Farmers Market*.

Thus, the three NBS that potentially could be relevant in Sofia, based on the questionnaire and the analysis, are:

- Organic Foods (technological NBS)
- Hrancoop Farmers Market (territorial NBS)
- Mr. Green Walls (technological NBS)

In Nantes, the questionnaire unfortunately did not give any useful results. Based on the desk-research investigation, however, as well as the interviews conducted, there are obvious activities of existing companies and organisations in the Nantes region that could become relevant for a healthy corridor initiative in Nantes Nord.

The association *Bio-T-Full* lives up to many relevant characteristics of a potential NBS for the healthy corridor initiative in Nantes Nord, including heightening local awareness of sustainable activities, social inclusion, education as well as the contribution to innovative economic activities. The mission is to 'put agriculture and nature back at the heart of our cities' and the target group for the activities are both professionals and the public. The Bio-T-Full association is located at the *Solilab* facilities in Nantes Nord and is also associated with the highly influential non-profit organisation *Les Ecosolies*.

Another potential NBS for the Nantes Nord healthy corridor, is the company *Les Moutons de l'Ouest (Sheep from the West)* which offers 'eco-grassing- by sheep in urban environments. Customers can avoid using mowers and brush cutters and improve the green surroundings in a sustainable way.

A third relevant initiative is *The Kiosque Paysan (The Farmers Store)*, which aims to simplify access to local quality products from the Nantes region and guarantee a fair price to producers and consumers. The initiative delivers to specialized stores as well as drop-off points in the region which reduces logistic costs for all players in the value chain. The association *Les Ecossolies* in Nantes was a key enabler of the *Kiosque Paysan* association.

Thus, the three NBS that potentially could be relevant in Nantes, based on the desk-research and the interviews, are:

- Bio-T-Full (territorial and participatory NBS).
- Les Moutons de l'Ouest (territorial NBS)
- Le Kiosque Paysan (territorial NBS).

In Porto, the NBS solutions highlighted relevant for the Campanha healthy corridor, was *Noocity*, a company specialised in offering green roofs and private garden solutions. *Noocity* is involved in several community initiatives related to their own products and services, however, a company like *Noocity* needs to have a commercial incentive to be relevant for the Campanha area or similar areas. The initiative *AMAP*, which is an association building on local communities with a not-for-profit mindset, could also be relevant, however for such an initiative to work, it requires both accessible land and competent and engaged individuals to run the activities. An organisation like *FUN Porto* organized by the City of Portugal, are highly important for some NBS solutions to get implemented, but this kind of initiative relies heavily on public money and as such does not in itself present a solid NBS business model.

Thus, the three NBS that potentially could be relevant in Porto, based on the desk-research and the interviews, are:

- *Noocity* (technological NBS)
- *AMAP* (territorial, technological and participatory NBS)
- *Fun Porto* (territorial and participatory NBS).

9. Conclusions

The purpose of this task has been to identify the NBS with the best market potential for each front-runner city, based on the understanding of NBS by the URBiNAT project.

The key criterion for determining the best practice NBS was the market potential of each individual NBS. For this purpose, we have had the intention of conducting a market survey, including open workshops, interviews, desktop research and an online survey to determine the market potential of already existing NBS solutions and the potential of new, innovative NBS.

Due to the restrictions of COVID, however, there have been several unforeseen challenges in conducting the investigation. Based on the material available, it can be concluded that the NBS solutions that are most attractive among, are non-commercial. The citizens of each of the three cities showed positive degrees of inclination towards the development and adoption from nature-based solutions, though there were some inherent peculiarities observed within the citizens. Though the results might be skewed, but in general, it is opined that nature-based solutions indeed have a lot of potential in the three cities as far as the responses are concerned.

Based on the desk-research and interviews, a range of different private companies and non-profit associations and activities could be highly relevant to introduce and support in relation to the healthy corridor projects in Nantes, Porto and Sofia. Clearly, the commercial companies that are based on a traditional business model, need to have commercial incentive to be engaged. To push for this incentive to be present, non-profit intermediaries like Les Ecosolies in Nantes, that can play the role of an enabler of local platforms for dialogue, social, cultural and economic activities, are highly important. Such intermediaries can play a crucial role as the nexus of a trustful, long-term relationship between private, public and civic organisations that are interested in developing NBS solutions to city areas like Nantes Nord, Nadezhda and Campanha.

Appendix

Organisations investigated in Sofia

Name of company/organisation	Profit/non-profit	Type of org. (NGO, start up, SME, big corp.)	Type of NBS	Theme (water, energy, food, etc.)	Business idea /concept
"Sofia-green capital" civic initiative committee	Non-profit		Not directly NBS	Plants	started back in 2015 with a concept for 1 million new trees to be planted in Sofia, consisting of organisations of citizens, architects, and other activists and professionals - Grupa Grad, architecture association
"GreenTech" online media	For profit		Not directly NBS		sharing information on developments, approaches, devices and initiatives

ATD Fourth World	Non-profit	NGO	Social & Solidarity Economy	Culture	For a more equal society - ATD Fourth World works to overcome poverty by seeking out people living in the worst conditions of poverty and exclusion.
BAOPN		Employers' organisation	Territorial	Plants	Bulgarian association of ornamental plants nurseries. One of the BAOPN's main aims is to promote the dialogue between the professionals, the institutions and the society in order to develop the Bulgarian ornamental plant production and to provide better conditions for Bulgarian nurseries.
Bioprogramme Co.	For profit	SME	Territorial	Food	National and export-oriented producing company, specialised in local herb teas
Bread House Network/NadEzhko	Non-profit	SME	Social & Solidarity Economy	Food	Bread making for poor people
Bulgarian Association of Bio-producers		Business network	Territorial	Food	national branch organisation of farmers and bio-producers
CleanTech Bulgaria		Business network	Technological	water, energy, etc-	We support and focus on the future of clean technologies and sustainable growth, while connecting businesses in support of the development of innovation and the formation of strategic partnerships in the fields of green business, the environment, science and education.
CSPL Centre for Arts, Education and Culture Sofia			Social & Solidarity Economy	Culture	Acts School for children in Nadejdazh

Detelina	For profit	SME	Territorial	Food	national and export-oriented producing company, specialised in nuts and dried fruits.
Food, Not Bombs	Non-profit	International NGO	Social & Solidarity Economy	Food	Food Not Bombs is an all-volunteer movement that recovers food that would otherwise be discarded and shares free vegan and vegetarian meals with the hungry in over 1,000 cities in 65 countries in protest to war, poverty, and destruction of the environment.
Foundation Bioselena	Non-profit	NGO	Territorial	Food	The main task of Bioselena is developing and supporting sustainable and organic agriculture, biodiversity preservation and environment protection. Organise organic markets
Green School Village	Non-profit		Territorial/social & solidarity economy	Food, construction	It works for the harmonious development of the human personality and the sustainable life of the communities. The organisation involves an interdisciplinary team of people with different education and professional backgrounds – architects, urbanists, lawyers, marketing experts, cultural studies experts etc. We are united by our common interests in permaculture, natural building and learning as a process continuing through the whole life.
Habitat for Humanity	Non-profit	International NGO	Social & Solidarity Economy	Culture	Improving well-being of citizens by making housing accessible and affordable for all
Halfbike	For profit	Start up	Technological	Transport	New form of transportation
Harmonica Organic Foods	For profit	SME	Territorial	Food	Sofia producing organic foods company
Hrancoop Farmer's Market			Territorial	Food	Organic market

Institute for Zero-Energy Buildings	For profit		Technological	Energy	<p>The main goal of IZEB is to support, develop and implement in practice know-how and innovations in the building industry concerning low energy, near zero energy or energy independent buildings.</p> <p>As a second major goal IZEB has the ambition to develop technologies, know-how and strategies for low carbon and energy independent neighbourhoods.</p> <p>IZEB has a patent portfolio in the area of facade design, energy storage and solar energy absorption.</p>
Meshtra	Non-profit		Social & Solidarity Economy		<p>Organisation of professionals in the field of protection of cultural and natural heritage. The main goal is to create and develop alternative forms of education in order to facilitate the transmission of traditional knowledge and crafts.</p>
Mr. Green Walls	For profit	SME	Technological	Plants	<p>Landscape architecture company dealing with green walls. Trying to promote green walls and vertical greening inside, on facades and outdoors in public areas</p>
Smart Organic/Roo'bar	For profit	Big enterprise		Food	<p>Smart Organic is a leading producer, distributor and trader of organic products that bring extra health benefits. The company states that 'We join our efforts in the name of the common cause - to create clean, tasty and affordable food for all as we care for nature as</p>

					well. Our brands Roobar, Bett'r, Kookie Cat and Dragon Superfood are sold in over 60 countries worldwide'.
Together Foundation (ZAEDNO)	Non-profit	NGO	Social & Solidarity Economy	Food/Plants	Organic gardens of learning and other kinds of skills education, community assets building activities and other
Za Zemiata	Non-profit	NGO	Social & Solidarity Economy	Climate, food, energy, construction	Za Zemiata is an environmental non-governmental organisation determined to work for sustainable lifestyles, and for responsible personal and political decisions for our planet, while combating the exploitation of people and nature. Topics for campaigns and projects include climate change, environmental education, sustainable food production, resource & energy efficiency, clean energy, zero waste
Zelenika Foundation	Non-profit				Gather NBS projects worldwide and disseminate them in Sofia

Organisations investigated and interviewed in Sofia with the SWOT Business Canvas

The following NBS start-up in Sofia were one-to-one interviewed:






