TURAS
TRANSITIONING TOWARDS URBAN
RESILIENCE AND SUSTAINABILITY

Case study report on the
SOLFATARA DI MANZIANA

Connecting actors with and abandonned mine, local resources, a forest and the township of Manziana.

GATEWAY.

The site could become a gateway between the village of Manziana and the forest with a space for culture, events and education.

ENERGY.

The site could use wood from the forest for heating during the winter as well as a facility for treating the wood (for example into wood chips or pellets) and a pick-up point where the local community can collect the wood.

AGRICULTURE.

The site could provide a physical place for experimentation and development of agricultural innovation in the area of Manziana.

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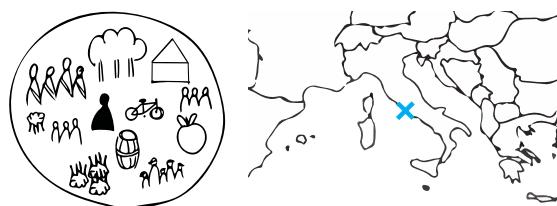
OVERVIEW

The Solfatara di Manziana sits between two places: a town and a forest. It is located next to a regional road connecting the lake of Bracciano to Rome and is in sight of many casual visitors. The site is managed by the Università Agraria (an organisation that manages a common), however could host activities that are very different from the Università's normal responsibility. It is a site that has been under the careful watch of thousands of neighbours, yet inaccessible as it was once either industrial or contaminated. There is little money floating around, yet much community enthusiasm to do something on the site.

What will become of the Solfatara and how? What is the programme? How will it be developed? How will it be managed? How will the community be engaged?

This document describes the transversal planning process used over the course of a year to better understand the site's challenges, help define opportunities, create conditions for co-creation and help to define the next steps. This document is not a master plan, but a synthesis of opportunities.

The result can be broken down into three key themes for the site: 1) gateway between the forest and Manziana, 2) an agricultural innovation hub and 3) a renewable energy station. These themes now require further research and development to commit to concrete steps forward.

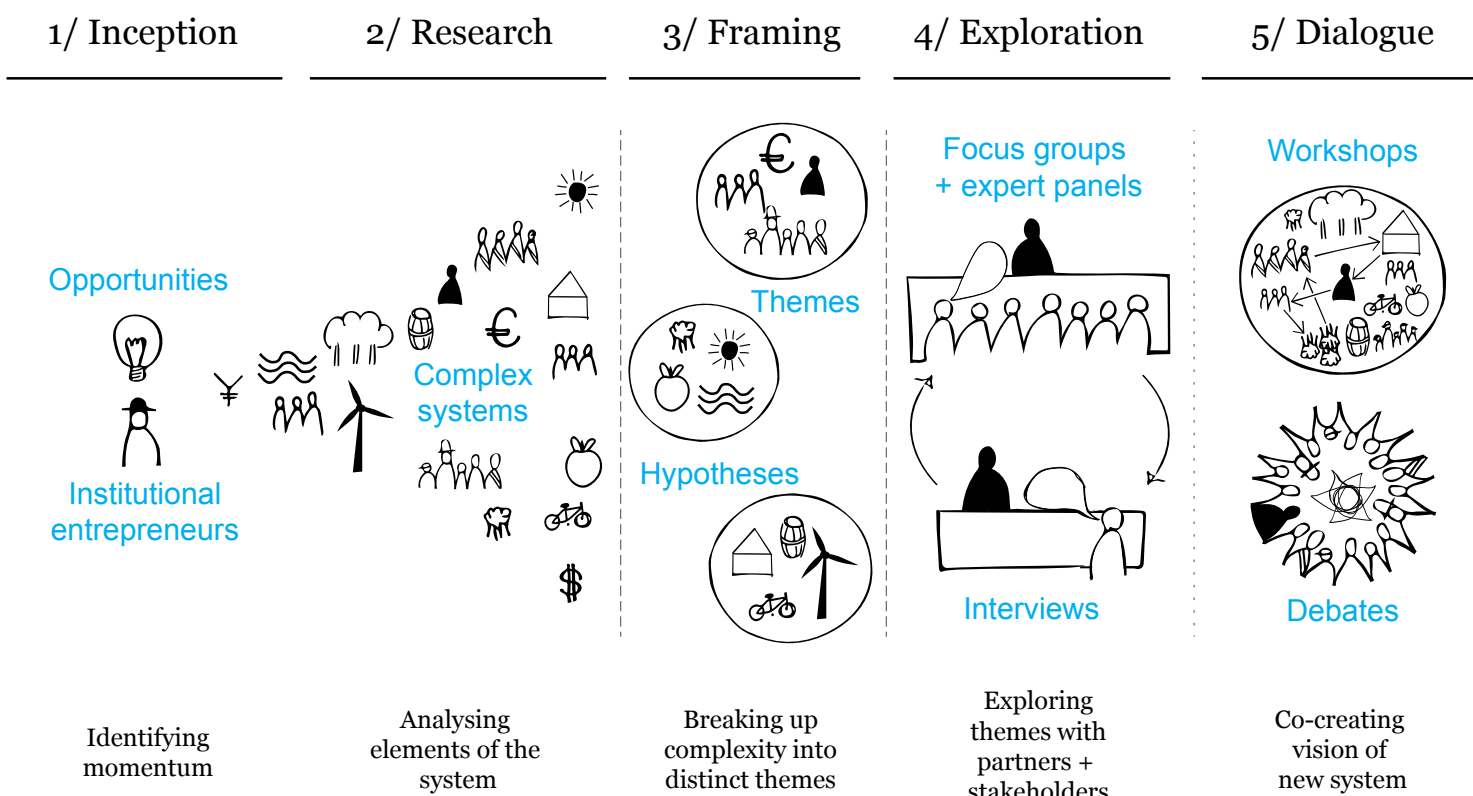# CONTENTS

METHODOLOGY OF TRANSVERSAL PLANNING

What is transversal planning?

The re-adaptation of a site like the Solfatara di Manziana is an extremely complex process. For the development of this vision document, we have followed the transversal planning process. In a nutshell, transveral planning is about making this complexity manageable without running into the pitfalls of oversimplification and silo thinking.

Planning the transition of the site from its current use (former mine) to new functions (gateway, agriculture hub and energy station) involves answering a multitude of questions that are usually addressed by different specialists including structural engineers, architects, business developers, housing experts, landscape designers, procurement administrators etc. Besides these specialists, there are other actors with valuable knowledge who are often not at all integrated into early stages of planning, like

user groups, neighbours, municipal authorities etc. The programme will also affect the wider town of Manziana and even rural dynamics that are difficult to aniticipate and incorporate into a plan.

Along with the increasing attention to network oriented concepts, much of planning scholarship, training, and practice have shifted from a conception of planners as technical experts on the spatial arrangement of land uses to a view of planners as intermediaries in public processes. Under the process oriented view, planners manage interactions among networks of stakeholders involved in planning processes to support more widespread and meaningful communication and collaboration (Forester 1989, 1993; Berke, Godschalk and Kaiser 2006). Conceiving of planners as mediators, facilitators, consensus builders, conveners, and shapers of attention (Forester 1989 and 2006, Innes and Booher 1999a

1/ Inception	2/ Research	3/ Framing	4/ Exploration	5/ Dialogue
Opportunities / Institutional entrepreneurs	Complex systems	Themes / Hypotheses	Focus groups + expert panels / Interviews	Workshops / Debates
Identifying momentum	Analysing elements of the system	Breaking up complexity into distinct themes	Exploring themes with partners + stakeholders	Co-creating vision of new system

and 1999b; Innes 2004; Berke, Godschalk and Kaiser 2006) implies that more often than not planners have substantial involvement in – if not primary responsibility for – a planning process and engaging a network of stakeholders in the process.

From Lyles, W. (2015). Using social network analysis to examine planner involvement in environmentally oriented planning processes led by non-planning professions. Journal of Environmental Planning and Management, 58(11), 1961-1987

This approach to the complexity of the development process is to provide straightforward knowledge management support that allows for a structured and oriented dialogue about the future of the site. We see our role similar to a "curator" in the art world who collects ideas and visions in a the context of a place to create a meaningful statement.

6/ Documentation

Narratives

Sketches

Strategy + programme

Synthesising output

7/ Implementation

Governance

¥€$

Finance

Processes

Assisting development

Why is it likely to lead to better results than other planning methods?

Post-war planning methods were exceedingly top-down, with decisions being taken by a small circle of powerful actors who consult specialists on specific technical problems. This approach has shown its limitations and there are numerous accounts of failed urban interventions that it produced. One reason for such failures is that without an effective dialogue between specialised experts, developers are often tempted to focus on individual aspects of a programme rather than a more "systemic" reading of the project site: this can lead, for instance, to technologically sophisticated interventions that are not accepted or properly maintained by users.

Moreover, a more transversal vision of the development can help to anticipate and attenuate conflicts that normally appear at later stages of the planning process, when changes to the initial programme come at exorbitant costs or are even impossible. Concrete examples include the violent confrontations between planning authorities and citizens sparked by the overhaul of the train station in central Stuttgart, NIMBYism towards renewable energy in the UK to the consequences of fracking with environmental across the world.

Two alternative planning methods that can avoid some of the pitfalls associated with top-down planning are the market-driven approach and the consultative approach.

A market driven approach is mainly driven by actors with access to resources (money or land) who will only reach out to other actors if this is commercially interesting or because they have no other option. This approach has often led to uncoordinated interventions and socially undesirable outcomes that usually have benefit an individual or exclusive group - consider the removal of the tram system across the USA.

The consultative approach aims at consulting as many actors as possible and seek their opinions, but in practice this approach has often not been able to integrate them effectively in the planning process and create genuine value added for the project. For example in Vancouver (CA), compulsive consultation has good intentions however both building developers and residents see it as an unpractical formality. Although consultative planning has aroused initial enthusiasm from stakeholders that had so far not been solicited, it rapidly runs into different forms of "participation fatigue" as stakeholders are frustrated that their views are prompted but only rarely find their way into final outcomes.

We created the transversal planning method to strike a balance between incorporating diverse views and remaining operational and result-oriented. We noted that constructive dialogue with user groups and other stakeholders arguably makes the most sense when many decisions are still in flux – but it is also at this early stage when such a dialogue is the most difficult to implement due to the vast amount of uncertainty.

