

Exploration Areas

We Love What We Know



Design for Government 2018

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Summary

Our concept, Exploration Areas provides a new identity for National Hiking Areas with a unique educational focal point. The concept addresses rising concerns regarding children's declining knowledge and experience of nature and aims to attract new and mindful visitors seeking to reconnect with the natural environment.

During 14 weeks we have worked closely with our commissioners: The Ministry of Agriculture and Forestry and Metsähallitus and local stakeholders, to find a solution which addresses the unique potential of each Hiking area, alongside wider concerns regarding our current relationship to nature and biodiversity loss.

By creating a clear educational focus, our project aims to unify local stakeholders under one common purpose and provide people with a clear motivation for visiting the areas. By offering interactive learning opportunities, Exploration Areas aim to inform people about the inherent value of the natural environment and equip them

with the skills and mindset to coexist with nature. More broadly we hope to inspire people to be actively involved in the upkeep of an environment where all forms of life can flourish. A value we see of increasing importance, and one that should be passed down the generations.

The concept addresses the globally recognised need for sustainable nature experiences, a goal which is in line with the Ministry of Agriculture and Forestry's current objective to 'enhance well-being by promoting... experiences based on renewable natural resources and pure and diverse nature'.

The project is part of the Design for Government 2018 course at Aalto University, which took place from February to May 2018. The project was conducted by a group of international and multidisciplinary students: Abigail Garbett, Andreas Sode, Mengxiao Li, Ming Unn Andersen and Riina Ruus-Prato. Two other student groups worked with the same brief.



All unmarked illustrations by Abigail Garbett

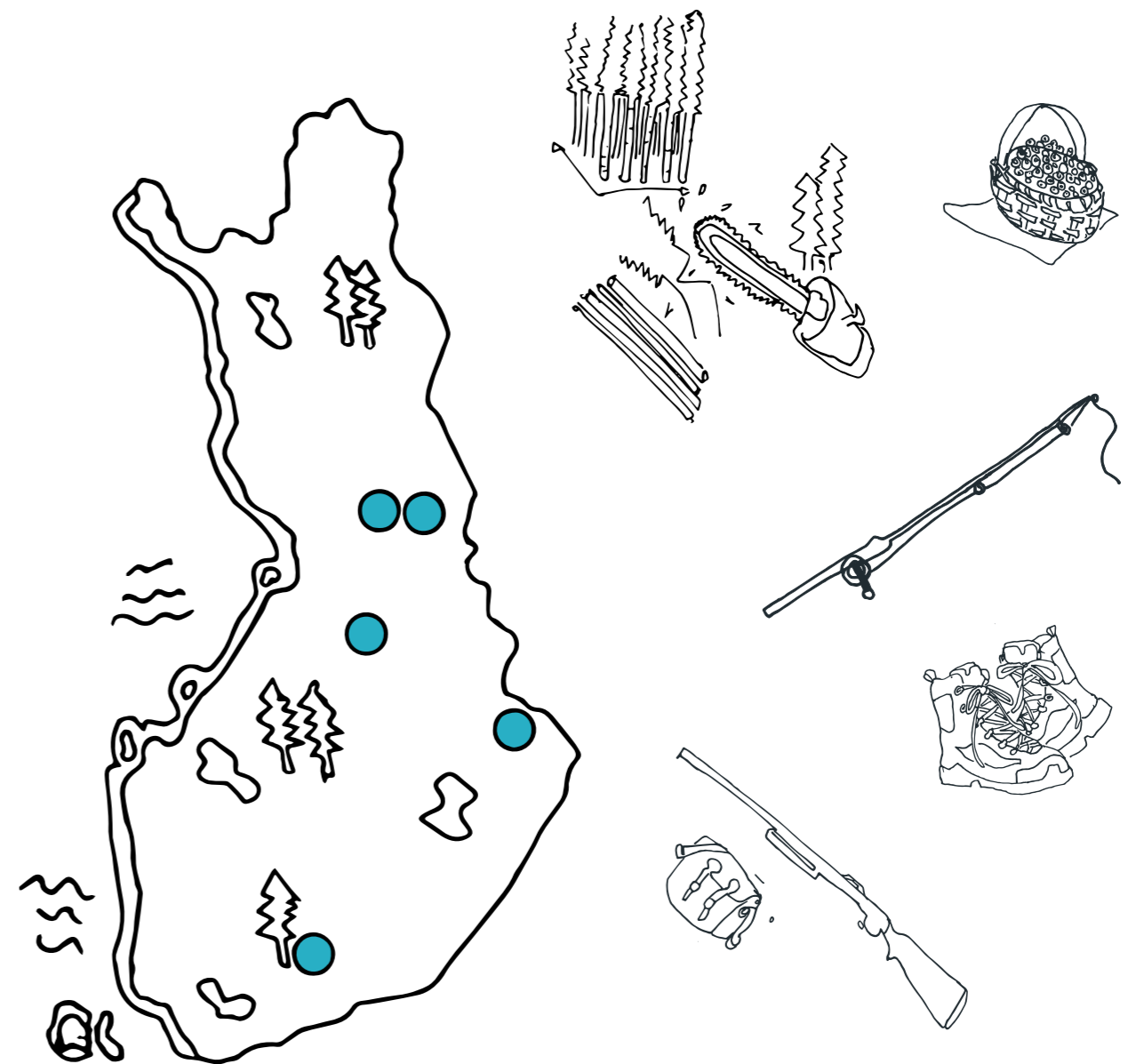
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1. Finland's National Hiking Areas

There are five Hiking Areas in Finland that specialise in activity-based tourism. The Ministry of Agriculture and Forestry is responsible for steering Metsähallitus, the state enterprise that takes care of all state-owned land and water in Finland, including National Hiking Areas.

They are distinct from both National Parks and commercially owned forests, but incorporate elements of both commerce and conservation in their activities. The areas are used for a wide range of activities including nature-based events, local business services and forestry. The areas aim to provide both social and environmental sustainability.



1.1 The Brief: The future of Finland's Hiking Areas

The breadth of the activities on offer in Hiking Areas make them difficult to define and in recent years visitor numbers have not increased. In order to address the stagnant visitor numbers and lack of clear profile, the purpose of the brief was to explore new uses, users and identities for the future of Finland's Hiking Areas. We used Evo Hiking Area, located in the South of Finland as a base for our research. The student project worked in parallel to an internal Metsähallitus agenda and has near-term and real-impact potential.

2. Research

Over 14 weeks we have conducted desktop research and benchmarked best practice in Sweden, Norway and Estonia. We immersed ourselves in the Finnish nature context through hands on experience and researched wider themes of nature connection, bioeconomy and urbanisation to frame our concept.

Our test site, Evo Hiking Area is the only National Hiking Area in the south of Finland. The area has a complex pattern of use with many stakeholders involved. We have carried out over 30 interviews with local stakeholders and Ministry level officials. We have visited our test site twice for field research and have organised 2 workshops with our stakeholders.



Atlas workshop, photo by Aleksandra Anikina

2.1. ATLAS Workshop

During the second week of the course, we organised an ATLAS workshop in collaboration with the two other student teams and invited members from the Ministry of Agriculture and Forestry and Metäshallitus to attend. The purpose of the workshop was to go deeper into the content of the brief and to get to know our commissioners. The ATLAS game was developed by Aalto Alumni (2012) as a tool for service design co-development. To get the most out of workshop we altered the rules and content to reflect our brief.

Through the game, participants discussed and reflected upon the content of the brief and shared their goals and expectations for the project. The workshop provided a great opportunity to understand the complexity of the issue and to get a broader perspective on the task at hand.



2.4. Benchmarking

We benchmarked best practices both within Finland as well as its neighbouring countries Estonia, Norway and Sweden. In Sweden, 'Ekoparks' are managed by the state-owned company Sveaskog and fulfil a similar function to Hiking Areas in Finland. However, we found Ekoparks have a more

interactive and user-friendly interface. Estonia has a similar system to Finland with a range of National Parks, Recreation Areas and Nature Reserves. In Norway many of the hiking area services across the country are offered by voluntary organisations.



Fieldtrip to Evo, photo by Abigail Garbett

2.2. Field Trip Research

To gain a better understanding of the use and purpose of Hiking Areas we decided to visit Evo, at the very beginning of our research process. Traveling by car we went on a one-day trip to Evo on the 7th of March. We conducted several interviews with the local students from the HAMK University of Applied Sciences, as well as one of the university teachers, Esa Lientola who is charge of Evo's teaching forest. We also experienced one of Evo's nature trails first hand near Niemisjärvi lake, we cooked lunch at a grilling station and finished the trip with hot cocoa, using one of the fireplaces next to the local rental huts.