ZAEDNO Foundation

Sofia GREEN

Mr. Green Walls

Zelenika


Sustainable SWOT Business Canvas		Company: ZAEDNO - Communication for Support & Development Foundation		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p>	 <p>Customer Segments</p> <p>List your target customers and users</p>
<p>Children and youth, especially those in underprivileged situations, grow up in a risky environment and sometimes lack social support for their development.</p>	<p>Offer educational, voluntary, and social programs to facilitate progressive and harmonious development oriented towards positive life styles for youth and their communities.</p>	<p>This is a solution that came in 2011 directly from the people, from a group of parents who united and created the first educational garden in Sofia. The unique and valuable point about this practice is that it has come from the hearts of ordinary people, over time we have proven that it can be fully realized with local resources and the contribution of the local community. And it adds value in many dimensions of life - educational, social, environmental and aesthetic. In just 7 years, more than 42 edible educational gardens have been set up in Bulgaria in different educational establishments and between spaces. The interest continues to grow, precisely because it is a practice that creates a space where people are close to nature, people are united to work together for a common creative purpose and above all - people have occasion to meet, communicate and spontaneously create new vital communities.</p>	<p>The desire for change, inspiration, impulse for action and change is something that must come from the people themselves, it can not be bought or imported from outside. The desire for action is a contribution of the community itself and it is the success of this solution.</p>	<p>Children, young people and their communities with special focus on those who are underprivileged and growing in risky environments</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p>
<p>Within a few years, we have implemented several large-scale external financing projects where we have developed a rich collection of open source resources - presentations, instructions, technical data and guidelines for setting up gardens and their use as educational areas, conducting a series of teacher trainings and NGOs. As a result, many organizations and local communities today have their own projects for educational gardens, finding local funding, using local resources and voluntary work and contributions from their communities.</p>	<p>ZAEDNO is a small community-based organization that works on a voluntary project-by-project basis. We don't maintain office space and since 2016 we do not support a monthly salary team. Sometimes we provide counseling and need to pay for training.</p>	<p>We rely on private donations and sponsors to sustain our work.</p>	<p>Direct contacts within the local communities. Mainly through facebook groups and the website</p>	<p>Kindergartens, schools, teachers, parents, NGO working in youth & social sector.</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>We provide holistic educational approaches and easy-and-accessible practices both for teachers, parents and kids. When we invest in the development of kids and the environments around them, we are investing in a better future.</p>	<p>All of our programs and activities are based on the three leading ethics of the PERMACULTURAL DESIGN - Earth Care, People Care, Fare Sharing. All our programs and projects are based on, implement and stimulate the application of the principles of responsible use of resources, creation and restoration of ecosystems of different size and education in the qualities and virtues of responsible use and preservation of natural resources.</p>	<p>The local government does not have direct practices to support non-governmental organizations, but there are small tax incentives for donations for public-benefit organizations.</p>	<p>The local government can support our sector by providing facilities for setting up meeting spaces and cross-partnerships between organizations, local communities and the business sector.</p>	

Sustainable SWOT Business Canvas		Company: Zelenika		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p> <p>People lack education on the necessity of sustainable development and environmental preservation or don't know how to act on such concepts. Increase the level of environmental literacy in Sofia among children. Every second child in Bulgaria comes from a low income family. Because of this environmental education has to be free of charge.</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p> <p>The main focus are children and nature. Science for the benefit of children. Environmental education has to become one of the most important topics for school children. We educate children and young people on the benefits of environmental awareness for nature and societies. We also educate on sustainable business models for green businesses in order to make it possible for everyone to start a green business.</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>Contribute ideas, rather than products, that facilitate sustainable development. Not a commercial company—the ambition is focused on demonstrating the green work that can be accomplished in Sofia. Providing students with meaningful and challenging problems, supporting them to create beautiful work to contribute to the world could be a more inspiring approach to education. We need to do the impossible to save our planet - Author of Regenerative Culture Design</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p> <p>They give seminars and workshops to educate citizens. They meet with municipal officials and advocate for implementing green solutions. And they participate in citizen networks, e.g. the committee "Green Capital Sofia"</p>	<p>Customer Segments</p>  <p>List your target customers and users</p> <p>citizens that are active and interested in sustainability, rural groups, SME, young people, local and national officials</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p> <p>There is probably no other company working on distributing knowledge about nature-based solutions and other green business ideas.</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p> <p>Everyone works as a volunteer. Demonstrate implementation of environmental concepts through seminars, workshops, and social enterprises.</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p> <p>Everyone works voluntarily and has another job</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p> <p>At general level, our concepts and solutions for sustainable development are on our website. At individual case-by-case level: Networking, content-oriented, personal contacts.</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p> <p>Universities, schools, educational centers, companies</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>We contribute greatly to the collection and promotion of applicable ideas where there is a lack of awareness in the public. Some of our topics include: sustainable education for communities, energy efficiency, research for climate change mitigation, water from the air - approaches and technologies, Urban farming, Hydroponics and Aquaponics, Small-scale green and blue economies, Sustainable revenues vs Sustainable expenses. - association of green communities</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>There are a few barriers. Environmental education is not practiced in Bulgaria. We promote an uncommon idea for the municipality on new developments and new technologies, and sometimes these ideas don't fit into the municipal legislation. Sometimes there are no opportunities to adopt ideas such as the ones presented by Zelenika. There is also a typical practice of the local government which is to listen to an NGO's suggestions and then accept and develop the ideas for themselves without including the NGOs as partners.</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>The local government should provide more public information on applicable approaches for NGOs; have more transparency for urban environmental issues; provide governance support, interest, and advocacy for such ideas; and assist with the startup of green businesses by providing physical space, places for training, and procurement for the delivery of green products. Private-public partnerships do not exist in Bulgaria. The adaptation of technologies and Blockchain would be very beneficial.</p> <p>URBINAT could also develop Social Innovation Hub for young people. I believe that they do not need ready solutions and better to help them in a process of finding their solutions. One year ago I found just issued Facilitation package, developed in free year Erasmus+ project from seven countries/incl Universities/. The Package suggests detailed facilitation for five types of social innovators/who they diagnosed that exist/.</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p> <p>Hopes for the URBINAT project include a community center in Nadedza to implement as a place for meetings and events. In this space there could be expositions to demonstrate the environmental challenges in Bulgaria and provide training sessions for sustainable entrepreneurship</p>

Sustainable SWOT Business Canvas		Company: Za Zemiata (Friends of the Earth - Bulgaria) (http://www.zazemiata.org/)		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p> <p>Climate change, environmental education, food independence, trade policy, resource efficiency, clean energy, responsible extraction, and zero waste</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p> <p>Za Zemiata runs campaigns that advocate for solutions or policy recommendations regarding these topics.</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>Za Zemiata is committed to: Suggesting and developing sustainable alternatives to socially and environmentally harmful activities and projects; Actively involving in civil society building and raising grassroots awareness about existing environmental problems; Networking and co-operation between local and international non-governmental groups.</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p> <p>It has a substantial volunteer base of over 800 supporters who participate in field projects, help with information campaigns, mobilise for direct action and give a hand with office work.</p>	<p>Customer Segments</p>  <p>List your target customers and users</p> <p>Citizens, NGOs, government officials</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p> <p>Other groups that advocate for environmental and social issues and educate the public on these topics</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p> <p>Cost of running campaigns and holding events, administrative costs</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p> <p>Za Zemiata's work is funded almost entirely by fundraising through grant applications to national and international, private and public foundations, EU funds and donations from supporters.</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p> <p>Website, fliers, recommendations from local groups</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p> <p>Citizens that care to learn more about pressing issues in Bulgaria, NGOs that want to network with other organizations to develop solutions and initiatives</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>Through campaigns, Za Zemiata raises public awareness about critical topics that involve society's interaction with the environment and offers solutions for people and businesses. By combating the exploitation of people and nature, Za Zemiata contributes to a greener and more equitable society.</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>Since Za Zemiata is primarily engaged in grassroots campaigns, their success depends on their ability to generate public interest and enthusiasm for their mission. If people do not care about these topics or are unwilling to be engaged, then the campaigns won't succeed.</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>Local governments could provide more financial support to make Za Zemiata's campaigns more widespread and robust. They could also provide physical space for Za Zemiata to hold events and gatherings as part of the campaigns</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p>

Sustainable SWOT Business Canvas		Company: Roobar (https://www.roobar.com/company)		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p> <p>People need snacks that are healthy, organic, and friendly towards various dietary needs.</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p> <p>Roobars consist of 4 to 5 plant-based ingredients only – superfoods, dried fruits and raw nuts. Roobar is raw – we don't apply any heat treatment which ensures that all the precious nutrients, vitamins and enzymes are preserved.</p> <p>Roobars' main ingredient is dried fruits which have a naturally sweet taste so there is</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>Roobar has a simple and delicious recipe that offers a healthy choice for everyone. We created Roobar as an alternative snack for our own family and continue to produce it with the very same care and with no compromise.</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p> <p>We choose some of the world's finest organic ingredients and we have implemented quality controls at every level of the production chain. We perform regular laboratory analysis for gluten (below 10ppm)</p> <p>We have direct contact with farmers which</p>	<p>Customer Segments</p>  <p>List your target customers and users</p> <p>All citizens who want healthy organic snacks</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p> <p>Commercial snack foods that tend to be processed and made with high resource consumption</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p> <p>Food harvesting, processing, and packaging. Cost of shipping, cost of maintaining website, advertising costs</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p> <p>Sales of food products</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p> <p>Website, advertising</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p> <p>People who want tasty, simple organic snacks; people who have dietary restrictions such as gluten-free, vegan, and lactose intolerance.</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>Provide healthy organic snacks for people, which improves the overall health of people</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p> <p>Food production can require high water usage levels</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>Competition from large snack foods companies that can control a greater market share due to lower costs, more expansive operations, and better brand recognition among consumers.</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>The government could incentivize or campaign for people to eat more organic and environmentally friendly foods so that there is a larger market for organic snack companies like Roobar</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p>

Sustainable SWOT Business Canvas		Company: Mr. Green Ltd. (www.mrgreenwalls.com)		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p> <p>There isn't enough green space in buildings. Construction takes away green space and doesn't replace it.</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p> <p>Install vertical gardens inside or on the exterior of buildings to provide greenery. Eventually normalize this and other green design practices.</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>Vertical gardens improve interior microclimate, acoustics, and visual environment. They have a positive influence on mental health. For larger urban environments, the benefits include improving the microclimate, reducing the heat island effect, and reducing energy consumption</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p> <p>Mr. Green was the first vertical garden construction practice in Bulgaria</p>	<p>Customer Segments</p>  <p>List your target customers and users</p> <p>Corporate offices, shopowners (especially restaurants, hotels, bars), private homes, public buildings</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p> <p>Placing regular potted plants in interior spaces; rooftop gardens</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p> <p>The price is determined by the individual needs and specific requirements; area of use, availability of lighting & water systems</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p> <p>Consultations and individual units designed, installed, and maintained</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p> <p>"Our works speaks for us. We have many green walls in public spaces."</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p> <p>Companies that emphasize wellbeing; Shops and businesses that promote sustainability and a pleasant interior atmosphere</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>Vertical gardens improve interior microclimate, acoustics, and visual environment. They have a positive influence on the mental health. For the larger urban environment, vertical gardens improve the microclimate, reduce the heat island effect, and reduce energy consumption. People who inhabit the spaces with vertical gardens are most directly impacted but everyone in the urban environment also benefits</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p> <p>Maintenance of internal green spaces could require a lot of water consumption</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>Society is slow to accept this green design practice as normal. Many business aren't yet willing to invest in the benefits of vertical gardens. The local government offers no tax incentives or benefits to promote the growth of companies like Mr. Green</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>We need more economic incentives, such as tax reductions for the usage of green material. We also need less restrictions in terms of construction regulations and policy restrictions</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p>

