

About this document:

Deliverable lead beneficiary: Universität für Bodenkultur Wien (BOKU)

Dissemination Level: PU (Public)

Authors:

Maximilian Manderscheid, Valentin Fiala, Bernhard Freyer (Universität für Bodenkultur Wien, BOKU)

Co-Authors:

Inken Schmütz (City of Berlin, BERLIN)

Maali Hadad (City of Carthage, CARTHAGE)

Aridja Frank (City of Lomé, LOMÉ)

Graciela Morelli (City of Montevideo, MONTEVIDEO MEC)

Jerneja Ternovec, Blanka Suler (City of Sempeter pri Gorici, SEMPETER):

Sergio Torres (City of Sant Feliu de Llobregat, SANT FELIU DE LL)

Antonina Torrens (Fundació Solidaridad Universitat de Barcelona, FSUB)

Latifa Bousselmi, Lamia Bouziri (Association la Recherche en Action, REACT)

Ina Säumel, Thomas Wachtel (Humboldt-Universität zu Berlin, UBER)

Stella Rentel, Saskia Favreuille (Universität für Bodenkultur Wien, BOKU)

Quality assurance:

Suhana Reddy (Humboldt-Universität zu Berlin, UBER)

For any comments please contact:

edicitnet-coordinator@eurtd.com

maximilian.manderscheid@boku.ac.at

valentin.fiala@boku.ac.at

The document reflects only the views of the authors and the Executive Agency for Small and Medium-sized Enterprises and the European Commission is not responsible for any use that may be made of the information that the document contains.

Table of Contents

1. Executive Summary	4
2. Introduction: Why documenting existing ECS?	5
3. Methods: How ECS were documented?	6
3.2 Existing Information	6
3.3 Workshops on ECS Documentation with the EdiCitNet City Teams	7
3.4 Qualitative Interviews with selected ECS	7
3.5 Online survey - ECS Database	7
3.6 Pitch Videos	7
3.7 Technical visits	8
3.8 Analytical methods	8
3.9 The ECS collection process in Follower Cities	8
3.9.1 City of Berlin	9
3.9.2 City of Carthage	9
3.9.3 City of Lomé	10
3.9.4 City of Montevideo	11
3.9.5 City of Saint Feliu de Llobregat	11
3.9.6 City of Sempeter pri Gorici	12
4. Findings on selected ECS documented in the EdiCitNet Follower Cities	13
4.2 ECS goals	13
4.3 The type of production	15
4.4 The social dimension	16
4.5 Ecological benefits	18
4.6 Barriers and Enablers	19
4.7 Business model & governance structures	23
5. Conclusions	26
5.1 Lessons learned	26
5.2 Meeting the social challenges of the Follower Cities	27
Annex 1 - The EdiCitNet Survey Interview Guidelines for Follower Cities	29
Annex 2 - Guidelines Video Pitching	33

1. Executive Summary

The first phase of the transition pathways methodology (TPM) for anchoring Edible City Solutions (ECS) in cities aims at developing a system model within the respective urban context. This system model helps cities to understand their state of the art holistically and is the basis for creating future scenarios that show us how ECS can be used to address social challenges. A crucial part of the status quo analysis is the documentation of already existing ECSs in each of the Follower Cities (FCs). D4.3 describes how the ECS were collected and described. More importantly, the deliverable also analyses and summarizes the main characteristics of the documented ECS (i.e. the ECS type and goal, social and ecological benefits, governance, and business models as well as barriers and enablers).

The first step for the analysis and documentation was to select relevant ECS from the pool of ECS already identified in other work packages of EdiCitNet. Stakeholder analyses have been conducted in Berlin and Montevideo with more than 300 ECS identified. In other cities like Carthage and Lomé, detailed online research has been conducted to identify the relevant ECS. Out of this large pool of ECS, the City Teams selected the most relevant ECS for their respective case and documented these in detail.

For the analysis and documentation, a mixed-method approach was used, that was adapted to the specific local conditions of each FC. In total 84 ECS have been selected and documented using different collection methods: 5 with the online survey, 30 with interviews, 4 with video pitches, 27 workshops, and 33 through key informants, online research or technical visits.

The main lessons learned from this data collection process are first, that the concept of ECS needs to be adapted according to the local context. Second, it became clear, a flexible method mix for ECS documentation is crucial to adapt to the local circumstances and capacities and capabilities of the involved people.

Findings of the documentation show that most of the identified ECS pursue different forms of urban gardening and have a high focus on providing social benefits for the community. The main social benefits are the provision of education, the fostering of social cohesion, and the increase of the urban life quality in certain neighbourhoods. The main ecological benefits are the recycling of resources, greening the city, and providing environmental services. ECS face various challenges like a lack of resources and support or legal security. To be successful they highly depend on the engagement and the skills of their members and the support of municipal and larger institutions. Education and schools play a key role in the establishment of many ECS.

Findings also highlighted differences between the single FCs. In regard to the future masterplans of the findings show that in some FCs (Berlin, Montevideo) existing ECS might be already part of the solution to the cities' identified social challenge. Here the question is how to upscale these already existing solutions up. In other cities suitable ECS still need to be implemented and therefore it is key to foster the exchange about ECS between the FCs.

2. Introduction: Why documenting existing ECS?

The EdiCitNet project aims to enable each participating Follower City to develop long-term master plans to solve social problems with the strategic implementation of Edible City solutions. In order to achieve this goal, each Follower City creates so-called transition pathways from the current status quo towards social, resilient and sustainable productive Cities. The method used to create such a pathway is the Transition Pathway Methodology (TPM). The TPM consists of three distinct steps (see Fig. 1).

During the system development, the local EdiCitNet City team in each FC creates a comprehensive system model, which explains the current situation in their city. The models help to better understand the social challenges the cities are facing, their context, and also the current state of the art of existing ECS. The models provide the foundation for the second phase within the TPM, scenario development. In this phase, different scenarios are created that show how the city could develop within a certain time span. The scenarios will show us how current social challenges could be overcome, by promoting existing ECS or by implementing new ones. Finally, in the third phase, transfer development,

the best scenario for each FC will be chosen and concrete strategies on how to move from the status quo to the chosen scenario are created. The combination of these three steps leads toward the development of strategies that embed ECS in local urban masterplans.

Documenting the existing ECS in the Follower Cities is crucial for several of the phases within the TPM. Cities need to understand how existing ECS are functioning within the complex urban context, if they want to assess their potential contributions to create more resilient and sustainable cities.

Second, the documentation of existing ECSs provides also a starting point for the scenario development. Only when cities know what kind of ECS are already existing and what their potentials and limitations are, they can start to create future scenarios on how those ECS might develop in the future.

Finally, the documentation of ECS is not only important for the TPM and WP4 but also helps to share the findings of EdiCitNet with a broader public. The documented ECS will be transferred into the EdiCitNet Edible City Catalogue, where everybody can assess and use available data to further spread ECS.

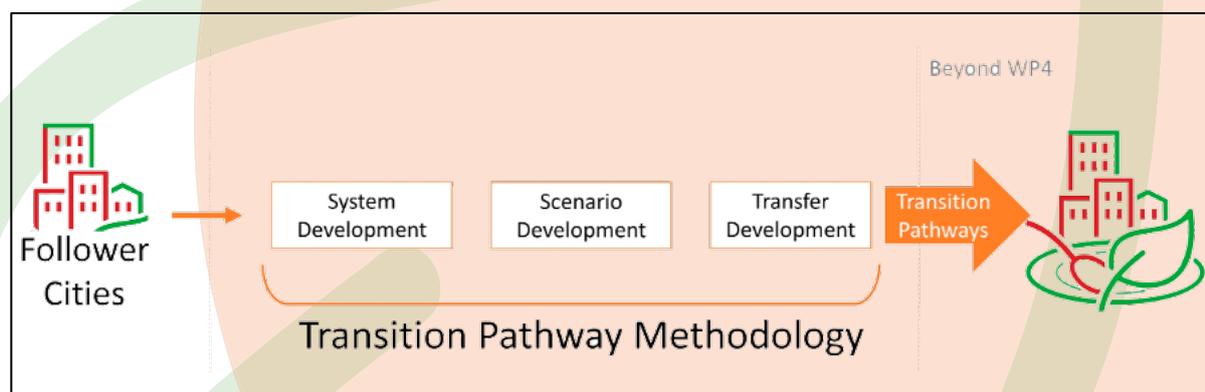


Figure 1: Overview of the Transition Pathway Methodology (TPM)

3. Methods: How ECS were documented?

In the following the mixed methods needed to meet the reality in each Follower City as well as the single methods for documenting the ECSs are described. Finally, we also describe how the collected data was analysed in order to generate the findings presented in D4.3.

3.1 A mixed-methods approach

The documentation used data and information already collected for each partner city in the EdiCitNet project (e.g. D1.4) and collected new data. For example, in Berlin, Carthage and Montevideo a general stakeholder analysis provided a first screening of the existing ECS. The City Teams then made a selection of ECS that were of interest to get deeper insights about. In other cities (Sant Feliu de Llobregat, Sempeter pri Gorici and Lomé) the local City Team network was used to select the ECS of interest. For the deeper analysis, a portfolio of different methods was offered to the Follower Cities. Each EdiCitNet City Team in collaboration with their respective HUBs choose the mix of collection methods most suitable to their specific context and team working procedure. The collection methods were adapted for each city and the feasibility for the EdiCitNet City Team was maximized.

In total, the EdiCitNet City Teams, the HUBs, and BOKU collected data from in total 84 ECS. Table 1 provides an overview of the number of ECS documented per city and which methods were used in each city for this data collection (Table 1).

Berlin. In Berlin, a total of about 300 ECS have been identified through a stakeholder analysis. Out of these, the City Team selected 35 ECS to document in detail. This has been done in 14 cases with qualitative interviews and complemented with a workshop. In 21 cases the necessary information was documented through key informants.

Carthage. in Carthage, online research has been conducted to screen the existing ECS. From this 17 ECS showed interest in EdiCitNet and have been identified by the city team as interesting for a deeper analysis. 15

of these ECS have been analysed in two different workshops. One has been documented through a qualitative interview and another one has provided information through a key informant of this ECS.

Lomé. In Lomé, the documentation process has been set up as described in 3.9.3 but the information could not be analysed in the time frame of this deliverable. Detailed information will be made available soon.

Montevideo. In Montevideo, a stakeholder analysis has shown a total of 50 ECS in Montevideo. Out of these 16 ECS have been identified by the City Team as relevant for the processes in WP4. Ten have been documented by qualitative interviews and another six have through key informants.

Sant Feliu de Llobregat. Here the wider network of the City Coordination and the two HUBs have been used to select the relevant ECS. In total, ten ECS were identified. Five have been filling in the online survey “Toolbox for enhancing ECS Learning and Implementation” that is connected with the ECS database. Three in-depth qualitative interviews have been conducted. And in another two cases, key informants provided the necessary data.

Sempeter pri Gorici. In Sempeter pri Gorici due to its size, the ECS relevant for the WP4 process have been identified through the network of the City Coordination and the HUB - in total 6. Four of these choose video pitches to present themselves and document the ECS in detail. Another two are documented through qualitative interviews.

In total – excluding the interviews in Lomé – 30 qualitative interviews have been conducted; 27 ECS have been documented through workshops; 33 ECS were documented through key informants’ contributions, online research or technical visits; five times the online survey has been used as a documentation tool and four pitch videos were produced.

3.2 Existing Information

Within the EdiCitNet project information is already available that can be used to better describe the context of existing ECS. This information can be mainly found in

D1.4 and D6.2 and is based on a systematic literature review, different types of interviews, stakeholder analysis, and knowledge provided by the EdiCitNet City Teams. (Grey) literature review (e.g. databases or online research) is a suitable method to document the ECS context in those cities that have a long history of ECS documentation and research.

