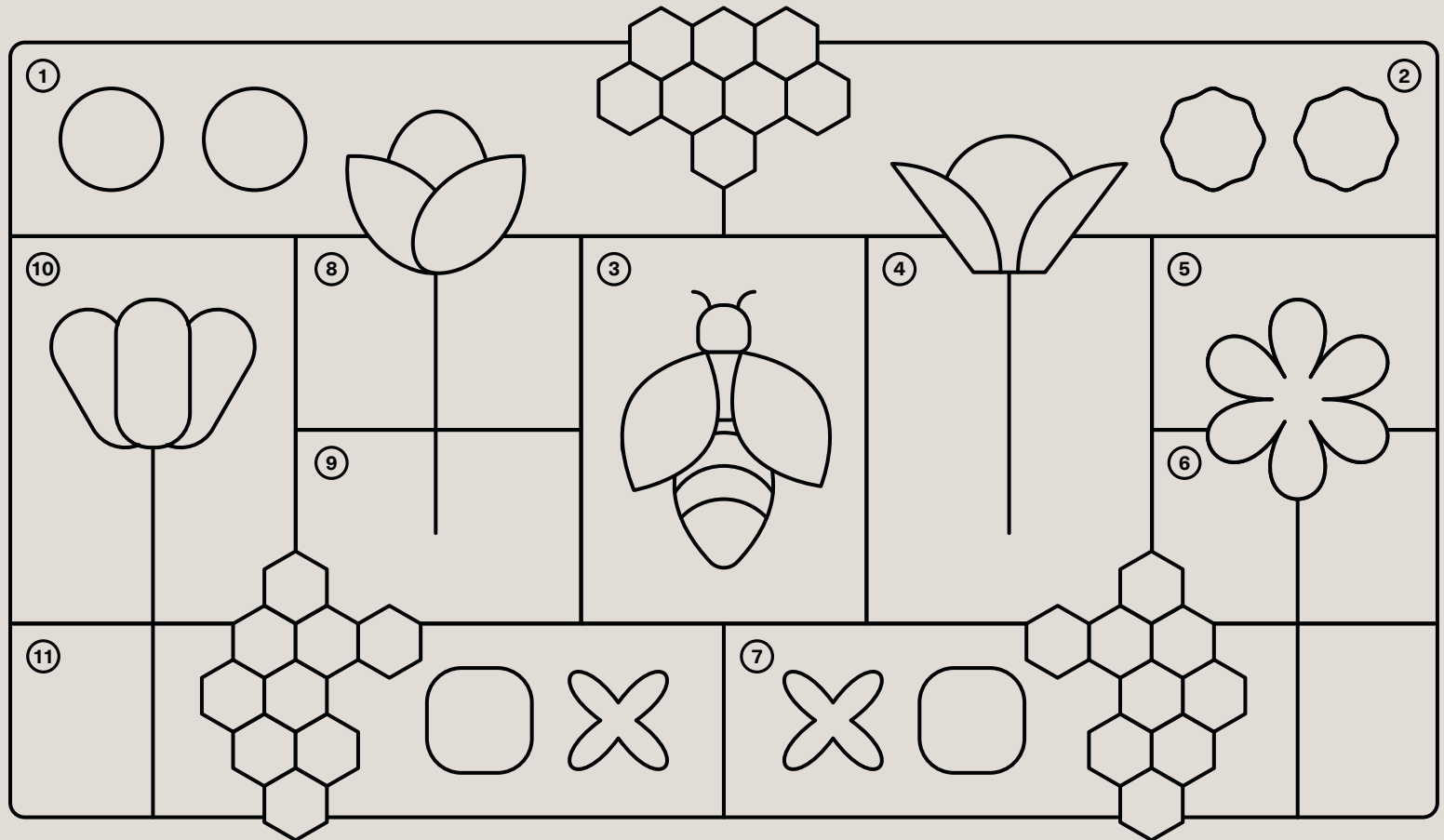
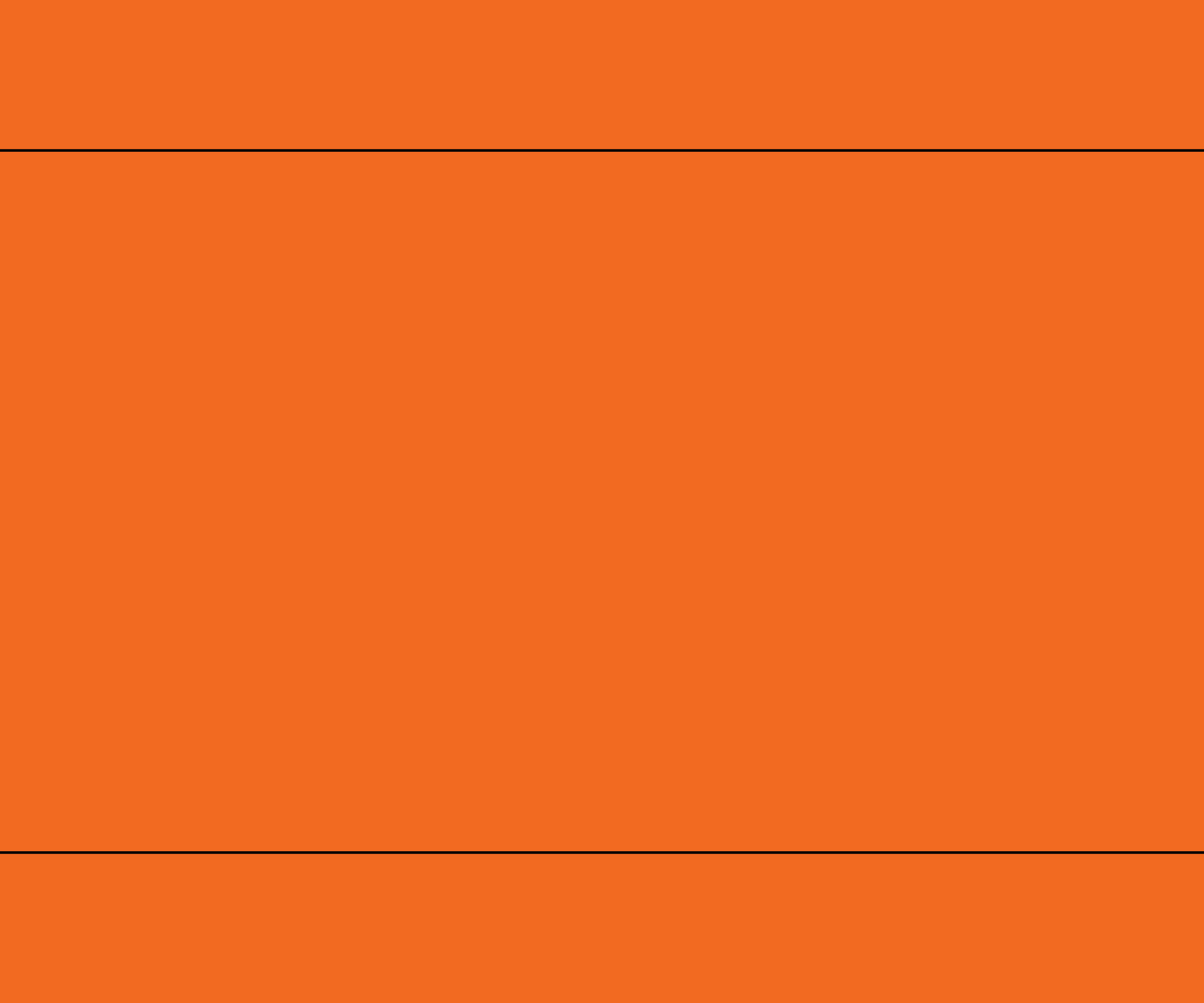


# GROWING JOBS IN URBAN AGRICULTURE



## PLAYBOOK



# GROWING JOBS IN URBAN AGRICULTURE

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Idil Akdos  
Alexander Schabel  
Adam Curtis  
Suhana Reddy

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## PLAYBOOK



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# CONTENTS

## 06-07 ABOUT THE PLAYBOOK

- 08 Who should read this playbook?
- 09 What needs are addressed in this playbook?
- 09 Structure of this playbook
- 10 Why did we make this playbook?
- 11 Growing jobs in urban agriculture workshop

## 13 INTRODUCTION TO THE EDIBLE CITY SOLUTIONS CANVAS

- 14 What is the ECS canvas?
- 15 Business models in urban agriculture
- 16 How to use the ECS Canvas
- 17 Edible City Solutions Canvas
- 19 A case: Young beekeepers
- 20 An example: ECS Canvas for young beekeepers

## 23 BUILDING BLOCKS OF THE ECS CANVAS

- 24-25 Description of idea/concept/organisation, Vision & Mission
- 26-27 Value proposition
- 28-29 Customers
- 30-31 Competitors
- 32-33 Other relevant stakeholders
- 34-35 Revenue model
- 36-37 Key activities
- 38-39 Key resources
- 40-41 Key partnerships
- 42-43 Cost structures

## 45 ADDITIONAL RESOURCES

- 46 EdiCitNet marketplace
- 47 Key learnings
- 48 Using social media tools efficiently
- 50-51 Authors
- 53 References

# ABOUT THE PLAYBOOK

Food production in urban areas is a major step towards more sustainable, liveable and healthy cities. A multitude of initiatives around the world, however fragmented, are prospering, forming a global movement of Edible Cities. Their products, activities and services – which can be defined as Edible City Solutions – empower local communities to overcome social problems by their inclusive and participatory dynamics and create new green businesses and jobs, thereby generating both local economic growth and social cohesion (Säumel et al., 2019). In this book, we refer to all projects, businesses, programs, or initiatives that aim to make urban food systems more sustainable as Edible City Solutions (ECS).