Sustainable SWOT Business Canvas		Company: Meshtra (meshtrango.com)		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p>	 <p>Customer Segments</p> <p>List your target customers and users</p>
<p>The cultural and architectural heritage of Bulgaria are at risk of being lost or damaged as the country progresses into the future.</p>	<p>Facilitate transmission of traditional knowledge and crafts through: 1. Theoretical understanding of historical context, local customs and culture, protection of cultural and natural heritage 2. Research and documentation of heritage 3. Practical work with traditional materials and techniques 4. Events to popularize traditional culture</p>	<p>The aims are to preserve the cultural heritage of traditional buildings and to share knowledge about traditional ways of manufacturing. This is necessary for preserving the identity of Bulgaria.</p>	<p>The expertise that we draw from traditional craftsmen and builders, whose knowledge is not widespread.</p>	<p>Young architects and urban planners, building owners who are seeking to renovate structures, citizens who want to learn about traditional Bulgarian practices</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p>
<p>Traditional buildings are being demolished and the land is used for other purposes.</p>	<p>Facilitating events and workshops</p>	<p>Donations, funding from government</p>	<p>Events in local communities, website, word of mouth</p>	<p>Architects and planners who want to incorporate cultural heritage into building structures or owners of traditional structures who want to renovate while respecting the past</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could prevent the green business from being successful (e.g. policy restrictions or competitors)?</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>Preservation of cultural and built heritage is part of forming the cultural identity of a place. Having a shared sense of identity is essential to a thriving society.</p>	<p>No costs, because non-for-profit</p>	<p>If the local government or private property owners prohibit the restoration of traditional buildings.</p> <p>If local government ignores the importance of maintaining the cultural heritage.</p>	<p>1. Lower the taxes on green houses and to apply to the European strategies and regulations. 2. Support with land or building that are demolishing, so NGO's can renovate them and make something better 3. Support green businesses financially. Local government can support NGO's that give jobs to unemployed people.</p>	

Sustainable SWOT Business Canvas			Company: Institute for Zero-Energy Buildings (http://www.izeb.eu/)	
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p>	 <p>Customer Segments</p> <p>List your target customers and users</p>
<p>Buildings have high energy usage and carbon footprint</p>	<p>Develop technologies, knowledge, and strategies to support and implement innovations in the building industry contributing to low energy, near zero energy, or energy independent buildings.</p>	<p>Our main focus is to research and develop ways to achieve zero energy consumption in buildings. We recognize the building mass as a valuable energy storing resource. We recognise the installations as a motor of new high-performance energy delivering, managing and transforming systems.</p> <p>We develop our own concepts, strategies and design solutions.</p>	<p>IZEB has industry expertise and practice since it is founded by a group of recognized experts in the area of advance building design and technologies</p>	<p>Builders and developers</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p>
<p>Traditional building and design methods</p>	<p>Research & Development project costs, website costs, administrative costs</p>	<p>Consultancy client fees</p>	<p>Website, network of building, architecture, engineering, and development experts</p>	<p>Builders and developers</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>By developing building strategies to achieve zero energy buildings, IZEB reduces the carbon footprint of cities in Bulgaria and contributes to a culture of environmental consciousness.</p>	<p>Occupying office space and maintaining website requires high electricity usage which contributes to carbon footprint.</p>	<p>Local policies may restrict the effectiveness of new building strategies for zero energy buildings. IZEB has to work within the constraints of regulations to develop alternatives that are more energy neutral.</p>	<p>The government should work with IZEB to discuss policy changes that would further enable zero energy building strategies so that such an effort could become more widespread in Bulgaria.</p>	

Sustainable SWOT Business Canvas		Company: Harmonica Organic Foods (http://harmonica.bg/en/)		
 Problem <i>List 1-3 problems that you want to solve</i>	 Solution <i>Outline a possible solution for each problem</i>	 Unique Value Proposition <i>Clear and compelling message that states why this solution is different and worth paying attention to</i>	 Unfair Advantage <i>Something that cannot easily be bought or copied</i>	 Customer Segments <i>List your target customers and users</i>
<p>Agriculture and food production are at the core of the biggest ecological challenges that we as humanity face – destruction of the biodiversity, climate change, pollution. In the past you could mostly find cheap imitations of foods that compromised on quality, the environment and our health. The notion of organic agriculture in Bulgaria was completely alien</p>	<p>Produce and distribute organic food products that are healthy, natural, high quality, and environmentally friendly</p>	<p>We realized that many solutions were available and that Harmonica was part of a worldwide wave of change. Now our work revolves around finding solutions to these challenges through all that we do. We develop our products in a way that makes us the better alternative.</p>	<p>We choose to work with integrity and partner with farmers and companies that share our mission and values so that we grow organically.</p>	<p>Anyone who wants to eat tasty food that is healthy, organic, honest, and simple</p>
 Existing Alternatives <i>List how problems are solved today</i>	 Cost Structure <i>List your fixed and variable costs</i>	 Revenue Streams and Upscaling <i>List your sources of revenue</i>	 Channels <i>List your path to customers (inbound or outbound)</i>	 Early Adopters <i>List the characteristics of your ideal customers</i>
<p>Traditional commercial food ingredients and products.</p>	<p>Farming, processing, packaging food, shipping costs, employee salaries, administrative costs, costs of maintaining website</p>	<p>Sales of products to retailers and individuals</p>	<p>Web shop, advertisements, word of mouth</p>	<p>Local retailers and supermarkets that want to provide organic food</p>
 Eco-Social Benefit (Strength) <i>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</i>	 Eco-social Costs (Weakness) <i>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</i>	 External & Internal Obstacles (Threats) <i>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</i>	 Enablers (Opportunities) <i>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</i>	 Additional Information <i>Name aspects that are crucial, but haven't been covered yet.</i>
<p>Produce food that is healthier for people to eat, without chemicals or artificial processing. Harmonica also acts against biodiversity loss, climate change, and pollution in its operations. They develop food in a way that is a positive alternative to regular food.</p>	<p>Food production requires high water usage. Shipping products generates carbon emissions.</p>	<p>Competition with larger food production companies for market share</p>	<p>Local governments could offer tax incentives for companies such as Harmonica offering organic food alternatives and also campaign for people to eat more organic and environmentally friendly foods.</p>	

Sustainable SWOT Business Canvas		Company: Halfbike (https://halfbikes.com/)		
 Problem <i>List 1-3 problems that you want to solve</i>	 Solution <i>Outline a possible solution for each problem</i>	 Unique Value Proposition <i>Clear and compelling message that states why this solution is different and worth paying attention to</i>	 Unfair Advantage <i>Something that cannot easily be bought or copied</i>	 Customer Segments <i>List your target customers and users</i>
<p>Humans today are stuck to computer screens and office chairs. Our bodies draw vitality from movement, which many people do not get enough of.</p>	<p>The halfbike--a new form of transportation that is fast, compact, highly controlled, and fun.</p>	<p>We believe that hacking the well established order, with small but confident steps, can make our future brighter. We are guided by the core belief that humans are born to move. So, when everything becomes too complicated, we need to push hard on that reset button and get our personal time offline. The solution created was the halfbike.</p>	<p>We believe in local manufacturing - it is our way of keeping our business fair and sustainable. That's why each Halfbike is handmade in our workshop in Europe. But there is more. We chose to work only with direct customers. This helps us grow together and the</p>	<p>Anyone who needs to get around</p>
 Existing Alternatives <i>List how problems are solved today</i>	 Cost Structure <i>List your fixed and variable costs</i>	 Revenue Streams and Upscaling <i>List your sources of revenue</i>	 Channels <i>List your path to customers (inbound or outbound)</i>	 Early Adopters <i>List the characteristics of your ideal customers</i>
<p>Regular bikes, walking, scooters--traditional transportation methods and other transportation innovation startups</p>	<p>Production, manufacturing, and shipping costs, Employee salaries, cost of maintaining website and media, advertisement costs</p>	<p>Sales of individual units</p>	<p>Customer testimonials, word of mouth, advertisements, website, Kickstarter, "stories" campaign that has the potential to become viral on social media</p>	<p>People who want a compact, fun, and fast way of transportation that requires movement.</p>
 Eco-Social Benefit (Strength) <i>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</i>	 Eco-social Costs (Weakness) <i>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</i>	 External & Internal Obstacles (Threats) <i>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</i>	 Enablers (Opportunities) <i>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</i>	 Additional Information <i>Name aspects that are crucial, but haven't been covered yet.</i>
<p>Promote healthy lifestyle which improves society's wellbeing in general. Also provides another environmentally friendly form of transportation as an alternative to cars or metro.</p>	<p>Product manufacturing could be high in resource usage such as electricity. Shipping products requires high carbon emissions.</p>	<p>Municipal regulations on the usage of personal transportation methods could limit the ability to use Halfbike in places. This should not be too much of a problem since the halfbike is not motorized but it could be considered a nuisance by some people. Competitors include traditional bike and scooter companies, as well as startups including electronic bike/scooter sharing companies.</p>	<p>Incentivize or campaign for people to adopt clean, alternative modes of transportation including Halfbikes. Invest in city systems and infrastructure that make it easier for regular people to use Halfbike throughout a city</p>	<p>Halfbike has the potential to become a trend internationally, which would greatly help it gain traction and make people more willing to adopt it as a regular transportation method.</p>

Sustainable SWOT Business Canvas

Company: Habitat for Humanity Bulgaria (<https://www.habitat.org/where-we-build/bulgaria>)

 <p>Problem</p> <p>List 1-3 problems that you want to solve</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p>	 <p>Customer Segments</p> <p>List your target customers and users</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>The majority of Bulgarians own a house or a flat, but they struggle to maintain them. Many live in big blocks of flats constructed 40-50 years ago. Maintenance of these buildings has become a severe challenge for the homeowners, as the structures are rapidly deteriorating. At the same time, social housing programs have been cancelled and low-income families have no options</p>	<p>Short-term financing for home improvements and urgent interventions to socially vulnerable and marginalized families; Development of innovations like thermal insulation as a social enterprise; advocacy and coalition building influencing housing policy at the local and national levels</p>	<p>Habitat Bulgaria works not only with families and individuals to improve their current housing situation but provides support also to communities by partnering with community-based social support organizations, adding value to their activities.</p>	<p>Habitat for Humanity Bulgaria runs a diverse, innovative program tailored to meet the local housing need.</p>	<p>Families that are socially vulnerable or are struggling to maintain their homes or even find housing</p>
<p>National and local housing policy; standard housing implementations (insulation etc.)</p>	<p>Cost of developing and manufacturing housing products, administrative costs</p>	<p>Sale of innovations such as newly-developed thermal insulation made of recycled textiles and textile waste; individual donations</p>	<p>Fliers, website, Facebook</p>	<p>Families that are socially vulnerable or are struggling to maintain their homes or even find housing</p>
<p>Habitat Bulgaria is influencing markets by developing new microfinance and thermal insulation products, which improve the affordability of the home improvements and energy-saving repairs. The organization is actively taking part in the housing-related policy-making at the national and the local levels providing societal support with regard to low-income housing, social housing, residential energy efficiency, and integration of marginalized and vulnerable groups of the population.</p>	<p>Producing housing products can require high electricity or other resource usage such as water, although it involves recycling textile waste.</p>	<p>Lack of funding from the government to support the initiatives of Habitat Bulgaria; low prioritization for reforming housing policy from the government.</p>	<p>Provide a platform for organizations like Habitat Bulgaria and city/national officials to discuss policy ideas and recommendations regarding housing for low-income groups and marginalized groups. By engaging with such advocacy groups, the government can support solutions for housing issues.</p>	<p></p>