In the specific context of the Solfatara, transversal planning helps the Università Agraria to demonstrate their ability to integrate broader societal concern and visions into the reconversion of a site of strategic long-term interest for the residents of Manziana, local businesses, users of the forest and for rural areas beyond.

How does it work?

The complexity of projects like the Solfatara thus require bringing together knowledge on the different functions and their ramifications for the site. The sketch (pp6-7) describes the process that we followed. After an initial **RESEARCH** phase, we disentangled the development and **FRAMED** them in distinct themes that are connected to initial hypotheses about the future of the site. For the Solfatara, the three themes are described in this document ("gateway", "energy" and "agriculture").

During the **EXPLORATION**, concise summaries regarding each of the four themes are informed through focus groups with users, expert panels, in-depth interviews and a synthesis of research. This step is the main input for the subsequent **DIALOGUE** about the potential complementarities and tensions between the different themes - such as how community interests may conflict with private business interests. This document presents three alternative scenarios, one scenario for each of the three themes that emerged during the co-creation stage of this project. Through ongoing internal dialogue, the most relevant pathway will reveal itself.

What is the outcome?

The outcome of transversal planning is a programme that is co-created with a much larger constituency of experts and stakeholders compared to conventional interventions. In the **DOCUMENTATION**, the output of this co-creation is condensed in a meaningful narrative, describing the philosophy and conceptual cornerstones of the vision, as well as design sketches and a range of references that can be used for inspiration. The narrative and sketches are presented in the form of a comprehensive document including a strategy and programme for the redevelopment that can then be used in the **IMPLEMENTATION**.

Examples of well resolved and attractively presented buildings that remain disconnected from their contexts.

LEFT - Top + bottom: Nottingham Trent Basin Waterside (UK). The redevelopment of Nottingham's industrial precinct began with exclusive apartment housing that was disconnected from transport, parks, shops or other residents.
Top - Google Maps, accessed 29/05/2016.
Bottom - Riverside Crescent, Waterside Way, Nottingham.

THIS PAGE - Top + bottom: Barking Riverside east of London has been built under high-tension powerlines and a great distance from public transport while offering no parking spaces and a dependence on London for employment. The site may have considered a long-term plan however in the short-term, existing have almost no services or mobility choice.
Top - architectural montage (Gustafson Porter)
Bottom - "No cafe, no pub, no doctor in London's most isolated suburb". The Guardian 17/08/2015.

1. INCEPTION

The Solfatara, once the Bosco di Manziana, then sulfur mine, has been abandoned since the 1980's. The contaminated site was given to the Università Agraria however due to toxic waste, it could not be used.

The Università Agraria is now responsible for adapting the site. Only as recently as 2015, the site was decontaminated and certain buildings restored with the help of EU LIFE funds, including the removal of toxic waste and rehabilitating one of the former industrial buildings.

The site is now ready to be inhabited but first there are numerous questions that need to be answered. What is the site programme? How will it be developed and who pays? Who will manage the building?

The Bosco di Manziana

The bosco is an approximately 600 hactare mature forest located on the edge of the town of Manziana. It contains numerous historical relics such as a well preserved Roman road and other Eutruscan/Roman sites. It was owned by the Vatican and sometime in the 19th century was transferred to local ownership. The forest has been used by the residents of Manziana and surrounds for centuries for timber, fuel and foraging space for animals. It is managed by the Università Agraria di Manziana

An odd but interesting aspect of the Bosco is its place in Italian cinema with numerous high profile films shot in or near the forest by film crews based in Rome. This ranged from Spagetti Westerns to police-crime films and famously Pinocchio featuring Roberto Benigni (2002).

Urbanised commuters use the forest as an urban park, which is seen as a relatively new function for the forest. Are these urbanised uses compatible with a sustainable ecosystem? How should the commons be used in a time when traditional farming has disappeared and farmers represent only a handful of individuals?

Adaptations to the Bosco have occurred over the last five years such as the prohibition of cars, upgarde of buildings and freshwater fountains, along with signage and modern forest management.

Manziana

Manziana is a relatively new town built by Tuscan timber workers who were brought south by the pope in the 18th century - forest is thus a strong symbol of its past. For this reason the town is built along roads and has no compact town centre as is typical for neighbouring towns such as Bracciano and Tolfa.

The once rural town grew from some 1000 people at the turn of the 20th century to become a largely commuter town attracted to Rome with the train line. The town remains oriented to Rome and has suffered the consequence of employment downturns as a result. It now contains a mix of city focused locals (decendents of the Tuscans) and new residents bringing multicultural non-Roman heritage.

The hinterland

The land beyond the Bosco and Manziana is a mix of pasture, nuts (hazelnuts and chestnuts), small scale orchards and forest. The ruined medieval city of Tolfa was built on a narrow ridge and is one of a range of attractive ruins that surround the Bosco, making it an attractive destination for leisure and tourism.

Over recent years formerly productive cropland has ben subdivided uncommercially viable lots and converted into leisure gardens or housing. On land within the catchment of Lake Bracciano, agriculture has been restricted or completely stopped as the lake serves as a potable water reserve for Rome.

Irrespective, there remains a strong rural character and a large number of houses have large vegetable gardens that produce an excess of food when it is in season. Furthermore, for the agriculture that is highly commercialised, crops are often under contract (hazelnuts are used in Nutela) or sold outside the region with little value added for the local area.
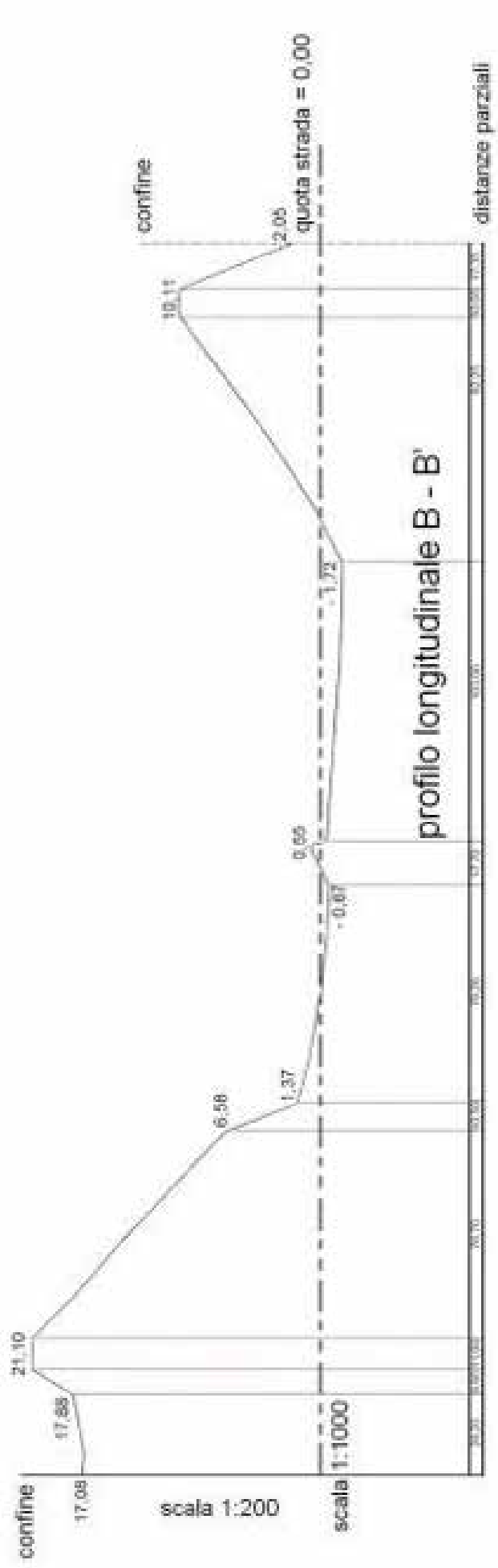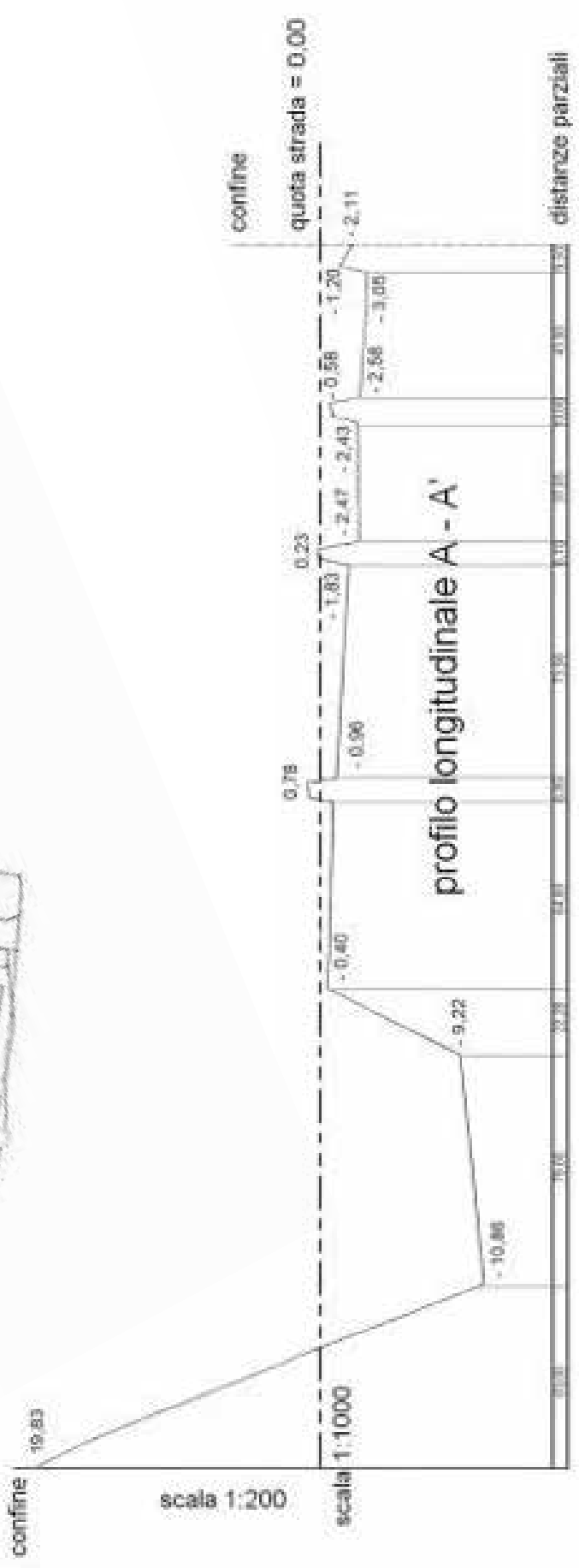
While the area surrounding Manziana contains numerous interesting tourist attractions - such as the forest, the ruins of Tolfa, the white beech forest and a Roman aquaduct - they are poorly communicated and therefore does not draw on the tourist potential. While this is charming, it is also missing an opportunity to attract a tourist economy some 50kms away in Rome.