In order to maintain impact, ECS need to make sure their operation models include plans for economic sustainability. Many ECS must contend with challenges that rural farmers typically don't face. Economies of scale is the most prevailing economically sustainable model in rural food production for profitability. On the contrary, scalability is not usually possible for ECS due to limited access to land, lack of infrastructure, and high rental costs. As such, ECS have adjusted to the urban setting through different strategies. Currently, product differentiation and product diversification are the most widespread models for financial sustainability along other emerging economically sustainable models (Pölling et al. 2015; van der Schans et al. 2015). As a result, ECS must figure out their own path to economic sustainability which should be tailored for their community's needs and the consumer market while maintaining their core environmental and social values.

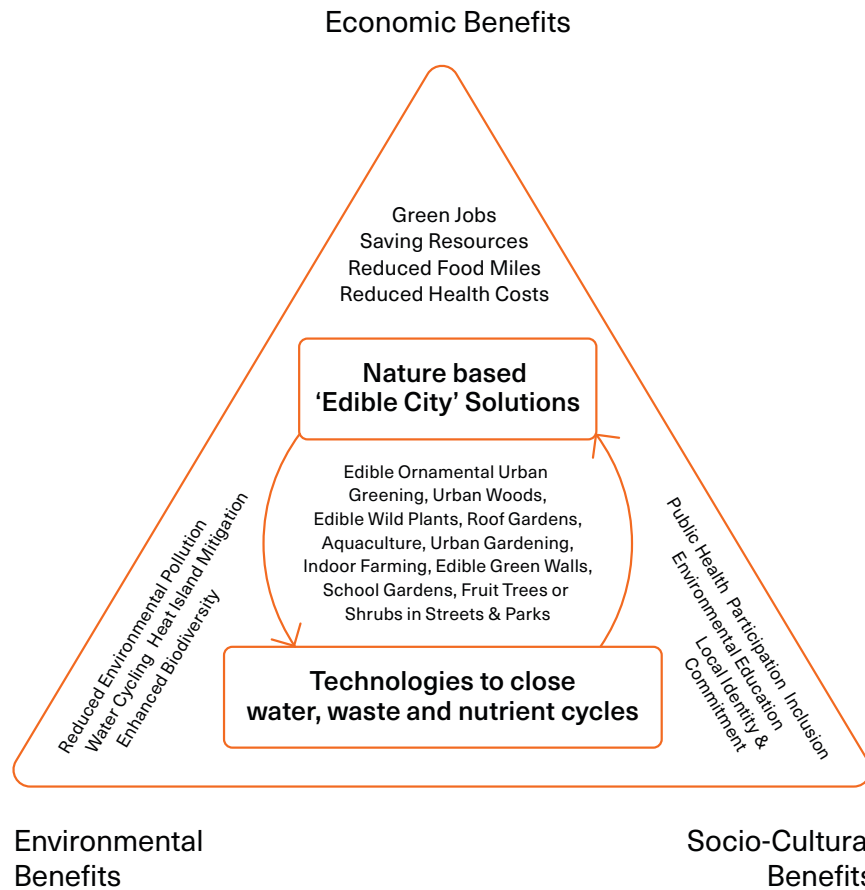


FIG 1. EdiCitNet concept

“Edible City Solutions—One Step Further to Foster Social Resilience through Enhanced Socio-Cultural Ecosystem Services in Cities”? (Säumel, Wachtel, Reddy, 2019)

## WHO SHOULD READ THIS PLAYBOOK?

This book is for all ECS who are aiming to have sustainable impact on the food system. It is also a helpful tool for those working to help ECS towards this goal. So examples of groups who we think would gain from using this book are:

Urban farmers  
Entrepreneurs  
Urban food enthusiasts  
Students  
Researchers  
Educational Institutes

Civil servants  
Health sector  
Food sector  
Businesses interested  
in Corporate Social  
Responsibility





## WHAT NEEDS ARE ADDRESSED IN THIS PLAYBOOK?

It is not very straightforward to survive as an ECS under immense cost pressure in the urban setting. Your ECS might not be a business, but at the end of the day you need to have financial sustainability if you want to maintain your impact and change the urban food system. That is why we prepared this practical playbook! We believe that this playbook will allow you and your team to identify the **necessary and sufficient conditions for economic and social success**, and equip you with a tool to explore solutions and address the needs of your organisation.

For this, we follow the **Edible City Solutions Canvas** (ECS Canvas) tool, an upgraded and calibrated economically sustainable model Canvas for organisations that provide sustainable food solutions within the urban setting. Its predecessor, the Business Model Canvas, is a one page overview which informs how the key drivers of a business fit together. We have adapted the ECS Canvas to take into account the fact that not all ECS aim to be a 'business'. This tool consists of 11 segments enabling you to dive deep into various dimensions of achieving economic sustainability to maintain and expand your impact.

## STRUCTURE OF THIS PLAYBOOK

In the first section, we begin by introducing the canvas tool and present a case to illustrate how the tool works. On page 20, you can find a filled in canvas for inspiration and an empty one on page 17 for your own use!

In the following section, we will present the 11 different segments of the ECS Canvas, each one representing an essential building block. In every segment, we provide simple-to-use theoretical knowledge as well as tips and examples. Once you get a grasp of each field, just grab a notebook and start practicing - there are simple activities for you to translate this information into innovative ideas. While the individual segments will prompt thoughts, having the complete overview will encourage fresh perspectives and ideas about how those pieces fit together! In the last section of this book, we introduce further recommendations and additional resources and suggest some key learnings.

Finally, this book intends to inspire you to explore the concepts we introduce here. With the key background information, methods and examples this playbook offers, we hope to stimulate thinking around solutions that will improve your ECS without compromising your value proposition. As our work is in an ever-evolving dynamic, we recommend that you visit [edicitnet.com](http://edicitnet.com) to reach the most current information and research outputs!

## WHY DID WE MAKE THIS PLAYBOOK?

Nabolagshager is a think-and-do tank that works with the social aspects of sustainable urban development based in Oslo, Norway, with a significant history and involvement in urban farming from practice to research. As social entrepreneurs, Nabolagshager works with people, planet, and profit to make cities greener and more social. EdiCitNet is one of the research projects the organisation participates in, while conducting social programming.

EdiCitNet (Edible Cities Network – Integrating Edible City Solutions for social, resilient and sustainably productive cities) is a project funded by the European Commission and running from September 2018 to August 2023 (Grant Agreement No. 776665). The project aims to include the whole chain of urban food production, distribution and utilisation for inclusive urban regeneration and address societal challenges such as mass urbanisation, social inequality and climate change and resource protection in cities. The project focuses on making cities around the world better places to live through the real-life implementation and institutional integration of Edible City Solutions (ECS). Moreover, EdiCitNet strives to be a hub for generating dissemination like this playbook entering the area of entire support and thus induce a paradigm shift within cities and per-urban regions.

Nabolagshager's on-the-ground presence, competence in user dialogue, practitioner perspective and engagement with vulnerable communities, civil society organisations and local

governments complement the EdiCitNet network. As part EdiCitNet, Nabolagshager has been working intensely with economically sustainable models around urban agriculture since 2018. Nabolagshager runs a job-skills training program on the east side of Oslo to address issues of workforce integration for minority youth, while also meeting their goals of making cities more green and social. Their program, Oslo Living Lab<sup>1</sup>, has created over 115 job positions for youth from Hersleb and Bjerke High Schools (Oslo, Norway) since 2018. Nabolagshager uses co-creation methods where youth have significant responsibility and independence at work, with close collaboration with qualified mentors. Through this, young people are able to explore entrepreneurship within urban farming and beekeeping while building job skills to become more competitive in the Norwegian workforce. In the following sections you will be introduced to the case 'Young Beekeepers' which is modeled after Oslo Living Lab's beekeeping initiative as an ECS.

This book is the end result of our ambitions to make a livelihood from what we love doing and what we do best: urban gardening and beekeeping. We relate to urban agriculture as an approach for growing more than food. We grow engaged and conscientious communities, responsible jobs, green virtues, and clean, fair and nutritious food within the urban setting. Therefore, we want to engage you and your ECS with this playbook for you to develop ideas and narrow gaps for economic success!

<sup>1</sup> You can find more information on <https://www.oslolivinglab.no>

# GROWING JOBS IN URBAN AGRICULTURE WORKSHOP

On October 23rd 2020, Nabolagshager gathered practitioners, business developers, students and aspiring entrepreneurs in an online interactive workshop space. The purpose of organising this event was our increasing awareness of the challenges that those starting businesses in urban agriculture face: the need to develop economically sustainable models that are tailored to their community's needs and their customers' desires.

The conference was made possible thanks to the support of the County Governor of Oslo and Viken. This workshop provided a space to share some of what we have learned, while also collecting more data on challenges. The aim of the workshop was to equip the participants with a better understanding of the hurdles of ECS and how to overcome them to achieve sustainable impact. We structured this event to be as interactive as possible. It consisted of 8 modules of 30 minutes, a 15-minute long knowledge transfer session followed by a 15-minute long workshop session among participants<sup>FIG2.</sup>

Participants gathered in a small group with a facilitator exploring a real-world urban agriculture business as a case study. The workshops intended to apply the take-aways from the talk to the case, therefore we prepared a digital whiteboard facilitating individual reflection and group work on activities. This collaborative work has paved the way for the creation of this practical handbook.