2.3. Interviews

The development of our concept was largely informed by insights gained through interviews with Hiking Area stakeholders. We found many engaged individuals working towards improvements in our test site, Evo, their input has been the driving force behind this project. The notes and audio files from each interview was shared between all groups.

Initially we interviewed representatives from our commissioners the Ministry of Agriculture and Forestry and Metsähallitus. During our field trip we interviewed students and teachers from HAMK University of Applied Sciences. In order to understand the potential of National Hiking Areas, we also interviewed a range of diverse nature users from hunters and hikers to biologists and nature conservationists. More interviews were conducted with local schools in Lammi, two members of the Scouts and Guides Association, a marketing specialist from the travel agency AuroraXplorer, as well as researchers from LUKE Natural Resources Institute Finland and Helsinki University based in Lammi. The interviews were conducted in a semi-structured format in person, online or by phone.



3. Key Findings

In the following section our findings from three different perspectives on Evo Hiking Area are presented. The first section looks at the area from the perspective of the users, focusing on impressions from visitors, local citizens, hiking enthusiasts, local schools and a travel agency from China. In the systems perspective we expand on these by looking at the different institutional actors involved in the area in order to get a holistic view of the entire Evo system. The final section focuses on Evo from the perspective of the ecosystem, which was not very visible in the brief we were given.



3.1. User perspective

Visitors

Based on our experience, we found that the current infrastructure of Evo is not very user friendly. It was hard to find the trail because of inconsistencies between the paper map we got from the Evo Center and the real trail. High human influence was visible as the trails cut across roads. Furthermore, Evo was not optimal for winter use because all the info posters along the paths were covered by snow and frost.

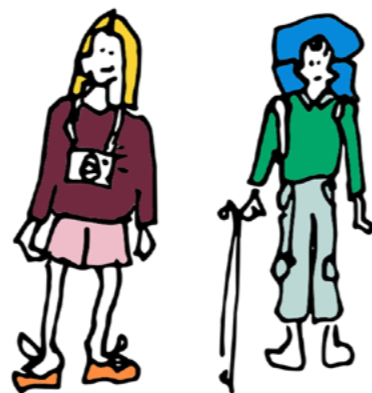
Local citizens

Students from HAMK see many tourists in the summertime. "Every second weekend I see tourists from my window," said by one

student who lives in the school dormitory near Evo center. However, "Visitors mostly come on weekends and are mainly Finnish. There aren't really that many activities here, they mostly go hiking or go to Niemisjärvi for the rainbow trout." Metsähallitus doesn't provide signage so it's not easy to find Evo for someone who is not from around here. Despite this, a student majoring in forest engineering, believes that "the tourism will increase because the nature is so beautiful and silent here."

Hiking enthusiasts

One international student from the University of Helsinki said that although she had strong interests in outdoor activities, she usually went hiking near Helsinki and did not know the difference between National Parks and National Hiking Areas. When we introduced Evo and showed its official website to her, she responded positively that she would like to visit Evo if the transportation is convenient enough for a one-day-trip. From the diverse nature users it became clear that the areas are hard for the visitors to understand since the name does not communicate the versatile use available.



Local schools

Several schools visited the area when the Evo Life package (Evo forest, 2005) was launched in 2002, the package was designed to inform children about conservation activities happening in Evo and was well received by local schools. However, the project only ran for a few years. When it ended interest in the area dropped.

A teacher from Konnarl Elementary School, Hannu Komonen said they rarely visit because it is so difficult to get an entire class – not to speak of the whole school – there. According to Komonen, it is hard to organise school trips if there are no organised activities. Some years ago HAMK organised an Open Doors Day that was very successful and the whole Konnarl School attended. The Konnarl Elementary School would be open for collaboration to develop the Evo area further.

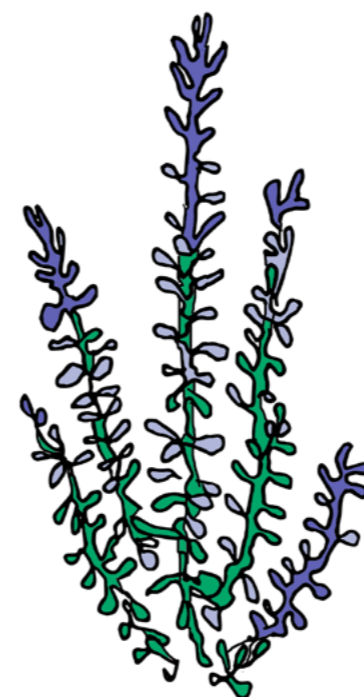


A biology and geography teacher from Hakkala Junior High School, Timo Lukkari, goes to Evo a few times a year with pupils from elective courses. Lukkari thinks Evo does not match its expectations, as it has a lot of roads going across paths, it does not seem like a real rural forest.



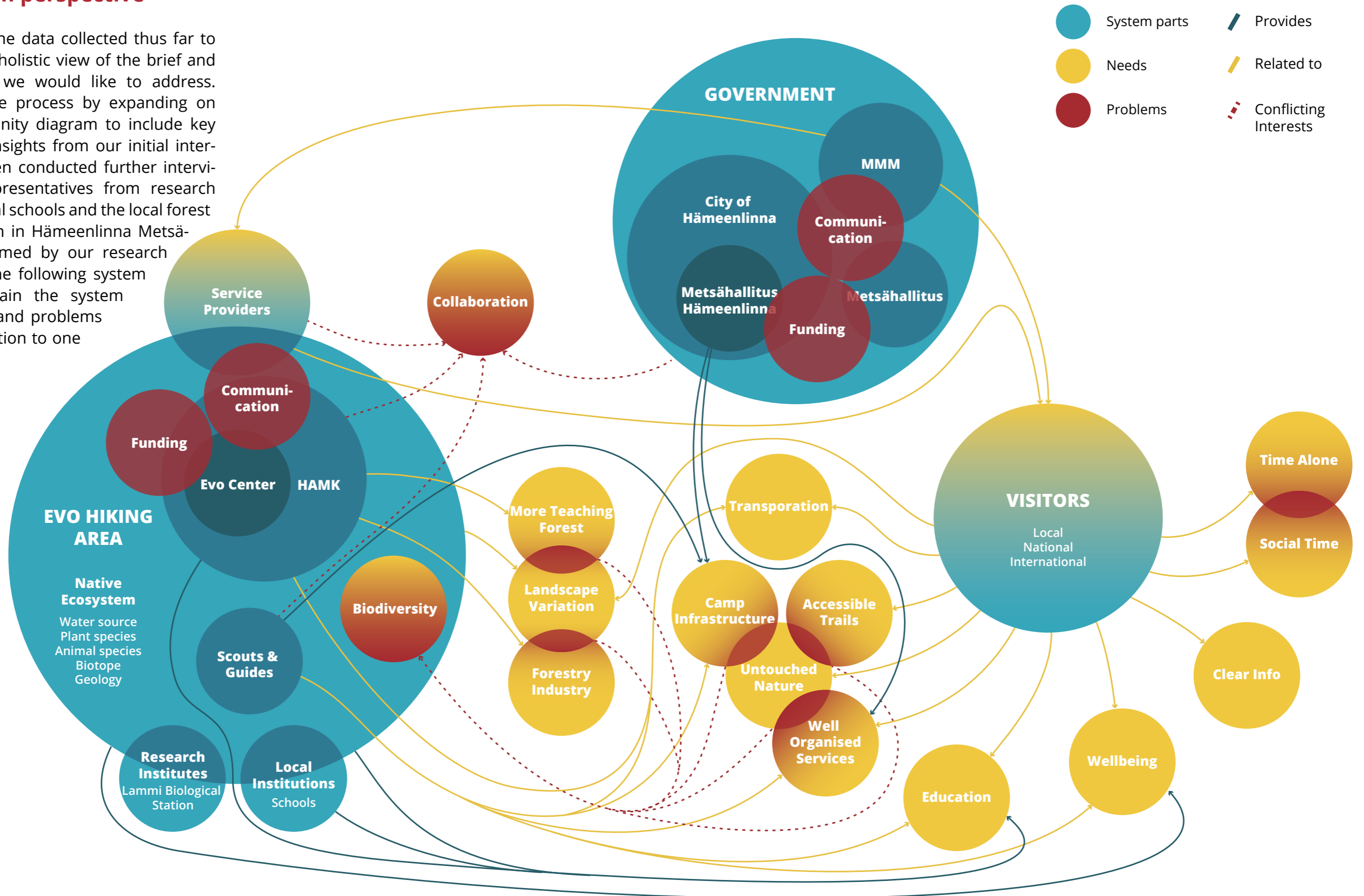
Travel agency

Further insights came from a conversation with Jingquan Lin, a digital marketing specialist at AuroraXplorer. AuroraXplorer is one of few travel agencies expanding in the field of educational tourism in China and deals with 20 to 30 school groups each year. Jing said that the pure nature scenery of Finland is the best attraction for Chinese visitors since the rise of urbanisation in China results in the isolation between city people and nature. There is a demand for learning how to live with nature. As a result, more and more Chinese parents would like to send their children to summer or winter camps in Finland, to experience the Finnish educational mindset as well as natural forest tourism. An increasing trend of educational tourism could be seen in recent years.