Sustainable SWOT Business Canvas		Company: Greentech (https://greentech.bg/)		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p> <p>People may lack awareness about different green solutions that are going on throughout the world</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p> <p>Provide an online blog for people to discover different green ideas and solutions that are happening in different places.</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>GreenTech.bg is the place in the Bulgarian web space for the newest information from the world of green technologies. Here you will find news, reviews, analyzes and specific knowledge about products and solutions that make our lives greener.</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p> <p>Aggregates news about green solutions from around the world into one easily accessible online location</p>	<p>Customer Segments</p>  <p>List your target customers and users</p> <p>People who care about green solutions and want to learn about the newest solutions</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p> <p>Local green solutions are usually covered by respective local publications so they are spread all around the internet.</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p> <p>Cost of mainting website</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p> <p>Ads, donations</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p> <p>Facebook, website</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p> <p>interested citizens, business owners, urban planners, city officials</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>Promote information sharing, which will not only make citizens more aware of different green projects and ideas that are going on in the world but hopefully inspire people locally to do the same. This would promote a culture of sustainability in Bulgaria.</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p> <p>Maintaining website requires high electricity usage</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>Lack of funding to conduct research and maintain the website; other online publications in competition with Greentech.bg may be more established and be able to attract a larger readership</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>Provide funding to run the website</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p>

Sustainable SWOT Business Canvas		Company: Green School Village _(http://greenschoolvillage.org/?lang=en)		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p> <p>The environment is at great risk because of the society's consumption and building practices. Most people are unaware of the situation and need to be educated on these topics.</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p> <p>Permaculture system is sustainable and regenerative design world. It is based on positivism – address negative issues by aiming their positive decisions. It combines a variety of disciplines, through understanding and application of natural forms and patterns.</p> <p>Building with natural materials: Create healthy buildings with natural building materials designed to provide high quality and comfort of living, at the same time leaving very low environmental footprint. Facilitate connections between experts in different areas</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>GSV works for harmonious personal development and the sustainable life of the communities.</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p> <p>The team is made of an interdisciplinary group of people from different education and professional backgrounds – architects, urbanists, lawyers, marketing experts, cultural studies.</p>	 <p>Customer Segments</p> <p>List your target customers and users</p> <p>Home builders, urban planners, architects, people interested in learning about sustainability</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p> <p>There are several educational initiatives that educate and inform people about environmental initiatives and forms of sustainable living, but there is a lack of these institutions in Bulgaria</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p> <p>Holding events and workshops. They are a non-for profit organisations</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p> <p>Funding from government, donations, fees from giving presentations</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p> <p>Website, Facebook, community engagement</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p> <p>Interested communities, schools, kindergartens,</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>Promotes quality lifelong education, sustainable community systems, building with natural materials, shared knowledge between experts in different fields for more comprehensive sustainability action</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p> <p>They are a non-for-profit</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>The EU has a tax deduction regulation for green architecture including building with natural materials, since doing so is more expensive. But municipalities often do not follow this regulation and still tax home-owners who used natural materials. This makes it hard to incentivize building with natural materials.</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>Lower taxes on green houses in accordance with EU strategies and regulations. Offer more support with land or buildings that are demolishing, so NGO's can renovate them with a sustainable focus. Support green businesses financially. Local government can support NGO's that give jobs to unemployed people.</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>

Sustainable SWOT Business Canvas

Company: Food, not Bombs (<https://www.foodnotbombs-sofia.com/>)

 <p>Problem</p> <p>List 1-3 problems that you want to solve</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p>	 <p>Customer Segments</p> <p>List your target customers and users</p>
<p>Disadvantaged groups lack social justice and inclusion, homeless people need food and shelter, and governments prioritize national defense spending over helping its own disadvantaged citizens.</p>	<p>We prepare and share vegetarian food and clothing with disadvantaged people, maintain a community garden, solidarity bath, and winter shelter for homeless people, facilitate knowledge sharing for socially responsible alternatives to the status quo, and support other anti-authoritarian and alternative globalization initiatives.</p>	<p>We promote solidarity in the local community</p>	<p>We are a voluntary and self-organized group of people that cares about social justice in our community</p>	<p>Disadvantaged groups, homeless people, people who want to learn more about socially responsible alternatives to the status quo</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p>
<p>Social welfare programs, homeless shelters, food banks</p>	<p>Administrative costs, costs for purchasing food</p>	<p>Donations, funding from government for NGO work</p>	<p>Word of mouth, fliers, website</p>	<p>Disadvantaged groups, homeless people, people who want to learn more about socially responsible alternatives to the status quo</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>We help others in need. This creates a stronger community in Sofia and in Bulgaria. We also fight against government-supported violence and globalization of the economy, which promotes justice not only locally but also world-wide.</p>		<p>Lack of funding from donations and the government could prevent the organization from reaching more people in the community.</p>	<p>Provide more financial support so the organization can reach more people, as well as physical space for the organization to meet and serve the community</p>	

Sustainable SWOT Business Canvas		Company: Detelina (https://detelina.com/en/)		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p>	 <p>Customer Segments</p> <p>List your target customers and users</p>
<p>People need an option to eat healthy and environmentally friendly snacks.</p>	<p>Produce and distribute healthy snacks including raw and roasted nuts and dried fruit and vegetables.</p>	<p>Today, IADKI DETELINA Ltd. is a leader on the Bulgarian market in the production and distribution of raw and roasted nuts, dried fruits and vegetables. The company has successfully positioned its brands Detelina's Nuts, Detelina's Seeds and Detelina's Fitness on the local market.</p>	<p>Success and excellent results are guaranteed by constant investment in infrastructure, technologies, advertising, and staff training.</p> <p>Our strengths are high professionalism, competence, strong motivation and flexibility in production and pricing</p>	<p>People who want to eat healthy nuts and dried fruit</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p>
<p>Typical commercial processed snacks</p>	<p>Production and packing facilities, storage, transportation, staff salary, investment in infrastructure and technologies, advertising</p>	<p>Contracts with local retailers</p>	<p>Advertisements</p>	<p>Local retailers such as supermarket chains and convenience stores.</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>Provide the public with healthy, tasty food products as an alternative to typical processed snacks that can be unhealthy for consumers.</p>	<p>Food processing and packaging can require a high water and resource usage, and also produce pollution</p>	<p>Large food companies can dominate the market share through better brand recognition, more efficient operations, and contracts with local retailers.</p>	<p>Offer some incentives for growing green businesses such as tax incentives or other financial support so that these companies can compete with the larger commercial companies.</p>	

Sustainable SWOT Business Canvas

Company: Cleantech Bulgaria (<https://cleantech.bg/en/home/>)

 <p>Problem</p> <p>List 1-3 problems that you want to solve</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p>	 <p>Customer Segments</p> <p>List your target customers and users</p>
<p>Green businesses and startups in Bulgaria need support to grow, innovate, and be successful. Bulgaria has room to grow its environment related industries</p>	<p>We support the development of innovation, finance startups and help the development of strategic partnerships in the fields of green industry and business, the environment, science and education.</p>	<p>Our missions is to increase the potential for innovation and long-term growth in the fields of clean technologies, bio-technology and environmental innovation. We encourage partnerships between science, business and the public sector with the goal of reaching a sustainable transition towards environmentally-friendly culture, business and life.</p>	<p>We work with leading professional partners in the country and abroad. Cleantech Bulgaria is an exclusive partner of the two largest public-private partnerships in the EU in the fields of climate change and sustainable energy – Climate-KIC and InnoEnergy.</p>	<p>Startups in the fields of green industry and business, environment, science, and education</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p>
<p>Green businesses would have to represent their own interests individually.</p>	<p>Administrative costs, office space costs, transportation costs, cost of holding events, workshops, and trainings, membership cost for Climate-KIC</p>	<p>Client fees, workshop/event attendance fees</p>	<p>Advertising, website, network through green businesses in Bulgaria</p>	<p>Green businesses that are in planning or early stages and want help developing their company or establishing partnerships in the industry.</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>We promote sustainable innovation, technology transfer, the development of business strategies for startups and growing enterprises, investment consulting, entrepreneurship trainings, and the development of strategies for sustainable economic processes in business, cities and regions. These promote a culture of sustainability in Bulgarian society and beyond.</p>	<p>Energy consumption related to occupying an office space and transportation around the area probably uses nonrenewable resources.</p>	<p>Cleantech Bulgaria needs cooperation between science, environment, and education industries in order to facilitate partnerships that will encourage green business growth.</p>	<p>Local support for pilot projects: implementation and testing of innovative solutions in municipalities and companies.</p>	<p>59 Projects, 107 Startups, 35 Countries</p>

Sustainable SWOT Business Canvas		Company: Centre for Arts, Education, and Culture Sofia		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p>	<p>Customer Segments</p>  <p>List your target customers and users</p>
<p>Youth need a space for recreational activities especially art. They also need to learn the skills for 21st century life, including leadership, financial literacy, organization, technology</p>	<p>Provide a structure to develop youth's interests, competencies, and performance, including activities, programs, and learning opportunities</p>	<p>To give every child the chance to explore their full artistic potential.</p>	<p>Investment in the lives of young people will prepare them to thrive in the world and shape the future.</p>	<p>Children from age 6 to 18</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p>
<p>There are only a few education and culture centers, but we are the biggest one.</p>	<p>Our costs include salaries for teachers and staff, building costs such as rent, utilities, and maintenance, and funding for projects we are developing</p>	<p>We receive funding from the Ministry of Education for teachers and from the municipal government for building costs. We generate revenue through attendance fees and ticket sales from performances we put on, as well as raising funds from donors and sponsors.</p>	<p>We visit schools at the start of every year. We give brochures and talk about our program. We have connections with the schools and they refer many talented children to us. We're active on social media as well.</p>	<p>Families that care about the development of their children and bettering the community</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could hinder the green business from being successful [e.g. policy restrictions or competitors]?</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>In two of the branches, there are clubs that are dedicated to ecologic stewardship and they are trying to develop sustainable mindsets. In addition, providing programs where kids can develop their passions and skills will result in a better society when they grow up.</p>		<p>If the municipality or national government cut their fundings for the organisation</p>	<p>I really hope that the project will raise important questions for the society in our community. It is really the first project which includes active participation of the community into decision-making. I hope innovative solutions will be offered, but also practical decision of the existing problems will be implemented.</p>	

