



# IN MY BACKYARD

a citizen science pilot project on home farming and gardening



[www.rioneiva.com/nomeuquintal](http://www.rioneiva.com/nomeuquintal)

reflections and take-aways

september 2020



# WELCOME

In My Backyard is a citizen science project promoted by Rio Neiva – Environmental NGO and its partner CEA – Municipal Centre for Environmental Education, both based in Esposende, Portugal. It was funded through the [ACTION](#) project also providing mentoring support. As project focused on uncovering and discovering a topic with limited available knowledge, as is home farming and gardening, this report documents our reflections and take-aways based on our experience.

It's targeted at fellow citizen scientists, researchers, NGO, environmental education centres and anyone interested in the topic.





# 1. ABOUT THE PROJECT

A brief presentation on the project goals, activities and results, providing the framework and context for the following sections.





# OBJECTIVES AND CONTEXT

In My Backyard aimed to understand the use of harmful pesticides and fertilizers in home farming and gardening and uncovering sustainable alternatives practiced within domestic backyards.

The bottom line is to support the long-term transition to sustainable backyards.

At the end of the period we aimed to better understand this reality and have a clear baseline of work for the upcoming years.

The project stems from the observation that:

- there is a widespread practice of backyard farming and gardening for home production in the local area; and
- there is a knowledge gap on the usage of pesticides and fertilizers in home farming and gardening.

Our approach was based on on-site visits to local domestic backyards and on-line survey, both for data collection and on capacitation events.





# ORGANISATION

The project was promoted by Rio Neiva – Environmental NGO and its partner CEA - Municipal Centre for Environmental Education, as a way to ground the project in the local community where the NGO is located and to empower it with a public authority reach and feedback.

**Rio Neiva Environmental NGO** aims to defend and enhance the local natural environment and to promote a balanced regional development of the Neiva river valley, in Esposende.

Develops environmental education and nature sports actions, targeting the local school community and the local residents.



**Environmental Education Centre** is a municipal infrastructure within the environment municipal enterprise, in Esposende.

It aims to promote awareness, training and education for environmental sustainability focusing on the local community at large.





# LOCATION

It took place between February and September 2020, grounded in Antas, a small urban-rural area in Esposende, in the northern coast of Portugal.

The location of Rio Neiva Environmental NGO, just in the margins of the river from where it takes its name, was the main working site and from where the team departed to local on-site visits.

The online survey was open to anyone with a backyard in Portugal.





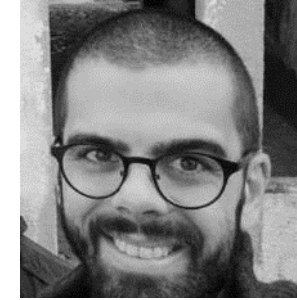
# TEAM MEMBERS



**Augusta Almeida**  
President of the Board  
Community Engager  
School Teacher



**Clara Roberti**  
Image Designer  
Film Documentarist



**Rui Pedro Almeida**  
Environmental Project  
Manager



**Rui Monteiro**  
Design Researcher  
Chemical Engineer



**Rui Coelho**  
Biologist  
Nature Tour Guide  
Writer



**Anabela Almeida**  
Natural Resources &  
Environmental Engineer





# RESULTS

At the end of this journey we have produced a set of results and achieved a set of indicators that reflect our approach, the valorisation of each participant and our hope these results can also be useful for the wider community of citizen scientists and for anyone interested in starting their own project.

A background image showing a person in a white shirt and shorts working in a garden, with green plants and a blue watering can visible.

Database on the collected information: 2

Visual analysis of the collected data: 1

Booklet on sustainable practices: 1

Anthropological video documentary: 1

Video teaser: 1

Visual identity: 1

Website: 1

Project Press Kit: 1

Data Management Plan: 1

Privacy Policy: 1

Privacy statement forms: 3

Process and Sustainability report: 1

Project team meetings: 15

Mentoring meetings: 6

Survey: 1

On-site visits: 25

Online survey responses: 110

Capacitation and dissemination events: 10

Event participants: 150

Communication reach:

Media news articles: 14

External public presentations: 2



## 2. LESSONS LEARNED

Short reflections on what activities we have implemented, on the principles we have adhered to and how and why we have done them, complemented with a set of relevant tips for those who may want to replicate and adapt them.





## OPEN ACCESS

As a citizen science project where data is key and public funding is its backbone, adhering to open access principles has been a rule from the very beginning. A principle also promoted and pursued by ACTION, the European level project which funded our own pilot project. Considering the complexity of the legal landscape on intellectual property we opted for a Creative Commons open license, which is of straightforward implementation and with legal standing across most countries. We chose the CC-BY-SA 4.0 license which allows for open sharing and adaptation as long as credit is provided and is for non-profit uses.



### TIPS

- we recommend you to look at the diverse creative commons open licences [here](#) and choose the most appropriate;
- make sure your open access policy is written down and publicly available in a easy way (you can check our version in portuguese [here](#)).