3.2. System perspective

We built on the data collected thus far to form a more holistic view of the brief and the problem we would like to address. We began the process by expanding on our initial affinity diagram to include key quotes and insights from our initial interviews. We then conducted further interviews with representatives from research institutes, local schools and the local forest administration in Hämeenlinna Metsähallitus. Informed by our research we created the following system map to explain the system parts, needs and problems and their relation to one another.



System map of Evo Hiking Area, illustration by Mengxiao Li

Hämeenlinna Metsähallitus

Several civil servants from Hämeenlinna Metsähallitus stated that collaboration between the different units does not function well. Communication with local stakeholders also appeared to a problem. For example, while a civil servant from the Vantaa unit said collaboration between the Scouts and Metsähallitus works well while the Hämeenlinna unit said the opposite.

Scouts

From a scout leader in charge of this year's Evo scout camp, we learnt that the Scout and Guide Association have a contract with Metsähallitus enabling priority access to Evo. As a result, they are one of the biggest user groups in this hiking area. What's more, they are highly engaged in the development of Evo and have an internal working group responsible for developing infrastructure.

HAMK University of Applied Sciences

HAMK's Evo campus was founded in 1862 and was the first forestry school in Finland (Evo offers first-rate forestry know-how, n.d.). Most HAMK students and teachers live in Evo and are engaged with the area. Esa Lientola, who has been teaching at HAMK since 2004, had a lot of information to share. According to him, students sometimes plan routes for Metsähallitus and the student number in the forestry department is increasing, so more teaching forest may be needed in the future.

He also pointed out that the relatively small amount of tourists is due to many problems, like the lack of English signage or the lack of signage entirely. Lientola thinks a short and easy path around the Evo center would attract more tourists. In winter there is a ski track starting from the Evo center but as it is made on a voluntary basis it is not managed by Metsähallitus, nor is it publicised. The forestry industry represented mainly

by HAMK University focuses on forestry education and research in the Evo area. HAMK uses a large part of Evo as teaching forest for its students. In relation to this John Leohr and Janne Sundell, two biologists from Lammi Biological Station, pointed out that today the forestry industry and modern forestry practices are in many ways actively trying to preserve at least some biodiversity but this is not always something people are aware of.

University of Helsinki and other research institutes

HAMK University is not the only institution operating in the Evo area. University of Helsinki, located at the Lammi Biological Station, carry out research in Evo and its surrounding areas, much of which are available to the public through open conferences, seminars and research papers. They are also occasionally visited by schools from Finland and abroad where the students participate in different activities in order to learn about nature.

Alongside Lammi Biological Station and HAMK University; Aalto University, University of Jyväskylä, the Natural Resources Institute Finland (Luke) and the Finnish Environment Institute (Syke) are also conducting nature research in Evo. These institutions often collaborate on projects. Since Evo is such an important place for forestry and nature research, another teacher from HAMK University, Henrik Lindberg, said that he would propose Evo to become a Research Park.