REPORT FOTOGRAFICO

INQUADRAMENTO GENERALE CON CONI OTTICI
rapp. 1:1000

profilo longitudinale A - A'

scala 1:200

scala 1:1000

profilo longitudinale B - B'

scala 1:200

scala 1:1000

15

Università Agraria di Manziana

Area
di pericolo

Ingresso vietato
ai non autorizzati

The Solfatara

The Bosco di Manziana carries a subtle sulphur odour even on dry windy days. In the early 20th century an attempt was made to mine the sulphur however since the venture has become bankrupt, leaving a scared former industrial landscape.

The former mine and factory is located at the fringe of the Macchia Grande, from which it initially sourced wood as a cheap source of energy. The Eastern edge of the site is defined by the busy SS493 road that connects Manziana to Bracciano and Rome. Large retail (a supermarket) and small industrial buildings and workshops line this road.

The site itself contains a range of industrial structures that range from a small stone sheds to warehouses where only the metal structures remain. Most of these buildings require a large amount of improvement to be useable, with the exception of two rustic buildings that have recently been renovated with LIFE funds and are now safe and usable. The rest of the site has been remmediated. Between the buildings there is a lot of empty space. There is also a large and rather smelly sulphur basin, occassionally filled with water (in the winter).

Università agraria

The Università Agraria di Manziana is the organisation responsible for the adaptation of the Soflatara.

Università Agrarias are an institutional structure that manage access rights to common lands. There are around 80 of them in Lazio and they go back to the different usage rights (firewood, forest agriculture, foraging, grazing) that the Arcispedale di Santo Spirito in Saxia, heritage of the Pontifical State, granted to local inhabitants.

The Università Agraria di Manziana looks after around 2000 ha of woods and pastures and has done a remarkable job in preserving this land all through the 20th century. The the organisation is mainly driven by conservation. This holds for the local ecosystems, but also for cultural aspects like a traditional breed of work horses and other agricultural practices. It contains an elected board and a number of paid staff, funded annually by the Region of Lazio.

Every inhabitant of Manziana has the right to collect dead branches for firewood, and many are

those that make use of this renewable and carbon-neutral source of energy. This detail is an important topic that commits residents both emotionally and financially to the forest - the wood is collected by residents and this in turn saves money in winter heating costs.

The Bosco di Manziana will need to fulfill not only environmental but also social and economic functions if it is to survive another century in order to adapt to public funding uncertainty. Even more puzzling is the question of what to do with the former sulphur mine, the subject site, and may force the Università to make fundamental changes to the way it opperates and connects to the local residents and users. The challenge for the Università is to balance the culture of the past and future resilience.

Institutional entrepreneurship and project activation

The initiative for this project came from the president of the Università (Alessio Teloni), responsible for remediating the contaminated mine through the LIFE funding and who is now responsible for finding a suitable new use for the site. Alessio called on the regional business agency, BIC Lazio, for help in finding a suitable function that is financially viable and fits into the context.

Assistance and funding

The Università depends on a revolving regional fund. While there are some income from renting buildings and access to pasture, the funds generated are not substantial and will not be enough to keep the Bosco maintained at present levels.

Other sources of funds have contributed to more punctual investment. The EU LIFE funds allowed for some fundamental research into wildlife, signage, pathway upgrades and eventually the remaining money was redircted into firstly removing toxic waste from the mine site and then the upgrade of one of the buildings.

More recently the FP7 funded TURAS project has helped fund this stakeholder driven vision creation project with support from BIC Lazio, Brussels Environment and the University of Stuttgart.
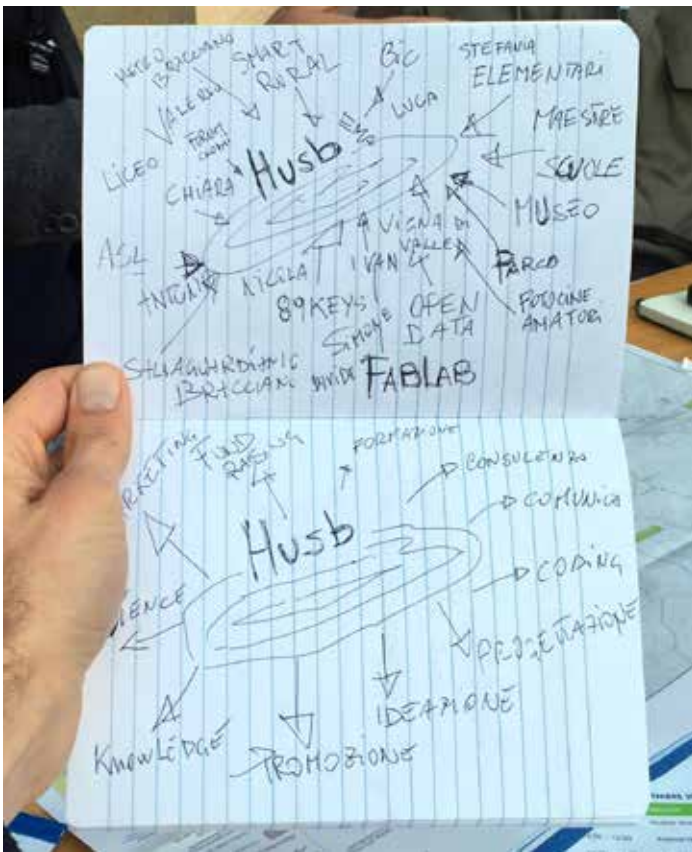
2. RESEARCH

Based on entrepreneurship of the Università Agraria, we first needed to identify the key stakeholders, what were their interests on the site, how these stakeholders were involved with the site, how the site was being governed and what were the major issues and blockages. We also wanted to explore the economy and environment of the site.

The process involved site visits, reading background documents, interviews and discussions from June 2015 to February 2016.

Data collection

The OSMOS team was involved in research from early 2015. This included site visits and discussion.

- **June 2015:** Site visit and discussion with the vice-president of the Università.
- **November 2015:** Interviews with numerous stakeholders including the mayor of Manziana, the president of the Università, the president of the LAG 'Tuscia Romana', an expert in EU LIFE projects (coordinator of the project that include the Bosco di Manziana) and others.
- **March 2016:** work preparing for the workshop.

Numerous other informal discussions and meetings were held during this time that informed the process.

Main stakeholders identified

This is a short list of the main actors identified and their interests.

Università Agraria: The Università has a strong interest, primarily as the caretaker of the site but particularly because it sits outside it's standard 'area of expertise'. This project will force the Università to explore how it can take responsibility for such a site within its current business structure, communications structure and commercial capacities as an organisation that has focused for decades on the conservation of the Bosco di Manziana. The Università has a clear vision for how it manages the forest however this vision is very different than the organisational skills required for developing the Solfatara.

Comune di Manziana: The municipality naturally has a vested interest in the project as it firstly fits into its municipal area and therefore it will need to review any development proposals but secondly the site could also house community functions that are useful for the inhabitants and users of Manziana. The municipality does not have an vision for the site within the context of Manziana.

Local Action Group: The LAG, the Tuscia Romana, itself may not be directly interested in the site however the project may be very relevant to them in terms of the LEADER+ programme with the site having possible strong urban/rural links. The LAG was developing its vision for the Tuscia Roma at the time of developing this project and therefore was unclear how the site may be relevant.

BIC Lazio: The BIC organisation in itself has an objective to foster innovation in the region and the Bracciano office has taken the responsibility to look at opportunities with agricultural areas and smaller urban centres outside of Rome. This site also provides an interesting opportunity to expand on knowledge gained during the TURAS project.

Assets / resources

- **Wood**: This includes both firewood collected in the forest and wood harvested on private land nearby.
- **Location**: The site is very exposed as it is located along the busy SS493 arterial road that is an internal link between Rome, Viterbo and Citavecchia. It is also very well connected to Rome with a direct train generally hourly.
- **Labour** (skilled and unskilled): With the job downturn, there is a reasonable population that is either unemployed or living through informal work. The skills and capacity of these unemployed is varied.
- **Knowledge:** With such a short distance to Rome, the site can easily dip into a vast range of high skilled labour, technical expertise and other competencies that are not typical for rural towns.

Weaknesses / Threats

- Lack of a clear vision for the site by any of the major actors.
- Lack of non-government dependent funds (Università).
- Reduction in public spending due to austerity measures.
- Reduction in regional LAG funds due to increased local competition and changed priorities.
- Lack of experience in managing commercial or non-forestry based assets (Università).
- Conflict in current organisational priorities for the site (Università).
- Highly exposed site, with a range of commercial interests that will benefit the Bosco or be of value to the local community - such as a supermarket, hotel or petrol station.