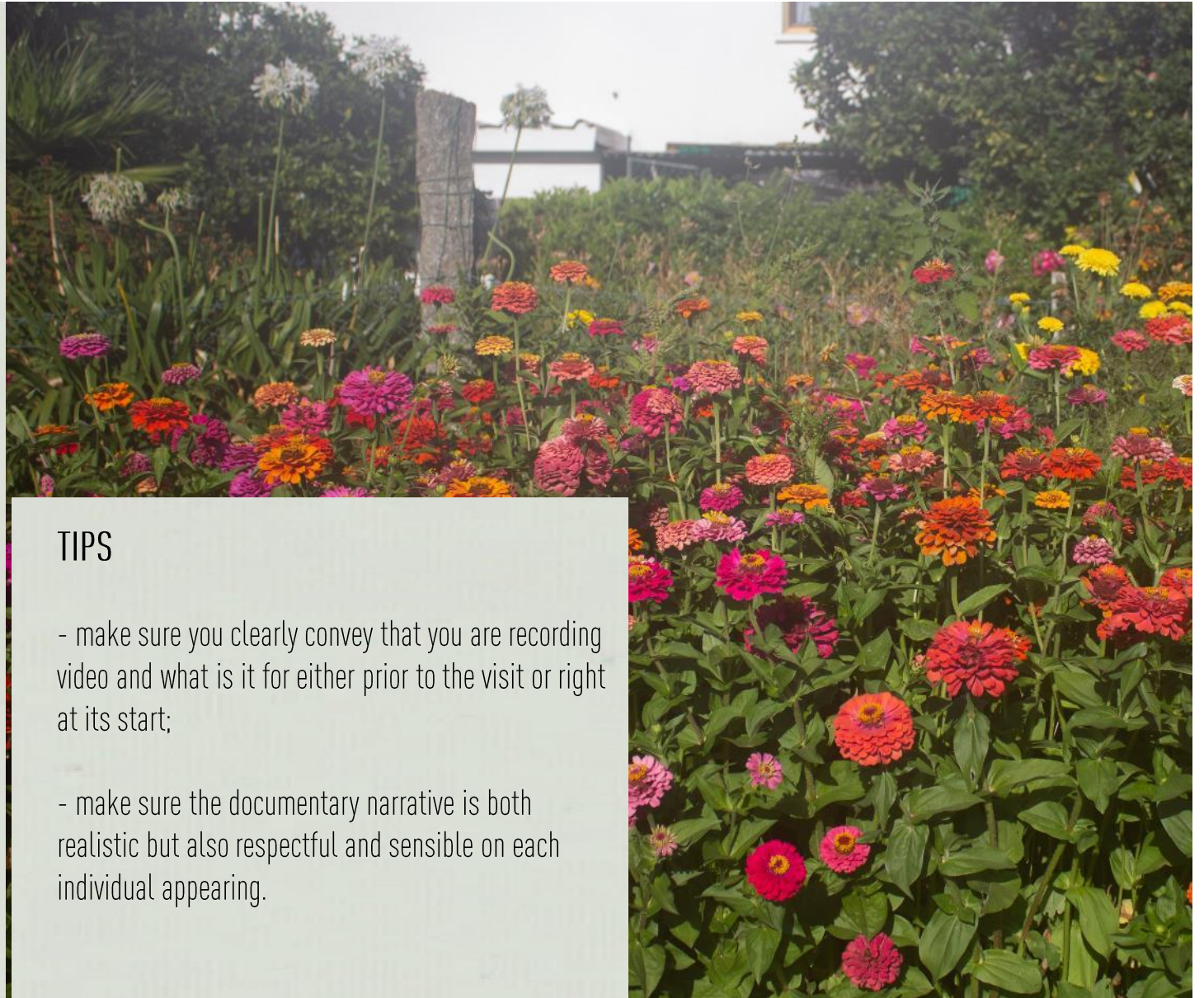


## VIDEO DOCUMENTARY

A video documentary in a citizen science project might seem odd at first sight, but we sensed we required a tool that would capture the personal and intimate space that a backyard is which a survey by itself would not be able to. To kick-start things we went onto three exploratory visits to test and learn the fundamentals. From there we visited and recorded further 22 backyards. Perhaps the most valuable lesson is that a video documentary is about the person you are engaging with, making sure they feel proud and how opening up deserves respect and empathy. At the end of the day you will be exhausted but it will be worth your time!

### TIPS

- make sure you clearly convey that you are recording video and what is it for either prior to the visit or right at its start;
- make sure the documentary narrative is both realistic but also respectful and sensible on each individual appearing.





## PROJECT IDENTITY

Getting through the other side when it comes to communicating with your audience requires not only a clearly articulated narrative and media outreach strategy but also, in our opinion, a proper visual identity. We worked alongside a professional design team to develop the project brand, including its logo, the project website and booklet. We also agreed we would own the editable brand files so we could use them in any médium and to ensure a coherent use of the brand in all products. This has resulted in a unified picture, easily recognised and which allow us continue using it as we define the project sustainability strategy and next steps.

### TIPS

- we opted for a single page [website](#), in line with the project size, which also made us to distill to our best extent possible the communication key points;
- as you might have seen in our press kit page, we made sure to have our logos openly available in different formats which was helpful to ensure the project brand would not get disfigured.





## TARGET-GROUP ENGAGEMENT

One of the most crucial aspects in a citizen-science project is how to reach and engage participants. While we were looking for anyone with some kind of backyard, we had to attain two different sub-sets of this target-group: local backyard owners for on-site visits and backyard owners for the online survey, located anywhere in Portugal. Locals were targetted mostly through our own newsletter, social media, our partner contact list, local events and contacts. For the online survey, media outreach was key, as well as direct mailing to relevant organisations, fellow environmental NGOs and projects, and social media discussion groups on the topic.

### TIPS

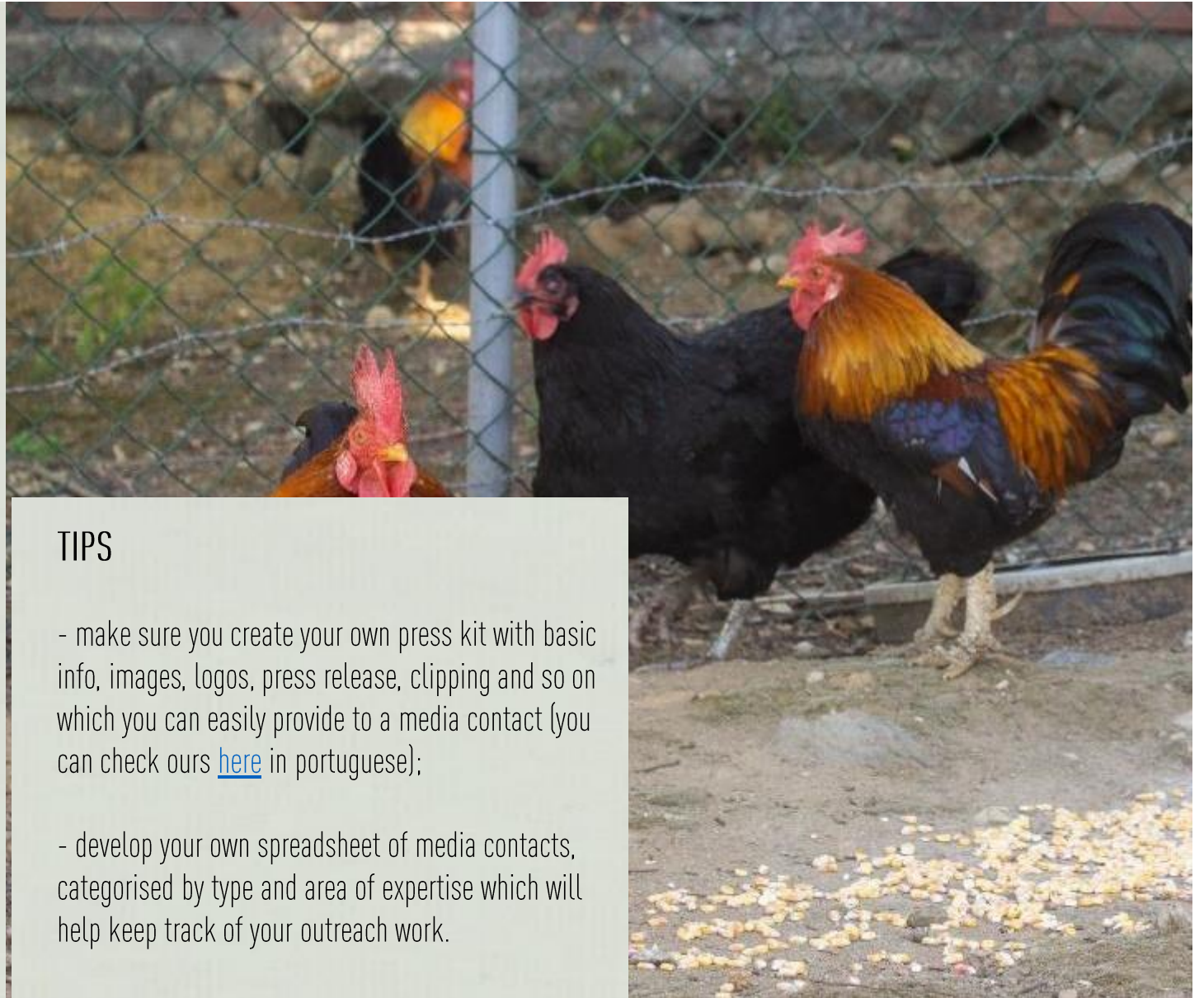
- make sure you cover social media (i.e. facebook) groups for dissemination and engagement, keeping in mind to have a broad coverage so your results are not too biased;
- personal contacts are also a great way to reach out and don't forget to ask if they can bridge with other new contacts that could also be interested.





## MEDIA OUTREACH

Having your voice heard in the media can be quite daunting, exciting and challenging at the same time, particularly when you are communicating a new project. As a pilot and experimental project focusing in a somewhat start-up topic we opted to target specialized media but also local media so we could boost responses to the online survey. There is always a risk that your final target-audience is very much interested in the topic, meaning you may miss out backyard owners who don't follow this kind of media. But you need to start somewhere and any time you get published it boosts your morale.