Lack of collaboration

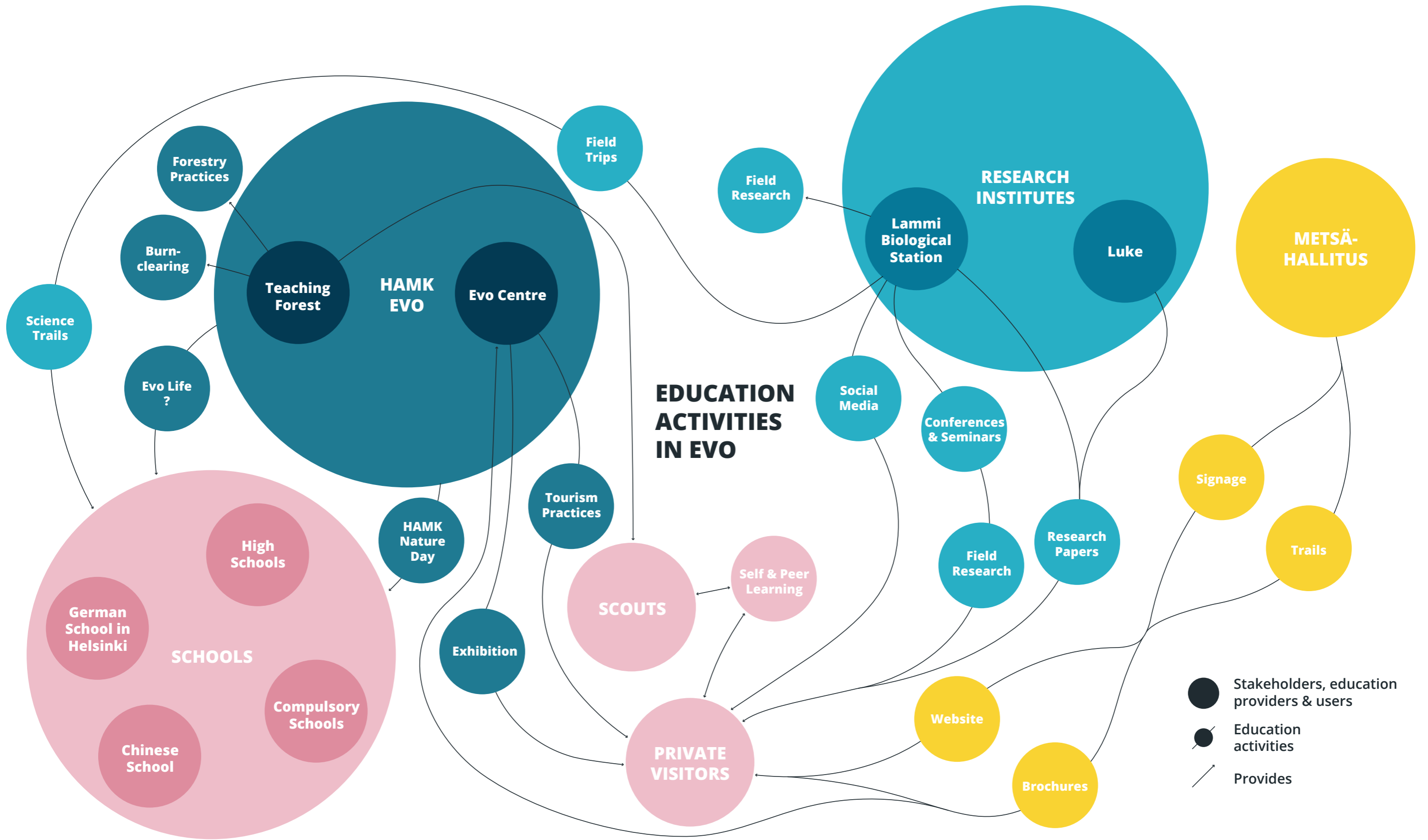


No clear direction



Untapped potential



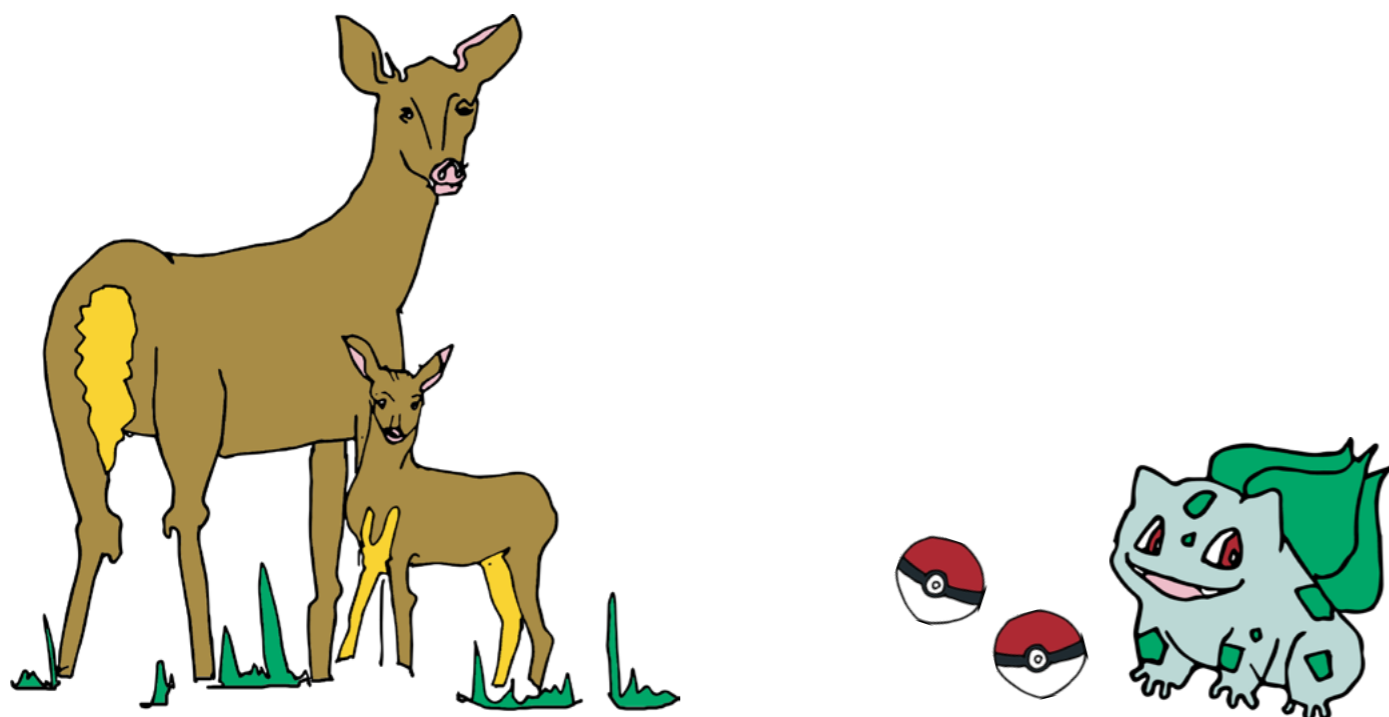


Educational activities happening in Evo, illustration by Andreas Sode



Nature doesn't need us, we need nature

- Per-Erik Skagerlid



3.2. Ecosystem perspective

One aspect which we felt was missing from the brief was the ecosystem perspective. All activities within Hiking Areas rely on the health and diversity of the ecosystem, yet their needs are not always taken into consideration. This is particularly troubling given the current rate of species extinction and the importance of biodiversity for maintaining a stable living environment.

According to Johan Rockström, we have entered the sixth period of mass extinction (2015). The earth has suffered a 60 percent ecosystem decline and both common and rare animal and plant species have been lost as a result of human overpopulation, overconsumption and pollution (Drake, 2015).

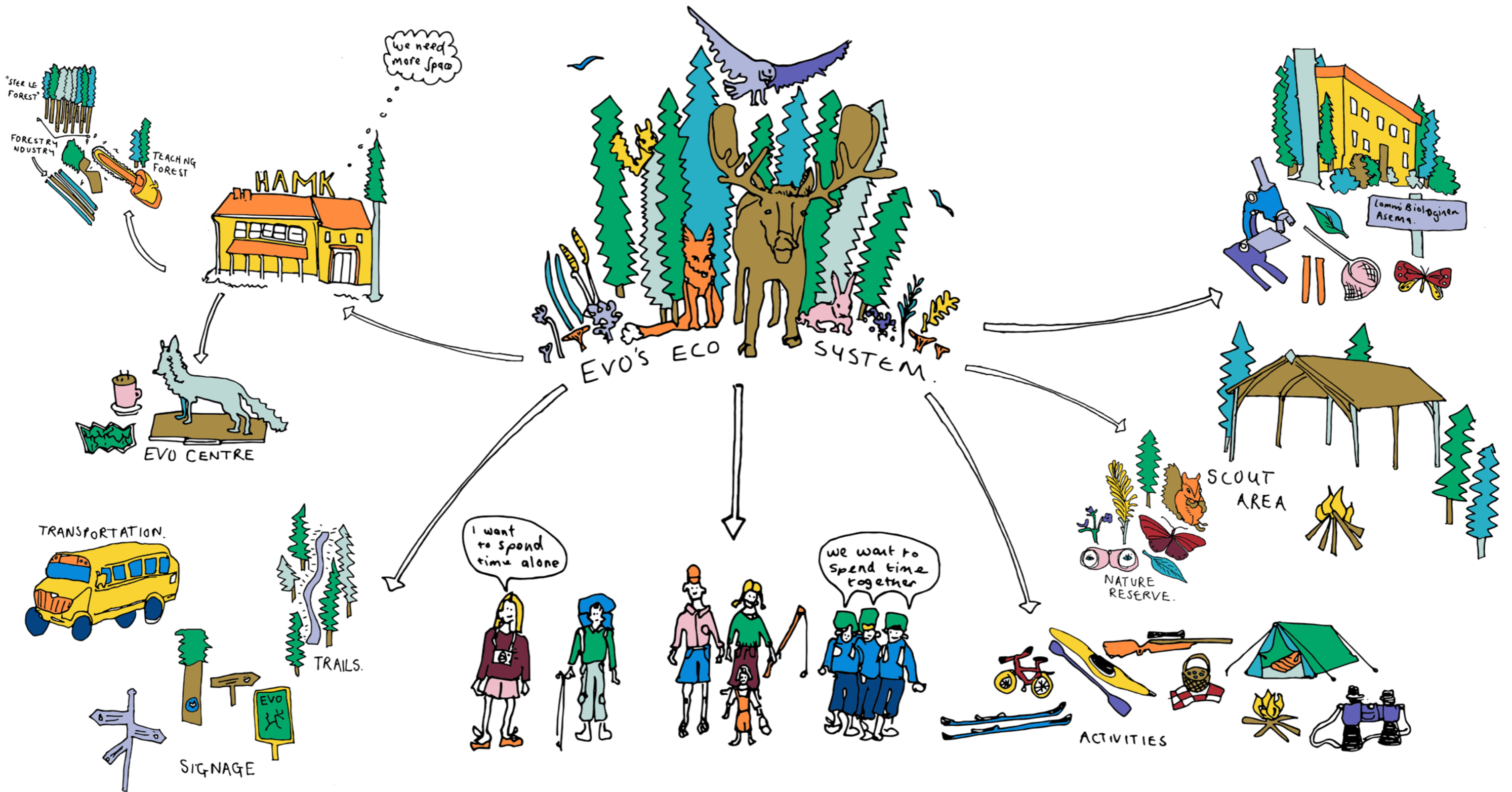
In addition, a recent study by Cambridge University reveals our knowledge and experience of nature is also in decline (Macfarlane, 2017). According to Bratman et Al., 'Today, most people are experiencing significantly lower levels of daily contact with nature as compared to their parents generation' (Bratman, Hamilton, & Daily, 2012). A fact which is reflected in the statistic that children are better at identifying Pokemon characters than native plant and animal species. The current risk of 'nature-disconnect' is a problem because our love and respect for the natural environment is intricately linked to our understanding of it. We cannot expect the next generation to protect nature if they are not aware of its value.

Visitors are rarely informed about the importance of respecting the natural environment and some activities are planned at times of the year which conflict with the

natural breeding cycles of native animals. Per-Erik Skagerlid, a conservationist in charge of a nature reserve in Sweden, emphasised how crucial it is to have respect for the nature that surrounds us and the species that inhabits it. When working with conservation, sheltering the local ecosystem is one of his main goals. Visitors can be disruptive to the natural system, but through trails conservationists actively control the flow of people while protecting the more delicate parts of the forest. This allows for animal breeding grounds and habitats, rare plants and trees species to be kept away from human influence. Equally important is the need to teach people to be mindful about natural ecosystems.

One of the biologists, Annette Sode has recently conducted research on how people from the countryside and the city perceive nature in Denmark. She emphasised that those of us who grew up today do not remember how rich and diverse nature used be. She thinks "the 'collective memory' is not maintained" and that there is a "lack knowledge of what once grew" - in other words our knowledge of nature has been decreasing over time. She also pointed out how crucial it is to learn about and get exposure to nature during childhood as this is directly linked to how we experience and treasure nature later in life. This is even more important now due to the current rate of urbanisation, with 84% of the Finnish population residing in urban environments (United Nations Population Division, 2016).

Another biologist, Peter Wiberg-Larsen emphasised that appreciation of nature to a high degree is a matter of knowledge, and that many of us would appreciate nature more if we were aware of how exciting biodiversity is and how interesting the natural processes are.



Rich picture of what Evo's ecosystem has to offer, illustration by Abigail Garbett

4. Reframed Brief

From our interviews and field research we identified education and the ecosystem perspective to be of crucial importance. For us, Hiking Areas have the potential to become research, ecology and education areas which do not exist anywhere in Finland. By having the status as an area for education, Hiking Areas could become a place where teachers and parents would love to bring their children.