The graphic features a large, light grey semi-circle on an orange background with a pattern of white line art icons (a person, a plant, a gear, and a leaf). The title 'GROWING JOBS IN URBAN AGRICULTURE' is written in white, uppercase letters along the top curve of the semi-circle. Below the title, the text 'WORKSHOP SCHEDULE' is centered. The schedule is presented as a list of time slots and topics, separated by horizontal lines. At the bottom right of the graphic is a small orange square logo with a white letter 'N' and the text 'NABOLAGSHAGER' and 'NABOLAGSHAGER' below it.

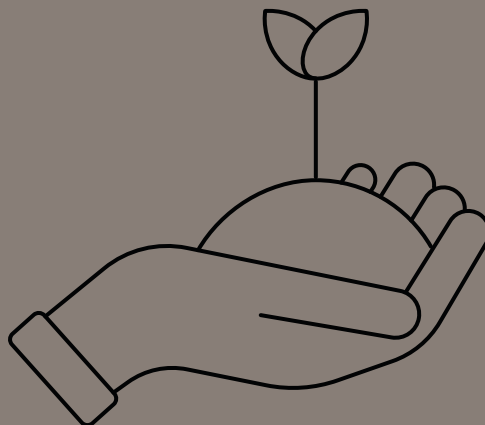
GROWING JOBS IN URBAN AGRICULTURE	
WORKSHOP SCHEDULE	
10:00	Introduction & Ice breaker
10:15	Maximising Impact by Alexander Schabel & Suhana Reddy <small>Borderstep Institute</small>
11:00	Who are the customers? by David Brattlie <small>DugurdKantiner</small>
11:30	Using Social Media Tools Efficiently by Stian Broch <small>Stian Broch Photography</small>
12:00	Social Lunch
13:00	Integrating Outreach into Businesses by Nora May Engeseth <small>Spire</small>
13:30	Availability and Creativity by Vanessa Krogh <small>Villbrygg</small>
14:00	Key Resources by Siri Mittet <small>Gruuten</small>
14:30	Break & Activity
15:00	Forging Key Alliances Across Disconnected Domains by Katrina Lenore Sjøberg <small>Herbanists</small>
15:30	Evaluating the Costs, Revenue Streams and the Worth by Natalie Keene <small>Dysterjordet Andelslandbruk</small>
16:15	Closing by Helene Gallis <small>Nabolagshager</small>

FIG2. The workshop schedule



# INTRODUCTION

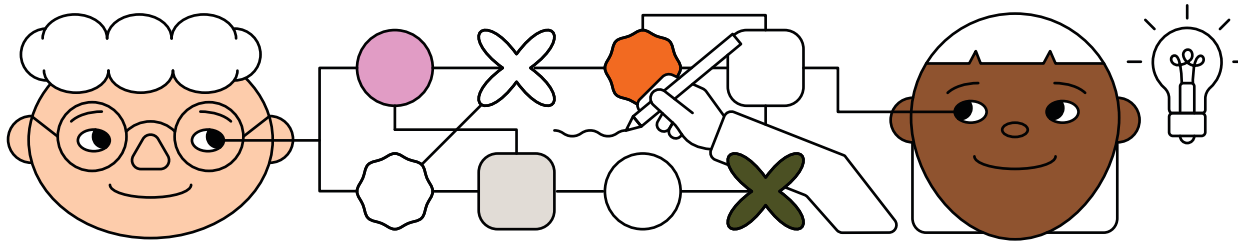
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TO THE EDIBLE CITY SOLUTIONS CANVAS

# WHAT IS THE ECS CANVAS?



The Business Model Canvas was originally developed by Alexander Osterwalder and Yves Pigneur and serves to visualize and analyze the way a business functions. Today, it is the probably most widely used tool for start-up management and has become the standard for start-up presentations and workshops. The Borderstep Institute for Innovation and Sustainability has integrated sustainability concepts into the design of the original canvas and worked with Humboldt University to create the Edible City Solutions Canvas. The ECS Canvas is tailored to the needs of aspiring entrepreneurs and teams that want to develop economically sustainable models that serve their communities and establish new or enhanced value chains for local and sustainable food production.

In the ECS Canvas, you will notice that the traditional segments 'Customer Relations' and 'Customer Relationships' are combined to form a single segment called 'Customers'. In addition, two new segments are added: 'Competitors' and 'Other Relevant Stakeholders', in order to incorporate the environment the ECS is operating in.

## SOME TIPS

**Visual:** The canvas is a visual tool, allowing you to see the building blocks of a sustainable and successful operation together on one page.

**Emerging connections:** The canvas allows you to explore and construe how the building blocks interrelate to each other.

**Collaborative:** The canvas is best approached in a creative, collaborative group exercise. The more diverse the exercise participants, the more resilient your economically sustainable model will be!

# BUSINESS MODELS IN URBAN AGRICULTURE

Research conducted around business models in urban agriculture indicate diverse strategies that enterprises adopt for successful and economically viable models. Here we present the most abundant forms that have been presented in a document released by J.W. van der Schans (2015) from the Wageningen University.

## **DIFFERENTIATION**

“Urban agriculture can distinguish itself in terms of products by growing other species ('specialties'), heirloom vegetables, ethnic vegetables and more perishable but also more tasteful varieties (varieties that are more difficult to transport over long distances)...Urban agriculture can also distinguish itself by not only keeping production, but also processing and distribution in one's own hands (vertical integration).”

## **DIVERSIFICATION**

“A diversification strategy is aimed at providing other goods and services, aside from food production, and getting paid for this...In multifunctional agriculture, a number of activities have been identified that more or less can go hand in hand with food production and with which a city oriented farmer

can earn an extra income: child care services, education, local products, social care, recreation, and also nature and landscape maintenance.”

## **LOW COST**

“The low cost strategy in conventional agriculture and horticulture is usually about expanding the business in order to specialize and realize economies of scale...How can urban agriculture realize this low cost strategy? By using urban resources that are currently underutilized or not used at all. These urban resources include vacant plots of land, empty buildings, urban organic waste as compost, excess rainwater, and urban heat waste.”

## **COMMONS**

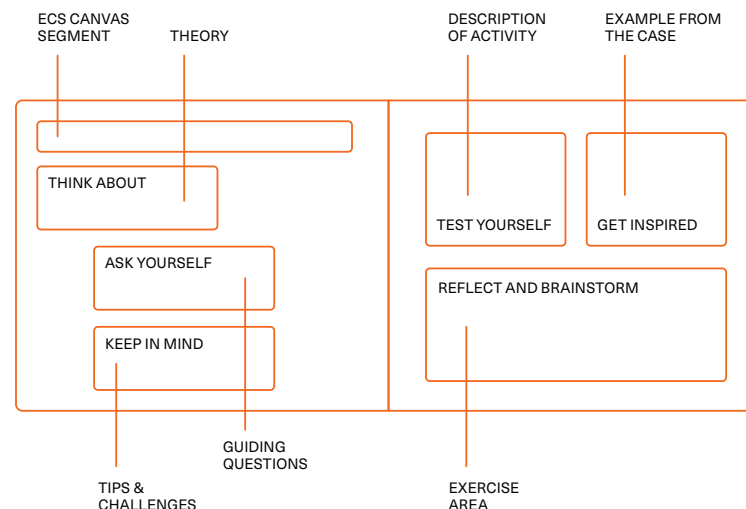
“Urban farmers can distinguish themselves from conventional farmers

by choosing the means of production as much as possible in the domain of common property (instead of private or state property). One can think of the use of seeds or varieties that are free of patent rights, and the use of knowledge and technology that is free of patents.”

## **EXPERIENCE**

“This strategy is based on the insight that more value is added by providing memorable experiences than by providing basic goods or services (the experience economy). Urban farmers are capable of staging unique experiences precisely because of the ultra-short distance between farm and target audience, especially as one can create a much more direct and much more exciting interaction in the city between nature and culture, green space and grey buildings, etc.”

# HOW TO USE THE ECS CANVAS



Now that we introduced the canvas, in the following pages we will present a case. We will use the case as an example to give you an immediate understanding of the segments of the canvas.

The second section of this book is dedicated to get a deeper understanding of each segment. The first thing to notice is that there are 11 segments or building blocks which make up the canvas. We do this on a two-page layout; on the left hand side we provide simple-to-use theoretical knowledge as well as key questions that each segment should try to answer. These key questions have been derived from years of experience during workshops with entrepreneurs and startups.

One of the key strengths of the ECS Canvas is that it incorporates sustainability in the key questions which makes this model more resilient and future-proof. Additionally, we offer tips that will encourage you to think out of the box and consider common challenges faced by ECS.

On the right hand side, we suggest an activity for you to engage in. These activities are drawn from the workshop Nabolagshager developed. We also offer an example from the workshop in this space to bring theory to life and help you stimulate thinking about your ECS.