Sustainable SWOT Business Canvas		Company: Bulgarian Association of Bio-producers (http://bgbio.org/)		
 Problem <i>List 1-3 problems that you want to solve</i>	 Solution <i>Outline a possible solution for each problem</i>	 Unique Value Proposition <i>Clear and compelling message that states why this solution is different and worth paying attention to</i>	 Unfair Advantage <i>Something that cannot easily be bought or copied</i>	 Customer Segments <i>List your target customers and users</i>
<p>Bio-product producers in Bulgaria need an organization for representation of their interests at the national level as well as to promote organic farming</p>	<p>BAB is a collective responsible for representing, assisting and encouraging organic producers in Bulgaria; to take care of constituents' interests before state and municipal authorities; to promote members' prestige and economic progress; to advise, train and promote organic farming.</p>	<p>BAB is a branch organization bringing together manufacturers, processors and traders of organic raw materials and products in Bulgaria. The only such association in Bulgaria. With over 280 certified farmers, processors, traders, institutes and businesses, BAB is the engine and speaker of the sector at the national level.</p>	<p>BAB is the only organization of its kind in Bulgaria</p>	<p>Any parties involved in the production and distribution of organic goods</p>
 Existing Alternatives <i>List how problems are solved today</i>	 Cost Structure <i>List your fixed and variable costs</i>	 Revenue Streams and Upscaling <i>List your sources of revenue</i>	 Channels <i>List your path to customers (inbound or outbound)</i>	 Early Adopters <i>List the characteristics of your ideal customers</i>
<p>Without BAB, organic goods companies have to represent their own interests individually.</p>	<p>Administrative costs, providing training or support for organic farmers, transportation costs</p>	<p>Donations, membership fees</p>	<p>BAB's success is dependent on the government's and other organizations' ability to listen to and act upon the interests of the organic goods industry. D7</p>	<p>Organic goods producers or distributors who want a platform for their interests and want to support the industry as a whole.</p>
 Eco-Social Benefit (Strength) <i>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</i>	 Eco-social Costs (Weakness) <i>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</i>	 External & Internal Obstacles (Threats) <i>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</i>	 Enablers (Opportunities) <i>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</i>	 Additional Information <i>Name aspects that are crucial, but haven't been covered yet.</i>
<p>BAB promotes the organic goods economy in Bulgaria, which is important for public health. By protecting the interests of producers and distributors, BAB can ensure that all citizens in Bulgaria continue to have access to organic goods.</p>		<p>BAB's success is dependent on the government's and other organizations' ability to listen to and act in favor of the interests of the organic goods industry. Since BAB is the only organization of its kind in Bulgaria, there should be no competitors to represent the interests of organic goods businesses.</p>	<p>Be responsive to ideas, concerns, and recommendations that are given by BAB so that organic goods organizations in Bulgaria are in the best position to grow and succeed</p>	

Sustainable SWOT Business Canvas		Company: Bread Houses Network Program		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p> <p>Many people in the community, especially groups that are at-risk, sometimes lack the support to establish social connections and discover or develop their creative potential</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p> <p>Offer as a service bread-making events and other activities that nurture respect, inclusion, connection, and creativity. And/or run a bakery that employs people from at-risk groups</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>We drive positive social change through bread-making services and high-touch therapies that nurture respect, inclusion and creativity in the local community. We also enable people to discover their creative potential and identify their local assets (people, cultural traditions, natural resources) for problem solving. All we need is love!</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p> <p>The special feeling of belongingness and understanding that is created in these events</p>	 <p>Customer Segments</p> <p>List your target customers and users</p> <p>Main users are vulnerable groups that need better social inclusion such as: minorities, people with disabilities, refugees, children, and elderly people, and imprisoned youth. Event clients would be schools, companies, non-profits or private users.</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p> <p>There are social programmes, but none of them use bread making as a form of socialising</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p> <p>Financed by activities, e.g. birthday parties, company events, workshops etc.</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p> <p>Event offerings, bakery products sold, paid trainings, educational board game units sold.</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p> <p>We reach customers through social media and the websites of the organization, as well as by email campaigns. However, most of the clients of the paid services choose us due to word-of-mouth recommendations.</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p> <p>Anyone who wants to get involved in/with the community more</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>We promote social inclusion through bread making events aimed at overcoming stereotypes, establishing connections in an informal and spontaneous way. People with disabilities can meet volunteers, improve their social and manual skills, and feel accepted and respected. We also promote awareness of social problems, development of creative potential, and promotion of healthy eating and preservation of the environment.</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>It is very difficult to get in contact with marginalised people. The segregation and separation could lead to a bigger social divide</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>These are other organizations we could connect with: Bulgarian Biodiversity Foundation, with their various initiatives aiming at gathering resources for initiatives such as selling of branded products; WWF Bulgaria, with their project of educational board game which will serve both as awareness raising tool and a social entrepreneurship product; Food Not Bombs, with their initiative for Solidarity Kitchen; and Urban gardening – Sofia, with their initiative to provide possibilities for food growing to people in risk</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>

Sustainable SWOT Business Canvas		Company: Bioprogramme (http://www.bioprogramme.bg/)		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p>	<p>Customer Segments</p>  <p>List your target customers and users</p>
<p>People want to use supplements in their food, tea, or medicine but they don't have an option that is natural or healthy.</p>	<p>Offer packed herbs for people to use in teas, foods, medicines, etc.</p>	<p>The main goal is to use knowledge of the healing properties of herbs, infusions, and food supplements, offering natural products that can improve customers' health and lifestyle.</p>	<p>Bioprogramme is a company with traditions in the production of herbal products and has proven its reliability as a stable business partner.</p>	<p>Individuals interested in using organic herbs, infusions, and supplements to improve their health. Companies such as pharmaceuticals or food/beverage looking to use herbs as an ingredient</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p>
<p>Artificial supplements or mass-produced herbs (tea leaves)</p>	<p>Growing, harvesting, packaging, transporting products. Advertisement. Warehouse maintenance and utilities costs</p>	<p>Individual product sales and contracts with businesses</p>	<p>Advertisement, word of mouth, local markets</p>	<p>Individuals interested in using organic herbs, infusions, and supplements to improve their health. Companies such as pharmaceuticals or food/beverage looking to use herbs as an ingredient</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p>
<p>Bioprogramme promotes the consumption of plant-based supplements that are known to have health benefits, including healing qualities. This encourages people to use ingredients that are natural and organic rather than artificial, which leads to a greener society.</p>	<p>Herb production and processing can use a lot of water and energy. Packaging uses a lot of plastic, which is made from a non-renewable resource and can be harmful to the ecosystem if not recycled. Shipping products is also high in carbon emissions.</p>	<p>Large food companies can dominate the market share through better brand recognition, more efficient operations, and contracts with local retailers.</p>	<p>Offer some incentives for growing green businesses such as tax incentives or other financial support so that these companies can compete with the larger commercial companies.</p>	

Sustainable SWOT Business Canvas		Company: ATD Fourth World (https://www.atd-fourthworld.org/where-we-are/europe/bulg)		
 <p>Problem</p> <p>List 1-3 problems that you want to solve</p> <p>There are people in deep poverty and there is lack of awareness about this or knowledge about how to help people overcome poverty.</p>	 <p>Solution</p> <p>Outline a possible solution for each problem</p> <p>Develop understanding of deep poverty in south east Europe by meeting different people who are undertaking anti-poverty activities. Facilitate meetings and communication among these groups. Work with ongoing initiatives at the local level and enable young people to learn more about ATD Fourth World and get involved. Enable</p>	 <p>Unique Value Proposition</p> <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>ATD Fourth World has been in Bulgaria since 2015, learning from the life of people living in poverty in south eastern Europe. The ATD team is learning about existing initiatives struggling to overcome poverty in the region by getting involved with people who themselves are experiencing poverty.</p>	 <p>Unfair Advantage</p> <p>Something that cannot easily be bought or copied</p> <p>Engagement at the individual level allows the organization to gain a raw and tangible understanding of poverty in Southeast Europe.</p>	 <p>Customer Segments</p> <p>List your target customers and users</p> <p>People and groups who are undertaking anti-poverty initiatives and activities</p>
 <p>Existing Alternatives</p> <p>List how problems are solved today</p> <p>Local and national anti-poverty programs, food banks, social welfare</p>	 <p>Cost Structure</p> <p>List your fixed and variable costs</p> <p>Holding events and workshops, transportation, administrative costs</p>	 <p>Revenue Streams and Upscaling</p> <p>List your sources of revenue</p> <p>Funding from national government, donations</p>	 <p>Channels</p> <p>List your path to customers (inbound or outbound)</p> <p>Through local events, fliers, references from other poverty related organizations</p>	 <p>Early Adopters</p> <p>List the characteristics of your ideal customers</p> <p>People in poverty or people devoted to fighting poverty in the community</p>
 <p>Eco-Social Benefit (Strength)</p> <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>ATD Fourth World gathers knowledge about the nature of poverty in Bulgaria, as well as the conditions for people trying to fight poverty in Bulgaria. This allows ATD Fourth World to spread awareness about the situation of poverty and facilitate the exchange of knowledge about fighting poverty. This results in a greater effectiveness in tackling the challenge of poverty.</p>	 <p>Eco-social Costs (Weakness)</p> <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p> <p>Holding events and workshops can require a lot of transportation, which means an increase in pollution and carbon emissions.</p>	 <p>External & Internal Obstacles (Threats)</p> <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>Lack of funding from the government</p>	 <p>Enablers (Opportunities)</p> <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>Give a channel for organizations like ATD Fourth World to give policy recommendations or discuss issues regarding poverty by holding meetings or panels. That way municipalities could be more engaged in solving poverty.</p>	 <p>Additional Information</p> <p>Name aspects that are crucial, but haven't been covered yet.</p>

Organisations investigated in Nantes

Name of company/organisation	Type of org. Profit/non-profit	Type of org. (NGO, start up, SME, big. Corp.)	Type of NBS	Theme (water, energy, food, nature,...)	Business idea /concept
Accoord	Non-profit	NGO	Social & solidarity economy	Culture	institution for public education; 20 socio cultural centres across the city
Air pays de la loire	Government	Member organisation	Technological	Air pollution	air quality surveillance a. information in a. for the region pays de la Loire; commissioned by the ministry of ecologic transitions
Alisée	Association	not for profit	Technological	Energy	Alisée offers training, studies and supports communities, businesses or individuals in the areas of fuel poverty, co-housing, energy renovation of housing. Anxious to cross technical and social analysis, Alisée proposes to support the structures with the control of the energy, from the design of the project until the use in a step associating all the stakeholders. The association does not replace the design offices, building professionals or social actors, but prepares their intervention and facilitates interactions

Aquasys	For profit	SME	Technological	Water	Aquasys is a Water Resource Management Systems provider. We help national and local water resource authorities, soft drink industry and irrigated farming to optimize the usage of water in the context of climate change. Production managers, hydrologists, elected representatives ... share an end-to-end vision of water resources on their territory, enabling an easy and cost-efficient collective decision making. Our technology combines the efficiency of software packages with the flexibility of open-source technologies. It includes data acquisition apps and hardware, multiformat data centralization, advanced data visualisation and AI based hydro-climate forecasting.
Arbres & Territoires	For profit	SME	Territorial	Nature	Analysis of trees. Consultants on development of green areas, afforestation management, renewal of plantations Production of native trees and shrubs
Aremacs	?	Association	Technological/social & solidarity economy	Waste	Aremacs proposes to bring together the various stakeholders involved in waste management on these sites: organizers, local authorities, municipal services, private partners, etc. Presence across France. Members are private persons
Atao	Non-profit	Association	Social & solidarity economy	Social	aims at the social and professional integration of people in situations of precariousness or exclusion.