We reframed the brief with these two themes in mind and proposed two new research questions:

1. How can nature education raise the profile of Hiking Areas as a unique tourist destination?

2. How can Evo increase knowledge about nature and sustainable resource use for current and future generations?

While our proposal is for all Hiking Areas, the majority of our findings are based on Evo. John Leohr and Janne Sundell emphasised the uniqueness of the diverse educational activities happening in the area. They also pointed out that a lot of educational material, resources and information is already available to be used if needed. On top of that there is a huge amount of student activity in the area which is another great resource that can be harnessed. We aim to build upon Evo's rich heritage as the home of forestry education and nature research and define Evo as a center for educational nature experiences. Based on this we see Evo as a great pilot area, however we have also identified unique educational possibilities in all the National Hiking Areas.

5. Ideation

With Evo and education as the focal point, we started brainstorming. Using a variety of techniques, we generated many different concepts. Some of these were very specific while others were more broad. The ideas were then reviewed and evaluated one by one. Finally parts from each idea were merged into three aspects of Evo as a center for nature and education: the Hub & the activities, the organisation & collaboration and the exploration zones.



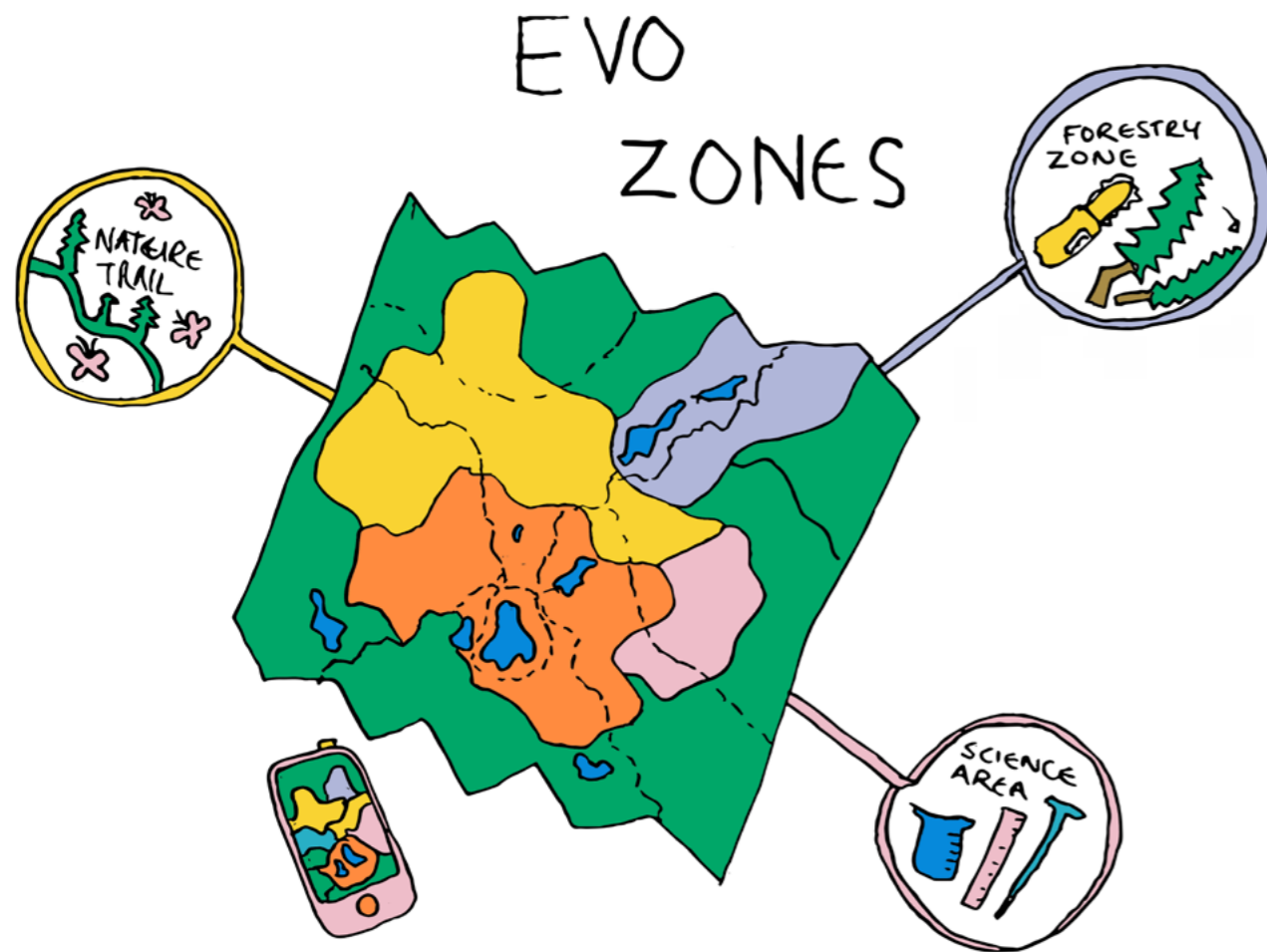
5.1 The Three Aspects

The activities

What activities could local stakeholders provide to increase learning? How can we bring new and existing educational activities to the visitors so they can learn more about: sustainable forestry, bioeconomy, ecology and how to use, treat and enjoy the nature in a mindful and sustainable way?

Organisation & Collaboration

How could Evo be better organised to increase collaboration? Could Evo benefit from a working group which has the responsibility to drive and facilitate the collaboration and communication in the area?



The exploration zones

How could the hiking area be organised to highlight the different uses and activities that are happening in there? Could the forest benefit from being more obviously divided into different “exploration zones”?

5.2. Evaluation Workshop

In order to validate our concepts we organised a stakeholder workshop in the Lammi Biological Station. We invited stakeholders to represent the Ministry, the Hämeenlinna Metsähallitus, HAMK, Lammi Biological Station, LUKE, the scouts, local schools, Linnan Kehitys and the new owner of the Evo Research center, in all there was 11 participants.

After introducing the three concepts, we asked the participants to consider what advantages and disadvantages the concepts would have for the institution they represent. We also encouraged suggestions on what could be improved and how they could contribute.

The workshop was such a success that all participants were eager to exchange their contact information and to continue working together in the future.

Based on our findings from the workshop, we sharpened our proposal and concentrated on the organisation and Hub. In addition, we further developed the content of the educational activities.



Evo Ideas Workshop, photos by Mengxiao Li

6. Proposal: Exploration Areas



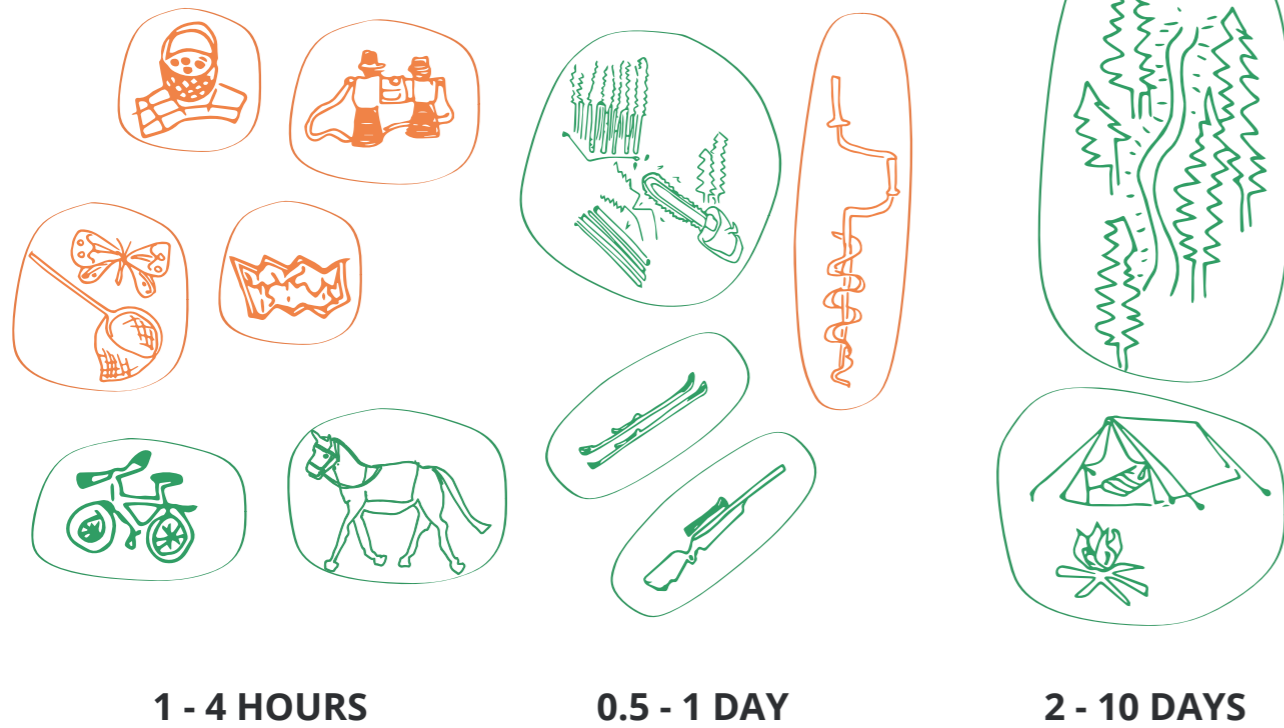
6.1. We Love What We Know

By rebranding Hiking Areas as 'Exploration Areas' we aim to create an educational focal point to attract new and mindful visitors seeking to reconnect with nature.