3.3 Workshops on ECS Documentation with the EdiCitNet City Teams

We conducted larger workshops where participants introduced, described, shared knowledge about, discussed their respective ECS, and fostered the networking aspect among the ECS. The data collected was either transferred to the EdiCitNet database or analysed. In total it was possible to conduct four workshops in three FCs. One in Berlin and another two in Carthage and another one in Montevideo. In the case of Berlin, the workshop was a supplementing activity to qualitative interviews to dive deeper into the social dimension of the ECS identified as relevant for the social problem of Berlin regarding the TPM-process.

In the case of Carthage, the workshops were used to identify and describe relevant ECS.

Also, in Montevideo, the workshop was used to deepen the knowledge about certain ECS and their functionality.



Picture 1: Workshop for ECS data collection in Berlin (18th February 2020)

3.4 Qualitative Interviews with selected ECS

A qualitative interview guide has been created and used in those Follower cities where it made sense (Berlin, St. Feliu de Llobregat, and Lomé). The advantage of

the qualitative interview approach is that ECS can be interviewed very quickly and uncomplicatedly. Also, it is possible to clarify open questions and understand sensible topics.

Guidelines for conducting qualitative interviews were derived from the structure of the online survey, in order to collect comparable data (see Annex 1). The interviews were performed by the local city teams.

3.5 Online survey - ECS Database

The general ECS documentation was integrated into the general EdiCitNet survey launched in June 2020 as a general project activity led by WP2 (Toolbox for enhancing ECS Learning and Implementation).

The general EdiCitNet survey will access more detailed information about ECS and their sustainability performance. It contains and presents information about:

- The place of the ECS
- The development and type of ECS
- The produced product/ food of the ECS
- The production networks the ECS are embedded in
- The social activities the ECS is part of
- The governance structures of the ECS
- The business model of the ECS
- The ecological performance ECS
- The production methods of the ECS

Once the general EdiCitNet survey is running well the documentation presented here can be extended on a more holistic database.

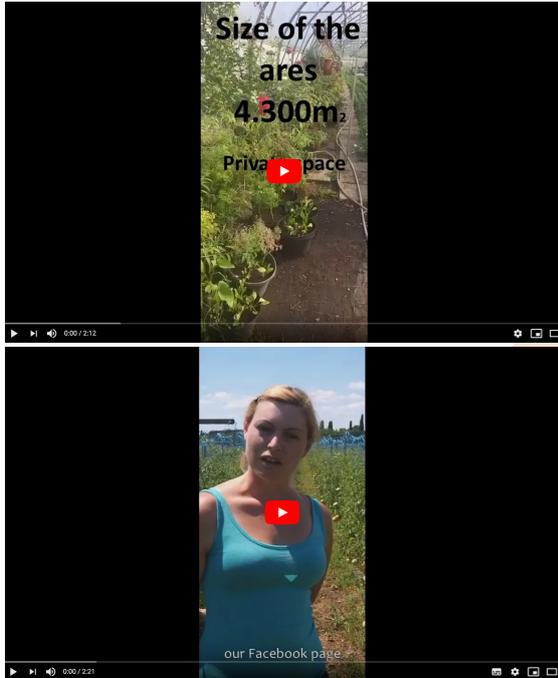
3.6 Pitch Videos

FCs were also encouraged to produce video pitches of the ECS in their cities. The goal of these videos is to share the experience of ECS in each city, especially how they contribute to a better and more sustainable livelihood. It also allows ECS to literally show the ECS and explain in a very short video its functionality, goals, and effects. This has mainly been used in Semper pri Gorici since the majority of ECS found there identified this method as the most suited.

The audience should get an idea of how

the ECS are run and should become interested in EdiCitNet and motivated to implement similar or also other ECS in their neighbourhoods, cities etc.

For this practice, a guideline has been handed out to cover the main points of ECS in coordination with the online and the qualitative survey. The guidelines for the pitch videos can be found in Annex 2.



Picture 2 & 3: Screenshots from pitch videos of ECS in Sempeter pri Gorici (Source: YouTube)

3.7 Technical visits

Following an impulse from one of the FCs - Carthage - technical visits have been introduced to the collection methods. This method has derived from the need to better understand the objectives behind, concepts of the implementation, methodologies, governance structures, models, and specific techniques and practices as well as socio-economic impacts of certain ECS. This has mainly been practiced in Carthage where a network is already active and the desire for mutual learning is high.

3.8 Analytical methods

In the first step for data analysis, a list of basic parameters to characterize the ECS

in each Follower City (goals, social benefits, ecological benefits, etc.) was created. That list was transferred into an online excel sheet. Follower Cities and HUBs used these parameters to structure their documented data and make their findings more comparable. They used the information they collected with all their methods to fill out the parameters in the excel sheet and characterize their ECS. In total 84 were described.

In a second step BOKU further analysed the provided information and coded the description of the parameters. The coding was done to standardize the description of the parameters provided by the FCs and HUBs. This is a necessary step to make the results more comparable. An inductive coding approach¹ was chosen. Here the descriptions from the excel sheets were standardized in several iterations in order to create broader categories that describe the goals, production type, social benefits, ecological benefits barriers, enablers, business model, and governance types of the ECS.

This allows us to provide a quick overview of the situation in the FCs and also made it easier to compare the single FCs with each other. Coding always reduces information.

3.9 The ECS collection process in Follower Cities

In the following, we briefly describe the collection processes in each Follower City (FC). This will help to get a better understanding of how the information was collected.

The main challenges of the FCs regarding the collection process were content-related. It was necessary to define ECS in the local context of each FC and also create criteria for their preselection process.

Other challenges were linked to COVID-19 and the consequences and restrictions coming from the city-specific countermeasures.

In table 1 a brief overview is given how the FCs selected the ECS for documentation.

Table 1: The adapted selection processes for the FCs to select their ECS for documentation

¹ Mayring, P. (2010). Qualitative Inhaltsanalyse: Springer.

Cities	Selection though...			
	...earlier contact with the municipality (e.g. part of earlier funding projects)	...networks (HUBs, private, professional, NGOs)	...research (e.g. stakeholder analysis, online research)	...location (e.g. ECS is in the focus area selected in step 2 of TPM)
Berlin	X	X	X	-
Carthage	-	X	X	X
Lomé	-	X	X	-
Montevideo	X	X	X	X
Sant Feliu de Llobregat	-	X	-	X
Šempeter pri Gorici	-	X	-	X

3.9.1 City of Berlin

EdiCitNet with its social focus is affiliated in Berlin with the urban renewal program “Social Cohesion” run by the Berlin neighbourhood management. The goal of the program is to stabilize neighbourhoods and strengthen their social cohesion. Especially community garden projects proved to be very successful in providing social benefits for the neighbourhoods. All the projects funded are documented in an in-house database. The focus of Berlin is on socially disadvantaged neighbourhoods and community gardens the ECS identified in a stakeholder analysis - with about 300 ECS - were filtered.

In-depth qualitative interviews have been conducted and analysed to deepen the understanding of the relevant ECS that were willing to participate in this process.

To contact the respective ECS an invitation email was sent to various contacts affiliated with ECS in Berlin as well as the program “Social Cohesion”. Recipients were invited to a workshop (February 2020) in Berlin to discuss social indicators and the social dimension of ECS and were offered to have a phone interview prior to the workshop to gather information on the ECS they are involved in.

The workshop was structured in three parts. The first one focused on the observed social effects of the ECS, the second one on the activities and organizational structures providing these social effects, and the third one dealt with ways of measuring how those effects were delivered. Each part used participatory methods (discussion, focus groups, world-café, etc.) and the results were written on cards and flipcharts and finally discussed. The final discussion part and presentation of the results were recorded and analysed. This data has been analysed to document the different ECS in detail.

3.9.2 City of Carthage

Documenting ECS was based both on a comprehensive web and social media scanning, as well as the use of professional and private networks and surveys.

An online search was conducted in order to identify (1) associations whose main objectives are: Sustainable development, agriculture, environment, and citizenship, existing in Tunisia; and (2) entrepreneurs and NGOs whose projects, start-ups, or activities are related to the concept of ECS. Additionally, REACT, the Carthage City Team, and collaborators used their private and professional networks to identify other initiatives and experiences of ECS.

As few examples of ECS are implemented in Carthage and as Carthage is part of the Governorate of Tunis, it was decided to focus first on Tunis Governorate in our selection of available ECS and related expertise.

The documented ECS is a representation of actors from the complete value chain (from production to the market). It includes ECS holders; Nature-based enterprises (Start-up/SMEs) and distribution enterprises (SMEs). We also integrated RDI project holders in order to motivate the participation of researchers and experts in the edible network of Carthage.

They were also phoned, contacted, mailed, and asked about their interest to be part of the EdiCitNet Tunisian network. A communication platform was installed at REACT for continued interaction and to foster the network in Carthage. Based on this feedback a networking workshop was organized. Representatives of the ECS were invited to the meeting. A priorly sent out mini-survey invitation-form helped to collect first information to better organize the program of the workshop and feed the documentation in WP4. Participants were requested to present their ECS (Vision and objective, Implementation, difficulties, Perspectives).

A second workshop “Bilan de la crise COVID 19 sur les ECS” was held during the lockdown related to COVID19 crisis (the 13th of May 2020) to evaluate how ECS are dealing with this unusual situation, but also to analyse the resilience of the existing ECS models and the necessary actions.

It is important to underline that currently the number of ECS in Tunisia is growing very fast, driven by NGOs, young entrepreneurs, and researchers. The market and economic opportunities exist. Also due to the engagement of ECS holders, policymakers are showing their interest by several visits to ECS.

Some important challenges faced during the collection process were:

- The need to motivate the ECS owners and gain their interest in the EdiCitNet project: To explain the direct impact of

the project and the benefits of joining the network

- The fact that ECS are expecting financial support by getting involved in the EdiCitNet project
- The creation of a win-win climate of trust between all partners and collaborators
- Lack of time and resources needed for a face to face exchange
- Lack of legal and administrative limitations to successfully apply the ECS concept in Tunisian contexts.

3.9.3 City of Lomé

The City Team of Lomé is focussing on open urban spaces and its greening to produce additional food in a poor urban environment. The city has planted about 12.000 trees to engage in ECS activities and connected services.

The ECS collection process in Lomé has been set up before any COVID 19 measures were active. The initial procedure integrated qualitative interviews and partly the online survey provided by WP2.

These plans required adaptation after it became clear that COVID-19 would have much more impact on the tasks of WP4 than expected. It has been agreed that the local EdiCitNet staff collects the necessary data using predominantly qualitative interviews as collection methods. Due to the novelty of the concept, it has been important to analyse the different activities in the city. Key informants in this discussion were identified and have been interviewed to document the different ECS related activities and services. These key informants mostly were part of different NGOs or the city administration.

The interview guidelines provided by BOKU have been adapted to fit the specific circumstances in Lomé in order to match with the respective target group.

In total 19 members of NGOs and 25 members of the local government have been identified for these interviews. Based on the interviews with the members of NGOs relevant activities and services under the definition of ECS were identified.

Due to COVID-19 adaptations needed to be

done. The ECS could not be visited and either alternative methods needed to be found or the meetings needed to be postponed. In many cases, the interview partners have no access to regular internet nor mobile phone connection. Therefore, the municipality of Lomé as a partner in WP4 has become independently responsible to collect the necessary information with the support of BOKU. Two master students of the University of Lomé university supported the local team with the collection of the ECS information. This measure was necessary since the interviews needed to be done in person and traveling to the different locations is not easy in the rainy season and at the same time, mobile phones and internet connections are not stable enough. The students have been following the interview guidelines and documented in detail (transcripts written, interviews recorded, pictures taken, and report written).