Atelier de la Fée au Duc				Food	Workshop where you can order organic, local vegetables. Focus on education and awareness raising.
Atmoterra	For profit	SME	Technological	Air, climate	Atmoterra is an independent research office, operating in France and internationally, specializing in carrying out complex environmental studies. Creativity and technical expertise are our hallmarks in order to offer innovative and sustainable solutions for your projects.
Atmotrack	For profit	SME	Technological	Air pollution	Microsensors to measure air quality
Beem	For profit	Start up?	Technological	Energy	solar panels for electricity production at home
Betterfly Tourism	For profit	SME	Technological	Tourism, climate, environment	Consulting company and software publisher that offers online solutions adapted to hoteliers, restaurateurs and communities wishing to make a concrete commitment to sustainable tourism. The methods and tools offered by Betterfly Tourism focus on optimizing operating costs, reducing environmental impacts and food waste and communicating environmental approaches.
Bio-T-Full	Non-profit	Association	Territorial/social & solidarity economy	Food	Aims to promote urban agriculture. Education, accompaniment, transmission on environmental awareness, citizen engagement, vegetated spaces
Citiz Nantes	For profit		Technological/Social & solidarity economy	Transport	Fleet of shared cars that can be reserved using an app.

CLER	Non-profit.	Association	Technological	Energy	Association for the protection of the environment which aims to promote renewable energies, energy management
Compagnons Bâtisseurs	Non-profit	NGO	Social & solidarity economy	Construction	We accompany each year more than a thousand homes in the rehabilitation of their housing, bringing the families together in the spirit of mutual aid. We contribute to the amelioration of the general housing conditions of the most vulnerable populations and we increase neighborhood solidarity. We put the inhabitant in the center of the rehabilitation project of his own housing. Our work mixes a technical help brought to the families to realize the work in their housing and a social accompaniment which offers a better re-insertion of the families both in their neighborhood and environment.
Compostri	Non-profit.	Association	Territorial	Food/waste	developing shared composting, as well as the valorisation of composting in general and more specifically in urban areas. The association promotes the implementation of shared composting projects
Échobat	Non-profit.	Association	Social & solidarity economy	Construction	Solidarity eco-construction network which brings together building professionals, integration structures and training organisations

Ecos	Non-profit	Association	Territorial/social & solidarity economy	Food	Association with general interest in the field of the environment which experiments with transversal projects linking urban ecology, art and alternative practices in the common, public and shared spaces of Nantes and its Metropolis. Relies on volunteers and memberships.
Ecovelo	For profit	Start up	Technological	Transport	Eco-bikes; smart mobility
Enercoop	For profit	SME	Technological	Energy	Creates cooperatives that deliver renewable energy
Full Good	Non-profit	Association	Social & solidarity economy	Food	Launched ConfiFood project which aims to distribute meals to people in precarious situations
Greenspector	For profit	SME	Technological	Energy efficiency	specializing in the energy-resource efficiency and performance of digital services. develop robust and recognized tools to measure, analyze and improve the energy and resources consumption of mobile, web and IoT applications.

Groupe 3R			Technological/ ocial & solidarity economy	Waste	<p>The 3R group consists of 10 professional organisations working with reuse who operate mainly in the Nantes metropolitan area: 7 associative resource centers and 3 integration structures.</p> <p>The ambition of the 3R group: to structure a common offer and pooling actions, responding collectively to a public market which will be launched by Nantes Métropole and which should allow players to integrate the entire reuse preparation sector:</p> <ul style="list-style-type: none"> • Welcoming and sensitizing users to reuse and waste reduction • Sorting of objects for reuse in recycling centers and eco-points • Specific logistics dedicated to multi-flow reuse • Preparation for reuse (packaging, constitution of thematic batches, shipping to distribution points)
Habitats Energies Naturels	Non-profit	Association	Technological/ ocial & solidarity economy	Construction	<p>The mission of the Habitats et Énergies Naturels association is to support individuals in their eco-built, healthy and ecological housing project in Loire-Atlantique. It is also about developing mutual aid, sharing knowledge and know-how between members.</p>

Impacttrack	For profit	SME	Social & solidarity economy	Social	<p>Impact Track aims to democratize social impact measurement among companies and impact investors.</p> <p>We believe that impact data can help social entrepreneurs to access funds and expand their activities. That's why the platform provides entrepreneurs with tools to plan and communicate their social results in a transparent way.</p> <p>We also know that reliable impact data are essential for making good social investment decisions. Impact Track connects social investors interested in making effective social investments and social entrepreneurs interested in sharing their impact.</p>
La belle ère	For profit	SME	Technological	Waste/const ruction	<p>La belle ère aims to support building stakeholders, operators and occupants, wishing to integrate into the ecological transition and reduce their impact on the planet: circular economy, reuse of materials and materials, zero waste approach, pooling of uses and temporary town planning.</p> <p>La belle ère will offer you a range of concrete, alternative and low-carbon solutions to meet your desires while integrating your constraints.</p>
La Cocotte Solidaire	Non-profit	Association	Social & solidarity economy	Social	Association to end isolation and anonymity in the city

La Net	For profit	Big corp.?	Social & solidarity economy	Banking	Ethical financial cooperative that offers savings and credit solutions oriented towards projects w. social, ecological or cultural benefits. Several locations in France.
La Turbine	Non-profit	Association	Participatory	Culture	Through artistic and scientific stories and experiences, the La Turbine association inspires and sets individuals and organisations in motion, to create a desirable future. Online media, cultural events and inspiration workshops.
Les Ecosolies	For profit?	Cooperative	Social & solidarity economy	Social	Network to support small and large corporations who cooperate to promote the social & solidarity economy. Runs "Le Solilab" a workspace for 235 people, where there are events, a store and food. Also has an incubator.
Le Kiosque Paysan	For profit	Start up	Social & solidarity economy	Food	A logistics platform to simplify access to local, quality products to professionals in Nantes. The project guarantees a fair price to producers/consumers. Also focus on improving carbon footprint by optimizing logistics as well as reducing waste.
L'Echo Habitants	For profit?	network	Social & solidarity economy	Housing	Development of participatory housing. We act to promote this form of inhabiting which places people, users and residents at the heart of the reflections and the project. The inhabitant thus becomes a real actor in his place of life and thereby, in the territory that surrounds him.

L'éco-pâturage professionnel	For profit	SME	Territorial	Nature	Eco-grazing to maintain green areas.
Les Autres Possibles		business			Magazin Carto-Graphique; independent journalism, Reader-based economic model, media education workshops, link btw. readers and territory, local network of bookstors, boutiques, supermarkets, bars,..
Les Connexions	Non-profit	Association	Technological	Waste	<p>The Les Connexions association is basically a crazy idea, that of sorting waste at festivals and sporting events in order to participate in the development of curbside recycling in France. Events are indeed a precious moment of openness and availability of the public.</p> <p>This awareness through action has been our core business for a decade, and is the social purpose of our association, recognized for popular education by the State. Today it brings together a network of 500 volunteers, 14 full-time employees and around ten seasonal workers.</p> <p>Our operating principle is recognized in the field of social and solidarity economy by prefectural approval..</p>
Les Ecosolies		Association	Social & solidarity economy	Food, social, ...	https://www.ecosolies.fr/-Le-Solilab
Les mini Mondes	For profit	SME			toys from recycled plastic made in France
















Les Moutons de l'Ouest	For profit	Start up	Territorial	Nature	Eco-grazing is a method of maintaining green spaces with animals. An ancestral practice brought up to date, it is a simple and ecological solution that improves the living environment.
LeZeste en plus	For profit	SME	Social & solidarity economy	Food	Aims to introduce people to simple and quick techniques to eat better while improving their health & the environment. Offers cooking classes, team building, company program for sustainable food, company course on zero waste, stands for fairs/events and other.
Loki Ora		association	Social & solidarity economy	Housing	Promote and educate the general public about aging well at home. Promote and support the development of shared habitats for seniors. Innovate in taking into account the housing needs of the elderly. Encourage the mobilization of solidarity savings to offer housing solutions to seniors, financially accessible to the greatest number.
Ludotheques (by Accoord)	Non-profit	Association	Social & solidarity economy	Social	13 toy libraries spread across Nantes. Organizes activities, host meetings on parenthood.
MONEKO	Non-profit?		Social & solidarity economy		MONEKO is a complementary local citizen currency which only circulates in Loire-Atlantique within a network of individuals and approved partner structures (shops, restaurants, producers, artisans, associations, liberal professions etc.), gathered around a Charter of values and which integrate social,

					environmental and economic concerns in their activities.
Ô Bocal	For profit	SME	Social & solidarity economy	Food	Zero-packaging store
Omsweetom Environnement	For profit	SME	Technological		engineering and consulting company specialising in environment-related issues and sustainable development on building and city scale.
Phytolab	For profit	SME	Territorial	water, nature	landscape and environment agency with focus on biodiversity, urban public spaces, greenery etc.
Pirouette	For profit	SME	Technological?/social & solidarity economy	Waste, culture	At PIROUETTE, we put the spotlight on talented artisans, who make unique, useful, pretty and durable creations from reused materials. These materials are production scraps or waste, intended to be thrown in the trash, and to end up in the flames of an incinerator.

Rscop	For profit	SME	Social & solidarity economy	Social	Rscop has supports and trains organisations in the Social and Solidarity Economy which strengthen their skills and engage in a process of progress: establishment, implementation and monitoring of societal commitment approaches (Corporate Social Responsibility, Guide to SSE Best Practices) reinforcement in strategy and management strengthening of the conduct of international solidarity projects. Rscop has forged privileged partnerships expanding the range of skills and services available to you: journalistic writing, graphics, communication
Second sew	For profit	SME	Social & solidarity economy	Clothing	Children's wear is made from upcycled fabrics.
Social Planet	For profit	SME	Social & solidarity economy	Social	We are addressing social innovators whether they are positively innovative in the nature of the activity they offer or whether they are in the transformation of their organisations. In both cases they have a positive impact on our social / societal functioning. We offer them methodological and / or digital tools as well as training / support that will promote their projects.
Sterblue	For profit	SME	Technological	Infrastructure, energy	Software for drones to inspect wind turbines and power lines automatically using artificial intelligence. Also offices in Lisbon and LA

Velco	For profit	SME	Technological	Transport	Tracking system for vehicles, system for remote data collection from vehicles, and handlebar for bikes with GPS, tracking, data collection included
Velocampus	Non-profit	Association	Technological/social & solidarity economy	Transport	The association's mission is to promote and encourage the use of bicycles as ecological, economical, friendly and city-friendly means of transportation. Bicycle rental, workshops and mobile repair shop to teach you to repair your own bike. Relies on volunteers.
Vite mon marché	For profit	SME	Territorial?	Food	Delivery service for locally produced food
Weenat	For profit	SME	Technological	Food	Connected meteorological sensors and high-precision agronomy devices for agricultural professionals to optimize resources.
Énergie Partagée	Non-profit?	Entreprise solidaire d'utilité sociale	Technological/social & solidarity economy	Energy	Aims to support the reappropriation of energy by citizens, not only financially through their involvement in the capital of these territorial projects, but also through active participation in the in-depth discussions that make up a sustainable and shared energy transition.