In the short-term we aim to create a voluntary working group, compile 'self-study' learning material and create a calendar of events. Our long-term goal is to acquire a currently disused premises in Evo to launch the first Exploration Hub where a wide range of learning activities would take place.

Exploration Areas will provide informal learning experiences for visitors ranging from 1 hour activities to 1 week study camps. The curriculum will focus on sustainable Use, Experience and Knowledge of nature. Self directed learning opportunities in the form of themed walks and interactive information brochures will be available alongside group learning activities at 'Exploration Hubs'. In contrast with National Parks, we see the flexibility of use in Hiking Areas perfectly suited for an activity based learning programme.

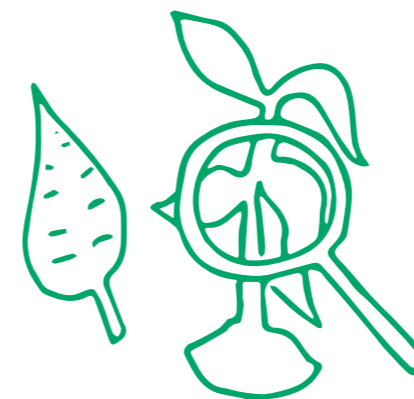
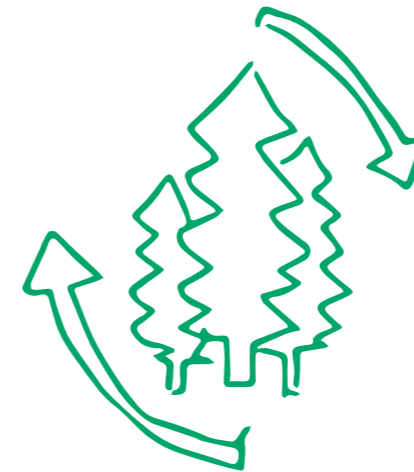
Self study
Group learning



6.2. Curriculum

The curriculum is the most critical component of the Exploration Area, determining what can and should be learnt and taught in the area and functioning as a strategic directive for the whole area. The curriculum provides a structure for Metsähallitus as well as for local stakeholders to follow when designing activities for the Exploration Area. In addition, the curriculum serves to communicate the activities to the visitor, giving a clear image of what to expect from an Exploration Area. The activities are divided into self study material and group learning activities, arranged according to how much time they require. Giving the visitors a possibility to plan their visits more precisely.

The curriculum for each different Exploration Area should be developed by local stakeholders together with the local Metsähallitus. This would be done based on the variety of natural landscapes as well as local knowledge and resources that the specific region has to offer.



Evo Exploration Area Curriculum

The curriculum for Evo consists of three modules: nature use, knowledge and experience.

In the **nature use** module visitors can learn about sustainable resource use – especially forestry. Exploring the history of Evo as the birthplace of Finnish forestry education. As many of the research activities in Evo cover subjects under the theme bio-economy, the nature use module could be expanded to include courses for instance on sustainable fishing and bio-medicine.

The **nature knowledge** module goes into the details of the natural ecosystem. It lets the visitor explore the native species of the region including not only bigger animals and birds, but also insects, plants and fungus that are part of the whole ecosystem of the area. The module explores where these species live, how does the landscape determine their lifestyle and how does human activity affect their living environment. Courses in the module would mainly be provided by the University of Helsinki located in the Lammi research station and LUKE.

In the **nature experience** the visitor is emerged in nature. From learning how to light a fire, to picking the right type of mushrooms and even acquiring fishing and hunting skills. The module can be seen as a ‘how to survive in nature’ - guide, while also emphasising how to sustainably conduct activities in nature. Courses can be provided by several different stakeholders including the scouts, the Finnish nature league, private entrepreneurs as well as HAMK.



6.3. The Exploration Hub

The Exploration Hub is the physical extension of the Exploration Area's curriculum. Not only does it offer food, accommodation and information about the area, the Exploration Hub also offers additional tools for the visitor to further explore the curriculum of the area. This is done by hosting workshops and conferences as well as by offering learning materials like activity booklets and renting out equipment for learning activities – for instance simple biological research tools like a butterfly net or soil testing equipment.

The Exploration Hub also provides a calendar that gathers together all the activities that take place in the area. This enables the visitor to get a clear picture of what is going on in the area.

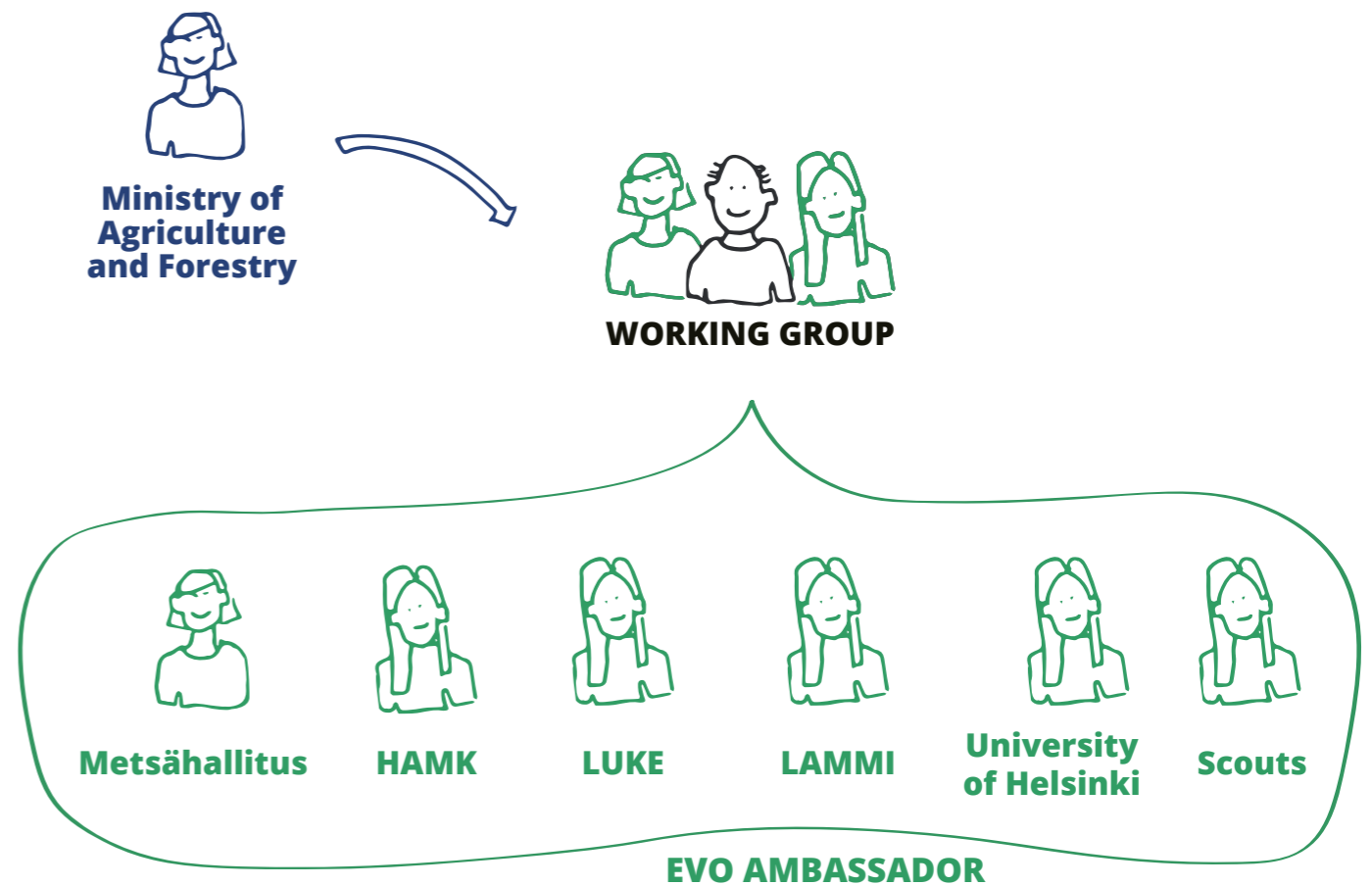
In Evo we see the Exploration Hub situated in the currently disused premises of the former Evo research station which was recently purchased by a private person, Jukka Bomberg. Bomberg is open for collaboration and to the idea of using part of his premises as the future Hub.