3. FRAMING

Through the initial research phase, four topics emerged as characteristic of the project – these include: the heritage of wood for building and heating, the environmental quality of the forest as a place for habitat, the modern cultural heritage and potential for tourism and finally the way the site fits into the local economy of Manziana and beyond. These topics were a useful starting point for co-creation with stakeholders yet required testing and validation.
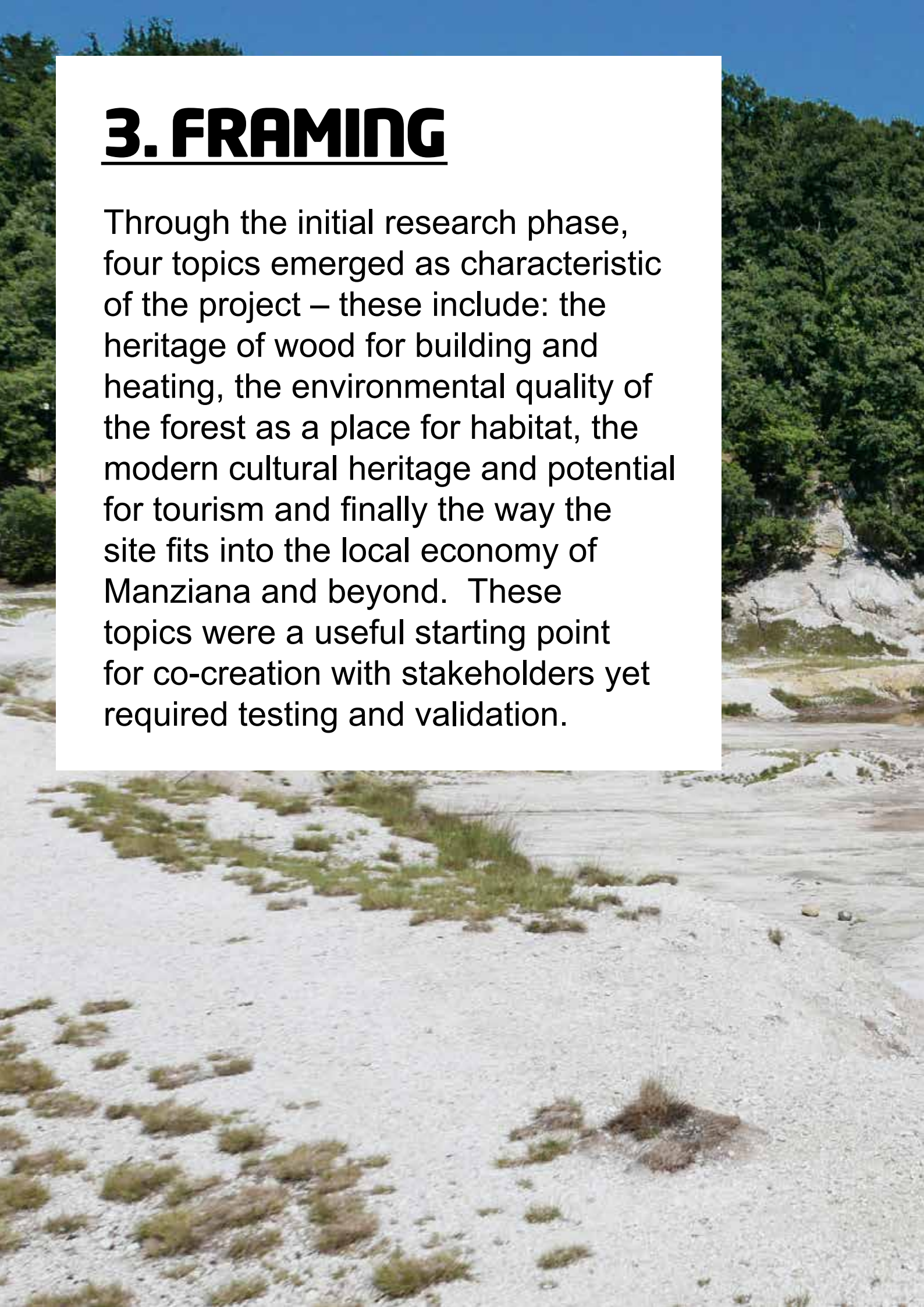
Synopsis

After the initial research phase it was clear that there were a number of interesting angles. The wood, the forest ecology, the community connection, the changes in economic conditions, the challenge to source funding, the range of interests on the site and the lack of a clear vision introduced a variety of themes. We felt the project could be represented by four themes. These are described below.

Ecology + agriculture

This is perhaps the most obvious discussion point as the site contains a range of fauna and flora while is managed in a rather particular way. The site could be a location that connects visitors and the forest through interpretive signage and information.

Innovation in wood, energy + agriculture

A second relevant theme that could hardly go unnoticed is the fundamental place of wood within the narrative of the site and the town of Manziana. Wood could be interpreted as both a fuel but also a material for producing furniture, for construction and art. Italy is the largest manufacturer of wood based products in Europe and there is a reasonable amount of hardwood forest that is felled locally but with little value added to the local economy (production is generally in the north of Italy). A final issue was the relevance of agriculture beyond the forest and how the site could bring the community together through reawakening its agricultural spirit, weather that is in the forest or beside it.

Culture

As noted earlier, cinema is featured prominently in connection with both the Bosco and the Solfatara within the hearts and minds of the local residents and visitors to the site. While the Italian film industry has all but disappeared, the memory of it could catalyse interest from Rome and beyond. Furthermore, the forest could be used again as a film set and the Solfatara could play a useful role in this story. At a more local dimension, the site could play a significant role in the cultural life of Manziana and be used for cultural events that are usually scattered across the site. Through culture, the local community spirit could be nourished.
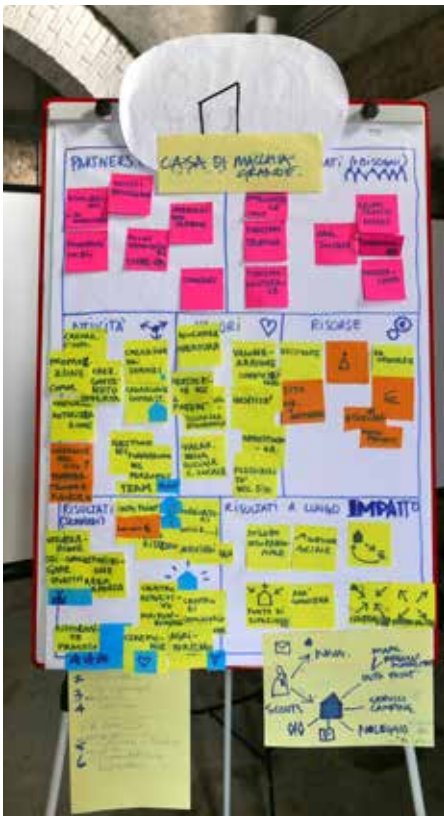
Home in the forest

A critical issue is how the site could fit into the social ecology of Manziana and beyond. It could be about jobs, the circulation of resources (such as food and waste), a place for innovation and learning and so-forth. Here it was important to explore the soul of Manziana's economy.
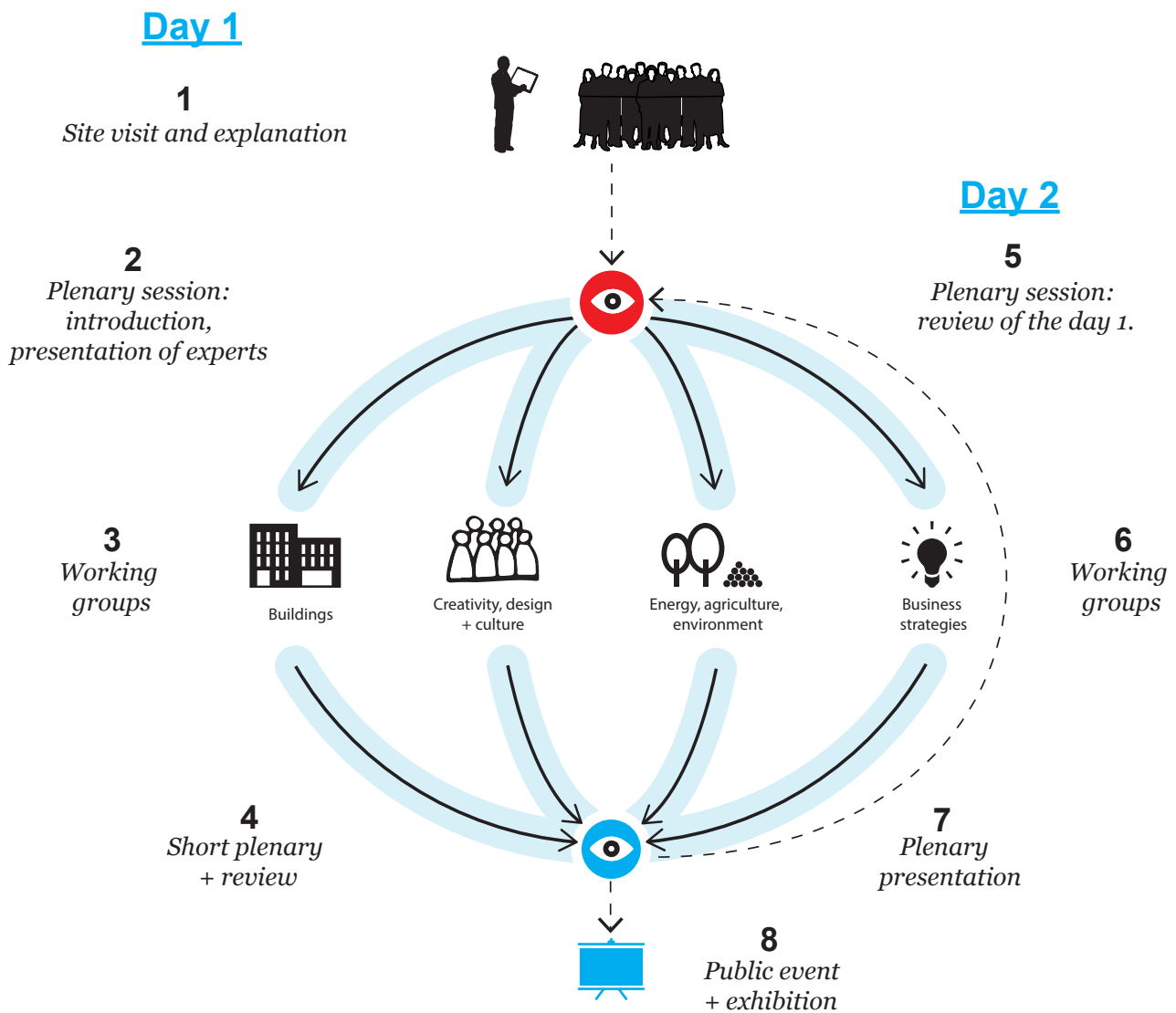
4. EXPLORATION

During the course of a two day co-creation workshop, we had a chance to engage community members and experts in an open dialogue about the four topics proposed earlier. Through the workshop experience three main themes emerged as the most pressing and best resolved: gateway, agriculture and renewable energy. This step helped to simplify the scope of the project and focus on tangible issues.