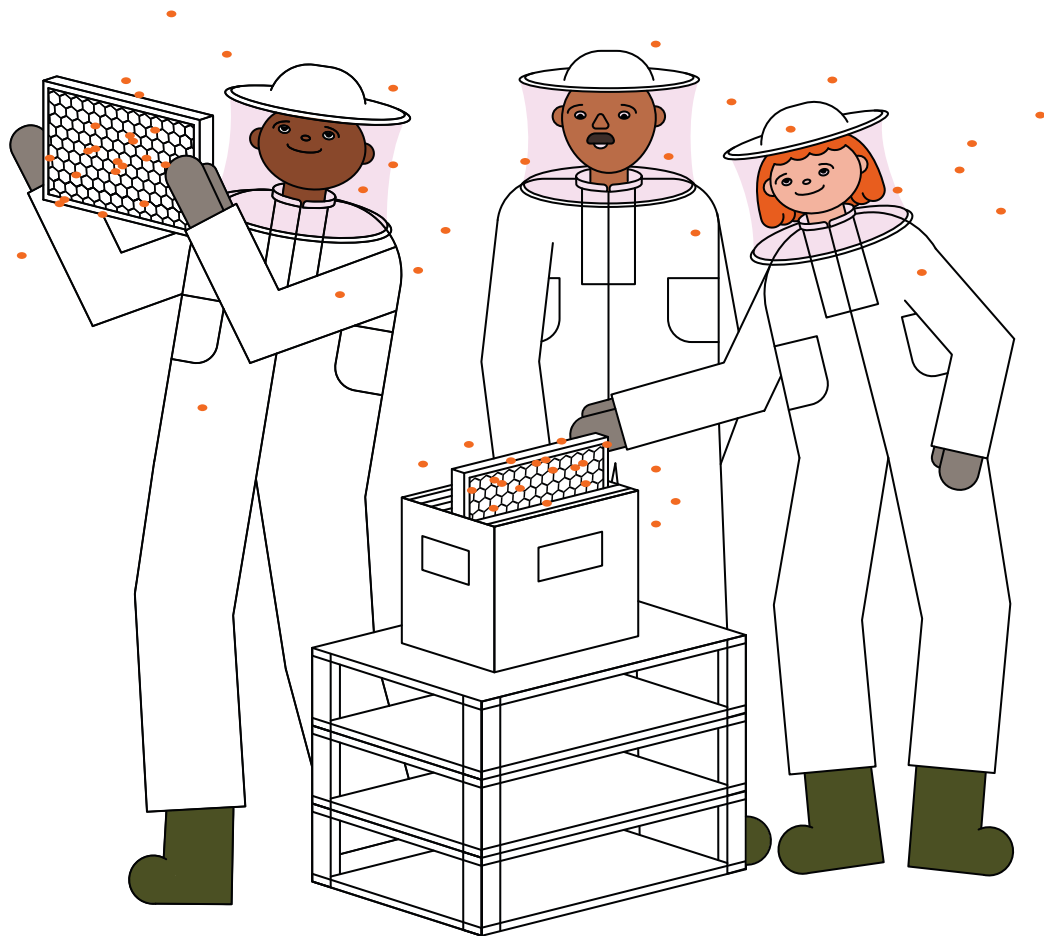
Lastly, the exercise space on this page is for you to start reflecting as you read the fields. That is why we urge you to interact with the book, scribble down notes and ideas and engage in the activities for your ECS!

Finally it's time to fill in the empty ECS Canvas on page 15. You can also access a digital copy through [edicitnet.com](http://edicitnet.com), and continue working on it!



# EDIBLE CITY SOLUTIONS CANVAS

01 DESCRIPTION OF IDEA/CONCEPT/ORGANIZATION		02 VISION & MISSION		
10 KEY PARTNERSHIPS	08 KEY ACTIVITIES	03 VALUE PROPOSITION	04 CUSTOMERS	05 COMPETITORS
	09 KEY RESOURCES			06 OTHER RELEVANT STAKEHOLDERS
11 COST STRUCTURE		07 REVENUE MODEL		



# A CASE: YOUNG BEEKEEPERS

Our cities are home to diverse communities but also unequal opportunities. Especially in the job market, minority youth have difficulty finding decent jobs due to underdeveloped CVs, poor access to networks, and low self-esteem. To address this inequality, this case study, based on real programming performed by Nabolagshager, is providing an educational environment for minority youth from a local high school by contributing to their professional experience so they can become work-ready. A mentor is matched with a team of youth; their work combines training for collaborative, professional teamwork with hands-on beekeeping and local honey production.

Urban beekeeping is the practice of keeping bees in a town or city. The urban setting can offer advantages compared to most agricultural environments in rural areas, due to having more abundant sources of flowers and less use of chemical inputs. The biodiversity of flowers ensures a great variety of pollen and different sources of nectar for the health of the hives. Urban hives bring an added value to the urban environment that is often underestimated.

The program focuses on a small group experience so that the youth can have direct hands-on experience in beekeeping, which takes place at the rooftop of a co-working space. Youth are actively involved in the set-up and maintenance of hives, as well as harvesting, packaging, and sales of honey. Youth learn the practical skills and knowledge of beekeeping such as the parts of the hive, the life cycle, and anatomy of bees, how to identify the queen, workers and drones, and their roles within the hive. They learn about and practice using beekeeping equipment. As such, the activity is very labor intensive.

Besides this knowledge, they learn to care about the bee community, understand their ecological role in life support systems, they devise ways to collaborate for an efficient and safe work session, and learn to share responsibility and support each other during the activities. Beekeeping requires expensive equipment, gear, a location to place the hives, a location to keep the equipment as well as the honey, and a hygienic space for safe production. The program deals with these costs in various ways. The sales of honey is complemented with funds from public grants to cover wages and equipment costs. Public grants are available for programs that focus on social entrepreneurship, however, funds are short-lived and not always dependable.

# AN EXAMPLE — ECS CANVAS FOR YOUNG BEEKEEPERS

<b>01 DESCRIPTION OF IDEA/CONCEPT/ORGANIZATION</b> Oslo Living Lab is an NGO, providing a job-skills training/ green employment program based in Oslo. Young beekeepers is a project under OLL, in which a team of youth is trained to practice beekeeping while learning professional skills, such as collaboration, communication and entrepreneurship.			<b>02 VISION &amp; MISSION</b> In the future, all jobs have to be green. Oslo Living Lab experiments with green jobs, while empowering and employing minority youth in an urban farming context.	
<b>10 KEY PARTNERSHIPS</b>  Project partnerships with local governments, educational organisations  Corporate social responsibility schemes  Private or public property owners  Research organisations  Municipalities, regional and governmental organisations	<b>08 KEY ACTIVITIES</b>  Education  Empowerment  Production  Sales	<b>03 VALUE PROPOSITION</b>  Young beekeepers at OLL are producing honey for those who appreciate local, clean and ethical honey and value the creation of green employment. The city honey focuses on social sustainability by creating green jobs. Unlike far-travelled honey, where little knowledge about the context of the production is available, OLL's city honey is produced by young urban youth with their bee friends, made from the city's flowers.	<b>04 CUSTOMERS</b>  Co-working building residents & companies  Reko ring customers  Partners  Local honey lovers  Artisanal honey lovers	<b>05 COMPETITORS</b>  Other artisanal honey producers  Local honey producers  Regional and local competition
	<b>09 KEY RESOURCES</b>  Hives, equipment  Hands-on knowledge  Beekeeping mentor  Beekeeping community			<b>06 OTHER RELEVANT STAKEHOLDERS</b>  Local governments: Municipality and district  Distribution channels
<b>11 COST STRUCTURE</b>  • Salaries for youth • Fixed costs • Shared rental • Prepayment model could bring stability			<b>07 REVENUE MODEL</b>  • Mainly public grants, mainly seasonal • Apply consistently • Some income from honey sales • Prepayment model could bring stability	

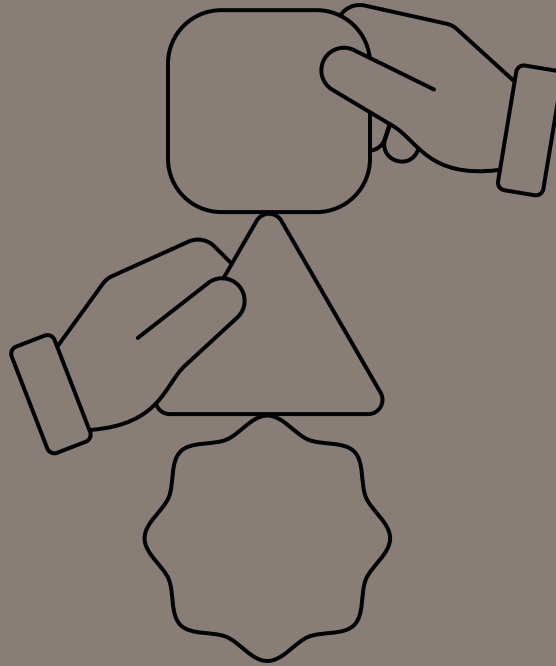
# NOTES

Use this space for your notes and ideas



# BUILDING BLOCKS

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OF THE EDIBLE CITY SOLUTIONS CANVAS

# 01 DESCRIPTION OF IDEA/CONCEPT/ORGANISATION

## 02 VISION & MISSION

### THINK ABOUT

Your idea marks the starting point for the development of your model. It is important that the process is approached with a clear vision and mission in mind. Vision here means the idea of what the long-term goal of the founding team or initiator is. Therefore, start the economically sustainable model development process by thinking about your vision and mission. While the vision expresses what major goal is to be pursued in the long term, the mission describes what task the ECS to be founded will have along the way.

### ASK YOURSELF

- What is the name of your idea/concept/organization?
- Briefly describe your (planned) activities.
- What is your sector/position in the ECS value chain?
- Where is your organization based?
- Describe your vision briefly and comprehensively (try it in one sentence!): Which long-term goal determines the course of your organization?
- What is the mission of your organization?