The documentation of ECS has started in mid-July and will be ongoing after the submission of this deliverable to collect the necessary information about existing ECS relevant for the future processes of WP4.

3.9.4 City of Montevideo

The Montevideo team together with the Director of the Montevideo Rural Unit (UMR) of the Montevideo City Council, came to a common understanding of ECS and defined the focal areas of the EdiCitNet Project, which would be developed in the territory of Municipality G².

In meeting with the UMR Director, a preliminary list of ECS was defined, with emphasis on community and/or institutional gardens that meet the following criteria:

1. Implemented in public spaces
2. 2 years of experience and currently active
3. One or several of the following objectives: educational, social inclusion, contribution to Food and Nutritional Security, health promotion, recreation, and leisure.
4. The participating actors belong to a

wide spectrum of society: children, disabled people, teachers, high school students and their families, older adults, users of public health centres, young agronomy students, neighbours, and families of school children in public schools

5. Belonging to heterogeneous areas.
6. Working (or have links) with one of the institutions that are part of the Project Team (IM, ME, Fagro-UdelaR).

Fulfilling these requirements several interviews have been made and key stakeholders of the different identified ECS have been providing detailed information about the first collection of information.

In a second step, these ECS and more will be accompanied to fill in the online survey with a support member of EdiCitNet after this report.

In Montevideo, it has been challenging to agree on a set of criteria to preselect some of the ECS regarding the fact that in Montevideo hundreds of ECS can be found. At first, the approach was to use the online survey to cover a lot of these ECS. As it became clear that the survey would not be available for the time period required the strategy was shifted. Then it became more suitable to use key informants to gather the necessary information in interview settings.

Due to COVID-19 regulations, physical meetings have not been possible and this limited the number of collected ECS to the ones that were able and willing to do an interview via telephone or digital ways.

3.9.5 City of Saint Feliu de Llobregat

The ECS Collection process in Sant Feliu de Llobregat is in constant coordination with its HUBs Fundacion de Solidaridad Universitat de Barcelona and the University of Girona. Since the Sant Feliu de Llobregat and the HUBs are also highly involved in the work of WP2, the approach was to do as much as possible data collection with the online survey. It was initially planned to use predominantly the first version of the

² District in northern Montevideo

online survey to collect the necessary information about existing ECS.

Two main steps were integrated into the strategy to cope with the delays. One was to enforce the data collection with qualitative interviews. The second was to use a preliminary non-digital version of the survey and conduct personal sessions with the interviewees and guide them through the questions. This way the interviewers from the HUBs could get a better picture of the performance of the ECS which is of advantage for the later processes in WP4.

The different ECS have been identified in the work with the City Team and through the city coordinator. The ECS selected range from small gardens to small enterprises offering cooking and serving classes to disabled people.

Due to COVID-19 many of the ECS had troubles continuing their daily business and were, therefore, harder to reach. With this additional effort, it was possible to collect data in 10 ECS with a mixed approach of qualitative interviews and the online survey. For the qualitative interviews, a master student of BOKU has been engaged. Using the snowball system, it was also possible to gather perceptions and experiences from different stakeholder perspectives giving deeper insights about the ECS. These will be beneficial in the scenario development of the TPM.

In general, internal delays regarding the whole process of WP4 delayed the start of the ECS collection process. In the first instance, this has been a staff change due to elections and a change of local govern-

ment. Secondly, Spain in general and especially the area of CoSF has been hit hard by the COVID-19 countermeasures.

Since the online survey is available in Catalan from July 2020, the collection process will be carried out following a mixed approach and be ongoing after the deadline of this deliverable.

3.9.6 City of Sempeter pri Gorici

The dominating ECS in Sempeter pri Gorici are private gardens around the houses. People use their own ECS for enriching the family diet with herbs and vegetables. Other ECS such as community gardens are rare like in other small cities. Citizens and stakeholders were invited to a workshop on the 18th of June 2020. The aim of the workshop was to identify other types of existing ECS. Also, in the workshop, the meaning of the concept of ECS for the local context of Sempeter pri Gorici was discussed.

In total 6 ECS have been identified of which four have chosen video pitches as the most convenient method to collect information about the ECS. The other ECS have been interviewed.

Challenging was the size of the city and the definition of ECS as such. The concept is defined very openly and the first challenge was to find a common definition for a better understanding of which initiative, activities, and services could be counted in.

As Sempeter pri Gorici is a very small town due to what there is limited ECS found in the town. This is why there has been only a little number of ECS collected.

4. Findings on selected ECS documented in the EdiCitNet Follower Cities

From the variety of existing ECS in total 84 solutions have been selected by the EdiCitNet City Teams for a deeper analysis of their objectives, social and ecological benefits of the ECS as well as their governance structures.

4.2 ECS goals

Taking a look at the goals shown in table 3

and figure 2 shows that most ECS aim to produce food. However, besides food production, the ECS also aim to provide additional benefits for the cities. Most prominent is the provision of education, the increase of the local life quality of the neighborhood, the fostering of social cohesion, and the protection of natural resources.

Table 3: Goals pursued by the ECSs in the different FCs

Goals	Berlin	Carthage	Lomé	Montevideo	Sempeter pri Gorici	Sant Feliu de Llobregat	Sum
Food production	5	8		10	3	3	29
Education	13	1		8	1	2	25
Social cohesion	8	2		0	1	2	13
Neighborhood improvement	10	3		0	0	0	13
Green care	4	0		2	1	1	8
Participation	5	0		2	0	0	7
Awareness creation	2	3		0	0	2	7
Sustainable consumption	1	2		0	0	3	6
Sustainable resource use	1	1		0	3	0	5
Environmental protection	0	3		0	1	1	5
Climate protection	5	0		0	0	0	5
Water	1	2		0	0	0	3
Health	3	0		0	0	0	3
Food networks	0	1		0	0	2	3
Culture	2	0		0	0	1	3
Generations	1	0		0	1	0	2
Resilience	0	1		0	0	0	1
Food security	0	1		0	0	0	1
SUM	61	28	0	22	11	17	139

Please note that one ECS can pursue several goals. Therefore, the total number of goals exceeds the number of ECSs.

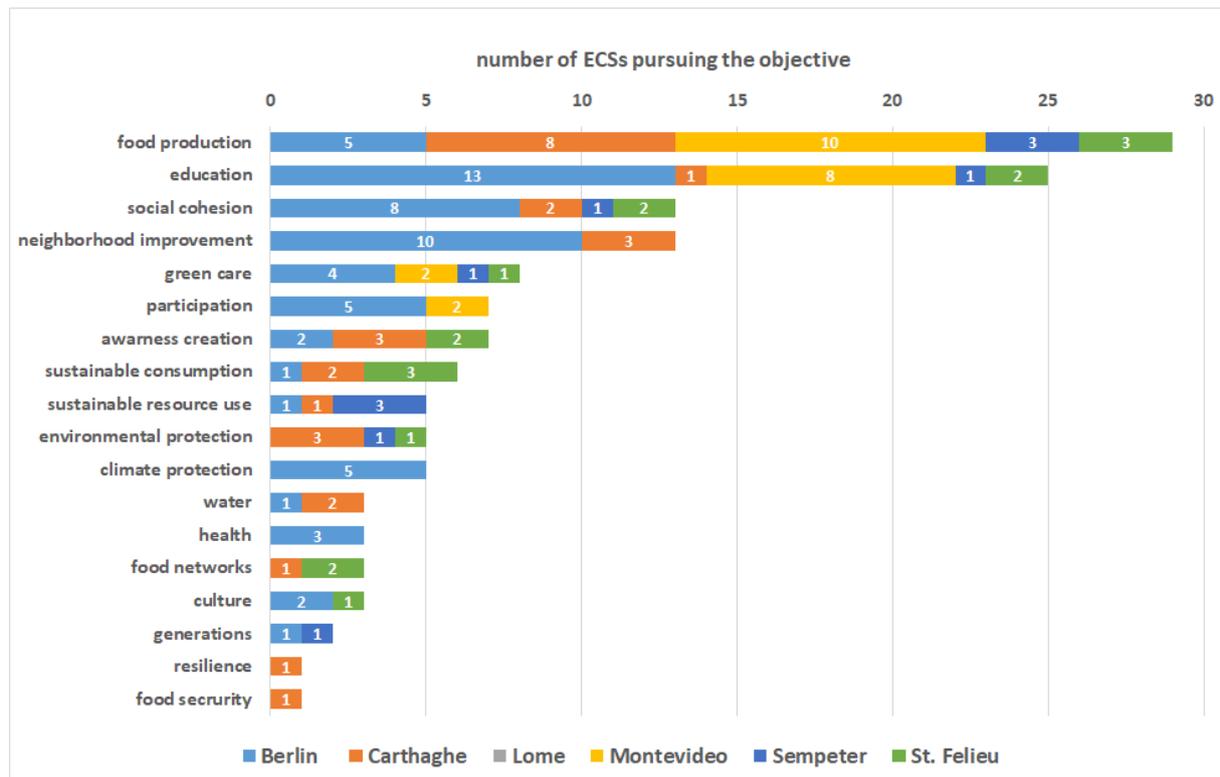


Figure 2: goals of the documented ECSs (one ECS can pursue several goals) N=84 +Lomé

The collected information also shows that the ECSs in the various Follower Cities pursue different goals.

Berlin: In Berlin, food production is not the most prominent goal. Instead, most of the documented ECS have a strong focus on improving the livelihoods of the neighbours by greening the city, educating its inhabitants, and promoting social cohesion. It seems that the dedicated purpose of the ECSs is to improve disadvantaged neighbourhoods within the city. This role is in line with the agenda of the Berlin “Senate Department for Urban Development and Housing”, which actively supports many of the documented ECSs. In comparison to the strong focus on improving disadvantaged neighbourhoods, goals related to climate change adaptation and mitigation, food production, and sustainable use of resources play only a smaller role.

Carthage: In line with the general trend many of the ECS documented in the City of Carthage have the aim to produce food. However, Carthage has a very diversified portfolio of documented ECS (see production methods). Consequently, the goals of

the ECS range from sustainable food production, resource use, social cohesion, environmental protection to greening the city as well as green care. At first glance - and in stark contrast to the City of Berlin - social goals seem to play only a very minor role. Nevertheless, we will later see that the ECSs in Carthage have many positive social impacts.

Sempeter pri Gorici: In the small more rural city of Sempeter pri Gorici the goals of the documented ECSs mainly focus on sustainable food productions and resource management. A reason for that is most likely that many of the ECSs are farms or heavily connected to farms. Still, already the existing ECSs in Sempeter pri Gorici focus not completely on ecological aspects, but some of them also aim to promote intergenerational and social cohesion in certain neighbourhoods.

Sant Feliu de Llobregat: In comparison to the ECS in the other FCs the ECS of Sant Feliu de Llobregat are balancing the social, ecological, and economic goals. The main goal is food production but through this also social cohesion, green care, creation of

local food networks and education should be promoted.

Montevideo: In the city of Montevideo the documented ECSs have a very clear focus on food production and providing education. Often these two goals go hand in hand and the purpose of an ECS is to provide education for local citizens by producing food in a sustainable way. The ECS documented in Montevideo are mostly urban gardening projects, that have been established in cooperation with schools or other educational institutions.

4.3 The type of production

Taking a look at the documented types of production it is noticeable that the majority

of ECS are gardening activities.