Day 1

1
Site visit and explanation

Day 2

2
Plenary session: introduction, presentation of experts

5
Plenary session: review of the day 1.

3
Working groups

Buildings

Creativity, design + culture

Energy, agriculture, environment

Business strategies

6
Working groups

4
Short plenary + review

7
Plenary presentation

8
Public event + exhibition

Workshop overview

A workshop took place on the 17-18 of March 2016. It included stakeholders representing a wide cross-section of interest groups whom brought together personal experience and professional skills. OSMOS brought along a team of experts with international skills in themes ranging from: urbanism, architecture, agriculture, economics, sociology, philosophy and literature, European agricultural policy and user centred design.

The workshop followed a 'curatorial approach' whereby we began with a proposition of themes and over the course of the two days the propositions were tested and adapted.

The workshop began with introduction of the site, context and the experts. It then involved group work within four groups, based on the four themes summaries in Section 4 of this document. The groups consisted of a mix of stakeholders to ensure there were a variety of opinions discussed within the group. Groups began with abstract emotional issues and then moved into practical ideas structured by a series of exercises.

The second day began with an adjustment of the four themes and then participants were allowed to shift groups. During the course of the day, two groups successfully developed their projects and pitched them to a panel including members of the Università, BIC Lazio and local planners.

Workshop results

By the end of the co-creation the workshop, the result was three strong themes for the future of the site including: Gateway, Energy & Agriculture. These three themes were felt to be the best resolved and most appropriate. While many other themes may be relevant and interesting, they were considered far more complex.

5. DIALOGUE

Having settled on the concept of the themes, the dialogue moment is an opportunity to define the core actions, identify key actors, look at concrete business models and test friction or complementarities between the themes in case the objectives are different. This is a moment where participants are expected to be open and pro-active in the discussion moment and therefore a variety of communication methods are used to tease out responses.

In this step we explored the three themes (gateway, energy & agricultur) based on three scenarios involving three case studies for each - a total of nine case studies were explored.

Gateway

The concept

The site connects the village an the forest. It is an entry point for external visitors. It is a point of transition. It is an exit and an entry. It sits on the edge.

The Gateway is about not only marking the beginning or end, but also preparing people what lies beyond. It should offer directions, tell news of what is happening beyond, be a resting place and a place where people feel safe.

A Gateway may also be the end of someone's journey - they may stand at the edge of their world and stare into another without moving beyond it.

The challenge for this theme is to define what service the Gateway performs, how people will use it and how it will link the outside and the inside.

Key questions

What will bring people to the Gateway? Is it for education? Is it for culture? Is it place to rest? Does it provide jobs?

The Pyramid Viewpoint
BTE Architecture (UK)

This is a very simple structure that provides a viewing point to the landscape. It is a small gateway that creates a transition point. The steps form an amphitheatre. The building is a simple gesture.
Photos: BTE Architecture

ROM
AllesWirdGut Architektur (RO)

This visitor's centre lives in a former Roman quarry where it acts as a space for events and culture. One enters into the site through a series of passage ways to get into the former quarry. The buildings are heavy and solid.

Photos: AllesWirdGut Architectur

Visitor Centre Emscher
Ooze Architects (DE)

The visitor's centre was a temporary installation made from cheap materials, built by the community for a short exhibition. This example shows how the building can be done by the local community and in the process build pride a value. Likewise this shows how the building can be built and adapted slowly over time with cheap materials.

Photos: Ooze Architects

Energy

The concept

The forest is not only habitat and a beautiful place to visit, but also a resource. Wood warms the community during cold winters. It fuels the kitchens. It feeds the community's hearth.

Wood is collected randomly by residents on the condition that it is found on the ground. This in many ways means that all the wood that falls to the ground can be collected by those that have the transport means and also the time to collect the wood. In many ways it is not fairly distributed within the community - some people collect a lot, others little. Through allowing local residents to collect all the wood, there is also little habitat on the forest floor.

The Solfatara can help maximise the efficiency and use of wood. Through fairly collecting the wood, a quota system can ensure that all residents get access to a fair amount of wood. It can also show-case more effective heating systems that require less wood.

Key questions

How can wood be better distributed? What technology can be show-cased on the site?

Bioenergiedorf Juhnde
Jühnde (DE)

The community came together in search energy independence. They wanted to be free of the central energy system and decided to use the fuels they had available. They used the grain from their farms, organic waste from pigs and the wood from their trees. The community invested into a large heating system and now are proud owners of their own future energy independence while saving money. *Photos*: Bioenergiedorf Jühnde.

Energy Island
Samsø (DK)

Once a former Viking colony, now largely holiday area, the inhabitants decided to seek complete energy independence as a unique selling point. Through shared investment they purchased wind turbines, use electric cars and bikes, built a heat network and feed the bio-energy system in winter. They now export the knowledge of how they did it and are a global tourist destination.
Photos: Samsø Energiakademi + The Guardian.

Sheringham Park
Norfolk (UK)

This was once a large estate that has been given to the National Trust, a caretaker for the site. The park includes forest and pastures, much like the Bosco di Manziana, and is a large tourist attraction. The trees are cut and wood is used to heat the large estate buildings, saving a significant amount of money.
Photos: The National Trust.

Agriculture

The concept

Agriculture in the region has been in rapid transition. Once productive farms have been divided and reduced down to sizes that cannot produce commercial crops. In other cases farmers have begun working in the services industry and travelling to Rome. However we are all connected by food and food is readily grown in gardens and remaining farms.

The site offers a place to educate and improve local skills and knowledge of agriculture. The buildings could be a place to sell or swap local agricultural produce. It can be a place for processing the food into jams, sauces and conserves. It can be a place where new technology mixes with old traditions. The site can be a place to educate new farmers or part-time farmers with the skills they need to commercialise their crop.

Key questions

What skills are needed within the local community? How could a site such as this help increasing passion and knowledge in local agriculture? What are the facilities needed to bring agriculture and food knowledge to the 21st century?

Incubating New Farmers
Oregon (US)

Through the University of Oregon, new farmers are given an intensive hands on training experience to launch their own farms. A building serves as an education centre, while the pastures surrounding it as used to explain planting, land management and so forth.

Photos: University of Oregon.

CoBrAgOr
Rome (IT)

A 5 hectare plot of land within Rome is an intensive peri-urban farm. It functions as a cooperative, offering training and learning while selling their own produce on-site. It also has a restaurant for Sunday-lunch and the space can be used for cultural events and Agri-turismo.

Photos: A Hill + CoBrAgOr.

Bracciano Systems for Agrifood and Forestry
Lazio (IT)

Innovation on food is combined with traditional recipes. New technology is explored. Alternative processes are tested. It is a compound of food creativity, it is a laboratory for new business.

Photos: A Hill + BIC Lazio.

6. DOCUMENTATION

The documentation stage pulls out the key interventions, governance structures and processes that are being proposed.

The three themes were developed in more detail as shown on the following pages. While these themes are a starting point, it remains unclear what will happen where - as it will depend on the budget and priority. The site has not been divided three distinct zones, which means that there are various possible options.

This flexibility is very useful however it also provides uncertainty. Here we define options within the site that can be developed slowly when resources are available or to use it for bigger investment opportunities the steering committee must find a reasonable balance.

Town - Forest gateway

The entire site acts as an interface between the town and the forest. It is not clear where the gateway begins or where it ends, it is a grey zone. The cafe is heated by wood from the forest and creates a warm public space. The forest information centre may hold concerts. There is a garden which contains herbs from the forest. People come to the gateway expecting to do one thing, but end up doing something else.

Pathway to main gate.

Pasture for horses.

Playground.

1.

2.

3.

Pedestrian piazza
(car access for wood
collection on special days)

Weighing
station

Fenced
entry

P

Main
parking

5.

4.

Pedestrian entry +
emergencies.