### TIPS

- make sure you create your own press kit with basic info, images, logos, press release, clipping and so on which you can easily provide to a media contact (you can check ours [here](#) in portuguese);
- develop your own spreadsheet of media contacts, categorised by type and area of expertise which will help keep track of your outreach work.



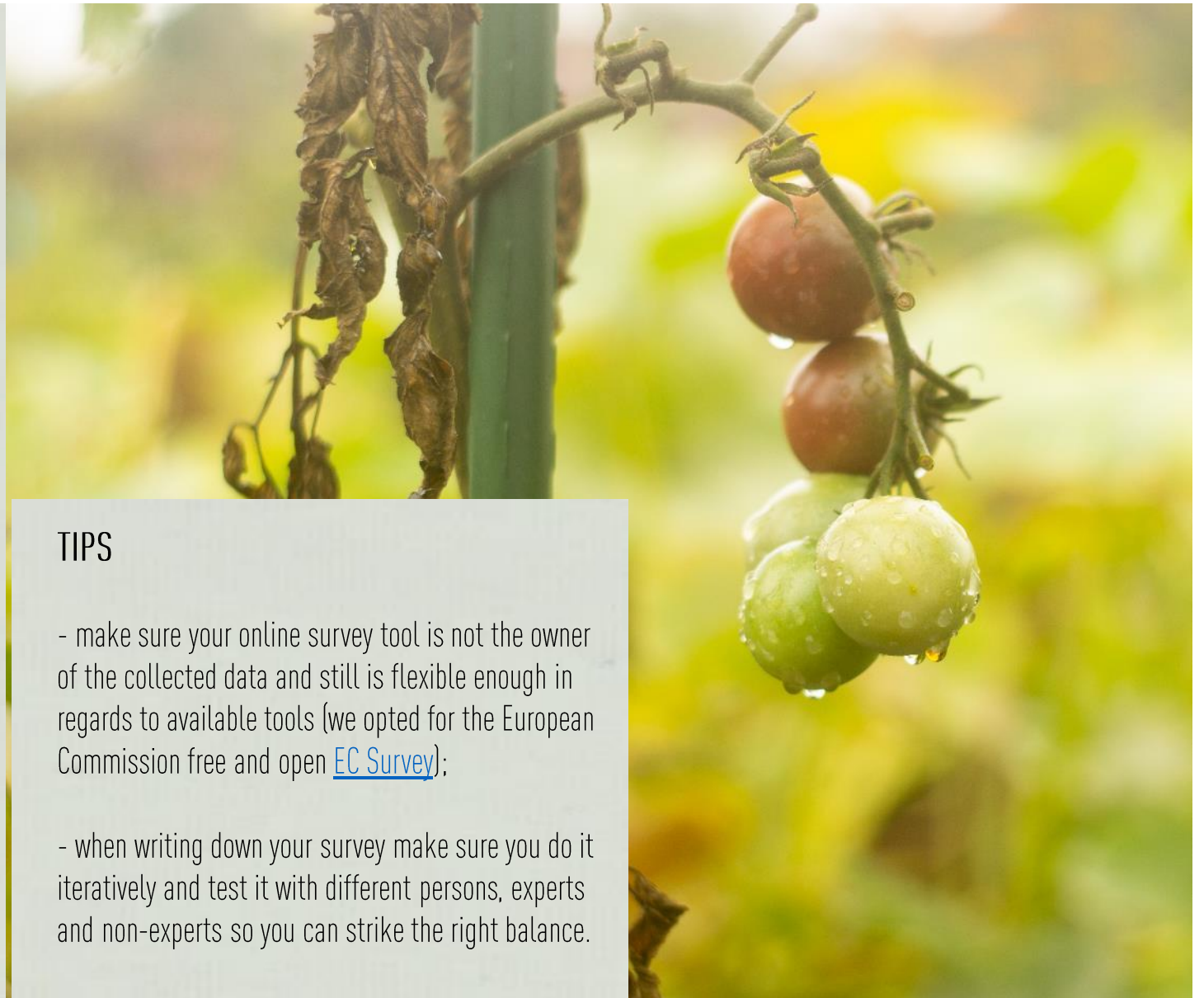
## ONLINE SURVEY

As data collection is usually key for a citizen science project, ours was no different. The initial strategy was essentially based on collecting data, through a survey, when doing on-site visits to backyards, but still having an online version of the same survey available. With the covid-19 lockdown right in the early stages of the project, the online survey jumped to our priority list.

This meant we had to look into an online survey with the best interface possible and where we had control of the collected data. Moreover, we spent long hours writing and re-writing the survey so it would not be too long and boring and that still would cover what mattered.

### TIPS

- make sure your online survey tool is not the owner of the collected data and still is flexible enough in regards to available tools (we opted for the European Commission free and open [EC Survey](#));
- when writing down your survey make sure you do it iteratively and test it with different persons, experts and non-experts so you can strike the right balance.





## TRICKY CONCEPTS

While dealing with a focused context, as is a domestic backyard, we got a bit caught up at the early stages on how to distill some of the key concepts supporting the project so that they resonate and have meaning to our target-audience. What is citizen science? What does it actually implies on the field? What is open access? Open data principles – what? And backyards – they can encompass so many different things. What matters is not to leave out this discussion as this all needs to come out as coherent and simple to understand when you are pitching your project, talking with fellow citizens or reaching out to the media.

### TIPS

- make sure you write down and re-write short project presentations and slogans as this process will be crucial for communication but also for establishing a shared understanding among the team;
- do your background research on your key concepts and learn from other experiences.