The data shows that the overwhelming majority of documented ECSs are different types of urban gardening projects. Gardening seems to be a promising tool to fulfil the goals of the ECSs. A lot can be learned from planting seeds to growing vegetables. Gardening activities can foster social interactions between neighbours. Finally, it is also a good way to provide access to fresh and healthy food. However, besides urban gardening also other types of production were documented. Some of them are connected with more traditional farming activities others like aquaponics or mushroom production are connected with young urban startups and innovative entrepreneurs.

Table 4: Type of food production in the ECSs in the different FCs

Type of production	Berlin	Carthage	Lomé	Montevideo	Sempeter pri Gorici	Sant Feliu de Llobregat	Sum
Gardening	17	8		10	1	1	37
Farming	0	0		0	4	4	8
Beekeeping	0	3		0	1	0	4
Other	1	3		0	0	0	4
Food manufacturing	0	2		0	1	0	3
Permaculture	1	2		0	0	0	3
Mushroom production	0	2		0	0	0	2
Aquaponics	0	2		0	0	0	2
Sum	19	22	0	10	7	5	63

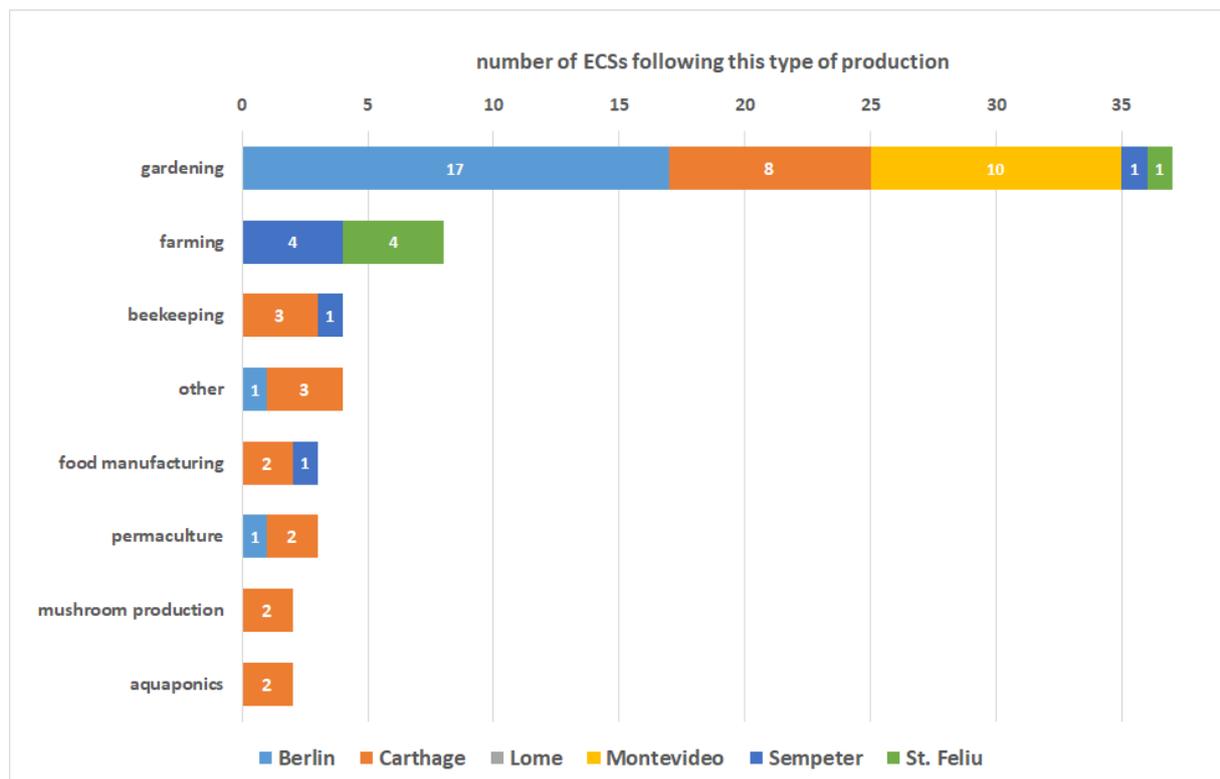


Figure 3: Type of food production in the ECSs in the different FCs

Berlin: If food is produced within the documented ECSs, it is mostly done in different types of urban gardening projects. Often these gardening projects follow sustainable production principles like organic agriculture.

Carthage: In contrast to the other Follower Cities the ECS in Carthage are engaged in very different types of food production and are not just focused on urban gardening. This variety includes aquaponics, mushroom production, beekeeping, etc. Also, some of the ECS in Carthage are not engaged in primary food production, but in food processing and manufacturing.

Sempeter pri Gorici: As indicated above the smaller city of Sempeter pri Gorici is a special case, because of the high connection between city and rural areas. This becomes also obvious when we look at the different types of food production. In contrast to the other Follower Cities, Sempeter pri Gorici the dominant way of producing food is farming and not urban gardening. Besides that, also food manufacturing and beekeeping play a certain role.

Sant Feliu de Llobregat: The ECS are focusing on small scale gardening activities and farming activities. As the city itself is embedded in the Parc Agrari and has a long tradition and connection to these types of production.

Montevideo: The ECS documented in Montevideo are mostly urban gardening projects, that have been established in cooperation with schools or other educational institutions. These offer alternative learning platforms for students to learn about food and nutrition. Consequently, food in this ECS is produced via urban gardening.

4.4 The social dimension

As already indicated, the documented ECS provide in addition to the production of food also various other social benefits to the communities. The most prominent social benefits were the provision of education and the promotion of social cohesion. Both of those benefits are also reflected in the goals of the many ECS. Besides that, also the increase of local quality of life in the urban neighborhood, the integration of people, the establishment of local food networks, and the insurance of food security are important social benefits provided by

ECS. In all the Follower Cities the ECS seem to have clear social benefits, but again there

are differences between each Follower Cities.

Table 5: social benefits of the documented ECS

Social benefit	Berlin	Carthage	Lomé	Monte-video	Sempeter pri Gorici	Sant Feliu de Llobregat	Sum
Education	12	5		8	4	2	31
Social cohesion	21	1		9	0	0	31
Improvement urban life quality	11	1		0	0	0	12
Integration	2	2		7	0	0	11
Food security	0	1		8	0	0	9
Local food networks	7	2		0	0	0	9
Empowerment	1	1		4	0	0	6
Climate protection	4	0		0	0	0	4
Intergenerational cohesion	1	0		0	3	0	4
Health promotion	2	1		1	0	0	4
Green care	1	1		2	0	0	4
Culture	0	2		0	0	1	3
Economy	0	3		0	0	0	3
Environment	0	3		0	0	0	3
Water	0	2		0	0	0	2
Networking	0	0		0	1	0	1
Sum	62	25	0	39	8	3	137

Please note that one ECS can cause several social benefits. Therefore, the total number of social benefits exceeds the total number of ECS.

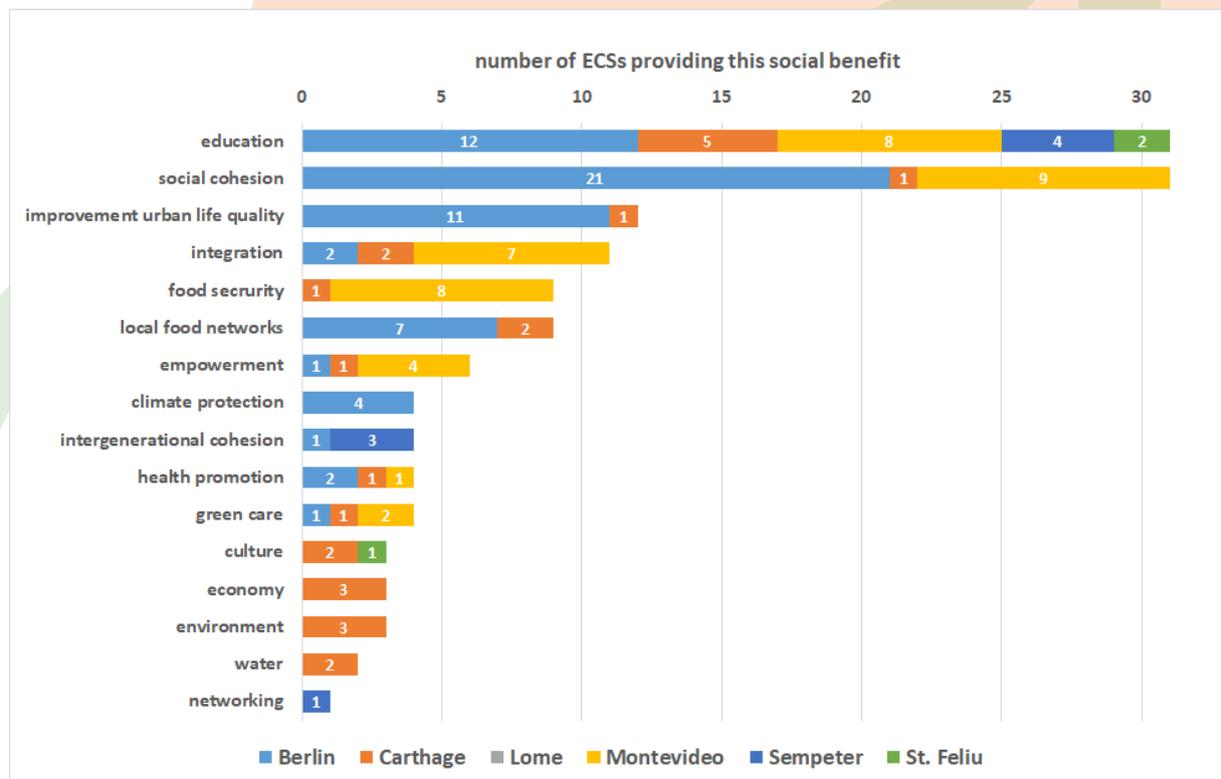


Figure 4: social benefits of the documented ECS (one ECS can have several social benefits)

Berlin: In line with the goals of the ECS and also with the agenda of the “Senate Department for Urban Development and Housing”, the main social benefits of ECS in Berlin are the promotion of social cohesion, the education of children as well as the increase of quality of life in disadvantaged neighbourhoods. In addition, also the creation of local food networks is seen as a major social benefit.

Carthage: In Carthage, providing education is also a main social benefit of the ECS. Here a specific focus is on reconnecting children and urban citizens again with nature. Similar to Berlin or other Follower Cities the increase of urban life quality is a positive social effect of ECS. In contrast to other Follower Cities promoting social cohesion in Carthage plays a smaller role, but instead, the collected ECS provide economic benefits for the citizens like the creation of jobs or business opportunities. Also, in contrast to other Follower Cities, ecological improvements like the protection of the environment or the sustainable provision of water were counted as social benefits.

Sempeter pri Gorici: The social dimensions of the ECS in Sempeter pri Gorici centres around the intergenerational cohesion as well as the sharing of knowledge and expertise between different generations. This goes along with the demographic developments of Sempeter pri Gorici where the population is aging quite fast and the municipality is struggling to cope with the demographic change.

Sant Feliu de Llobregat: The main social benefits of the ECS in Sant Feliu de Llobregat is the provision of economic benefits (and through this preservation of the current living standards of its citizens), the promotion of social cohesion and the creation of local food networks.

Montevideo: The documented social benefits of the ECS in Montevideo show strong similarities to the ECS in Berlin. The main benefits are the provision of education and the promotion of social cohesion. The main difference to the middle European city of Berlin is that an important social benefit of the ECS in Montevideo is the provision of food security for the people in the neighborhood.

4.5 Ecological benefits

From the Follower Cities mainly Montevideo and Carthage documented the ecological benefits of their ECS. Therefore D4.3 mainly shows the data for those two cities. We can see that the main ecological benefits are recycling, greening the city, the provision of environmental services, the reuse of material, soil conservation, and composting. Besides that, some ECS specifically aim to fight climate change or to protect local environments and biodiversity.