P
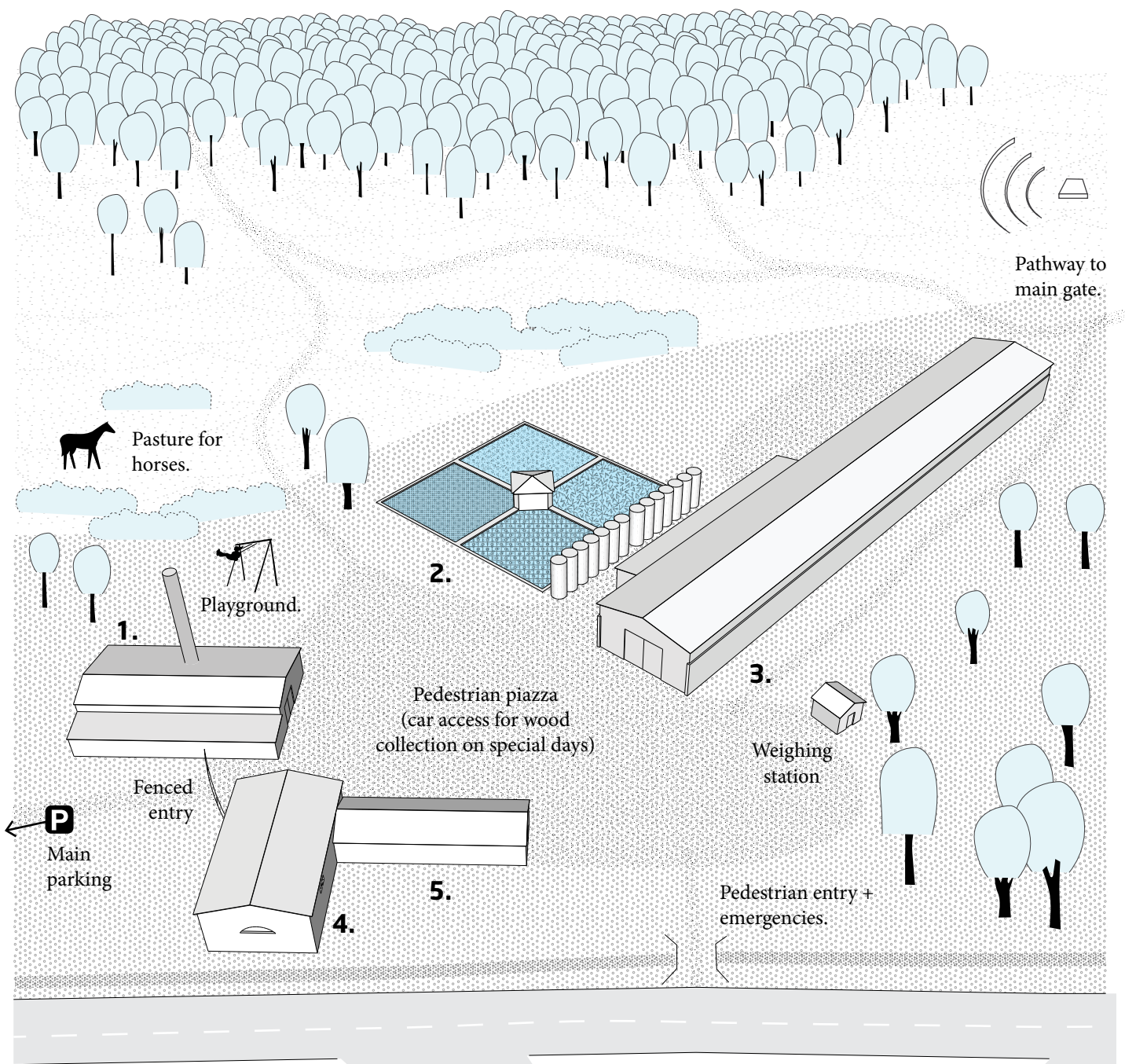
Supermarket and
private parking

1. Gateway centre

This is a dynamic public space that is heated in the winter, where the community can come together to play, to learn and to eat.
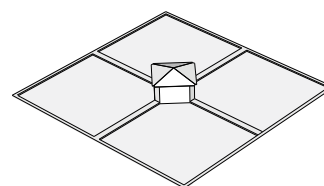*Photo - Uppgrenna Nature House (SE).*
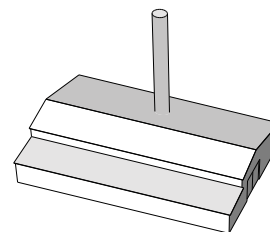
2. Essential garden

Showcasing the growth of herbs, a space that is not only productive but also beautiful to look at. The essential herbs fill the air with their scent during most of the year.
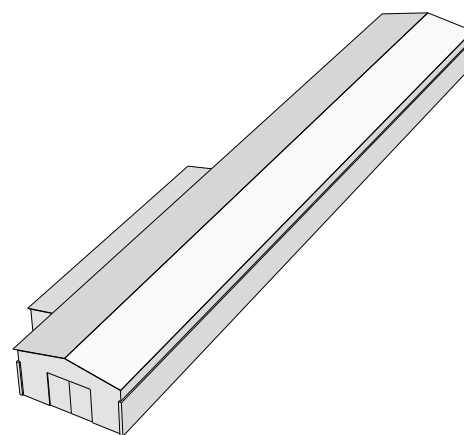*Photo - Jardin Essentiel (BE)*

3. Greenhouse

The largest building on the site, can become a dynamic space for various functions. It could be place for agricultural experiments, for innovation linked to wood and learning about agriculture.
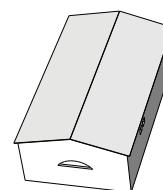*Photo - Uppgrenna Nature House (SE).*

4. Market & cultural hall

A market that collects and sells fresh produce from small farmers or the excess from gardens. The kitchen in the Gateway centre can process excess food into jams, pickels, sauces and so on.
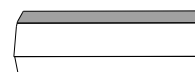*Photo - Les Tanneurs (BE).*

5. Wood processing and storage

Location for processing wood into pellets and chips. The building also provides storage and becomes the pick-up point for the community
Photo - Jühnde (DE).
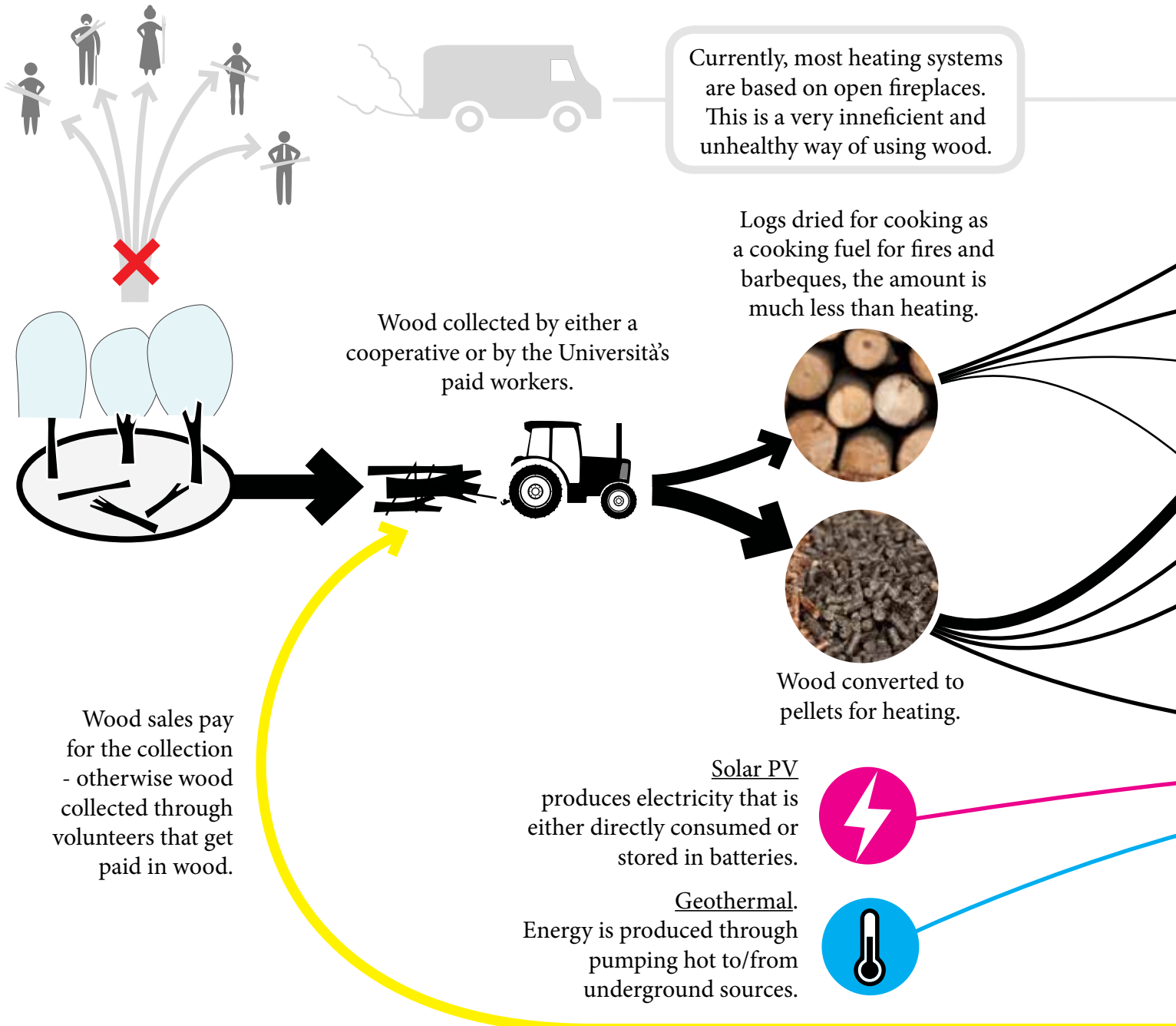
Renewable energy platform

Wood is collected centrally from the forest. It is brought to the Solfatara where it is dried and most is converted into wood chip (for heating). Residents have a quota system where they can claim a fair amount of wood based on what is available. Residents can also purchase more wood if wanted. The site is also testing other forms of energy and will attempt to stay off the grid through solar PV, battery storage and geothermal energy.

Collecting

Wood is collected centrally to avoid unfair collection of wood, unnecessary environmental degredation and more efficient use of wood.

Transforming

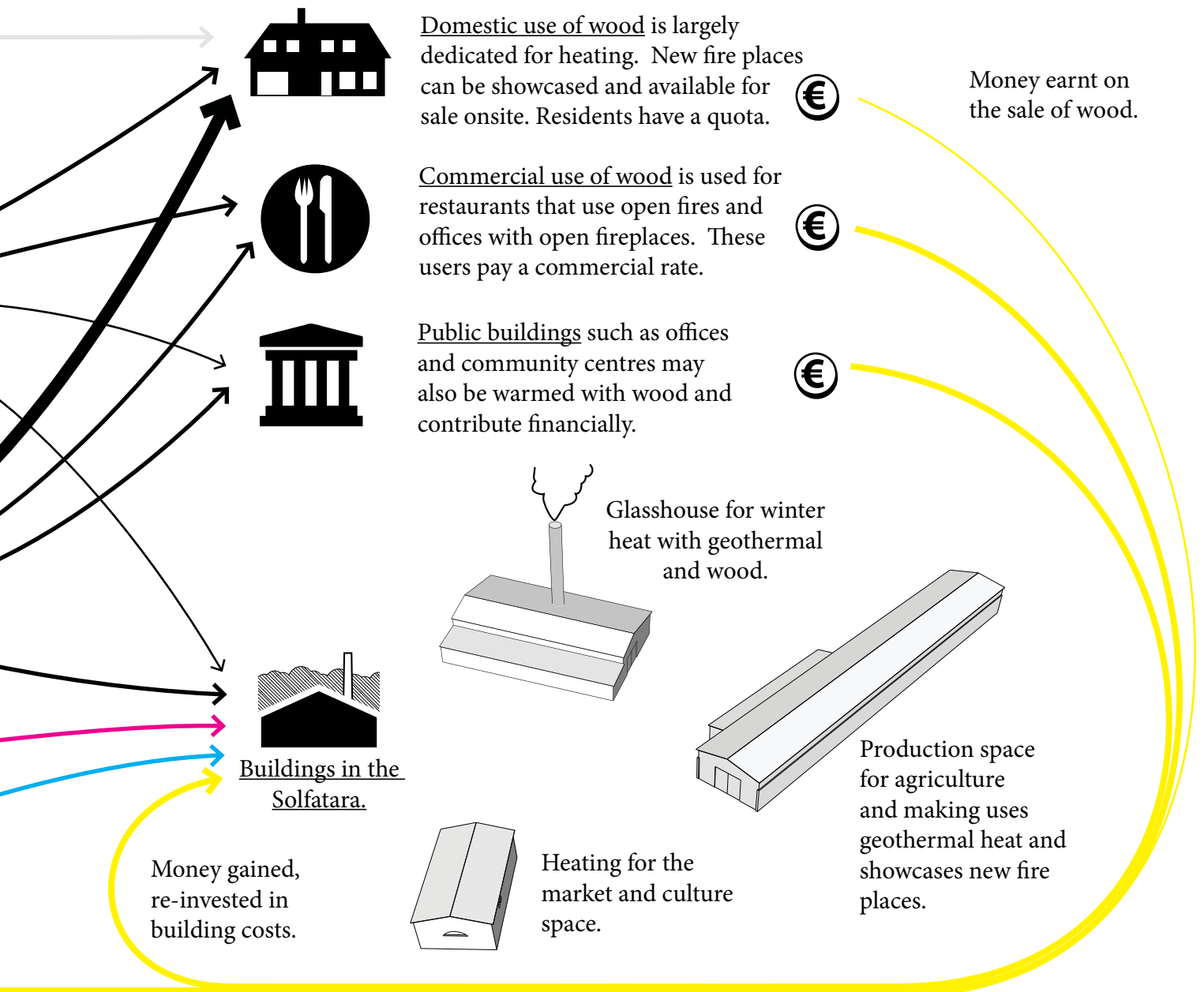Wood is firstly dried and then largely processed into pellets with some kept whole for cooking.