### KEEP IN MIND

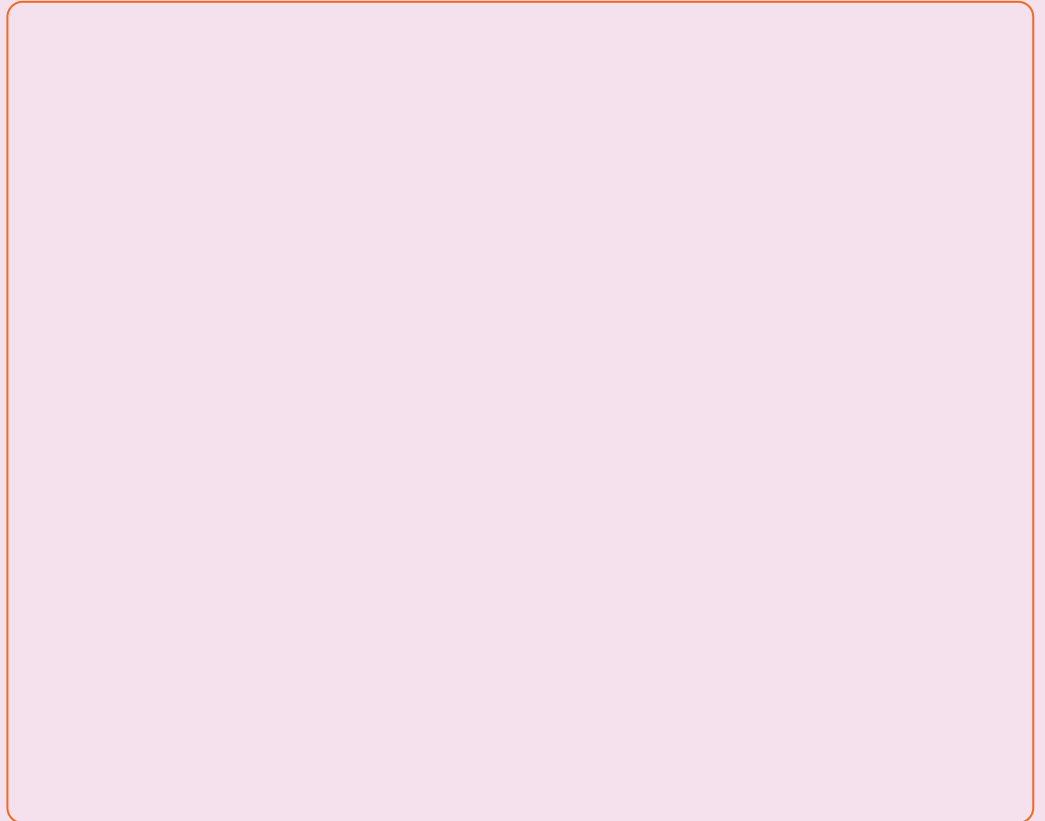
- Identify which sustainability principles play a role in your ECS.
- Identify how these sustainability principles contribute to the economic success of your ECS.
- Try to imagine how your ECS would benefit from the embodiment of other sustainability principles.



## TEST YOURSELF

Try to put together an elevator pitch for your organisation or idea. An elevator pitch is a brief but effective way of explaining what your idea is, usually consisting of 3 sentences, or taking no more than 30 seconds. It is important to deliver your pitch in a creative, straightforward and exciting way, to maintain the interest of your audience! And make sure your team is on the same page as you.

## REFLECT AND BRAINSTORM



## 03 VALUE PROPOSITION

### THINK ABOUT

The value proposition plays a central role in the economically sustainable model of your ECS. In this segment you should answer the question of what benefit or what value is conveyed to the customer. The value proposition can be quantitative (e.g., price, speed of performance) or qualitative (e.g., design, customer experience). The offer can address a specific customer problem or provide a specific advantage over the existing situation. In the case of ECS, not only the customer benefit but also the overarching societal and environmental benefit plays a special role.

### ASK YOURSELF

- Describe your value proposition (product, service).
- Which customer/stakeholder problem will be solved with it?
- How is your value proposition aligned with the principles of sustainability?

### KEEP IN MIND

- It is useful to be aware of which aspects of your idea have a positive or negative impact on the environment or society and whether the value proposition is in accordance with sustainability criteria.
- Be careful not to get a value proposition that is too complex. Then it may become too hard to tell a story and communicate your value proposition.

## TEST YOURSELF

Now it's time to start thinking of your organisation's value proposition. The template on the right will guide you to build one. The example below shows Young Beekeeper's value proposition from the workshop.

## GET INSPIRED

Young beekeepers are producing honey **FOR** honey lovers

**WHO** appreciate local, clean and ethical honey and value the creation of green employment

**THE** city honey

**THAT** focuses on social sustainability by providing job creation and contributes to reducing inequality

**UNLIKE** "far-traveled" honey, where little knowledge about the context of the production is available

**OUR** city honey is produced by young urban youth with their bee friends, made from the city's flowers

### FOR

List target customers or beneficiaries.

### WHO

Define the need or opportunity, i.e. what critical issue for customer or beneficiary?

### THE

Name the product or service or concept and place the product, service or concept into a generally understood category.

### THAT

Quantify the benefits of the product, service or concept. Identify the single most compelling benefit.

### UNLIKE

List the competitors and competitive alternatives

### OUR

The primary differentiation of the product, service or concept.

Adapted from: Skoll Centre for Social Entrepreneurship,  
<https://slideplayer.com/slide/5701009/>

## REFLECT AND BRAINSTORM

## 04 CUSTOMERS

### THINK ABOUT

For most ECS, the paying customer is a necessary requirement for doing business. The canvas segment “customers” examines for whom value or benefits are generated, via which sales channels (“channels”) customers are reached, and which relationships with customers are maintained. First, the most important customer segments or customer groups can be listed. When filling out the canvas for edible city solutions, it is of interest how customers feel about sustainability or what role sustainability plays in the targeted market. Furthermore, the sustainability aspect could additionally reach new customer groups or open up new possibilities in your local market.

### ASK YOURSELF

- Who are your customers? Are there any key customers?
- Which target groups are to be served? Describe your target group(s) as precisely as possible.
- Which communication and distribution channels are suitable to reach your target group(s)?
- What significance does sustainability have for your target group(s), now and in the future?

### KEEP IN MIND

- In the beginning, try to focus on one key sales channel that you feel comfortable with and that helps you to highlight the sustainability aspects of your product or service.

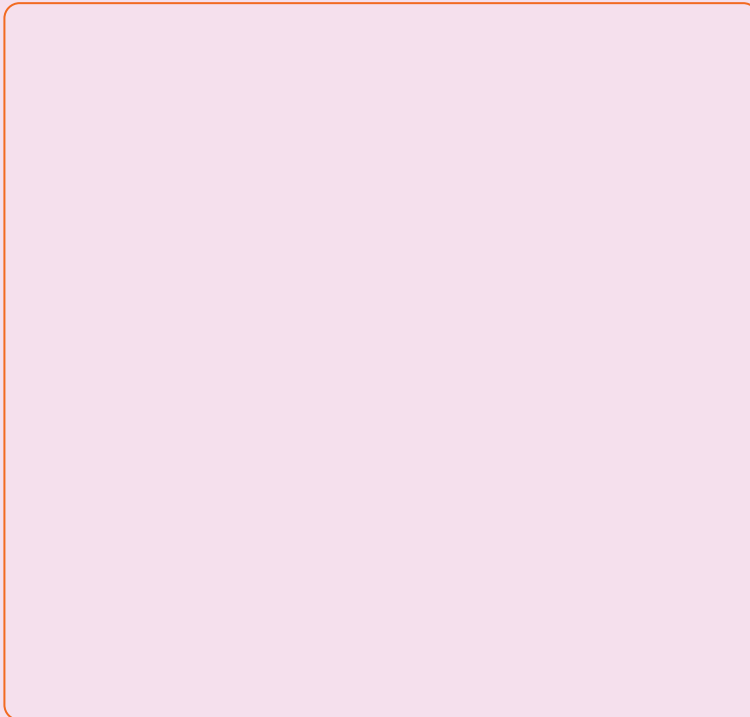
## TEST YOURSELF

Personas are a tool to characterise your customers to understand their needs, motivations and preferences. The process of creating personas helps to develop empathy with the people who potentially will use your products/services. In this activity, identify key personas and imagine potential ones; spend some time trying to understand them and make sense of their needs, motivations and preferences.

Next, explore how you will address their needs as potential customers with these two questions:

1. Which of my problems are you solving?
2. What parts of your value proposition do I connect with?

## REFLECT AND BRAINSTORM



## GET INSPIRED

### URBAN HIPSTERS

1. Consumption with social ecological awareness
2. Social sustainability and environmental contribution

### INTERNATIONAL STUDENT

1. Brew their own drinks with local honey
2. Healthy and clean food item

### FAMILY WITH TWO KIDS

1. Fresh food. Exploring new vegetables and dishes. Fewer food miles, bulk food, social and meaningful activities.
2. Safe, nutritious and ethical food item

### ELDERLY PERSON

1. Healthy substitute for processed food items, medicinal
2. Safe and nutritious food item

### SCHOOL CAFETERIA

1. Need access to clean, nutritious, healthy food. Employment opportunities for youth
2. Green employment, nutritious food item instead of processed snacks

### ELDERLY HOME KITCHEN

1. Nutrient density, community connection (loneliness), social reinvestment
2. Nutritious food item unlike conventional sugar substitutes

### SINGLE PARENT

1. Nutritious and clean food for the kids. Young beekeepers as role models for the kids.
2. A single parent might connect with job creation opportunities, maybe even for their children

## 05 COMPETITORS

### THINK ABOUT

The analysis of competition includes the collection, evaluation and assessment of information that is available and relevant for assessing competitors. The goal of the analysis is to understand the current and future structure of the competition. Competitive analysis can include information on people, products, companies and markets. With regard to the sustainability orientation of the economically sustainable model, it should be analyzed whether a competitive advantage can be gained by taking sustainable aspects into account. In this context, it is also significant whether sustainability is already a relevant topic among competitors.