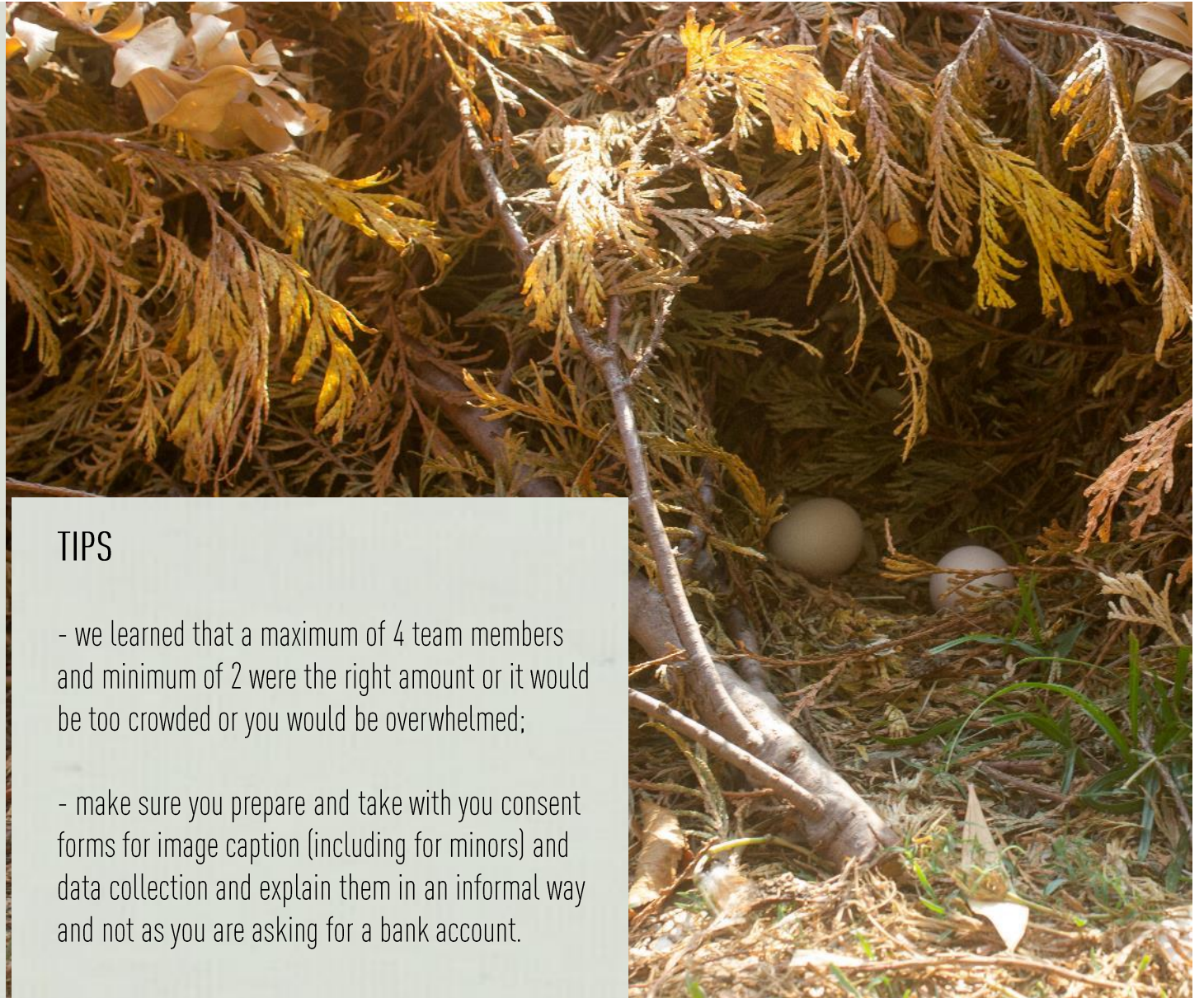


## ON-SITE VISITS

We undertook 25 on-site visits to domestic backyards, each visit corresponding to one house. All backyards were selected based on geographical proximity, which stands from a scientific method point of view but also from a pragmatic perspective. We started with three visits to backyard owners who have a very close relationship with our NGO, which is helpful to be at ease for learning and making mistakes. Following these initial visits, covid-19 lockdown happened and we could only resume them 4 months later. We picked up from where we were and selected upcoming visits through close contacts, working as a snowballing process.

### TIPS

- we learned that a maximum of 4 team members and minimum of 2 were the right amount or it would be too crowded or you would be overwhelmed;
- make sure you prepare and take with you consent forms for image caption (including for minors) and data collection and explain them in an informal way and not as you are asking for a bank account.



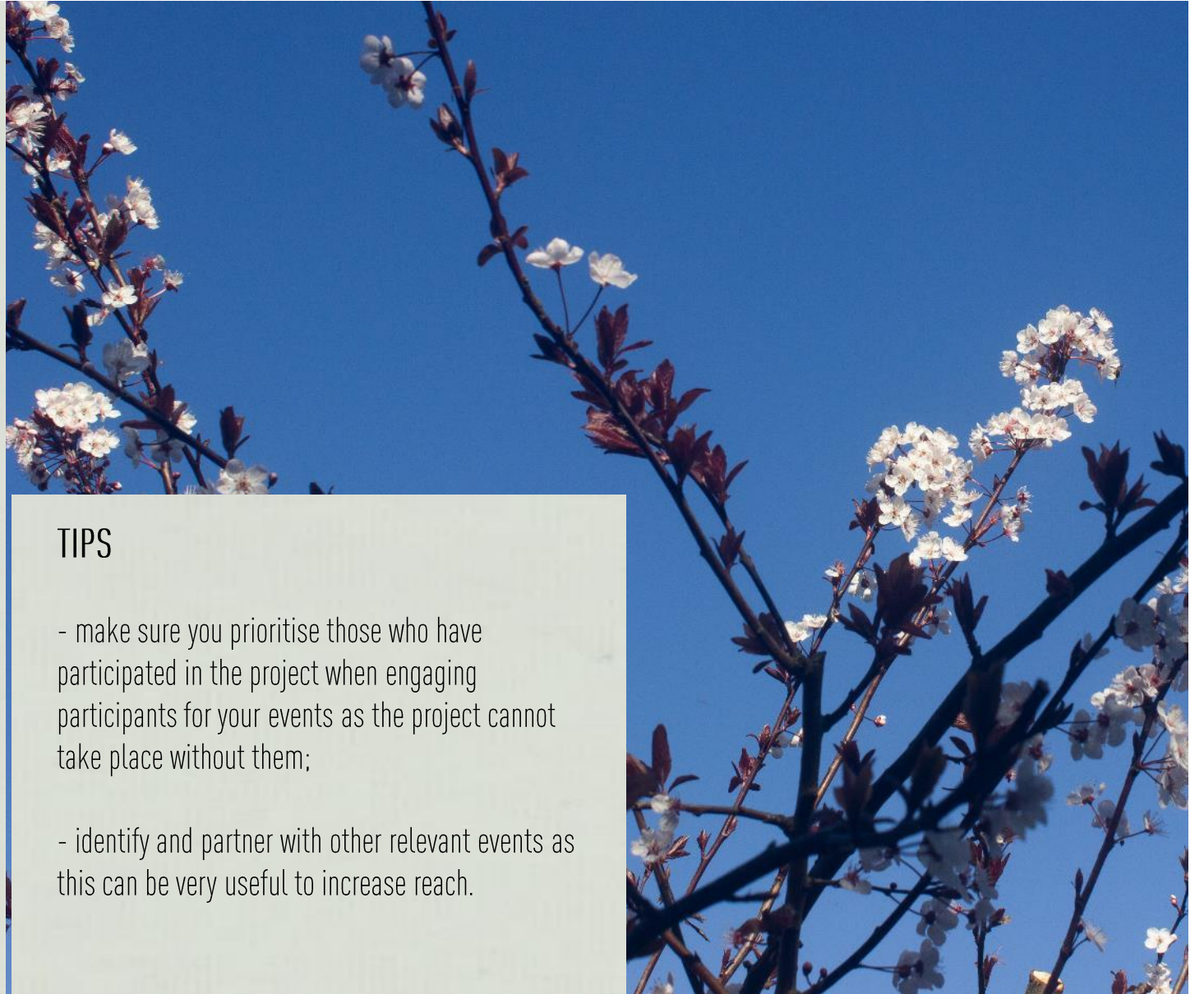


## EVENTS

We organised a total of 10 events, the first 4 for project dissemination and the remaining for capacitation and presentation of results. The dissemination events were important to launch the project, to engage citizens and to present the team. For the capacitation events we defined topics based on the identified needs from our on-site visits and online responses. 2 of these were online to reach to those far away from our location, mostly online survey participants, while 2 were on our location especially targeting those who opened up their doors. Our reasoning was to give back the time and opportunity each participant provided to the project.

## TIPS

- make sure you prioritise those who have participated in the project when engaging participants for your events as the project cannot take place without them;
- identify and partner with other relevant events as this can be very useful to increase reach.