Currently, most heating systems are based on open fireplaces. This is a very inneficient and unhealthy way of using wood.

Logs dried for cooking as a cooking fuel for fires and barbeques, the amount is much less than heating.

Wood collected by either a cooperative or by the Università's paid workers.

Wood converted to pellets for heating.

Wood sales pay for the collection - otherwise wood collected through volunteers that get paid in wood.

<u>Solar PV</u> produces electricity that is either directly consumed or stored in batteries.

<u>Geothermal</u>. Energy is produced through pumping hot to/from underground sources.

Using

The current users of the wood are essentially those that have the time and vehicle to collect the wood. We now open the use to a wider community of users (residential + commercial).

(re) **Financing**

Through the sales of the wood, it will be possible to re-invest profits into paying for capital investment in buildings and technology over time.

Domestic use of wood is largely dedicated for heating. New fire places can be showcased and available for sale onsite. Residents have a quota.

Commercial use of wood is used for restaurants that use open fires and offices with open fireplaces. These users pay a commercial rate.

Public buildings such as offices and community centres may also be warmed with wood and contribute financially.

Money earnt on the sale of wood.

Glasshouse for winter heat with geothermal and wood.

Buildings in the Solfatara.

Production space for agriculture and making uses geothermal heat and showcases new fire places.

Money gained, re-invested in building costs.

Heating for the market and culture space.

Agricultural innovation hub

The site is not just about innovation of production of food (by testing new technology and growing methods), but also about processing (cooking and preserving), sharing and recirculating resources.

Producing

Food produced is focused on organic methods and a closed resource system. Where possible, food is grown by local inhabitants either in their own gardens or on the site.
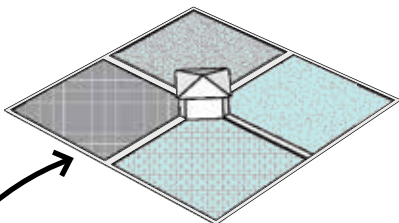
Processing

Food is either sold/exchanged fresh or when there is an excess of a certain seasonal fruit/vegetable, it is processed into conserves, pickles, jams or dried.

Brought to the Solfatara fresh from the farm

Local growers and producers - from small land-holders to domestic gardens that have excess stock.

Herb and vegetable garden that mixes local herbs and alternative fruit and vegetables with organic growing methods.
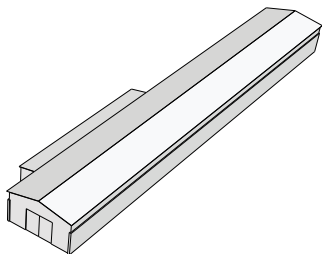
Food grown in the glasshouse using new techniques such as hydroponics, aquaculture, mushroom gardens and other closed loop solutions.
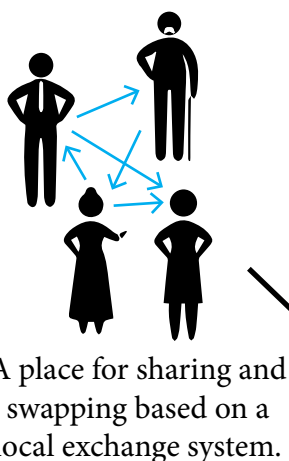

Fresh food market such as 'Les Tanneurs' (BE).

Processing + preserving food such as the 'Bracciano Systems for Agri-food'

Eating

Food brought or produced in the Solfatara can either be exchanged or sold. There may be a local currency (such as the Bristol Pound). Money raised could go into collective resources or create jobs.
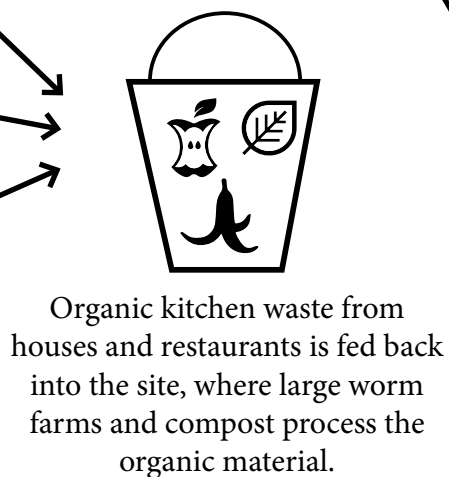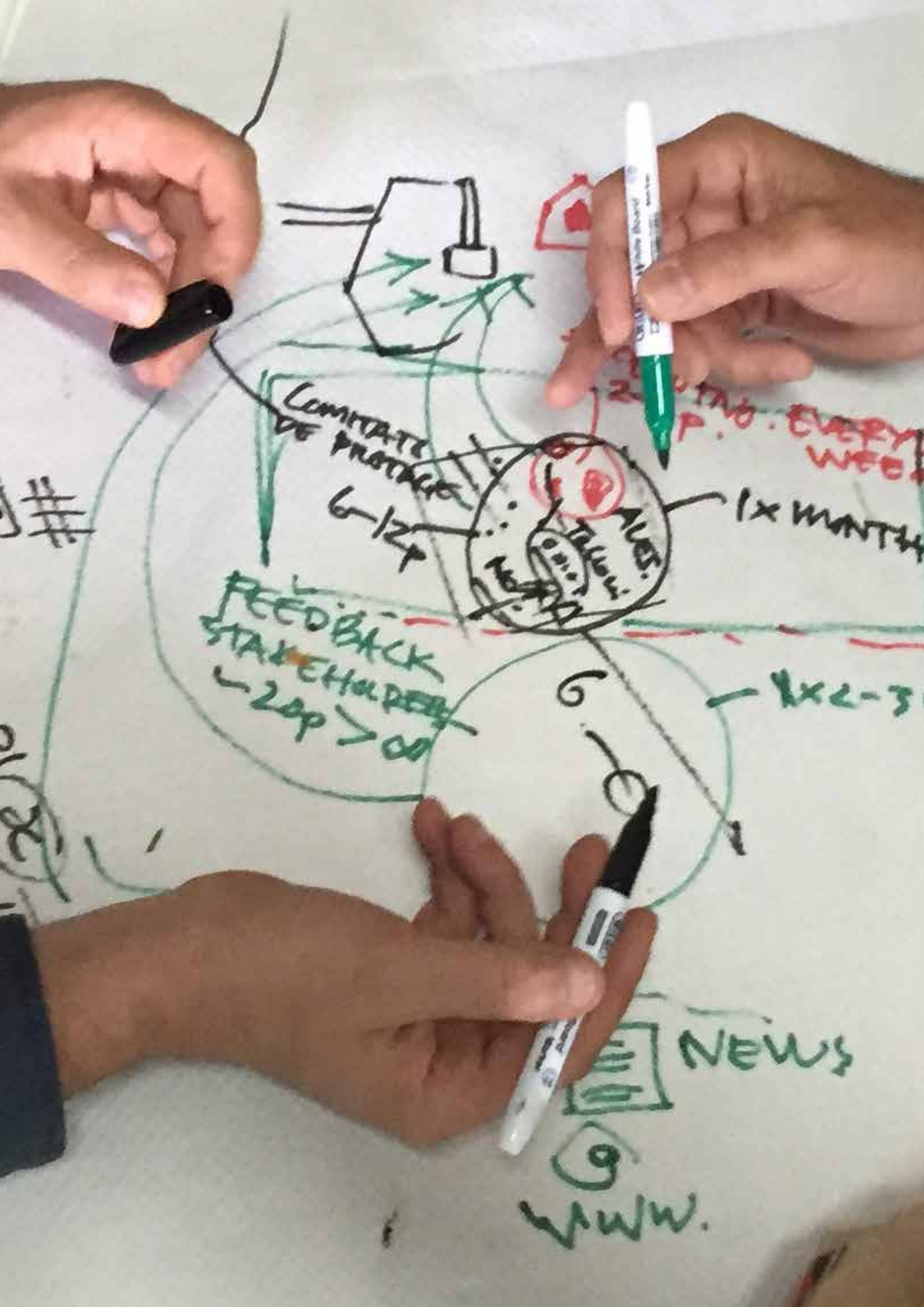
A place for sharing and swapping based on a local exchange system.

€

Sold to residents or visitors for domestic consumption.

€

Use in the restaurant on the site or sold to other local restaurants.