Berlin: Berlin only documented very few ecological benefits (climate protection and sustainable farming practices), which shows the strong focus of social dimensions of their ECSs.

Carthage: For Carthage, the main ecological benefits of the documented ECS are related to the creation of a greener, environment-friendly and more biodiverse city. Besides that, also recycling and sustainable farming practices play a role.

Montevideo: In contrast to Carthage the ecological benefits of the ECSs in Montevideo are much stronger related to actual gardening and sustainable resources use. For example, the main ecological benefits are recycling, composting, soil conservation, the provision of environmental services, and reuse of material.

Table 6: ecological benefits of the documented ECS

Ecological benefits	Berlin	Carthage	Lomé	Montevideo	Sempeter pri Gorici	Sant Feliu de Llobregat	Sum
Recycling	0	3		7	0	0	10
Greening the city	0	9		0	0	0	9
Composting	0	0		8	0	0	8
Soil conservation	0	0		8	0	0	8
Reuse	0	0		8	0	0	8
Environmental services	0	0		8	0	0	8
Sustainable farming practices	2	1		2	1	0	6
Environmental protection	0	3		0	0	0	3
Climate protection	2	0		0	0	0	2
Biodiversity	0	2		0	0	0	2
Water management	0	1		0	0	0	1
Sum	4	19	0	41	1	0	65

Please note that one ECS can cause several social benefits. Therefore, the total number of social benefits exceeds the total number of ECSs in some of the FCs.

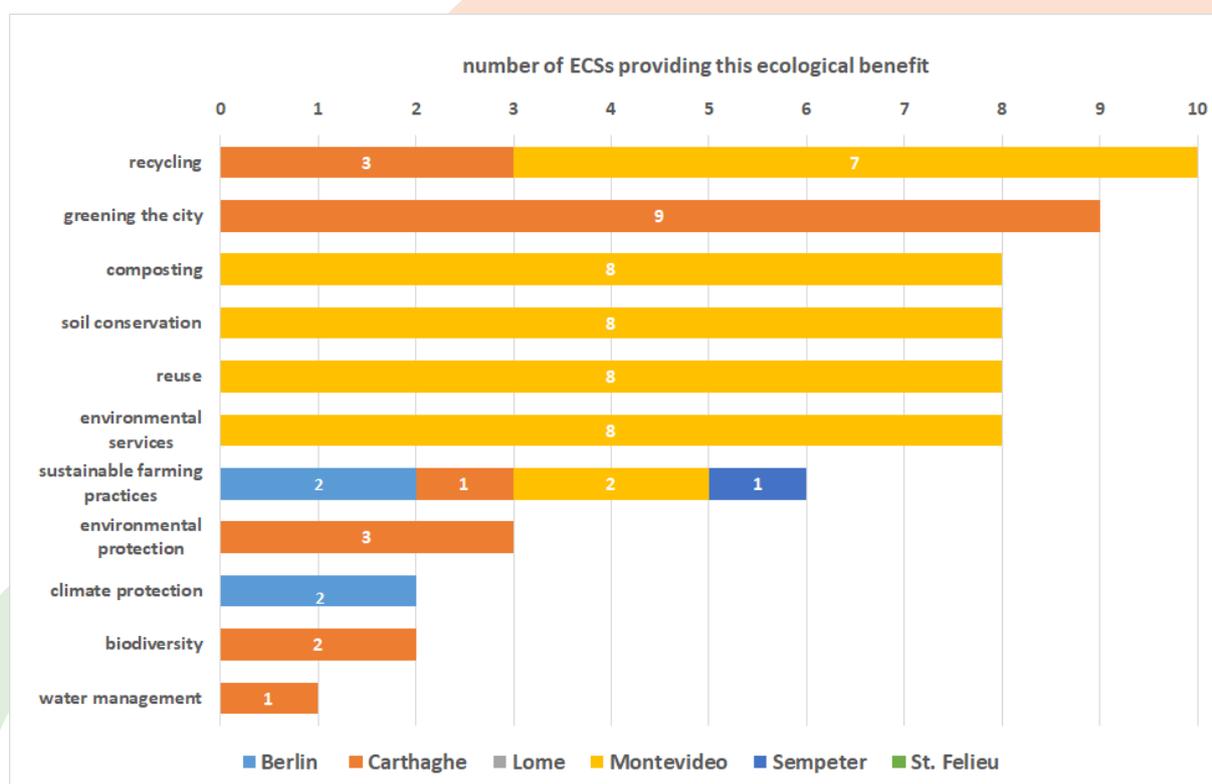


Figure 5: ecological benefits of the documented ECS (one ECS can have several social benefits; ecological benefits were almost only documented in CoC and CoM)

4.6 Barriers and Enablers

Table 8 provides an overview of the institutional barriers and enablers for the ECS in each Follower City. The table is based on the participatory development of institutional context summary sheets (for more information see D1.4). The table shows

that some of the barriers ECS are facing are city-specific (e.g. the limited logistical infrastructure in Lomé). Other barriers like urban planning problems or the lack of resources (like finances, public awareness etc.) and support seem to be more universal.

In addition to the general description of barriers and enablers, two of the Follower Cities (Carthage and Montevideo) also provided information on the barriers and enablers for ECS in their documentation. The additional insights help to supplement the general analysis of the institutional context summary sheet. Most importantly it identifies the crucial importance of skills and commitment of ECS members for the successful implementation of ECS. Furthermore, it also shows

that the current COVID-19 pandemic has also significant impacts on the ECS. Mostly COVID-19 hinders the ECS, but sometimes the crisis is also viewed as a chance.

Table 7: Barriers and enablers for ECS in each Follower City:

Follower Cities	Barriers	Enablers
Berlin	<ul style="list-style-type: none"> ● sectoral division of urban planning and city administration ● pressure on open space ● land-use conflicts ● complex legal regulations for ECS 	<ul style="list-style-type: none"> ● political support for ECS ● high institutional support for ECS ● financial support for ECS ● ECS are in line with city goals and strategies
Carthage	<ul style="list-style-type: none"> ● lack of political strategies relevant for ECS ● little public awareness about environmental issues ● limited financial resources of the municipality ● lack of personal resources of the municipality ● bureaucratic barriers ● no engagement of marginalized groups 	<ul style="list-style-type: none"> ● political support for ECS ● local researchers have high experience with ECS ● high public awareness about sustainable food ● smaller city size ● UNESCO world heritage status
Lomé	<ul style="list-style-type: none"> ● limited access to irrigation and land ● lack of logistical infrastructure ● lack of resources for local governments ● top-down urban planning processes ● urban agriculture limited to private households 	<ul style="list-style-type: none"> ● high amount of urban food production ● strong tradition in urban agriculture ● political support for EdiCitNet project
Montevideo	<ul style="list-style-type: none"> ● sectoral division of urban planning and city administration ● insecurity for future political and institutional support of ECS ● so far limited stakeholder participation ● neglect of social-economic dimensions of ECS 	<ul style="list-style-type: none"> ● ongoing mapping of existing ECS ● possible synergies between ECS and existing city strategies ● existing local markets for ECS products ● good environmental governance in Montevideo ● existing regulations for citizen participation in urban planning
Sempeter pri Gorici	<ul style="list-style-type: none"> ● limited irrigation ● lack of financial support for ECS from municipality ● lack of public awareness for ECS and sustainability issues ● few best-practice examples within the 	<ul style="list-style-type: none"> ● very high amount of gardening and food production in the city ● urban gardening is part of the life of citizens ● farms within the city ● active NGOs and schools

	city <ul style="list-style-type: none"> ● lack of personal resources of municipality 	<ul style="list-style-type: none"> ● interest of municipality in ECS ● possible synergies between ECS and existing city strategies
Sant Feliu de Llobregat	<ul style="list-style-type: none"> ● sectoral division of urban planning and city administration ● little connection between single ECS ● lack of public awareness about ECS ● limited resources of municipality and citizens ● lack of financial support ● complex multi-level governance 	<ul style="list-style-type: none"> ● political support for ECS ● existing city plans related to ECS ● awareness about sustainable food issues among public buyers ● increasing public awareness about ECS, climate change and environmental protection

Table 8: Barriers and enablers for the documented ECS

Barriers for ECSs	Carthage	Monte-video	Sum	Enablers supporting ECSs	Carthage	Monte-video	Sum
COVID-19	0	6	6	Skills of members	9	0	9
Legal insecurity	0	6	6	Commitment of members	0	8	8
Production problems	6	0	6	Institutional support	6	1	7
Lack of commitment	3	1	4	Networks	3	1	4
Organizational problems	3	1	4	Schools	0	3	3
Market problems	3	0	3	Community support	2	0	2
Lack of public awareness	2	1	3	COVID-19	2	0	2
Logistical problems	2	0	2	Available space	2	0	2
Lack of financial support	2	0	2	Infrastructure	2	0	2
Lack of community support	1	0	1	Values of members	1	0	1
Lack of space	0	1	1	Family support	1	0	1
Theft	1	0	1	Environment	1	0	1
Cultural expertise	1	0	1	Technology	1	0	1
Sum	24	16	40		30	13	43