Evo Research Station, photos by Jukka Bomberg



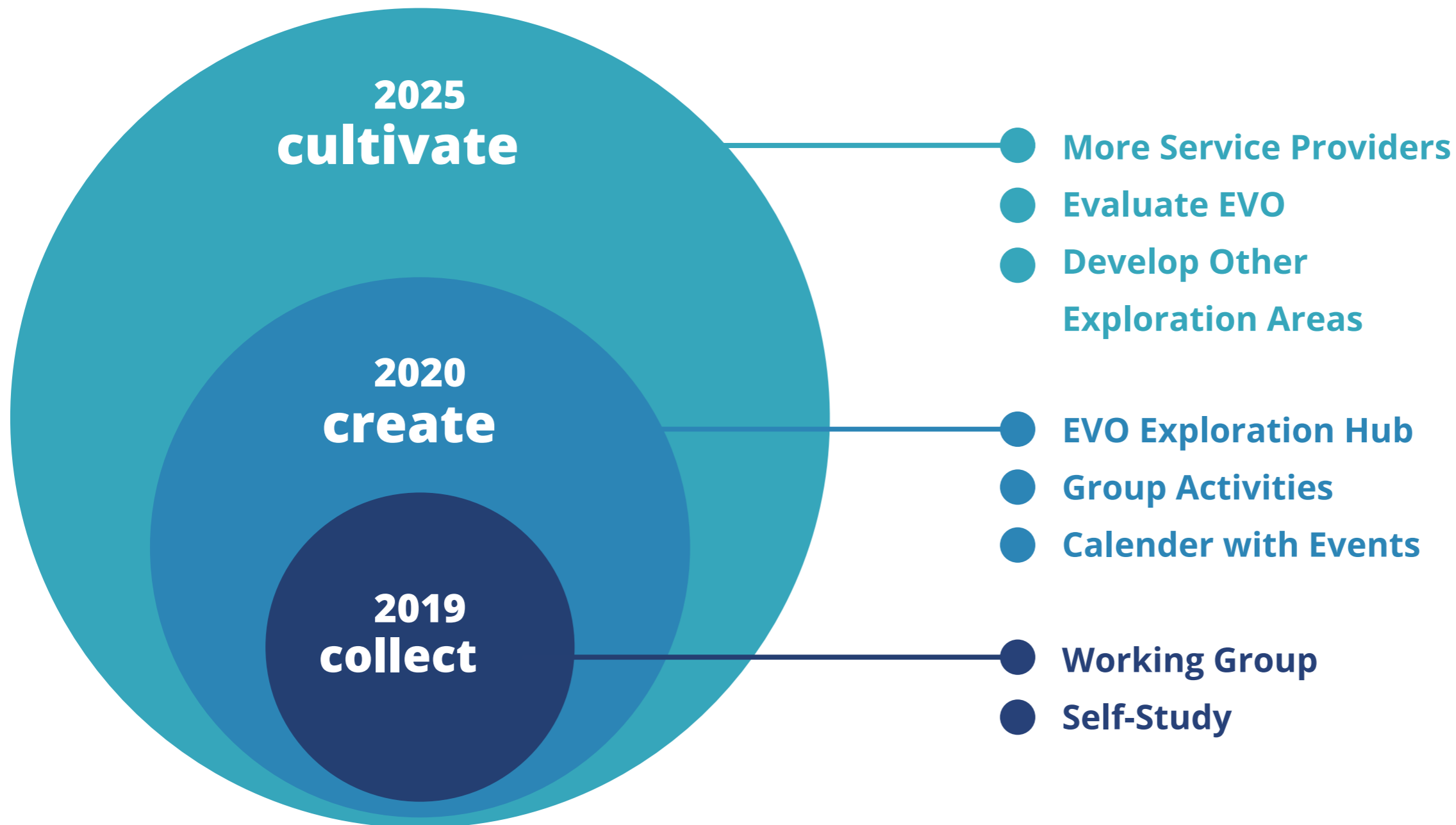
Provide clear direction for collaboration with the unique interests of each area in mind.



6.4. Working Group

The Curriculum and Hub are both run by the Working Group. The Working Group, consisting of representatives from different active and invested stakeholders in the area, can be seen as the Exploration Area's ambassador's. The working group gradually forms an NGO. The Working Group is initiated by the Ministry, but works independently. By

establishing a separate organisation, the Exploration Areas obtain the opportunity to apply for funding outside of the governmental budget. When funding is secured the working group can proceed to hire a manager that will be full-time responsible for the strategic directive of the area as well as running the Exploration Hub.



6.5. Action Plan

With Evo as our test site, we have created a three step action plan for the development of the area. The Evo Exploration Area pilot will run over the next seven years, going through the steps Collect, Create and Cultivate, ending with an expansion to the other Finnish Hiking Areas. See appendix for a more detailed version.

Collect

We plan to get the working group moving by 2019. The Working Group will compile the self study material for the curriculum. A great deal of material already exists in different places but it still remains to be gathered in one place (See section 7, Available Resources).

Create

By 2020 we hope to establish the Evo Exploration Hub. In addition to self learning materials, the curriculum will be further expanded to include group learning activities. A digital calendar for events will also be established. The digital calendar should also be included on the Evo Exploration Area webpage.

Cultivate

By 2025 the Evo Exploration Area is up and running and more service providers have joined the Evo Exploration adventure. The pilot is ready for evaluation, after which the new identity is ready to move to the other Hiking Areas in Finland.



6.6. VISION 2040

By 2040, the population is predicted to almost double and living conditions will be increasingly dense. The Helsinki region will be transformed into an urban metropolis and we imagine nature areas within cities will become scarce leading to a demand for nature areas outside of cities. In order to address this need, all five exploration areas will be in operation, offering diverse landscapes and unique educational focal points. Through the role of Exploration Areas, the importance of biodiversity will be widely understood and visitors will have the opportunity to engage in maintaining an environment suitable for all lifeforms to flourish.

6.7. Conclusion

By establishing Exploration Areas, we see the needs of the different stakeholders in Evo being met, from collaboration to raising the profile of the area. The new identity also provides the Ministry with new opportunities for funding, and the universities and researchers the possibility to share their knowledge and the importance of their work.

In summary, our concept aims to unify local stakeholders under one common purpose and provide people with a clear motivation for visiting the areas. Most importantly, Exploration Areas hope to inform people about the importance of the environment and encourage sustainable coexistence with nature, a value that will last and can be passed down the generations.

Unify local stakeholders under one common purpose.

Encourage sustainable coexistence with nature.

Transform Hiking Areas into engaging learning environments.

7. Available Resources

During our research we have found various different sources for teaching materials that can be used to educate visitors of all ages. Here we have gathered a few examples that might be of use when establishing the curriculum and learning material for the Exploration Areas.

Open Metsä is a project conducted by various stakeholders, including Metsähallitus and LUKE, in Punkaharju, Finland.

www.openmetsa.fi

The Lammi Biological Station, in addition to the huge amount of educational material they offer, they also have a Science Trail at their premises. The Science Trail might be something worth duplicating to Evo.

www.helsinki.fi/fi/uutiset/kestava-kehitys/tiedepolulla-eletaan-ekologiaa

The Finnish Forest Association offers a huge amount of educational material.

www.smy.fi/en/teach-learn

The Finnish Forest Association also organized a successful quiz intended for pupils in Junior High School. The quiz aimed at raising the nature knowledge of young people.

www.smy.fi/en/artikkeli/how-to-make-youth-people-interested-in-forestry-arrange-a-forest-quiz

An EU level project that offers educational material on forests.

forestpedagogs.eu/portal

9.