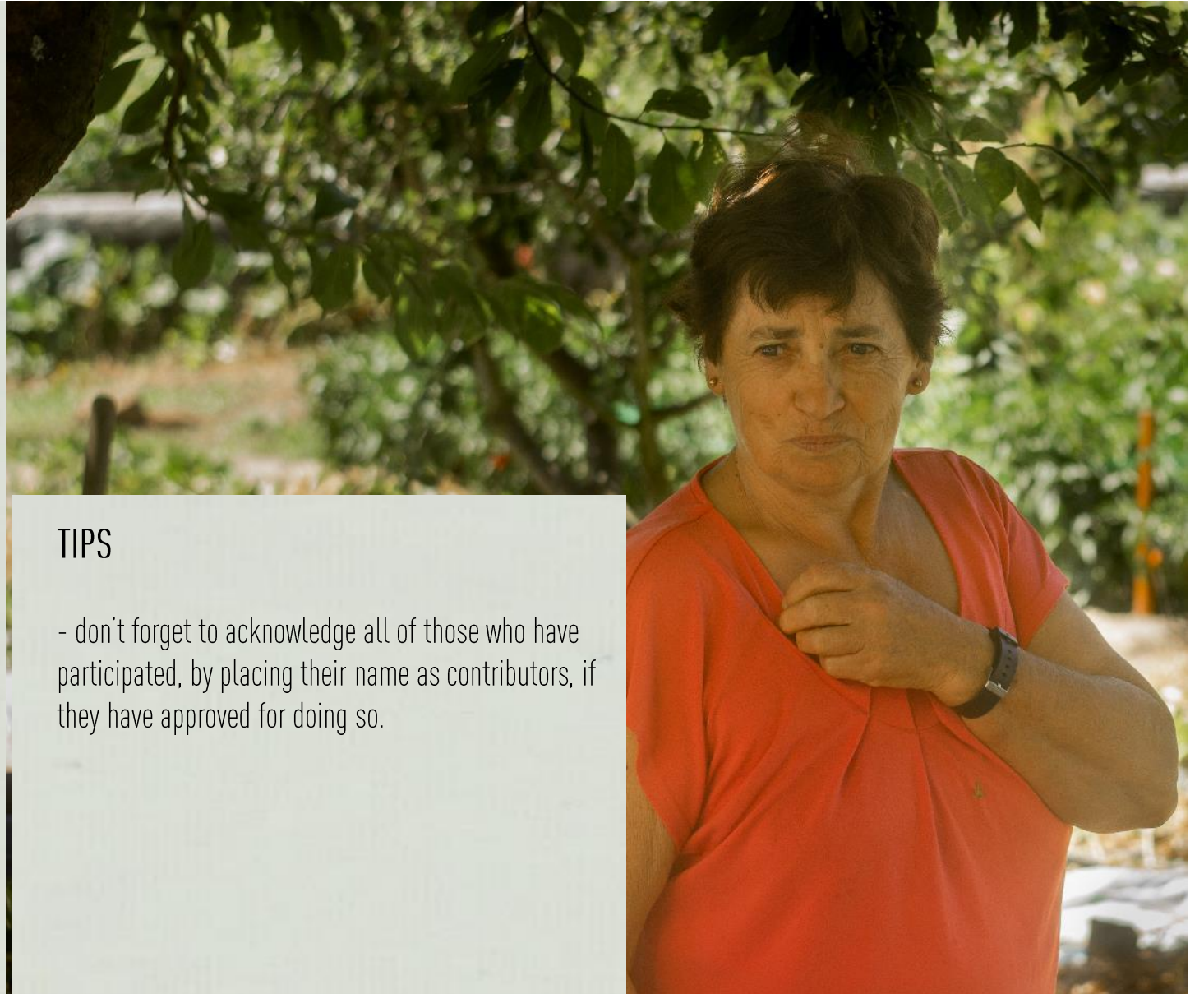


## BOOKLET

Putting in writing a booklet or any sort of document on farming and gardening sustainable practices can be too intimidating. Either because it can be a never ending job, but also due to already available vast diversity of books, blogs, videos, and so on, on the topic, which would make this redundant. That is to say that the process of clarifying what this would be was no easy task. At the end, we opted to include a set of sustainable tips solely based on the shared knowledge by the backyard owners we have visited. We therefore believed to be important to inscribe and share on the ground *savoir faire*, and how this is also meaningful for those who have opened up.

## TIPS

- don't forget to acknowledge all of those who have participated, by placing their name as contributors, if they have approved for doing so.





## DATA PRIVACY

Handling data, from collection, storage, analysis and publication can be highly complex, especially when open access and open data are key principles underpinning your project. It deals with diverse layers as legal, technological or social and if you go on a search engine quest to help you, the available options are immense too. We were particularly lucky as the ACTION funding included a mentoring process and team which was critical for teaching us about this. But the key is to inform yourself as much as possible, discuss with different people and keep in mind your goal of which data is to be private (as names, emails, etc).



### TIPS

- we developed two versions of our privacy policy, a lighter one [here](#) (in portuguese) and a detailed data management plan version supported by the GDPR legal framework, available [here](#) (in english);
- make sure you clearly communicate which data will be open and which data will be private as this assurance is critical for engagement.

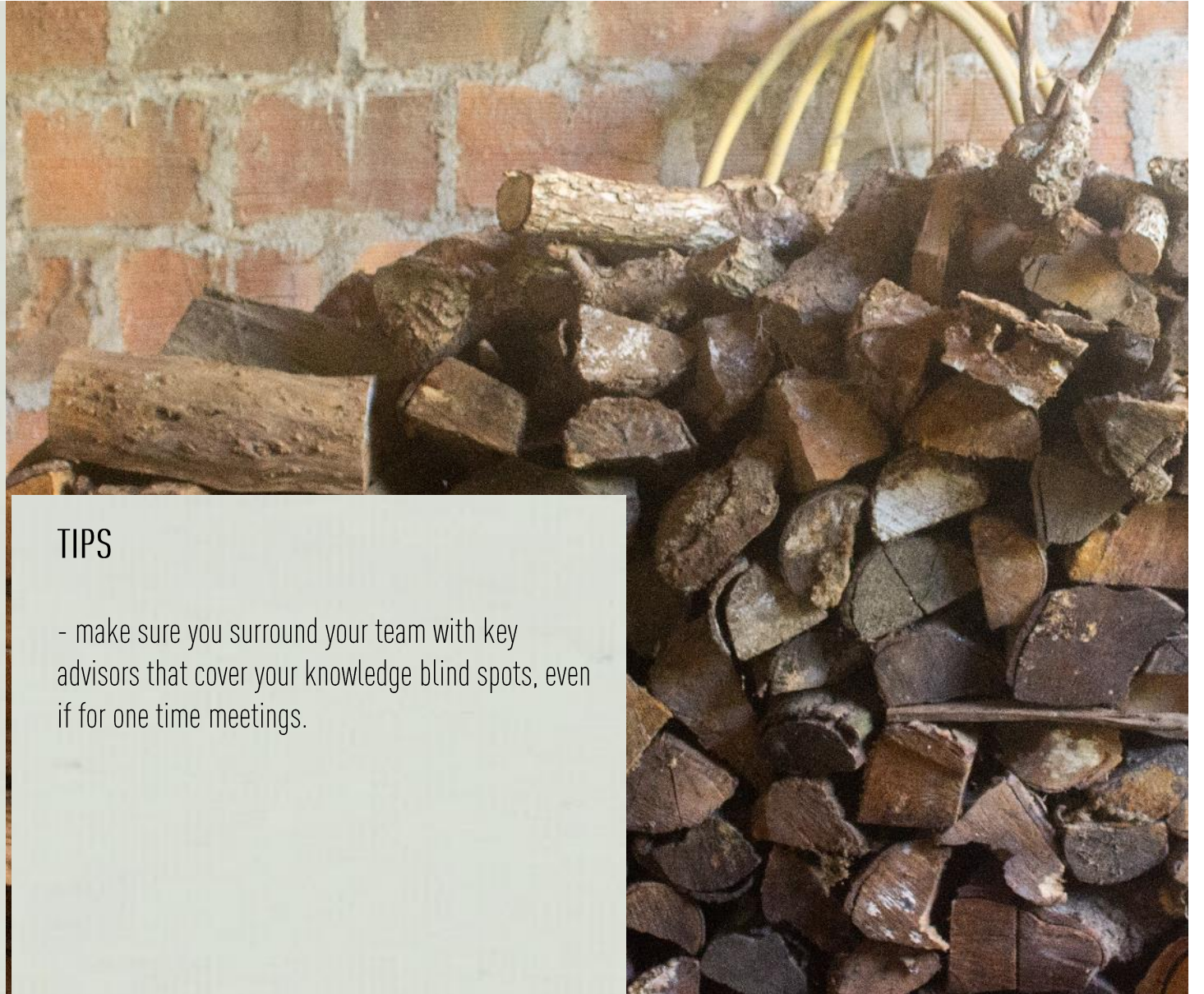


## MENTORING PROCESS

While not all citizen science projects might have the luck and chance to participate in process that provides you not only funding but also mentoring, we must say and publicly acknowledge how important this was. Throughout the project period we were immersed in all key topics that feed into a citizen science initiative and help it become more mature. Data, engagement strategy, communication, diversity or scientific quality and methods were some of the topics we covered and that we encourage you to do the same by researching and discussing how all of this can come together in your own project.