Please note that one ECS can face several social barriers

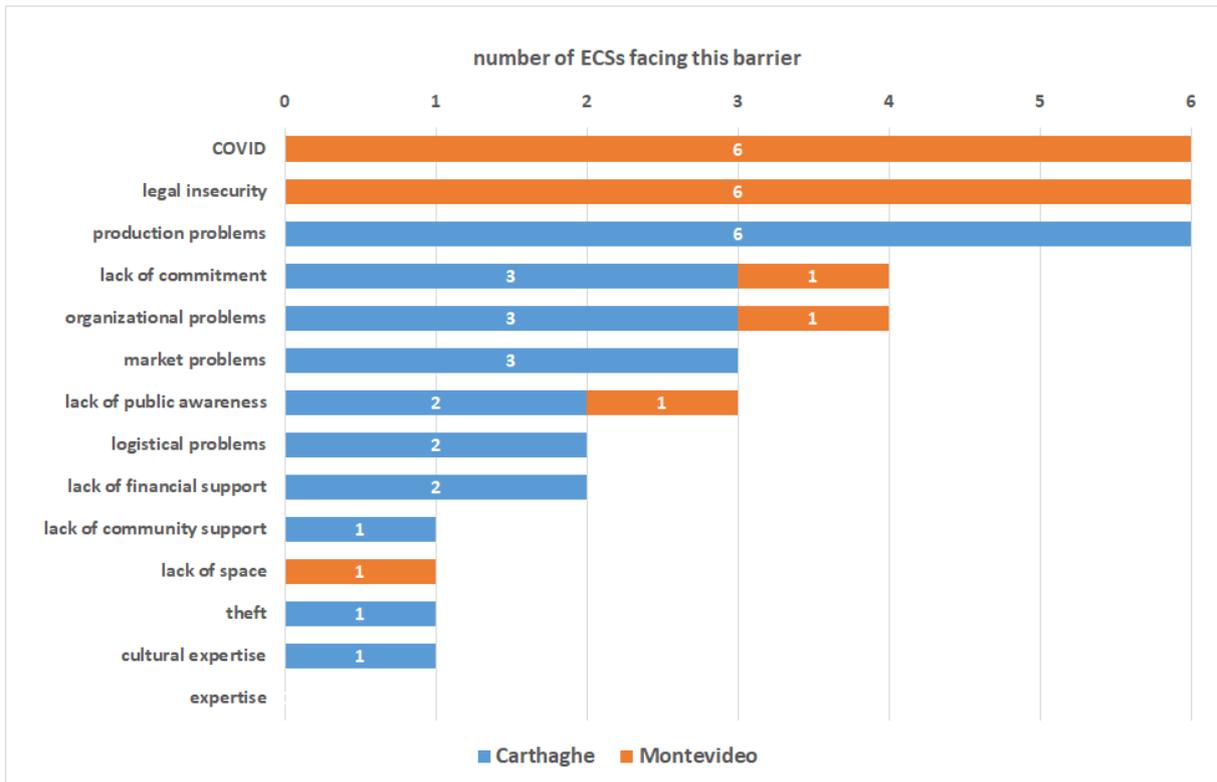


Figure 6: important barriers to the documented

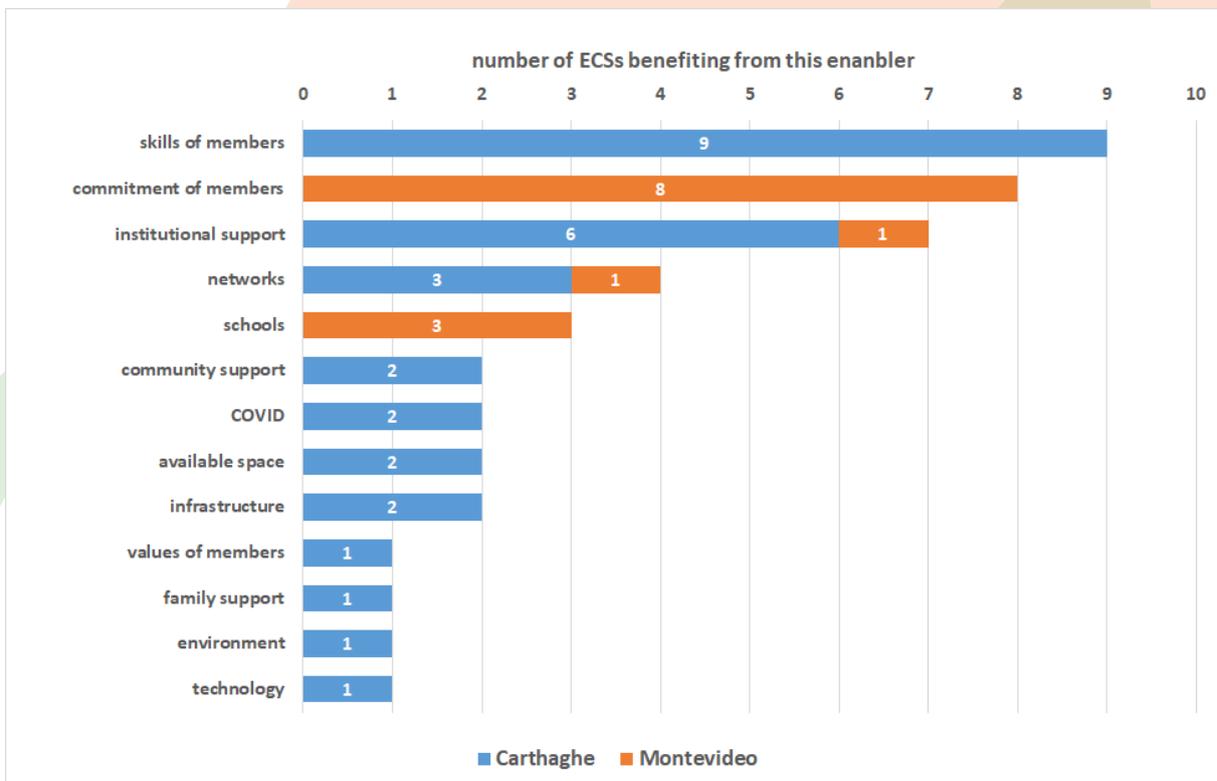


Figure 7: important enablers for the documented ECS

Carthage

Barriers: The barriers ECS in Carthage have to face are mainly characterized by a lack of resources (financial resources, agricultural inputs), lack of public awareness and support as well as the commitment of members. This leads to further organizational, logistical, and production-related problems. In addition, some ECS also report problems with market access.

This endangers the functioning of the ECS as well as the participation of the ECS's members.

Enablers: In Carthage, the skills of the ECS members as well as the high institutional support and strong networks are seen as main facilitating factors. To a lesser degree, the available infrastructure and space are also seen as an asset for the ECS. Interestingly in Carthage sometimes the COVID-pandemic is not seen as a barrier for ECS like in Montevideo but as a chance for ECS.

Montevideo

Barriers: The barriers ECS have to face in Montevideo are different. Here the two major obstacles documented are legal insecurities and uncertainties related to the COVID-19 pandemic. The main legal insecurity is the question if the ANEP_UDELAR convention will be continued or if contracts with school workshops will be extended. Furthermore, the pandemic puts the ECS and their members under economic pressure (this is especially the case in CoSF).

Enablers: The main facilitating factors for ECS in Montevideo are the high commitment of members of the ECS as well as the food cooperation with schools. Both illustrating the high degree of self-organization needed to run the ECS in Montevideo.

4.7 Business model & governance structures

In this section the business models (i.e. the ways how ECS finance themselves and can successfully operate) and the governance structures of the ECS.

Only Berlin, Carthage and St. Feliu de Llobregat provided information about the business model of their ECS. The analysis of the documented business models shows that public funding still plays a huge role in ECS. However, this is not the case for all Follower Cities.

Berlin: In the city of Berlin temporary public funding is incremental in ECS. The funding comes from the Berlin urban renewal program "social cohesion" and covers at least some of the costs of the ECS. The funding illustrates the high interrelations between the city of Berlin and the documented ECS. Besides that, public funding ECS also generates revenues through the provision of educational services and selling of products.

Carthage: In the city of Carthage public funding seems to play a significantly less important role than in Berlin. Instead, the most documented ECS generate revenues by following production orientated business models (i.e. the selling of agricultural products or processed foods) or hybrid business models (the combination of product sales with other forms of income). Also volunteering plays often an important role in Carthage. Some of the ECS receive funding through international projects (EU funding etc.).

St. Feliu de Llobregat: If documented, the ECS in St. Feliu adopted a production business model.

Table 9: business model adopted by the documented ECSs

Business model	Berlin	Carthage	Lomé	Montevideo	Sempeter pri Gorici	Sant Feliu de Llobregat	sum
Public funding	26	0		0	0	0	26
Production business model	0	4		0	0	2	6
Hybrid business model	1	5		0	0	0	6
Education	2	0		0	0	0	2
Volunteering	0	7		0	0	0	7
Project funding	0	2		0	0	0	2
Sum	29	18	0	0	0	2	49

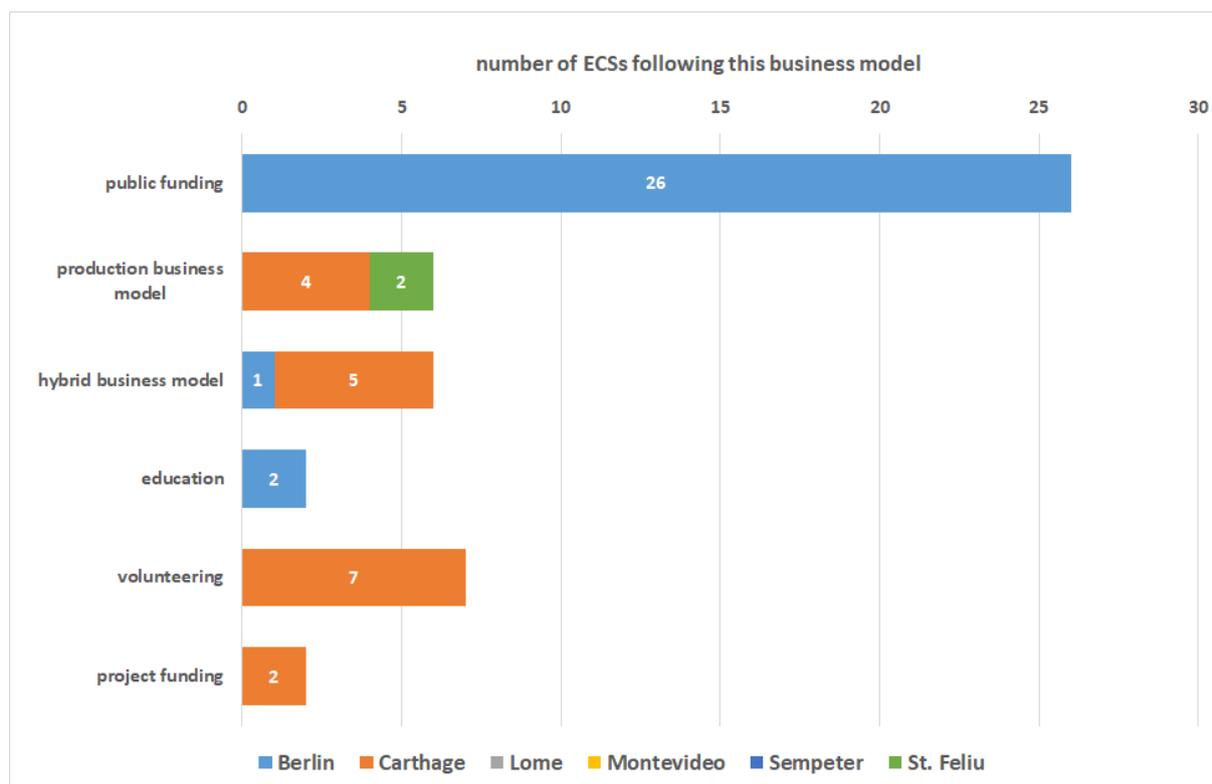


Figure 8: business model adopted by the documented ECSs

The analysis of the governance structures adopted by the ECS in the Follower Cities shows a high variety of different types of organization and decision making. In general, only a minority of the documented ECS are run as a business or by the city or another public institution. The vast majority of ECS are run by members of the civil society that organize themselves in different ways (associations, grass-root initiatives, etc.). However, those organizations are often related to public institutions like schools.

organized in some way (association etc.). However, those organizations have some connections with the city of Berlin since they are partly funded and supported by the urban renewal program "social cohesion".

Carthage: In Carthage on the one hand ECS are private businesses (e.g. urban start-ups). On the other hand, many ECSs in Carthage are organized by members of civil society.

Berlin: In the city of Berlin documented ECS are mainly run by private citizens that are

Montevideo: A specific characteristic of the city of Montevideo is that most of the documented ECS are run within the broader governance structure of different local schools. In addition to the schools, the ECS are also run by groups of citizens.

ECS in this city are mainly run as private businesses since they are often farms.

St. Feliu de Llobregat: In comparison to the other Follower Cities the documented ECS in St. Feliu de Llobregat seem to have a strong connection to the city. The majority of the ECS are run at least partly by the city or a public institution.