### ASK YOURSELF

- Who are relevant competitors?
- What is your competitive advantage?
- What role does sustainability play in the market your organization is active in?

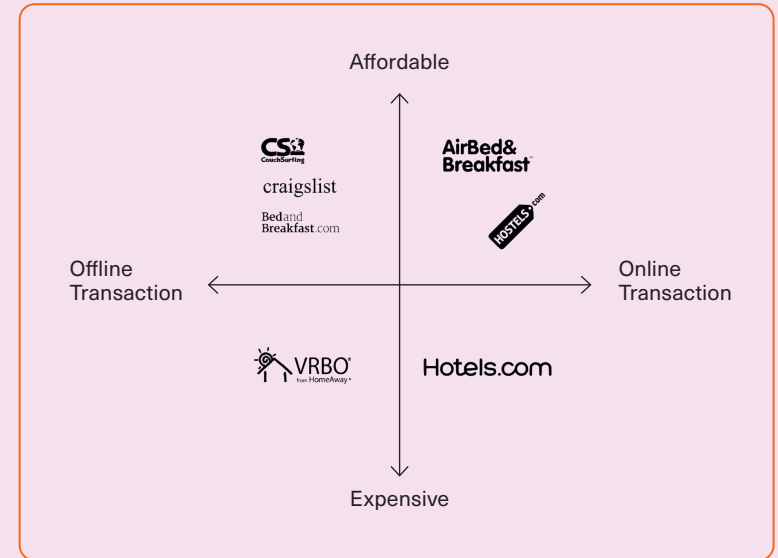
### KEEP IN MIND

- The sustainability focus of a start-up can be the source of a competitive advantage. However, it should be worked out in the competitive analysis in which form the sustainability focus actually has an effect on the market. For example, it could lead to a higher willingness to pay or strengthen the brand reputation and branding.

## TEST YOURSELF

How are you distinct from your competitors? What are some key features or competitive advantages that differentiate your ECS from other initiatives? Consider a few, and position your ECS on a small graph that has your relevant x and y axis. Later, think of your competitors in terms of those variables and add relevant competitors in the graph. Perhaps an example from the original Airbnb pitch deck can inspire you!

## GET INSPIRED



## REFLECT AND BRAINSTORM

Blank space for reflection and brainstorming.

## 06 OTHER RELEVANT STAKEHOLDERS

### THINK ABOUT

In order not to view the economically sustainable model in isolation from the outside world, the ECS Canvas also includes other stakeholders in addition to customers and key partners. Both external and internal groups that have a relevance and an impact on the ECS should be considered. The different perspectives of the stakeholder groups, customers, network partners, environment and society should be discussed in this segment. It should be considered whether the economically sustainable model offers additional benefits for further stakeholders. It should also be analyzed what influence individual groups of stakeholders have on the organisation.

### ASK YOURSELF

- Who are additional stakeholders (besides customers and key partners) relevant to the success of your organization?
- Is their attitude toward the organization and the business idea positive, negative, or neutral?
- In which ways do they influence your organization?

### KEEP IN MIND

- In your team, first brainstorm all the stakeholders you know and write them down.
- Prioritize the stakeholders according to their interest in your startup and their power to influence it.
- How does the environment play a part in your ECS as a stakeholder?



### TEST YOURSELF

An effective outreach plan can play a significant role in your ECS's economic success. For this, it is key to identify relevant stakeholders that would enhance your outreach capacity. If you were developing a strategy for integrating outreach into your ECS, what would it look like? In this activity, the Popsicle column addresses the pros whereas the Poopsicle column highlights the cons. You can further this activity to include how each stakeholder enables you to deliver your value proposition and to which customer segments.

### GET INSPIRED

	Popsicle	Poopsicle	Value Proposition	Customer Segments
Own website	Can deliver many functionalities at once	Channel does not have much visibility	Slow-label can help with storytelling	Hits customer base who visit website, misses most
Reko Ring	Direct sales, don't spend much time at a market	Facebook platform dependent feed algorithm	Helps deliver social message, direct contact	Misses those who don't live nearby sales point
Other online platforms	Good reach and visibility	Laboursome if selling to private customers	Big direct revenue potential	Hits tech-savvy youth, misses traditional shoppers
Multi-farm CSA	Can complement existing schemes and value proposition	How to integrate in their pricing scheme?	Aligns with a ECS with similar values	Misses disconnected customer segments

### REFLECT AND BRAINSTORM

## 07 REVENUE MODEL

### THINK ABOUT

The revenue model is an essential aspect of the economically sustainable model. It describes the way in which your ECS generates revenue. An economically sustainable model can provide for two different types of revenue: Transaction revenue from one-time payments or recurring revenue from ongoing payments. The revenue model segment defines what and how customers pay. In addition, it is possible to specify whether customers are offered fixed prices or variable prices, for example. Sustainability aspects could offer improved access to revenue sources, such as sustainability-conscious customers or government subsidy programs. It may even be possible to achieve higher prices or greater customer loyalty.

### ASK YOURSELF

- What kinds of revenue would you like to generate?
- As for the financial value stream:
- How should the price model be designed?
- Which value are your customers willing to pay for?
- Do several revenue sources exist?
- Will your organization become more attractive to financial backers if it is oriented toward sustainability? If so, to which ones?
- Which alternative revenue models are you considering to generate revenue besides money? (financial, material, social, time, ...)

### KEEP IN MIND

- Be inspired by revenue models from other ECS or other organizations! Check whether they can be transferred.
- Interact with potential customers at an early stage to obtain indications of the acceptance of a revenue model.

## TEST YOURSELF

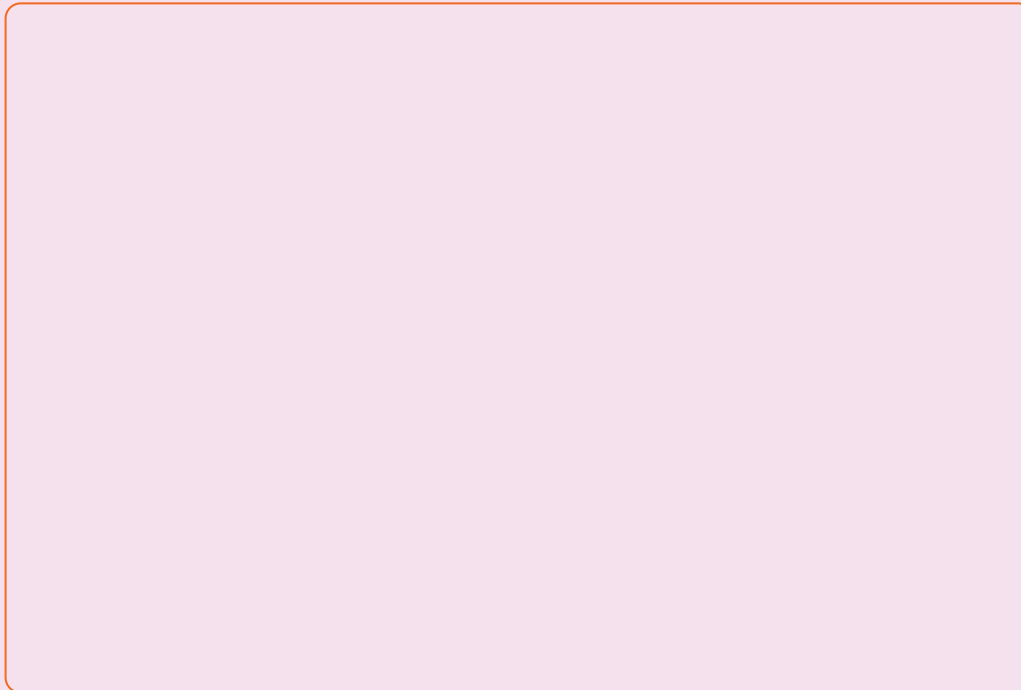
A prepayment model is one of the contracts often utilised in urban farming, in which members make an upfront payment for their share of the produce. This model allows the ECS to obtain significant economic support to deal with expenses regarding set-up for the season. In the meantime, risks and responsibilities are shared as well as the abundance, allowing solidarity, a sense of belonging and co-producing.

In this case, how could you possibly incorporate a pre-pay approach into your model? Try to imagine what that would look like. You can consider different types of memberships and additional benefits for your customers and your ECS.

## GET INSPIRED

**Community Supported Beekeeping** rests on the same principles as Community Supported Agriculture, whereby members sign up to become a shareholder of a bee hive, while the maintenance and care is given by the beekeepers. At the end of the season, honey is shared among the members of the hive. This model has several benefits: (1) educate the greater public about bees, (2) provide engagement and a sense of belonging among the shareholders, (3) remove the challenge of finding markets to sell the hyperlocal honey, and (4) raise funds to upgrade materials and equipment at the start of the season.

## REFLECT AND BRAINSTORM



## 08 KEY ACTIVITIES

### THINK ABOUT

Key activities describe which activities of your ECS are of particular importance for a successful and economically sustainable model. Similar to key resources, key activities can also refer to other segments of the Canvas. For example, if customer contact is particularly intensive, a key activity will be direct customer contact, which is personnel-intensive. All key activities, such as procurement, manufacturing or transportation, can be aligned with principles of sustainability.