Organisations investigated and interviewed in Nantes with the SWOT Business Canvas

Sustainable SWOT Business Canvas		Association: Compostri		
<p>Problem</p>  <p>List 1-3 problems that you want to solve</p> <p>Lack of reuse of resources Environmental impact from waste collection Lack of sense of community in neighborhoods</p>	<p>Solution</p>  <p>Outline a possible solution for each problem</p> <p>Collective composters to valorize biowaste and create community</p>	<p>Unique Value Proposition</p>  <p>Clear and compelling message that states why this solution is different and worth paying attention to</p> <p>Compostri's shared composting solution offers a means to valorize biowaste while improving social wellbeing by creating a sense of community and it may also help create jobs for the local community.</p>	<p>Unfair Advantage</p>  <p>Something that cannot easily be bought or copied</p> <p>Close connection with Nates Métropole</p>	<p>Customer Segments</p>  <p>List your target customers and users</p> <p>Adult citizens in cities (and their families) Schools (to a smaller extent)</p>
<p>Existing Alternatives</p>  <p>List how problems are solved today</p> <p>Lack of solution on the large scale: Biowaste not reused, sent to combustion People with gardens might have their own, private composting system</p>	<p>Cost Structure</p>  <p>List your fixed and variable costs</p> <p>Fixed costs for materials for composters, administration staff, training of composters</p>	<p>Revenue Streams and Upscaling</p>  <p>List your sources of revenue</p> <p>Can generate income from municipalities who want to sort and valorize their biowaste. Income from municipalities from developing events, working with schools, etc.</p>	<p>Channels</p>  <p>List your path to customers (inbound or outbound)</p> <p>Word of mouth, homepage, events, volunteer ambassadors</p>	<p>Early Adopters</p>  <p>List the characteristics of your ideal customers</p> <p>People eager to compost their waste</p>
<p>Eco-Social Benefit (Strength)</p>  <p>What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?</p> <p>Ecological benefits: valorization of waste Social benefits: improved wellbeing and possibly also generation of jobs (master composter)</p>	<p>Eco-social Costs (Weakness)</p>  <p>What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?</p> <p>It can be difficult to find volunteers/mobilize the inhabitants</p>	<p>External & Internal Obstacles (Threats)</p>  <p>What are external threats that could affect the green business to be successful (e.g. policy restrictions or competitors)?</p> <p>Regulations can impede Compostri's ability to operate such as regulation on waste handling, rules for protection of listed building. When the law on waste sorting is implemented the handling of biowaste might be taken over by big corporations.</p>	<p>Enablers (Opportunities)</p>  <p>What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?</p> <p>New law in France making sorting of biowaste mandatory is a big opportunity</p>	<p>Additional Information</p>  <p>Name aspects that are crucial, but haven't been covered yet.</p>

Sustainable SWOT Business Model Canvas			URITROTTOIR	https://uritrottoir.com/principle-en/?lang=en
Problem	Solution	Unique Value Proposition	Unfair Advantage	Customer Segments
List 1-3 problems that you want to solve	Outline a possible solution for each problem	Clear and compelling message that states why this solution is different and worth paying attention to	Something that cannot easily be bought or copied	List your target customers and users
- wild-peeing in urban e.g. on trees, walls, fences and other - unpleasant odor in the city - puddles on the ground	- civilise wild peeing in urban environments - avoid odor and puddles - take advantage of fertilising property of urin	- THE solution for wild peeing - easy-to-install pissoirs in several models - low maintenance thanks to automatic fill measure (remote monitoring) - saves water	- local infrastructure of maintenance	- "Everywhere, where communities have to deal with nuisances associated with the influx of people; in city centres, at outdoor events, camping sites
Existing Alternatives	Cost Structure	Revenue Streams and Upscaling	Channels	Early Adopters
List how problems are solved today	List your fixed and variable costs	List your sources of revenue	List your path to customers (inbound or outbound)	List the characteristics of your ideal customers
- stationary WCs - mobile toilet cabins with chemicals - lack of solution	- construction cost for devices (fix) - monitoring and maintenance (variable)	- one-time cost for installing - running costs for maintenance	- website - city network? - testimonials (festivals, events, ...)	- cities, event companies, ...
Eco-Social Benefit (Strength)	Eco-social Costs (Weakness)	External & Internal Obstacles (Threats)	Enablers (Opportunities)	Additional Information
What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?	What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?	What are external threats that could prevent the green business from being successful (e.g. policy restrictions or competitors)?	What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBiNAT project?	Name aspects that are crucial, but haven't been covered yet.
- civilises wild peeing - city/ event visitors benefit - potential customers are municipalities and city governments, event organisations and all, who engage with outside events with high influx of people		- cultural circumstances - public acceptability of the solution - local regulations preventing the solution		

Sustainable SWOT Business Model Canvas			Ô Bocal	http://obocal.com/
Problem	Solution	Unique Value Proposition	Unfair Advantage	Customer Segments
List 1-3 problems that you want to solve	Outline a possible solution for each problem	Clear and compelling message that states why this solution is different and worth paying attention to	Something that cannot easily be bought or copied	List your target customers and users
- too much packaging, mostly plastics for consumerables - a lot of waste generation for products that don't need single-use material for its packaging	- using containers that can be reused continuously - design grocery shopping in a way it is as convenient without compromising on the variety of foods		- location/ property advantage - customer base willing to bring own containers	- everyone who does grocery shopping
Existing Alternatives	Cost Structure	Revenue Streams and Upscaling	Channels	Early Adopters
List how problems are solved today	List your fixed and variable costs	List your sources of revenue	List your path to customers (inbound or outbound)	List the characteristics of your ideal customers
- food is often packed in paper, cardboard or (most often) different types of plastics to prevent them from turning bad or getting damaged	- rent, salaries, maintenance (fix) - purchase of goods (may vary), marketing (if applicable)	- sale of goods	- word of mouth, homepage, press	- customers who want to reduce waste from packaging - people who are willing to carry containers for shopping
Eco-Social Benefit (Strength)	Eco-social Costs (Weakness)	External & Internal Obstacles (Threats)	Enablers (Opportunities)	Additional Information
What ecological or social benefits is the business model generating? Who are the beneficiaries? Are they potential customers?	What ecological or social costs is the business model causing? Which key resources are non-renewable? Which key activities use a lot of resources?	What are external threats that could prevent the green business from being successful (e.g. policy restrictions or competitors)?	What are your suggestions for the local government to make it easier for green organisations to grow? What are your hopes and wishes for the URBINAT project?	Name aspects that are crucial, but haven't been covered yet.
- Massive reduction of packaging material - awareness creating about food and handling - benefit on city scale: less reduction (given more shops adopt this model)	- customers may have to switch behaviour - initial shop set-up is expensive since all the containers have to be installed	- lack of adoption/ shift of mindset on customer side		

Organisations investigated in Porto

Name of company/organisation	Type of org. Profit/non-profit	Type of org. (NGO, start up, SME, big. Corp.)	Type of NBS	Theme (water, energy, food, plants, etc.)	Business idea /concept
SCUBIC	For profit	SME	Technological	Water	Reducing energy costs of water with AI (based in Aveiro)
Bluemater	For profit	SME	Technological	Water	Eco-efficient solutions for water treatment. Offer water, wastewater and gas treatment technologies for local governments, private and public companies and to the industries.
Noocity	For profit	SME	Technological	Food/plants	Urban Ecology, Selling self/watering raised bed to grow own vegetables
Balluta	For profit	SME	Social & solidarity economy?		Sustainable Footwear
PortoWalkers	Not-for profit		Social & solidarity economy	Tourism	Free Walking Tour
Running Tours	Not-for profit		Social & solidarity economy	Tourism	Free Running Tours
Aquaponia Porto	Profit		Technological	Plants/Food	Using fish tanks to grow plants and vegetables

Cidade Mais	Non-profit?	NGO	Participatory	Culture	is an annual and free festival with conferences, workshops, open classes, ecological market and artistic program dedicated to sustainability and social transformation. Event is promoted by Project Mais of the civil society organisation Moving Cause. Main goal: influence urban public policies and to change collective behaviours to more sustainable ways of living. The Municipality of Porto is the main partner.
AMAP	Non-profit?		Social and solidarity economy	Food	An AMAP - Association for the Maintenance of Proximity Agriculture - is constituted by the formation of a group of consumers that actively and directly supports one or more farmers / producers ensuring the flow of the production of a season.
Urban Markets	For profit		Social and solidarity economy		There are currently about 34 street markets and fairs, of which 28 are held throughout the year, with different periodicity, characteristics and locations. The remaining 6 fairs have different frequencies: 2 of them are annual, 4 are seasonal. They are distributed throughout the city and have place outdoor at streets, gardens or squares or in their own places and make available a direct business relationship (sale, purchase or exchange) between the seller and the customer, various types of products (food, clothing, animals, books, old goods, jewelry, vinyls, etc). Some of them sell

					used products. Including Mercado Porto Belo, FleaMarket Porto, Mercado Biológico.
Vintage for a Cause	For profit	SME	Social and solidarity economy	Clothing	Vintage for a cause is a sewing club founded in Porto to transform used clothing into excellent vintage clothing for the market. The transformation is done by women over 50, in isolation and vulnerability, supported by designers, and clothes to transform are obtained by themselves, third parties or the textile industry.
Loja do Comércio Justo - Parque da Cidade Porto	Non-profit		Social and solidarity economy		This Fairtrade shop functions as an alternative to traditional commerce by selling products that benefit those who buy, but also those who produce.
Municipal Vegetable Gardens project (Horta à Porta)	Municipal		Territorial	Food	Promotes conversion of vacant areas into cultivated land available to residents who would like to try to do organic agriculture. Network of 13 vegetable gardens across the city.

Jardim das Oliveiras	Municipal		Territorial	Nature/plants	Green roof (olive trees and grass) on top of a semi-open gallery of shops restaurants/cafes with underground parking (Praca Lisboa). This project was completed in 2013 as an effort to improve an area in decline in the middle of Porto by creating a space for community. It is an urban regeneration project of a 5,000 m2 area, taking over one of the oldest areas of the city. The structure includes three levels, with its top-most level consisting of a green roof planted with olive trees referencing the "Porta do Oliva". Used by city workers, tourists and university students.
Porto Innovation Hub	Municipal		Participatory		PIH aims to be a platform for the reinforcement of the city's innovation and entrepreneurship ecosystem. The purpose of PIH is to bring together all the innovation agents of the city and the region, and to involve citizens more in the process of continuous evolution and improvement of the city, thus calling for more active civic participation. PIH also plays a key role in the development of the innovation strategy in the internal context of the Municipality of Porto, involving its employees in the transformation and optimisation of strategies, processes and services.