Sempeter pri Gorici: Even though no governance structures were documented in Sempeter pri Gorici, it is to assume that the

Table 10: governance type adopted by the documented ECS

Governance type	Berlin	Carthage	Lomé	Monte- video	Sempeter pri Gorici	Sant Feliu de Llobre- gat	Sum
Group of citizens	0	4		5	0	0	9
Part of school	0	0		7	0	0	7
Privat company	1	3		0	0	1	5
Association	1	3		0	0	0	4
NGO	0	4		0	0	0	4
Run by city	0	0		0	0	3	3
Connected with school	1	0		0	0	1	2
Cooperative	0	0		0	0	2	2
Basic democracy	2	0		0	0	0	2
Public institution	0	0		1	0	1	2
Neighbours	1	1		0	0	0	2
Run by family	1	1		0	0	0	2
Research facility	0	1		0	0	0	1
Sum	7	17	0	13	0	8	45

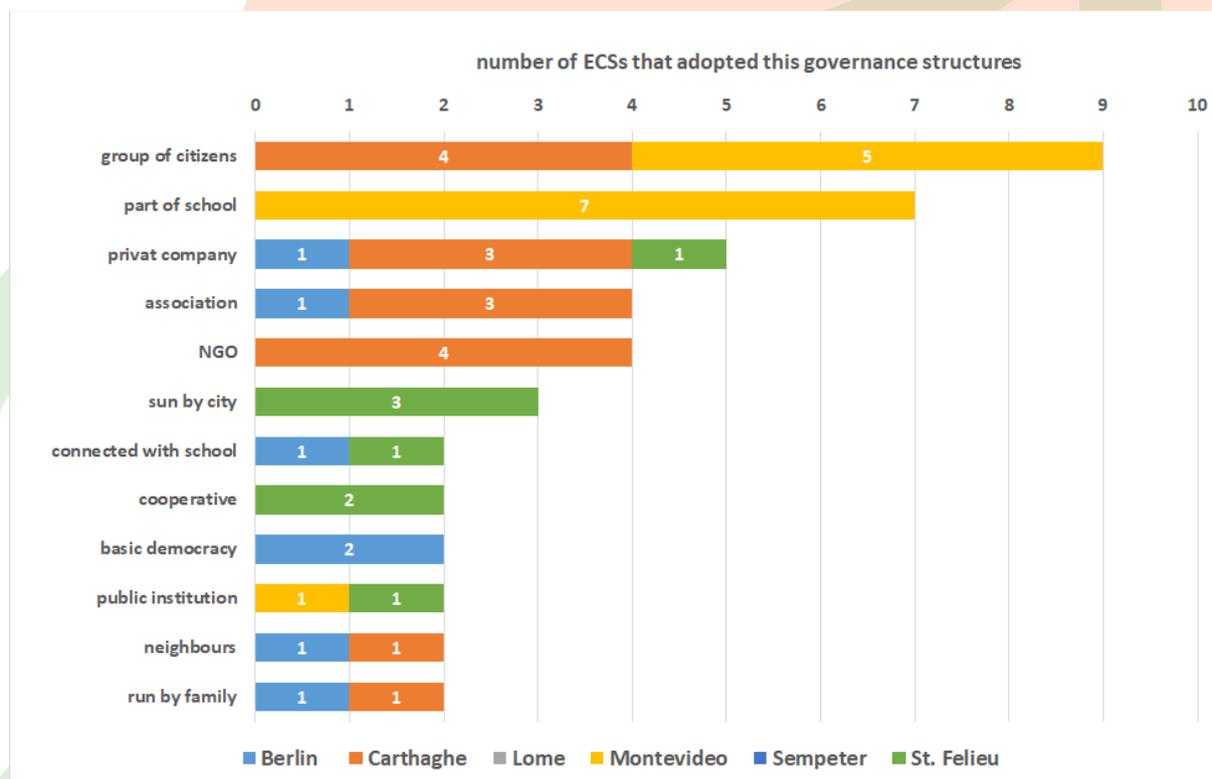


Figure 9: governance type adopted by the documented ECS

5. Conclusions

The collection and documentation process in the different Follower Cities provided important insights into how to analyse ECS, the state of the art of ECS in the different cities and also provided crucial information for the future development of long-term masterplans.

5.1 Lessons learned

During the collection process of the existing ECS over the past months, FCs and their local teams gained more and more insights into the ECS and also learned a lot about how to collect and assess information about them.

EdiCitNet brings together Follower Cities from four continents. This variety is a great strength of the project but also causes some challenges. Important lessons learned about identifying and analysing ECSs are:

- An adaptation of the idea of ECS to local conditions seems to be crucial if the concept shall be applied in a meaningful way. At the start of the collection process, it became obvious in each Follower City that it is necessary to go back and discuss and define what the concept of ECS means under the local circumstances.
- In order to better understand how ECS work, you need to apply a mix of various methods. Only creating a rather universal survey was in the cases of the FCs and under the special circumstances, not a feasible solution. Specific methods that consider the socio-cultural context of each city are a necessary addition. Also, talks with ECS owners or members are essential to create a deeper understanding of their functioning.

The response to the local context enabled EdiCitNet to collect valuable information and to better understand the general meaning of the concept of ECS. Important general findings that are true for all Follower Cities are:

- Production of food is not always the

main goal of ECS. Instead many ECS have a rather social focus, which drives these food-related initiatives.

- Many activities and services of ECS have a strong link to education and training and a lot of the documented ECS are linked to schools or educational institutions. This makes schools, teachers, parents, and pupils to crucial stakeholder groups
- For several reasons, institutional anchoring can be key for the long-term success of ECS. First, it often provides certain financial stability, but - and this is often overlooked - it can also increase the chances for a higher engagement of members and participation through for example better visibility.
- ECS are not restricted to purely “urban” areas. Cities cannot be seen isolated from their more rural hinterland and rural-urban interrelations define urban food systems. A farm situated in the rural area of the city can become a crucial ECS by interacting with city dwellers and providing services to them.

Finally, the documentation and description of relevant ECS also provided insights for the next steps of the masterplan development in each Follower City:

- In some Follower Cities (Berlin and Montevideo) ECS already exist that are suitable for meeting the city's social challenge. Here, the master plans must above all address the question of how these ECS can be further promoted or scaled up.
- In some Follower Cities (Sempeter pri Gorici) there is as yet no suitable ECS to meet the social challenge. Here the master plans must help to establish new ECS.
- The documented ECS vary from city to city. Some cities documented ECS that could be very helpful to meet the social challenges of other FCs. The already ongoing exchange of knowledge needs to be further promoted within EdiCitNet.

- In many Follower Cities, there is still a high focus on urban gardening projects. Information about other ECS within the EdiCitNet Network should be used to potentially increase the variety of ECS in the Follower Cities.

5.2 Meeting the social challenges of the Follower Cities

The main goal of the Transition Pathway process is that every Follower City develops long-term master plans on how to overcome actual social challenges with the help of ECS.

Getting to know the ECS in each city at this level of detail provided the EdiCitNet City Teams and city coordination with a detailed overview of ECS (potentially interesting to overcome their social challenges) that are already existing. Understanding which social challenges these existing ECS might offer solutions is an important step in the whole WP₄ process.

The social challenge in Berlin is to foster social cohesion in disadvantaged neighbourhoods. In Berlin, we have seen a strong coherence throughout the documented ECS. A reason for that is the intensive support (mainly through funding) from the city administration. Food production is in Berlin more a side effect that fits the goals of fostering social cohesion and strengthening the social stability of neighbourhoods. This is also heavily reflected in the documented ECS. The city coordination and City Team have selected the ECS for documentation with their perspective, goals, and social challenges in mind.

Also, in Montevideo, the documented ECS are quite similar and have a coherent focus on certain issues that are connected with the social challenge of the city. The documented ECS show a strong focus on the small gardening practices that are connected to educational institutions like schools as it has already been stated in the ICSS (D1.4). In contrast to Berlin, the focus in Montevideo's documented ECS is on education but also on the additional aspect

of food security. This links to the social challenge of Montevideo which is on one hand the focus of fostering social cohesion but on the other the social effects of malnutrition and a dispath from humans and nature.

Thus, in Berlin and Montevideo, it seems that there are already ECS existing that could be used to further tackle the social challenges of the cities. The questions will be on how those ECS can be further promoted and supported.

In contrast to that, the situation in the other four Follower cities is different. Here the findings show that most of the existing ECS do not address the social challenge of the city directly (Sempeter pri Gorici) or the findings show a very diverse set of ECS (Carthage). In the first case, the question will be what new ECS can be established to tackle the social challenges. In the second case, the question will be which ECS provide the best solution for the challenges.

Carthage's documented ECS are found along the value chain of food. Different Start-ups are documented that work with resource-oriented approaches offering alternatives to the city's food security issues. Different business-oriented ECS also raise awareness about the structural embeddedness of ECS in the municipality. So far ECS is a new concept in Carthage to meet social challenges and there are no institutionalized processes (e.g. funding for implementation or maintenance) yet.

Realizing economic stability as a key factor in the establishment is an important finding of this process and will be taken into the next phases of TPM. In addition, it stands out that the social challenges of Carthage are not yet defined why the focus in the selection was wider and took diverse ECS (with diverse potential social impacts) into account.

Sempeter pri Gorici is a small town with rural areas within its administrative borders. Like in Sant Feliu de Llobregat the link between urban and rural populations is very close. The social challenge of Sempeter pri Gorici is to cope with an aging population

and to promote intergenerational cohesion. So far, this challenge is not directly addressed by the existing ECS. The ECS vary from private small-scale gardens to small farms. The ECS documented here are focussing on small farms that have strong urban connections because many of its customers originate from the urban surroundings. To link the documented ECS with the social focus of the City Team activities on intergenerational cohesion will be a task to solve in the next phase of the TPM.

In Sant Feliu de Llobregat a strong relationship between the different stages of the value chain can be found since the city is embedded in an agricultural influenced area.

So, the majority of ECS documented are different producing initiatives. But with this strong relationship between the rural and the urban community the awareness of food-related activities and services. Therefore, ECS can be identified using the

local products to cooking and serving classes for local disabled people. Others are gardens enhancing the social cohesion between citizens but also between citizens and rural agricultural practitioners. This wide range of ECS offers different possibilities in the future processes in WP4 to overcome the local challenges.

The knowledge gained during the documentation process in the different Follower Cities will be taken into the next steps of TPM and offers inspiration for potential solutions in the cities. An exchange of these findings among the Follower Cities can facilitate the solution-finding process or enable City Teams to anticipate more freely about potential new ECS being hybrids from existing ones. The learning effects in the Follower Cities and throughout the whole consortium regarding the potential that ECS can carry to overcome social challenges in urban surroundings are essential for the ongoing project.

Annex 1 - The EdiCitNet Survey Interview Guidelines for Follower Cities

1. Reasons for the guidelines

In task 4.2. in WP4 the relevant existing Edible City Solutions (ECS) in the FCs have to be identified and described. On the one hand, this information will be used to develop a system model for the Transition Pathway Methodology (TPM). On the other hand, the collected information should feed the EdiCitNet Database. For feeding the EdiCitNet Database a Survey for characterizing ECS was developed. This survey is very long and complex. Many details regarding food productions, economics etc. have to be provided.

Such a complex survey is maybe applicable for the Front Runner Cities or the living labs but is not 100% for the Follower Cities (FC) and the specific tasks 4.2. FCs don't have the resources to conduct the in-depth EdiCitNet survey. They must rely on the analysis of second-hand data and qualitative Interviews and documentation of the ECS in their cities. The purpose of these interview guidelines is to ensure that the collected information in 4.2 is useful for the EdiCitNet Database

2. Questions for the survey

2.1 Personal information

2.1.1 Can you briefly describe your role in the ECS?

2.1.2 What is your personal main interest in participating in the ECS?

2.2 ECS Description and goals

2.2.1 Please select the option that better describe the activities of the ECS regarding the edible products involved:

- a) Only producing raw edible products (e.g. strawberries). There is no manufacturing of edible products in the ECS.
- b) Producing raw edible products (e.g. strawberries and oranges) and manufacturing (e.g. orange juice). The raw products used for manufacturing are produced inside the ECS.
- c) Producing raw edible products (e.g. strawberries and lettuce) and manufacturing. The raw products used for manufacturing are acquired outside the ECS (e.g. producing strawberries and manufacturing oranges acquired outside the ECS for producing orange juice).
- d) Only manufacturing raw edible products (e.g. strawberries marmalade). The raw products used for manufacturing are acquired outside the ECS (inside or outside the city).
- e) Only uses of raw and/or manufactured edible product (e.g. Commercialization, Donation, Exchanging).