### ASK YOURSELF

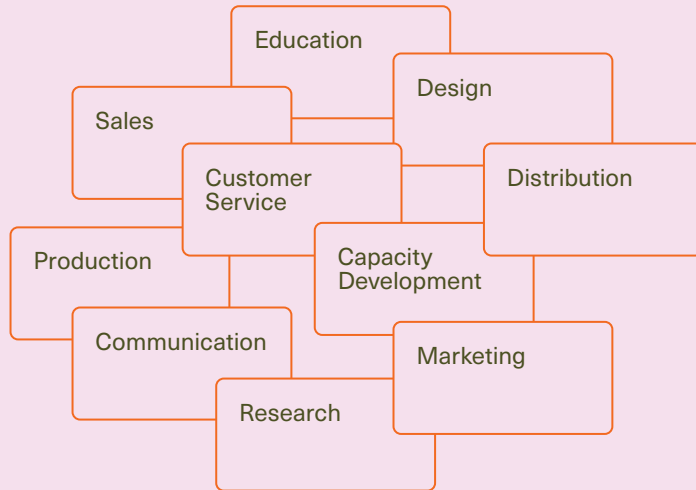
- Which key activities are necessary in order to implement your value proposition?
- Which of the activities does your organization carry out?  
For which activities do you need partners?
- What role does sustainability play in your key activities?

### KEEP IN MIND

- Key activities are not necessarily the activities that take up the most time. Instead, ask yourself which activities cannot be outsourced and lead to the development of key resources (e.g. reputation for sustainability or specific know-how in sustainable production).

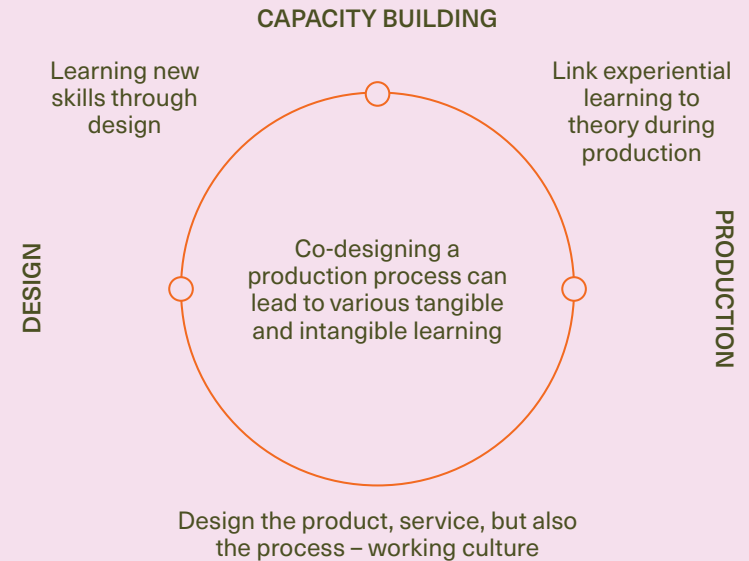
## TEST YOURSELF

Write your ECS's key activities on post-its. Then randomly select two or three from the pile. In an open, semi-structured discussion try to come up with ideas: How to creatively combine these different activities?



## GET INSPIRED

This example from Young Beekeepers shows how activities relating to design-production-capacity building can be creatively combined.



## REFLECT AND BRAINSTORM

## 09 KEY RESOURCES

### THINK ABOUT

Key resources are the most important assets for the successful implementation of an economically sustainable model. Such resources are not just financial resources or physical assets. They also include intangible factors that are necessary to provide the desired value proposition of your ECS. Resources that cannot be imitated or substituted by competitors in the long term are of particular value. These can include, for example, competencies, technological know-how, expertise, exclusive partnerships, certificates, social networks, or a specific reputation. Embedding your ECS in a specific community can be a key resource that is difficult to copy by established competitors.

### ASK YOURSELF

- Which key resources and skills are necessary to implement your value proposition?
- Does the team already have resources and skills for complying with the defined sustainability principles, or does it require external support for this?

### KEEP IN MIND

- Do not take the existence of key intangible resources (e.g., the existence of a credible green brand from the start) for granted. In many cases this has to be built over a longer period of time.
- Land as a resource is a common challenge for many urban farming initiatives. Make sure that the soil you are cultivating is safe in terms of contaminants and other heavy metals.

TEST YOURSELF

Brainstorm and evaluate your organisation’s key resources in three steps: (1) What is the current situation? (2) What is needed for your vision? (3) How to get there? In order to be comprehensive, think deep and make sure you consider the intangible resources as well as the more obvious ones.

GET INSPIRED

Below we split resources into Intellectual, Financial, Physical and Human resources categories, and illustrate where the gaps and how to obtain what is needed. For your ECS, you can add further resource categories!

	Human Resources	Intellectual Resources	Physical Resources	Financial Resources
What do we have?	Mentor and young staff: some genuinely interested, others there for the job	Mentors and practical skills for beekeeping	Hives, equipment, suits	Funding from public grant, some profit from honey sales
What do we need?	Committed staff that have a fulfilling role within the business	Mentors need support, training, knowledge on funding resources	Space to harvest, pack, and keep and sales points	Subsidies, funding for following seasons – predictable funding
How do we get it?	Conduct a workshop with them to find a niche	Online course, get funding for capacity building, training for proposal writing	Share bigger tools, sell in bulk, contact brewers, cosmetics companies	Write funding proposals, financial applications, joint firm agreements

REFLECT AND BRAINSTORM

# 10 KEY PARTNERSHIPS

## THINK ABOUT

Economically sustainable models can be dependent on key partners. Typically, these include suppliers or other partners involved in value creation. Without them, products or services could not be offered. Key partners provide key resources in this case. Partners are analyzed and entered in the appropriate segment of the Canvas. Partners of sustainability-oriented ECS are often established non-profit organizations or institutions that award certificates or similar. These are often critical to the success of the ECS because credibility is even more important for a green initiative than for other companies. Sustainability requirements can be relevant for key partners along the entire value chain.

## ASK YOURSELF

- Which key partners (suppliers, experts in the field, trade associations, supporters) do you need in order to fulfill your value proposition?
- Which key resources do you source from partners?
- Which key activities do partners perform?

## KEEP IN MIND

- A critical step in this segment is to analyze which activities you can accomplish yourself, and which ones you cannot (“make or buy”). Also consider your internal sustainability and if you can really accomplish all planned activities without putting too high of a workload on your team.



TEST YOURSELF

Take a look at the resources that you identified as missing for your initiative in the previous activity. What strategic partnerships can help your ECS access these resources?

GET INSPIRED

Young Beekeepers' workshop output illustrates the partnerships to discover, establish and maintain for closing the resources gap.

WHAT DO WE NEED?	HOW DO WE GET IT?	
Committed staff that have a fulfilling role within the business	Beekeeping mentor, one youth taking leadership and responsibility	
Mentors need support, training, knowledge on funding resources	Beekeepers social networks, training organisations. Unions, associations.	Partnering up with experienced organisations to write funding applications
Space to harvest, pack, and keep and sales points	School partnerships (work experience for students)	Partner with property owners for locations
Subsidies, funding for following seasons – predictable funding	Tap into Corporate Social Responsibility schemes	Greenwashing? How to align values with companies who would use ECS for CSR

REFLECT AND BRAINSTORM

# 11 COST STRUCTURES

## THINK ABOUT

Once the key resources, activities and partnerships have been identified, it is relatively easy to identify the relevant costs. ECS should not focus solely on internal costs, but also on the external social and environmental costs generated by the company and its products over the entire life cycle.

## ASK YOURSELF

- What are your organizations' main cost units (production, distribution, logistics, etc)?
- Which costs do your key activities entail?
- Describe your cost structure. Discuss the fixed and variable costs.
- Which additional costs might arise in the future if activities are not sustainable?

## KEEP IN MIND

- Economically sustainable models are developed around the cost structure and a few central cost drivers, not a detailed cost analysis. Often, only two or three central types of costs are responsible for the majority of the total costs. The analysis should initially be limited to these points.

## TEST YOURSELF

See page 15, where we provide information about the Wageningen University's report on Five Models for Profitable Urban Agriculture businesses. Take a moment to think how your ECS fit into these models. As an exercise, try to understand how you could expand on in your ECS in order to increase revenue but reduce cost, and how?