Condominium Manager project	Municipal (DomusSocial)		Participatory	Social	Concerning the municipal housing neighbourhoods, since 2008 DomusSocial has been putting into practice a municipal program that aims at organizing a manager (among residents) for each entrance hall, after building refurbishment. In 49 neighbourhoods with around 1200 entrance halls, the project has been implemented in approximately 1000 entrances (83%), for which 737 meetings have been held in 2018.
Ecosol - social currency	Non-profit		Social and solidarity economy		Ecosol was a social, virtual currency created in 2014 as a result of the Ecosol movement (an informal collective created in 2013) to reflect, practice and develop the solidarity economy in Porto. The social currency was intended to generate abundance, enhance and bring the community closer, give priority to local and ecological products, strengthen self-organisation and make the community more resilient and less dependent on the current economic system. The network has grown to 300 members and has hundreds of products and services, from clothing, food, toiletries and musical instruments, dance and language lessons, babysitting, massage, carpentry, sewing, transportation, etc. In 2015 the circulation of the currency ended with the end of Porto's solidarity economy network, which due to several factors (lack of practices, members emigration, unavailability of

					members, saturation of voluntary work) was unable to ensure its functioning.
Repair-café Porto	Non-profit		Social and solidarity economy		Circular Economy Portugal in partnership with OPO'Lab created the first repair cafe events in Porto in 2018 (public and free events organized by volunteers), where volunteer repairers teach and share knowledge with visitors, who arrive with objects for repair. LIPOR and ERP Portugal made a collaboration protocol in 2018 for the creation of Waste Electrical and Electronic Equipment Recovery Centres. This collaboration, beyond the field of education and the promotion of technical skills in the area of repair and maintenance of electrical and electronic equipment, will allow joint participation and training in projects for the recovery of electrical equipment of the

					students and include repair café sessions to allow other citizens to participate.
Renovation of Serralves Park	Foundation		Territorial	Nature	Serralves Park occupies a total area of 18 hectares and is composed of a wide diversity of magnificent, harmoniously interconnected spaces: formal gardens, woodlands and a traditional farmhouse. Designed by the architect, Jacques Gréber, in the 1930s, it is a unique example of landscape heritage in Portugal. The general philosophy underlying the Restoration Project for Serralves Park, whose studies were initiated in 2001, was Rehabilitation. This consisted in adaptation of the spaces and/or the structuring elements and composition via various interventions, which made it possible to resolve problems affecting current and future use, function and aptitude. Rehabilitation is an intervention process by means of which the integrity of the heritage in question is safeguarded.

Porto Biospots Network	Public		Territorial	Nature	<p>The Porto Biospots Network is a partnership of the Municipality with "Infraestruturas de Portugal", and is a network of urban forest areas (predominantly autochthonous) that aims to allow the reforestation of adjacent transit routes, major highway nodes, and routes of circulation within the city, transforming environmentally poor lands into green areas that provide multiple ecological services. This initiative foresees the reforestation of 14 areas and the planting of 10,000 trees by 2021, having already completed 2 roads, with a total of 1305 native trees planted. The biospot is the materialization of part of the Municipal Ecological Structure of Porto.</p>
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Porto BioLAB	Municipal			Nature	<p>Porto BioLAB is part of the Porto Biospots Network. It is constructed on the grounds of the old Quinta de Salgueiros (next to the Estádio do Dragão), an urban forest that provides ecological services that brings together the better knowledge and generate opportunities for new learning by establishing a space for dialogue and confrontation of knowledge integrating the various teams with different skills (biologists, architects, landscapers, sociologists, geographers, among others). It is expected to be a pilot area in the evaluation and optimization of ecosystem services, be they environmental, cultural, social or economic.</p> <p>Quinta de Salgueiros has about 4 hectares and, despite its potential, it is currently a focus for the expansion of invasive plants, a challenge for security, a space where waste is illegally deposited. The objective is to requalify the area in order to offer the people of Porto the greatest ecological value possible.</p>
Casas Em Movimento	For profit	Start up	Technological	Energy	<p>Unique, innovative and sustainable turn-key Buildings In Motion, which follow the Sun while producing clean energy and adapting its interior and exterior spaces to its users.</p>
i-charging	For profit	SME	Technological	Energy infrastructure	<p>i-charging is a technology company focusing on electric vehicle charging infrastructure.</p>

WAYZ	For profit				Sneakers made to last with eco-friendly materials, fair prices, and ethically made.
Ecocubo	For profit	SME	Territorial	Tourism	Ecocubo provides personalized experiences of immersion in nature, where nature lovers have the privilege of accessing selected spots in nature, discovering new places and having an exclusive space at their disposal. Its dimensions are 3x3x3m. Built with natural materials, the base consists of a wooden structure and cork walls.
Other relevant initiatives					
Citizen Sensing?	EU-funded project		Technological		urban climate resilience through participatory risk management systems (app)
FabLab Porto	?		Technological		The FabLab Porto is an interdisciplinary space for knowledge sharing and creative collaboration for students, entrepreneurs and enthusiasts to materialize their ideas with the support of machines and tools
FUTURO project	Non-profit?		Participatory/territorial		Planting 100,000 trees in the Porto Metropolitan Area based on volunteer participation. Several participatory methodologies are applied in this project, highlighting the social learning type concerning urban ecosystems and their functions/services.
OPO'Lab	For profit		Technological		OPO'Lab is a multidisciplinary center and the first FabLab in Portugal dedicated to think and explore the creative use of new technologies

					in architecture, engineering, design and other artistic fields, by promoting research, education and cultural activities.
VIVALab	For profit		Technological		FabLab, educational activities (hands-on learning, teacher training, courses and workshops). Identify with "Precious Plastics" philosophy
Parque Oriental da Cidade do Porto	Municipal		Territorial		Urban natural park. Focused on transformation of a depressed urban area into a green space. Created new habitats for vertebrates. Contributes to river management and flood control.
FUN Porto (Native urban forests of Porto)	Municipal		Territorial/Participatory		FUN Porto promotes knowledge about and expansion of urban forests in Porto. Focus on ecology value of native trees - improving air quality, reducing city temperature, carbon sequestration, water regulation etc. Main goal: expand the city's green structure using native species and to promote connection between residents and naturalised spaces essential to the city. Contributes to the FUTURO project of 100,000 trees in Porto Metro.
Projeto Quinto Alcade do Porto (fifth facade project)	Municipal?		Territorial		Partnership between Municipality of Porto and National Green Roofs Association. Main goal: to define a model to include green roofs in city strategy. Aims to identify green roofs in the city and create a set of recommendations towards development/improvement of a

					green roofs municipal policy. Have identified 131 green roofs in 2017.
Parque da Quinta de Lamas, Asprela	Public		Territorial		Urban Park, located in the Asprela Campus Park of the University of Porto, and was intended to promote the requalification of the green spaces located between the Faculties of Engineering (FEUP) and Economics (FEP) of the U. Porto in Paranhos, Porto. Former abandoned and cultivated spaces, farm buildings (mostly uninhabited), university buildings, improvised parking lots etc. Wide tree-lined alley that makes visual and physical connection between faculties and "uncovering of" Ribeira da Asprela (stream)
Wild Garden, University of Porto - Faculty of Sciences	Public		Territorial		Result of experimental design applied on a previously impervious surface. According to the author, it is an area that has been intervened with the guidance of dynamic design, testing autochthonous plants, natural aesthetics, and "controlled randomness". Also the management strategy adopts natural succession as the main driver of change. This approach is an opportunity for occupying uninteresting spaces between buildings, without any previous planning or soil improvement, exploring its potential as part of urban green structure.
PET MINI	Non-profit?		Technological?		Open design electric skateboard made from recycled plastic

ClimAdaPT.Local	Public or PPP?		Participatory	<p>Municipal strategy for adaptation to climate change using ADAM (decision support in municipal adaptation) methodology. Involvement of key local actors in development and follow-up process of the strategy. Adapt.local's mission is to initiate in Portugal a continuous process of elaborating Municipal Strategies for Adaptation to Climate Change, increasing the capacity of Portuguese municipalities and other entities, public or private, to incorporate adaptation to climate change in their policies of in its planning instruments and interventions.</p>
Redesign 3 de Fevereiro Square and Redesign Dr. Tito Fontes Square	Municipal		Participatory	<p>Using participatory methodologies to design public space. To reformulate two public spaces in the city (3 de Fevereiro Square and Dr. Tito Fontes Square) civic participation actions were carried out to actively involve citizens in public space design processes and to find proposals that make these spaces more attractive and fit their needs. These actions are part of the new municipality strategy for the development of citizen-focused projects, using creative and analytical methodologies based on co-creation, optimizing resources and developing more efficient and inclusive projects. Actions can be tracked at their websites and where residents can refer to follow all stages of the process</p>

					and sign up for various initiatives that run along it.
City Café (PIH)	Municipal		Participatory		proposes to create in PIH an informal moment of collaborative dialogue between speakers and guests. This coffee break-inspired activity is participatory in nature and is intended primarily to encourage collaboration among its participants once a month.
Recovery of Avenida da Boavista	Municipal		Territorial		Recovery of an avenue (about five thousand five hundred meters in length, it is the longest Portuguese avenue) that connects Porto's City Park with another avenue. The NBS is implemented by the municipality of Porto and it intends to create a green corridor between the 2 locations already mentioned.
Projeto Ribeiras do Porto	Municipal		Territorial		In addition to improving water quality through the elimination of the main sources of pollution, Águas do Porto has also developed projects for the rehabilitation of the city's streams, especially in the open air sections and in those that can still be converted into green areas. Through the rehabilitation of the water lines, renewed expressiveness is imprinted in the urban fabric through the construction of pedestrian and / or continuous cycle paths along the water line and greater involvement of the population. These paths connect places of cultural interest and public green areas in their vicinity.

Pasteleira Urban Park			Territorial		The Urban Park of Pasteleira is a public park located in the parish of Lordelo do Ouro, Porto. It extends over an extensive area (7 hectares) of forest, divided into two plots by the street of Afonso de Paiva, linked by three wooden pontoons. The forest, an example that remains of the natural vegetation of the Oporto area, consists essentially of wild pines and cork oaks, and enrichment of vegetation by the planting of trees and shrubs of Portuguese flora and exotic species. It was designed in 2004.
Foz do Douro Urban Park			Territorial		The Foz do Douro Urban Park located in the west of Porto city is a green area for public use inserted into a recently developed urban area, which has progressively been built along the Atlantic seafront since the nineteenth century and the Park is part of an overall project submitted in the competition Nun' Álvares Avenue Plan promoted by the Porto Municipality. With approximately 5ha, Foz do Douro Urban Park clearly contributes to increase in regional rates of existing green areas for public use, increasing the availability of open spaces for local and regional level.