### TIPS

- make sure you surround your team with key advisors that cover your knowledge blind spots, even if for one time meetings.





## DATA ANALYSIS

Going through the collected data can be daunting, especially if you are not data tech savvy (as we are not). For taking care of this it will be quite important that you discuss in detail what you want to achieve and discuss with external experts, particularly researchers experienced with data analysis (of any kind). For us, the support from the ACTION mentoring team was crucial for understanding key principles and scientific research standards and where to start when going through the collected data. Also, make sure in advance you do have a good picture (even if incomplete) of how you will process your data.

### TIPS

- make sure you define from the early stages your hypothesis and research questions as from this point it will be easier to define the data to collect.





### 3. IMPACT

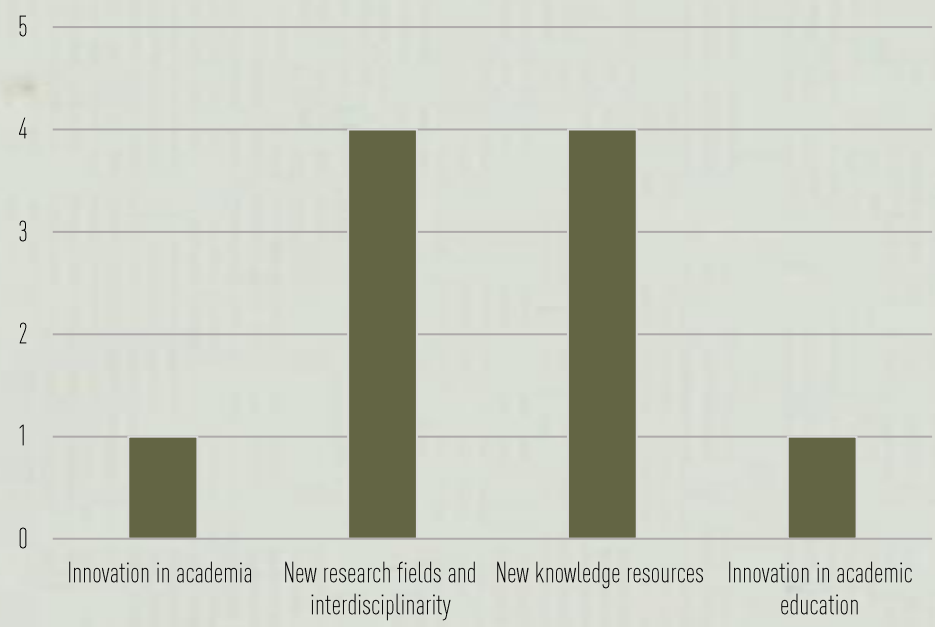
Short reflections on the project impact through a self-assessment based on the ACTION impact assessment framework and dimensions.





# SCIENTIFIC IMPACT

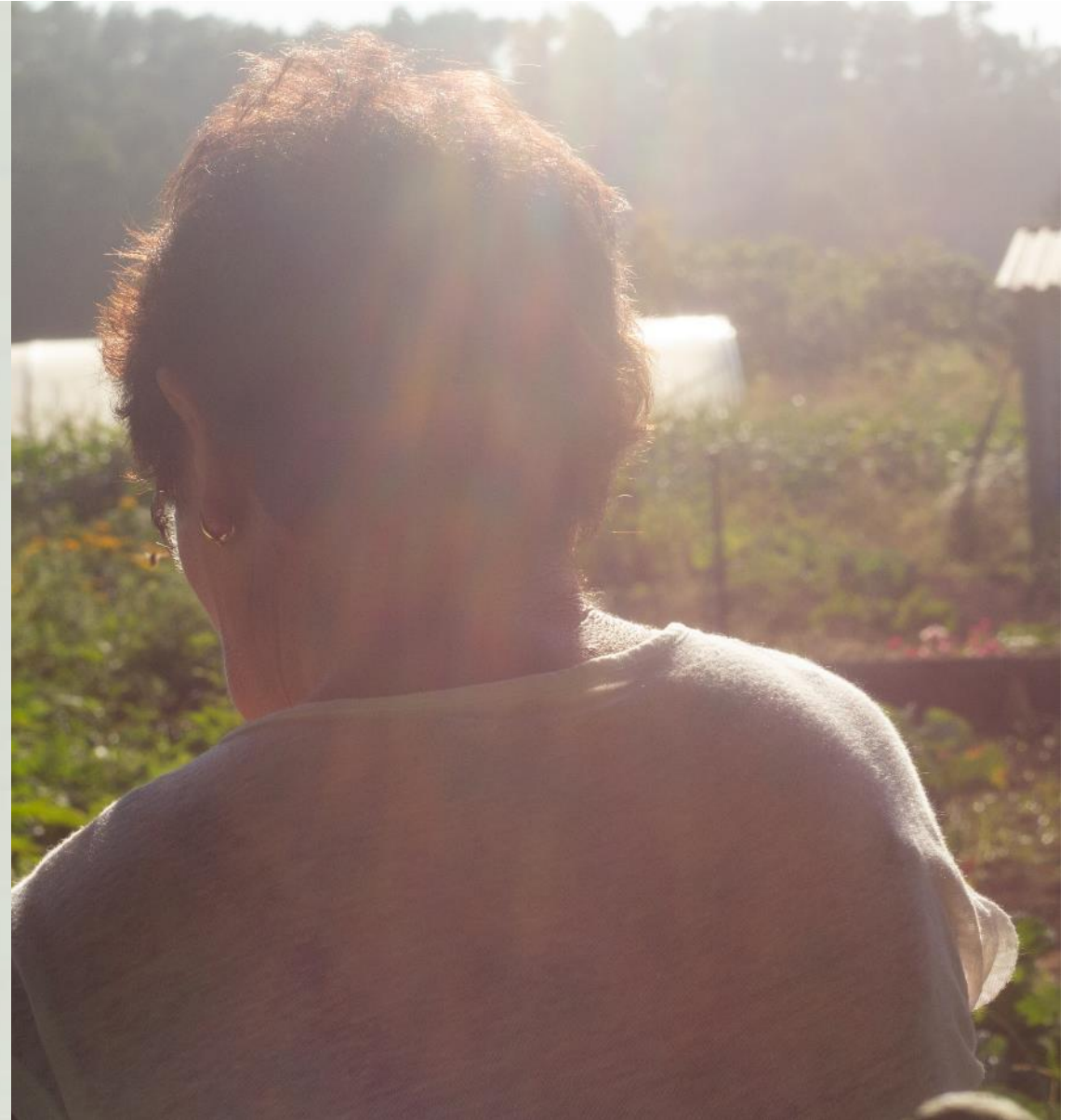
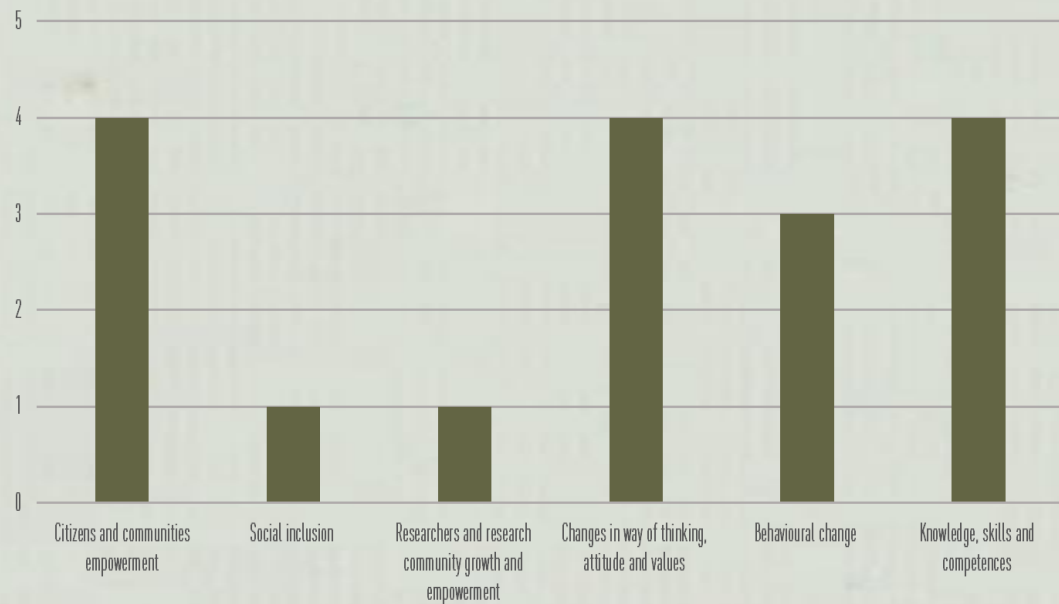
By opening-up a new field, namely the intimate and private space as is a domestic backyard, and through a multidisciplinary approach, we believe we have able to establish a baseline and a departing point for an array of new scientific possibilities with great impact on our common natural landscape.