## GET INSPIRED

### DIFFERENTIATION

Add value to gift package:  
telling the story, cookbook  
for honey, manual on how to  
support the bee population

### RECLAIMING THE COMMONS

Co-office building for  
subscriptions for hives on  
shared rooftop

### DIVERSIFICATION

Gifts for employees  
Making value-added products  
from flowers and herbs  
Sell pollinator-friendly flowers

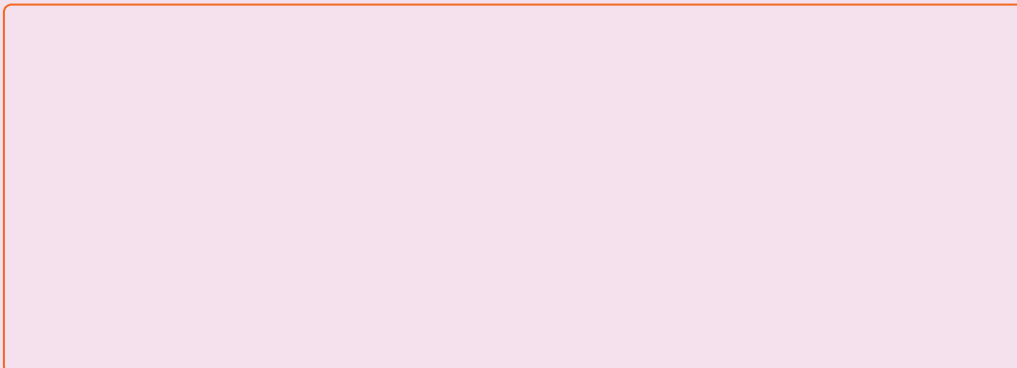
### LOW-COST

Value-add with experiences  
Check people's willingness to  
pay via orders at REKO

### EXPERIENCE ECONOMY

Workshops for beekeeping  
Courses and events  
Show inside the hive,  
harvesting and extracting  
processes

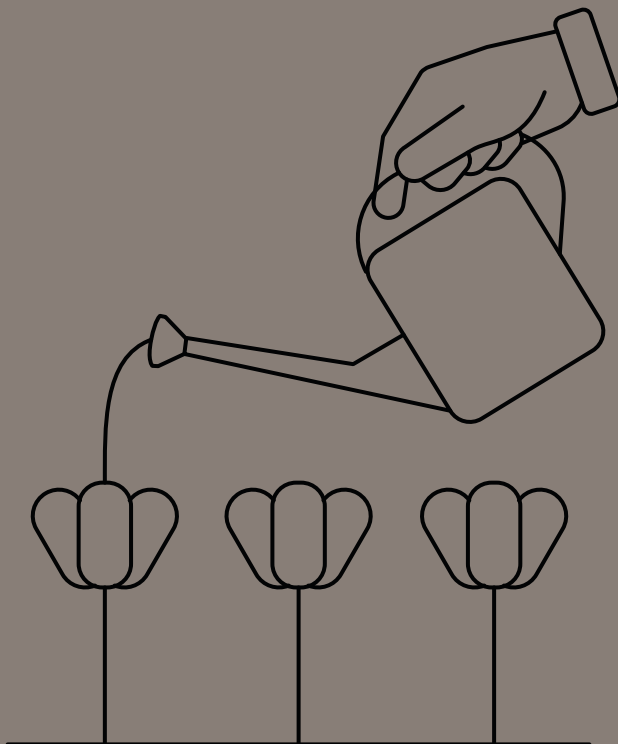
## REFLECT AND BRAINSTORM





# ADDITIONAL RESOURCES

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AND REFERENCES

# EDICITNET MARKETPLACE

An important challenge of many initiatives in urban agriculture is limited access to local or regional markets. The EdiCitNet Marketplace functions as a facilitating platform for these initiatives and fosters self-sustaining economically sustainable models and the expansion of new business concepts. The Marketplace also serves as a brokerage opportunity for contacts between different providers of services and products. Visitors have the option to filter initiatives by region, by type of organization and match their own needs or expertise to create new and meaningful connections. All organizations on the Marketplace have a profile that showcases their activities and options for cooperation. Using the Marketplace is free of charge for organizations and visitors alike. By using this QR code, you can access the Marketplace and become a part of this platform!

## THE MAIN GOALS OF THE EDICITNET MARKETPLACE ARE:

- Progressively attract ECS, which in return can organise themselves as Living Labs with the support and guidance of EdiCitNet.
- Promote locally successful ECS services and products or proven economically sustainable models to raise interest and stimulate demand from other cities and markets.
- Offer direct collaborative networking and exchange, bringing together young entrepreneurs and start-ups with successful ECS businesses to help them set up robust economically sustainable models and show them ways for a successful market entry.
- Put the providers of ECS in the front-row and provide them with unique opportunities and tools to promote, transfer and valorise successful ECS concepts, services and economically sustainable models worldwide.

## EDICITNET FAQ

Getting a new business started can be very challenging. From picking the right legal entity to finding initial funds – there are plenty of questions that you might have when beginning your journey as a new ECS. We have defined a series of common challenges that can be generalized to apply to all ECS irrespective of their focus area or region. Answers to these can be found on the EdiCitNet website.



# KEY LEARNINGS

- Do not fill in the Canvas alone! Turn this process into a collaborative and creative workshop, invite your colleagues and draft the ECS canvas together. This can be a good opportunity for an interactive group exercise.
- Revisit the segments periodically to ensure the ECS model is still accurate.
- The order we present the segments of the canvas is a deliberate one. The value proposition is the heart of the canvas, as it is the core of every organisation's operations. Make sure you process that part in the beginning, and follow the order.
- Make sure that you pay attention to the interrelations amongst the individual segments. For this, you can use color coding!
- We recommend that you do not only focus on one model, but sketch out alternative economically sustainable models for the same product or service, to test out novel ideas.
- Engage with a wide range of actors, from chefs and restaurants to researchers to public servants. Connect customers, consumers, producers, practitioners and thinkers. It is important to work across disconnected domains for novel partnerships to emerge!
- Mapping out the economically sustainable model of an ECS that you admire is a great way of practicing and learning the ECS canvas
- Marketing and promoting ECS on social media platforms is a skill that can be learned and improved. It is very important to build a profile to stand out on such platforms. Therefore, ECS should invest in their social media use and storytelling skills!

# USING SOCIAL MEDIA TOOLS EFFICIENTLY

ECS occupy a niche position due to their socially and environmentally oriented value proposition. Thus, using Social Media platforms efficiently can lead to more opportunities for communicating your value proposition, connect you to local customers and partners and help evolve your economically sustainable models to fit the needs of customers and trends.

**Growing Jobs in Urban Agriculture Workshop** focused on this need because social media tools propose an increasingly growing impact on how information is sourced and disseminated. If you would like to freshen up your skills or increase your competence to understand what works for you, below are some tips and hints from Stian Broch, a photographer who presented at the 'Growing Jobs in Urban Agriculture Workshop' for what works on social media and how to make it happen.

- Create your own style
- Keep your feed clean
- Be short and precise
- Be eager, but don't be desperate
- Don't post if it's not good enough
- Improve your camera skills
- Be confident with your digital tools
- Use stories to be a bit more loose, but keep the quality up
- Timing is everything, but at what time?
- Respond, interact and be creative in your way of communication
- Make money!



# NOTES

Use this space for your notes and ideas

# AUTHORS



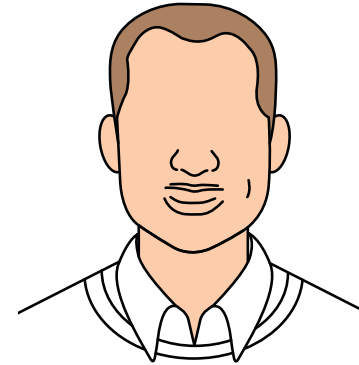
## IDIL AKDOS

Nabolagshager, Oslo

As an urban farmer and beekeeper herself, Idil believes in the rich possibilities that can emerge by focusing on food to address societal and planetary challenges.

### TIP

“Consider how the different segments of the canvas relate to one another; pay attention to emergent themes that arise from these interrelations.”



## ALEXANDER SCHABEL

Borderstep Institute, Berlin

Enthusiast for economically sustainable models with a passion for building resilient local entrepreneurial ecosystems.

### TIP

“Talk to your potential customers at a very early stage to make sure you address their needs and wishes.”



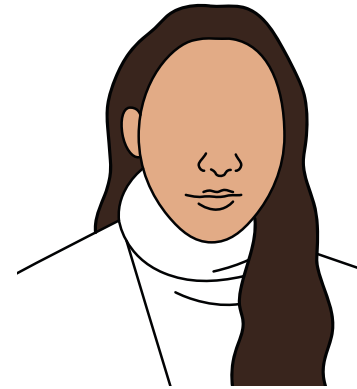
## ADAM CURTIS

Nabolagshager, Oslo

Adam's experience includes running a food hub, establishing community farmers markets, managing a volunteer-driven urban farm, establishing a family flower farm and building Oslo's first rooftop farm. Currently he manages several international research projects about sustainable food for Nabolagshager.

### TIP

"Jobs are never as fun as hobbies. Don't monetise all your joy – keep something to enjoy on the weekends!"



## SUHANA REDDY

Humboldt University, Berlin

Engaged in the thought of resilient economic transformation towards more sustainably acting cities. Driven by people and society the transition is carried out by changemakers.

### TIP

"Do good and talk about it. Use networks and communication for spreading your idea, concept and product or service."

# SPECIAL THANKS TO

Mads Pålstrup, Ellen Marie Forsberg, County Governor of Oslo and Viken, Clara Reich, Laura Martinez, Kim Weger, Helene Gallis, Oslo Living Lab young beekeepers (Gabriela Piechocka, Mohamed Abdirashid, Ali Abdirashid and Ali Sarwari), and all of the enthusiastic and creative participants and speakers of the 'Growing Jobs in Agriculture Workshop'.

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Food production in urban areas is a major step towards more sustainable, liveable and healthy cities. A multitude of initiatives around the world, however fragmented, are prospering, forming a global movement of Edible Cities.

We believe that this playbook will allow you and your team to identify the necessary and sufficient conditions for economic and social success, and equip you with a tool to explore solutions and address the needs of your organisation. For this, we follow the Edible City Solutions Canvas (ECS Canvas) tool, an upgraded and calibrated Business Model Canvas for organisations that provide sustainable food solutions within the urban setting.

We relate to urban agriculture as an approach for growing more than food. We grow engaged and conscientious communities, responsible jobs, green virtues, and clean, fair and nutritious food within the urban setting. Therefore, we want to engage you with this playbook for you to develop ideas and narrow gaps for economic success!

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