2.2.2 Please provide the address (street name, city, country, and postcode) or tag in the map the closest location to the ECS.

2.2.3 The area where the ECS is situated is a:

- a) Private space (1 owner)
- b) Private space (several owners)
- c) Public space

2.2.4 What is the size of the area?

2.2.5 What is the main goal of this ECS?

Sub question - What is the main mission of the ECS

2.3 ECS activities and impacts

2.3.1 Please describe the main agricultural /food-related activities that are going on.

- What food is produced / or processed? How?
 - If processed: from where do you get the food raw material?
- What is happening with the food?
 - Where is it consumed or further processed?
 - Is it sold? How much is sold for what price?

2.3.2 Please describe the main social activities that are going on.

- What types of activities take place?
- What people /social groups are participating?
 - How many people participate?
- What are the benefits of those activities?

2.4 ECS Establishment, maintenance and governance

2.4.1 Please describe how the ECS got established.

- What was the motivation to start ECS?
- Have there been important enablers for the establishment of the ECS? If yes, please describe them
- Have there been important barriers to the establishment of the ECS? If yes, please describe them

2.4.2 Please select all the stages your ECS has been through

- a) (EMERGENCE) Starting the ECS.
- b) (EMERGENCE – establishment) Already started and operating/functioning.
- c) (SCALE-UP – establishment) Operating and planning further expansion/growth.
- d) (SCALE-UP – done) Operating and already expanding/growing.
- e) (REPLICATION – establishment) Operating and planning further replication of the ECS in other sites of the city.
- f) (REPLICATION – done) Operating and already replicated in other sites of the city.

2.4.3 Please describe how your ECS is governed.

- Who is participating in the ECS?
- How are decisions made?
- Who owns the ECS?

2.4.4 How do you finance your ECS?

- Do you get financial support?
- Do you have a business model?
 - Do you engage in any marketing activities?
 - Does the ECS make a net profit?

2.5 Evaluation of ecological sustainability of the ECS

2.5.1 How would you assess the ecological sustainability of your ECS? Why?

- What agricultural inputs (seeds, fertilizers, pesticides) are you using and where do you get it from?
 - Are you organic?
- How do you organize the water supply for the ECS?
 - Wastewater? Tap Water? Rainwater?
- Where do you get the energy needed?
- How do you deal with your waste?
 - Do you use plastic?
- How do you organize the necessary transportation and logistics?

2.5.2 Besides the food production, is your ECS connected to any other green infrastructure?

2.6 Demographic Information of the interview partner

2.6.1 AGE:

- a) Under 18 years old
- b) 18-30 years old
- c) 30-45 years old
- d) More than 45 years' old

2.6.2 GENDER:

- a) male
- b) female
- c) Prefer not to answer
- d) Other (specify – maximum 2 words)

2.6.3. ETHNIC GROUP

- a) European
- b) Asian
- c) African
- d) Caribbean
- e) Arabian
- f) North America
- g) Central America
- h) Latin America
- i) Oceania
- j) Other (please specify)
- k) Prefer not to answer

2.6.4. Where do you live (City and country)?

5. (EDUCATION LEVEL) What is your highest level of education?
- a) Primary School
 - b) Secondary School
 - c) University or College (Bachelor)
 - d) Master's degree and or PhD
 - e) Other (specify – maximum 2 words)

2.6.5 (TYPE OF ACTOR – social group) Please select the group that better suits you: Please select all that apply (more than one answer is possible)

- a) None
- b) Squatter group
- c) Economic interest groups
- d) Public interest groups
- e) Religious interest groups
- f) Civil rights interest groups
- g) Ideological interest groups
- h) Single-issue interest groups
- i) Consumer organizations
- j) Landowners
- k) Business owners
- l) Municipal departments
- m) Water boards
- n) Regional authorities
- o) National authorities
- p) International organizations
- q) University (Scientists/academics)
- r) Non-governmental organizations (NGOs)
- s) Banks
- t) Other (specify – maximum 2 words)

2.6.6 Are you participating in an ECS?

- a) Yes
- b) No

2.6.7 What is your relationship with the ECS?

- a) Owner
- b) Manager
- c) Coordinator
- d) Collaborator/partner
- e) Self-employed
- f) Temporary worker
- g) Indefinite worker
- h) Scholarship holder
- i) Volunteer
- j) Visitor
- k) Other (specify – maximum 2 words)

Annex 2 - Guidelines Video Pitching

Advice for your pitch videos

This document provides you with tips and advice to help you create your video pitches of your Edible City Solutions. The goal of these videos is to share the experience of ECSs in your city, especially how they contribute to a better and more sustainable livelihood. The audience should get an idea how the ECSs are run and should become interested in EdiCitNet and motivated to implement similar or also other ECSs in their neighbourhoods, cities etc.

Here is a short list of tips that should make your pitch videos great:³

1. Keep it short. Keep your video under 3 minutes. People don't watch long videos while they are browsing the Web. Keep it short so you don't lose people's attention.
2. Remember the 5 Ws. People don't know how your ECSs works, what it does and who is involved. In your pitch video be sure to address the 5 Ws: 1) Who are you? 2) What are you doing? Where do your activities take place? What kind of support do you need? Why do we care?
3. Give your audience how your ECS works. Address the positive benefits of your ECSs for your community, but also indicate what is needed to keep it running and make it work.
4. Show, rather than tell. Use concrete examples, like your garden or workshop photos, video clips of your work, testimonials from others, etc. Show people your ECSs and what positive impact it has.
5. Don't hide behind the curtain. Show your face into the camera and speak directly to your audience.
6. Good audio is key. Take your video in a quiet place. Maybe use subtitles.
7. Have a great opening. Make sure to get people's attention from the very beginning of your video. Get right to the point.
8. Have a good ending. End on a high note and say what you want your viewers to do/have learned/be inspired about.

Let's look at some examples:

Here is an example of a very professional and elaborate ECS pitch video:
<https://www.youtube.com/watch?v=xuEawTxRS3g>

And here is one that shows that you can also produce informative videos with less effort:
https://www.youtube.com/watch?v=H9MIU_yoLWk

Finally, you find here a quite creative pitch video (that focuses on waste water and natural resources :))
https://www.youtube.com/watch?time_continue=167&v=WdWZ8WVv6qk&feature=emb_title

If you want more information about how to create effective pitch videos, this link provides you with more advice: <https://www.youtube.com/watch?v=Njh3rKoGKBo>

Thank you for your attention and have fun with creating your videos!

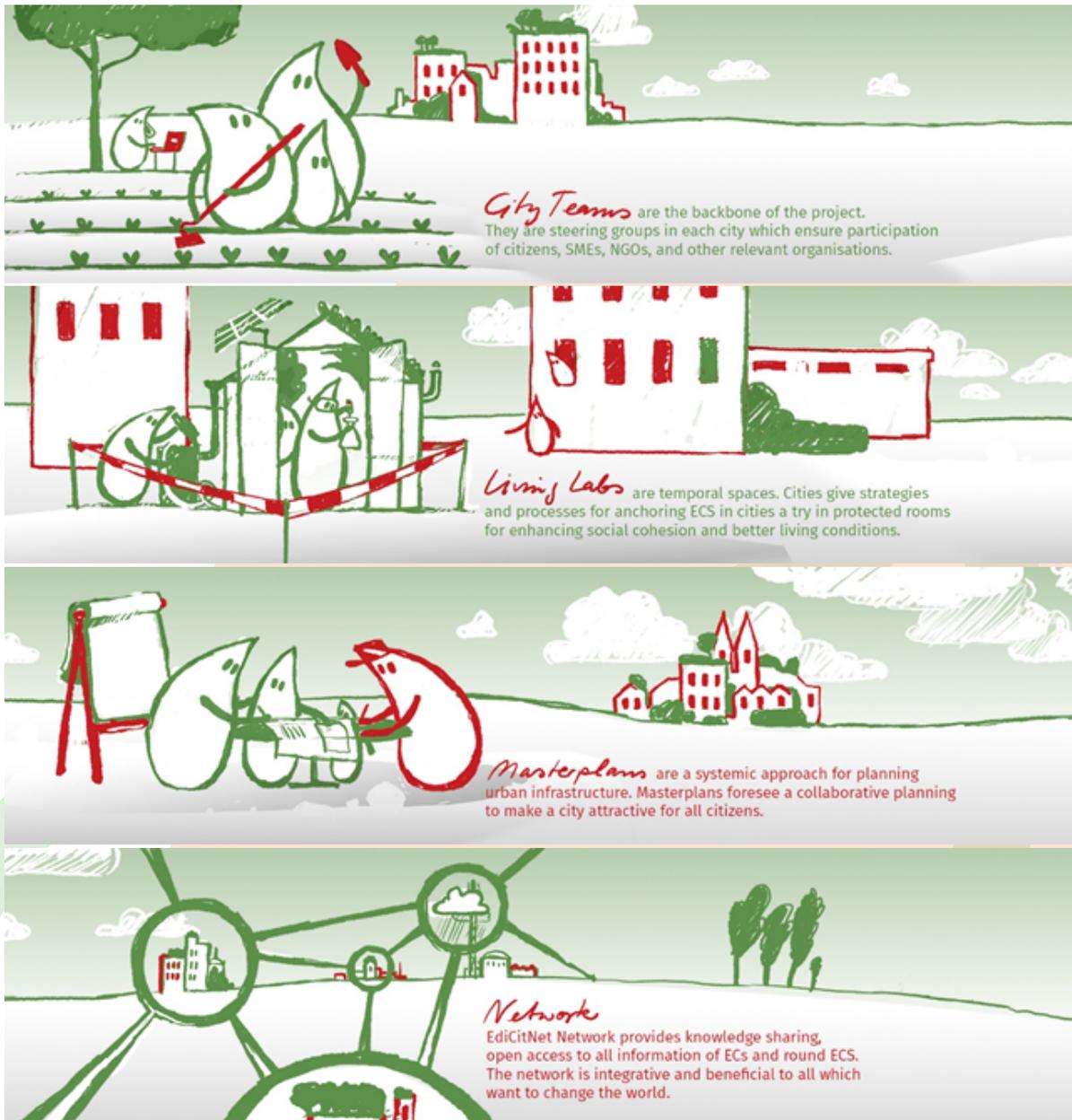
³ We adapted and extended this last, based on the one from Indiegogo: <https://entrepreneur.indiegogo.com/education/article/6-tips-for-a-good-pitch-video/>

Glossary

Abbreviation	Description
BERLIN	City of Berlin
CARTHAGE	City of Carthage
CT	City Team
CMT	Community Management Tool
D	Deliverable
ECS	Edible City Solutions
EdiCitNet	Edible City Network
FC	Follower City
FRC	Front-Runner City
GO	Governmental Organization
HUB	Local support organization
LETCHWORTH	City of Letchworth
LOME	City of Lomé
MONTEVIDEO	City of Montevideo
NBS	Nature-Based-Solutions
NGO	Non-governmental organization
SANTFELIU DE LL	City of Sant Feliu de Llobregat
SME	Small and Medium Enterprises
TPM	Transition Pathway Methodology

About the EdiCitNet project

EdiCitNet is demonstrating innovative Nature-Based Solutions (NBS). Edible City Solutions (ECS) are going one step further: We include the whole chain of urban food production, distribution, and utilization for inclusive urban regeneration and address societal challenges such as mass urbanization, social inequality, climate change, and resource protection in cities.





Thank you!



Twitter: @edicitnet

Insta: edicitnet



edicitnet-coordinator@eurtd.com



EdiCitNet has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 776665.



Reports in #openaccess #OA in Zenodo
<https://zenodo.org/communities/edicitnet>