## SOCIAL IMPACT

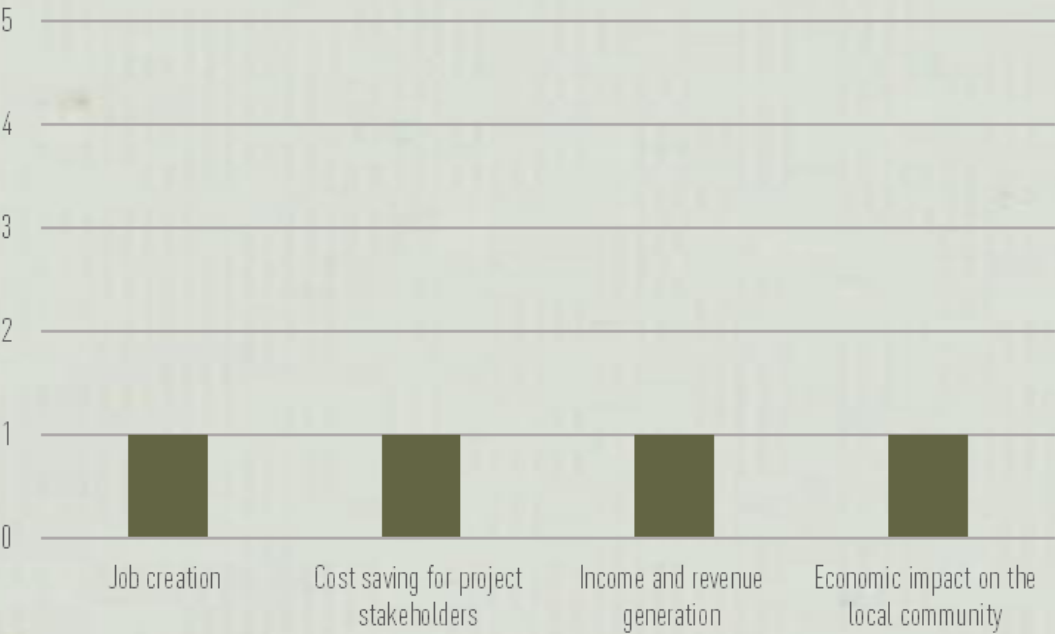
By taking a give & receive approach, this means we have also worked towards informing and capacitating our engaged citizens through workshops and knowledge sharing (i.e. booklet). Moreover, we couldn't help but notice how on-site visits also informally worked as a awareness raising moment.





# ECONOMIC IMPACT

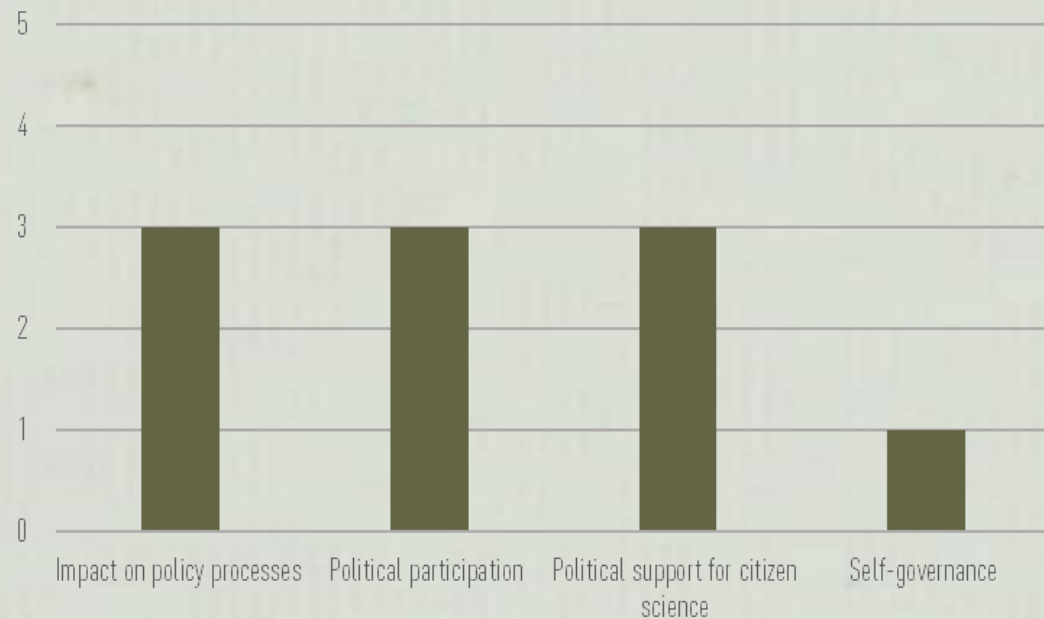
As a pilot and experimental project it was not on our goals to have na economic impact such as job creation or income and revenue generation.