Re-circulating

Where possible resources are brought back to the site for re-use. This focuses largely on organic waste from kitchens and from gardens.
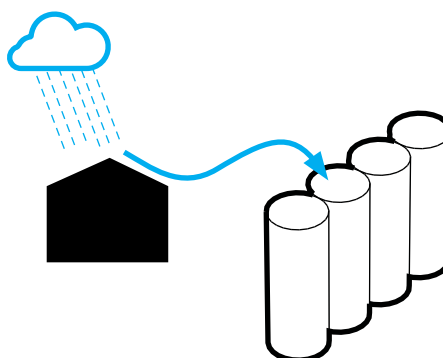
Water that is collected from the roofs of the buildings is stored in the silos and then used as needed ensuring that no water is imported into the site.

Organic kitchen waste from houses and restaurants is fed back into the site, where large worm farms and compost process the organic material.

COMITATE
DE PILOTAGE
6-12p

FEEDBACK
STAKEHOLDER
↳2op >∞

NEWS

VWW.

P.O. EVERY
WEE

1x MONTH

1x 2-3

g

7. IMPLEMENTATION

Implementation is about taking one step at a time and looking for the right balance of big/small and public/private.

Events could happen tomorrow, bringing people to the site and create awareness of the possibilities of the site. It can start with little money by inviting the community to bring their own ideas to the site. Partnerships can be made, financing can be collected from various sources and the site can be managed in a very different way to the Università Agraria. This all depends on who is involved and the opportunities that can spill into the wider community. Lets start!

Transitions

The Solfatara can have different function over time. However it is important that the site is constantly active to ensure the community feels something is happening on the site and for the community to feel like it can contribute to the project. The project must have a strong yet adaptable long-term plan so that there is a clear goal in terms of sources of income and contributors.

Short

Short-term refers to things that can be easily installed, without requiring complex permissions. It could be a food garden, a park, a temporary summer bar, an art installation, a music festival, a market and so forth. They should not cost much but do things that are daring and be very noticable.

Medium

Medium term involves some investment in buildings, furniture and staff however costs can be paid back relatively soon (~5 years) and there is a manageable amount of risk. This could be a restaurant, an events space or maybe an annual festival. After the first year of temporary events, it may be possible to find relevant opportunities.

Long

The larger and more serious investments generally need to happen in the background as they require big decisions to be made. Long-term does not mean that it needs to take a long-time to be installed, but rather the commitment is longer. In this case it could be a building renovation, the installation of a particular type of energy production system, a horticultural system and so-forth.

Management model

There are a number of different management models that could be applied to the site (cooperative management, management by the Università or private management or Private/Public Partnership). Through discussions, a PPP model is considered the moste appropriate - but called a 'Community Interest Company'.

A PPP model involves a private manager with public involvement in day to day decision making. This is a very practical way of dealing with a lack of specific skills and the need to be competitive. This model has been seen negatively in the past however our approach is called the 'Community Interest Company' (CIC) which has a much stronger community focus while remaining financially efficient.

There are both benefits and disadvantages in the CIC model, so it should be clear from the outcome. One large benefit is access to the best of both public and private skills in terms of professional expertise and public interest and makes it both resource efficient and dynamic. On the other hand, the downside of a CIC is that public partners can easily take sides with the private interest. The organisation may not be as effective as hoped. Business partners may push for greater profits than necessary. Bad partners can also be difficult to change.
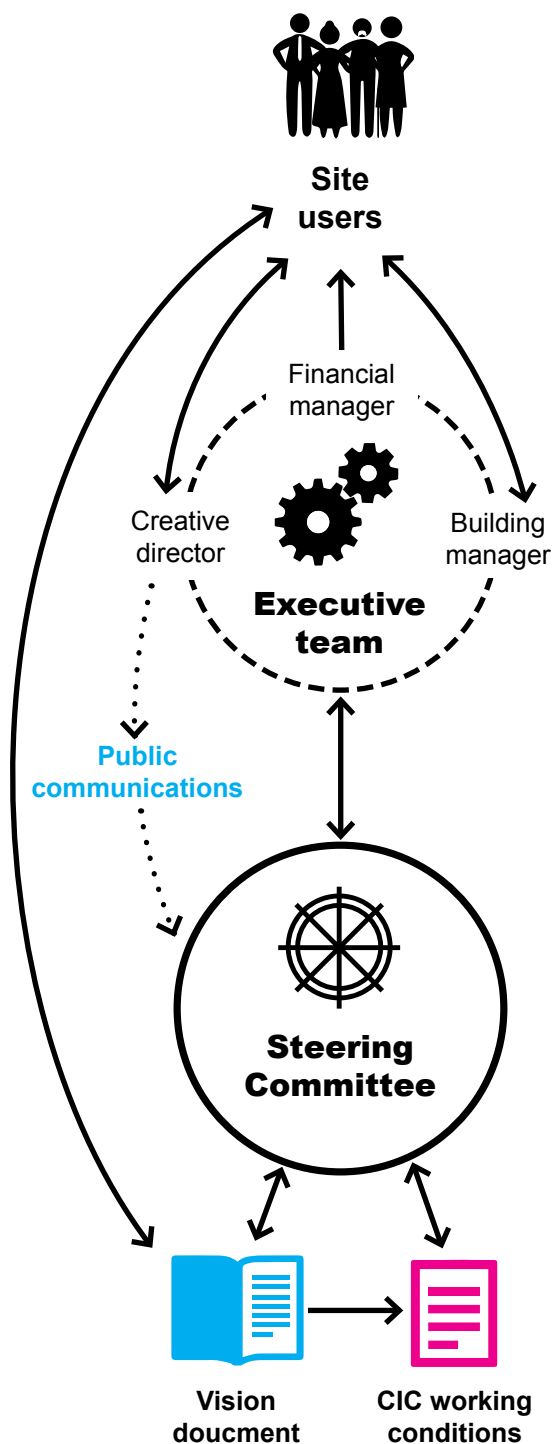
Roles (see right)

Site users: These are the people that use or work on the site.

Excutive team: This involves ideally three roles - a *creative director* that is focused on the activities, the *financial manager* that focuses on keeping the project alive while looking for possible funding opportunities and finally a *technical building manager* that can take care of the opperations. These roles need to be paid by the project.

Eteering committee: This is a group of 8-16 people that have a personal connection to the project and are ideally the ethics and strategy platform to ensure that the project is running efficiently and correctly.

Vision document: is this document.

CIC working conditions: The terms and conditions for who does what, the responsibilities and accountability.

Site users

Financial manager

Creative director

Executive team

Building manager

Public communications

Steering Committee

Vision doucment

CIC working conditions

Financing

Generally sources of funding should be explored by the users. Here we note just a few possible options of both public and private sources. It is recommended to focus on easily accessible funds and explore sensible ways to activate it rather than wait for money with few strings attached.

	Private	Public
EU	• LEADER programme of which the GALs fall under. • The CLLD, if applicable to this GAL. • Schemes such as the LIFE funding. • Innovation based funding sources for test projects (H2020).	• EU Central Bank loans, given at very good rates. • International technology companies.
Regional / National	• Stimulation initiatives for culture in the region of Lazio (cinema).	• Italian banks - such as UniCredit. • Owners of technology that are willing to negotiate financing.
Local	• The municipality. This may be through both cash or in-kind support in terms of labour.	• Local crowd funding and fund raising. • Investment of time and effort by the local residents.

Partners

A project such as this cannot be done without partnerships and therefore will require a wide variety of actors to be engaged. Through partnerships we refer to creating formal working arrangements. The following list helps to understand the landscape of actors and their interests. In the future, specific names should be associated with each role.
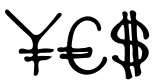
¥€$ Owners + financial agencies

This group includes the owners of key assets (landlords, public owners of land or buildings), private investors, investment funds and banks. They are typically few in numbers, but their power and influence tends to be high: without their cooperation, even the most inspiring ideas have only a small chance of being implemented. The interests of this group of actors can vary: some are driven by long-term stability (such as most pension funds), others can be motivated by short-term returns (like hedge funds). Investors in this case could involve that lend money or public bodies that are giving funds (the LAG).

Business community

This group refers to businesses (corner shop, butcher, bakery, etc) and their representatives; it also includes businesses like cooperatives, lawyers, accountants and other professionals. Some businesses are locally anchored; others are national or even international undertakings. In urban planning, one of the most influential type of business are building and land developers. The interests of this community will depend on how the project will affect them: will it bring new customers or new competition? These could be existing businesses, outside businesses or new businesses created based on the opportunities of the project.

Practitioner community

With this term we refer to practitioners with knowledge and experience that is relevant for the development of the project. This can be a local resident with expertise in innovation and knowledge (architects, engineers, scientists, doctors and health practitioners, geographers, educators…) or the staff of schools, universities or research organisations interested in development or a local food cooperatives interested in innovation. In addition to place-based practitioners, there is also a series of national and international actors who can contribute knowledge and experience, such as research organisations, lobbying and advocacy groups or consultants. Practitioners may be locally based or come from Rome or Viterbo.

Politics + public governance

This group includes municipal administrations, publicly funded cultural organisations, police, hospitals and other public services. In bigger cities it also refers to public development agencies and utilities. At national level there is the national government and its agencies and administrations that are relevant for the project at hand. These public agencies are typically interested that existing rules and regulations are respected, but their political heads will also have an interest that developments are in line with their visions, strategies and agendas. This could involve the EU's EFRD, the LEADER programme, the region or the local municipality.

Residential community & communities of interest

Actors in this group include local community groups (social, health, cultural, religious etc), sporting and social clubs, NGOs based on community issues, trade unions and international NGOs. Their interests will be driven by what is important to the residents, like a healthy and safe environment that provides the services and amenities that residents value. It can be challenging to take the interests and motivations of residential communities into account: often these interests are articulated by a handful of outspoken individuals that act as community leaders, but do they always correctly reflect what the other people in the community want?

The Solfatara, once the Bosco di Manziana and then sulphur mine, has been abandoned since the 1980's. The contaminated site was transferred to the Università Agraria however due to pollution has been inaccessible until now. In 2015, the site was remmediated with the help of EU LIFE funds and welcomes a new use - what will that be? Over the course of a year, we have co-create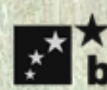d a vision for the site. This is the vision.