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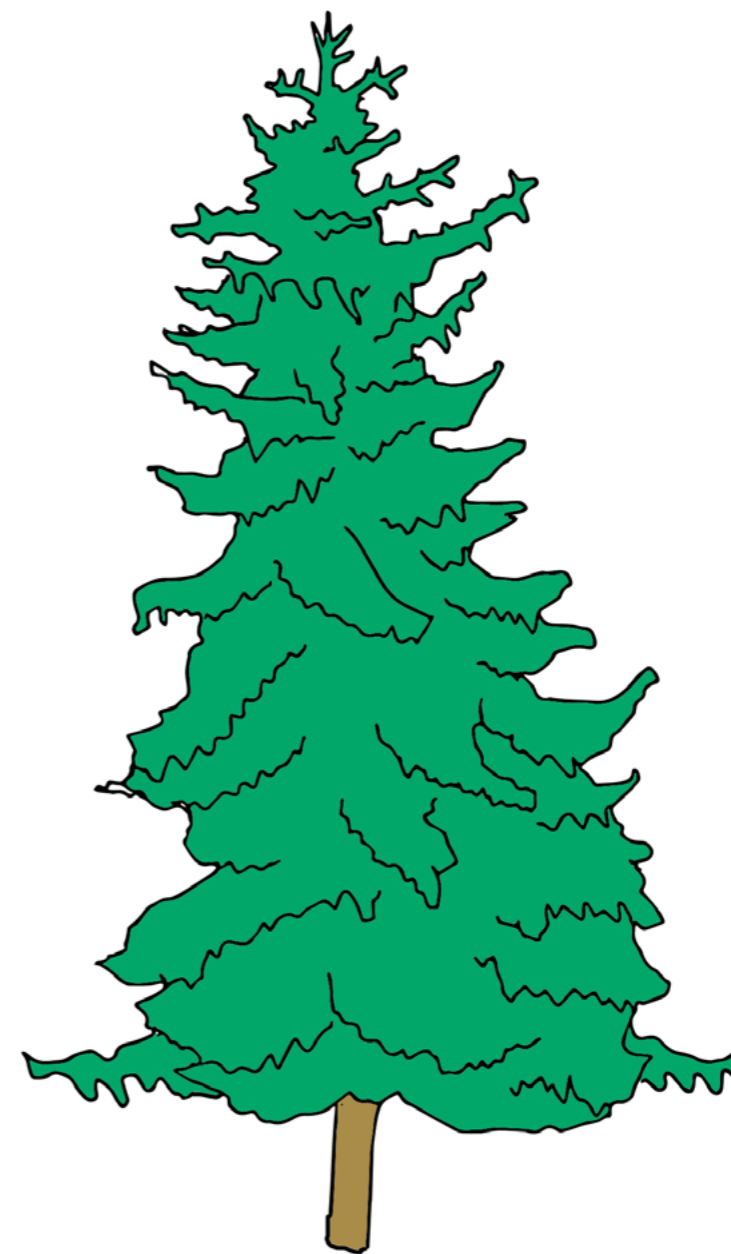
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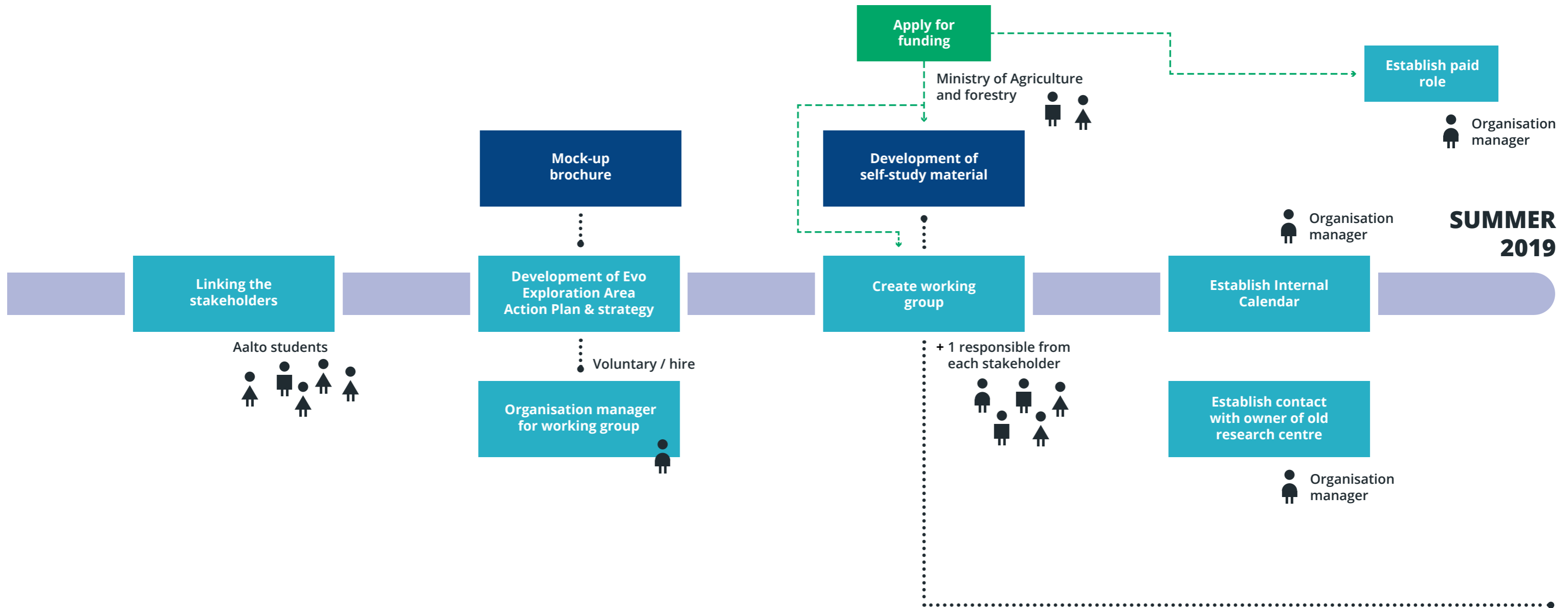
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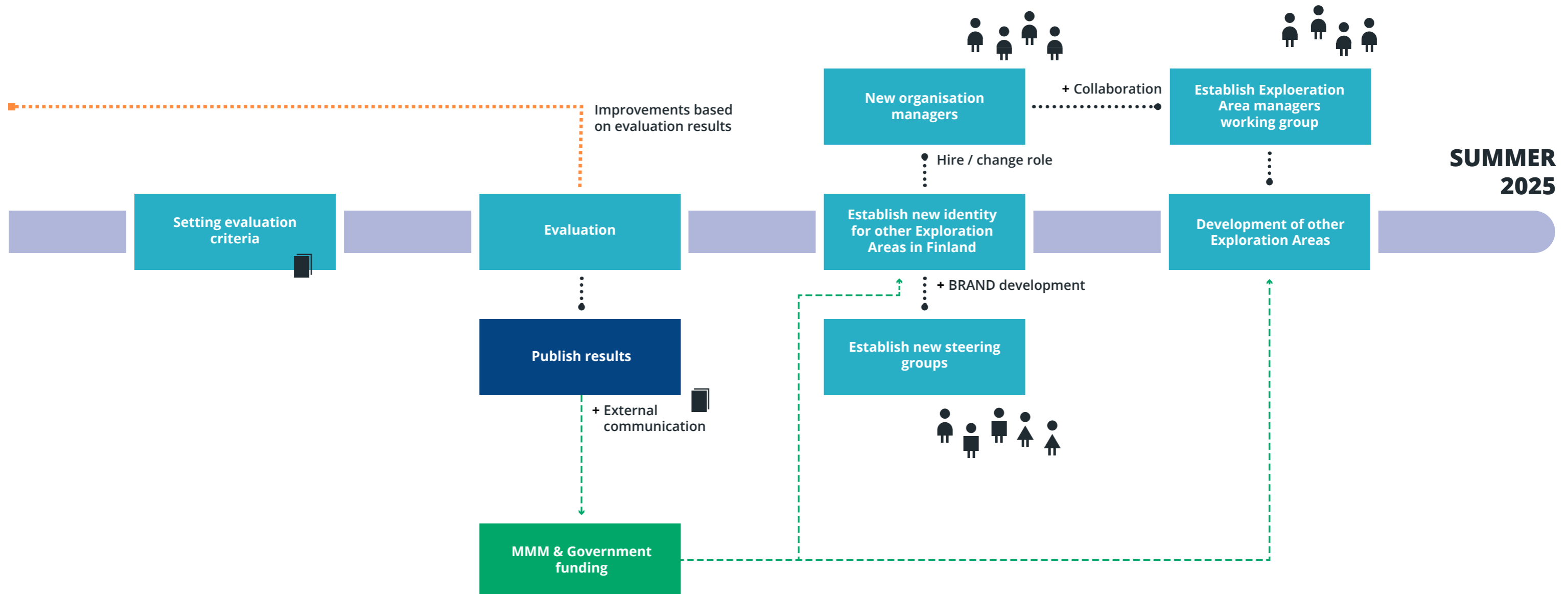


8. Appendix

1. Collect



3. Cultivate



Exploration Areas

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