## POLITICAL IMPACT

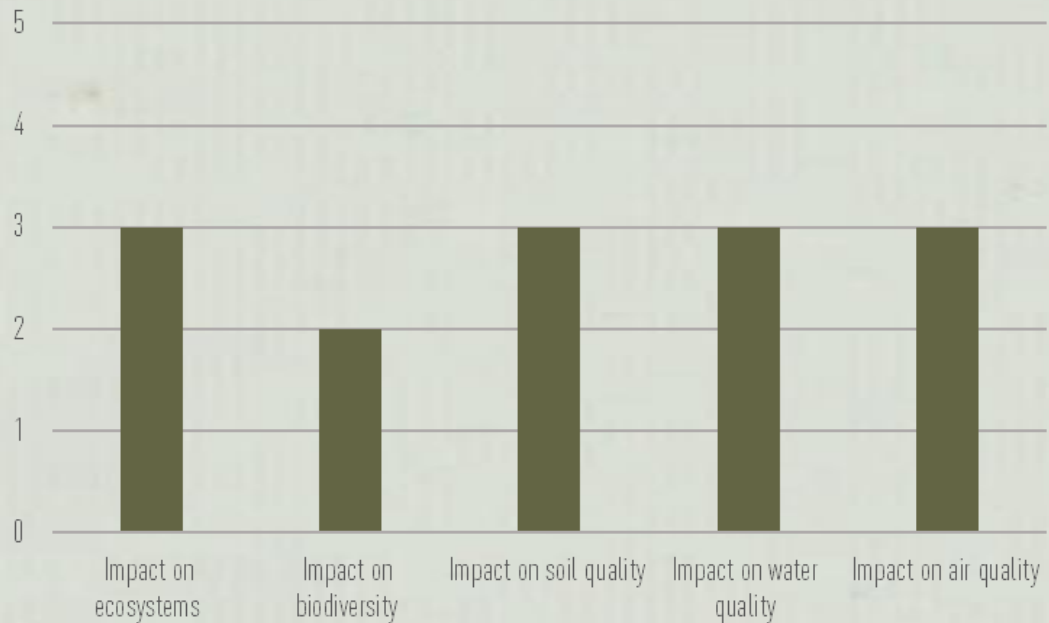
By partnering with the local municipal environmental public authority from the early stages, we managed to raise awareness on the topic, involve them on the project process and define which data can be useful from a public perspective and establish a work baseline for upcoming projects, as indeed we have been working together to continue the project.





## ENVIRONMENTAL IMPACT

Through capacitation, knowledge sharing and awareness raising we have managed in incorporating the use of sustainable practices in domestic backyards as opposed to toxic pesticides and fertilizers within our engaged citizens.





## 4. THE WAY FORWARD

Short reflections on the work that has been conducted within the project period to continue its development and maturation and reflections on possible next steps.







One of our concerns, throughout the project period, was how to work on its legacy, namely how would the project be able to continue, after this initial “seed funding” from ACTION, on the premise and believe that this topic is worth further exploring.

We picked up on the In My Backyard rationale and baseline and worked it and applied to a national level funding call for environmental and social impact projects, aiming to develop a business model on top of it. While we had a really high score, of 90%, this was not enough to have it approved. Nevertheless we believe that the outcomes of this process is still valid and worth sharing for anyone to consider it, if it so wishes to.

The upcoming slides therefore set out our vision, mission, value proposition and positioning from where we will continue to work on how to carry on the project.



The background of the entire image is a dense, close-up photograph of white beans. The beans are oval-shaped and have a slightly wrinkled texture. They are mostly white, but there are a few beans with different colors, including one with a reddish-brown speckled pattern. The lighting is even, and the focus is sharp across the middle of the image.

## MISSION

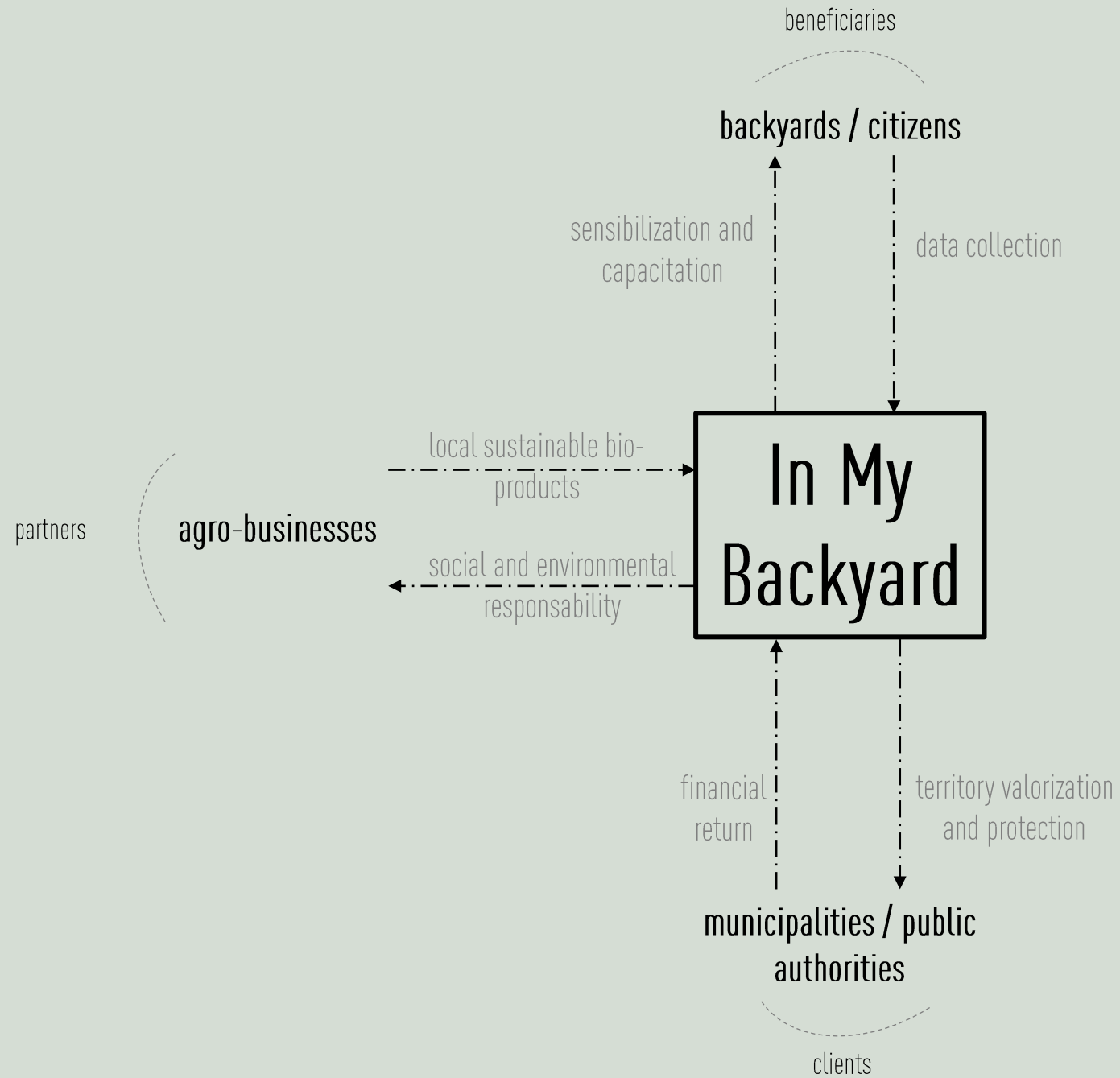
to support and accelerate the transition for using sustainable and environmental friendly practices in home farming and gardening

## VISION

valorization of backyards as an integral element in territory development due to their social, environmental and economic importance



# POSITIONING





#### FOR MUNICIPALITIES / PUBLIC AUTHORITIES (CLIENTS):

- increased knowledge on their territory and citizens;
- aligning citizens and partners towards social and environmental impacts;
- increased protection and valorization of their territory;
- increased capacity to reach national and european green targets.

#### FOR BACKYARDS / CITIZENS (BENEFICIARIES):

- increased knowledge and capacity for developing healthy backyards;
- increased awareness on social and environmental benefits;
- increased well-being and sustainable self-consumption.

#### FOR AGRO-BUSINESSES (PARTNERS):

- increased awareness on sustainable alternatives;
- increased social and environmental responsibility;
- increased revenue from selling sustainable products to new costumers.







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