

Entwurfworkshop

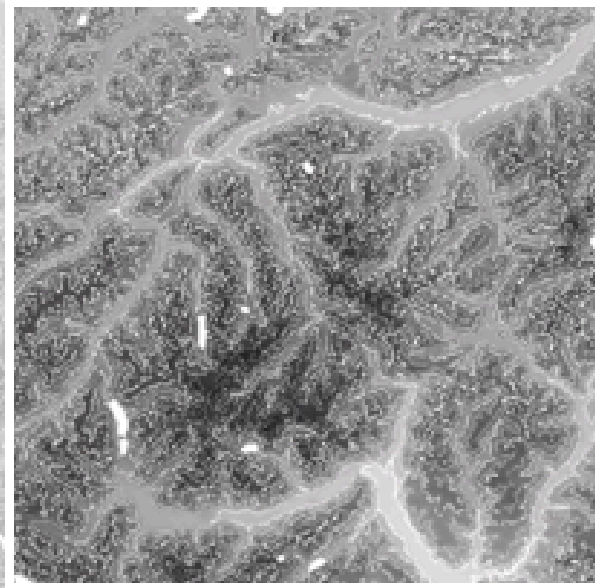
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**BOOKLET
PORTFOLIO**

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DESIGN WORKSHOP 2024



Ötztaler Alps

Day 1 Imagination 2035

Day 2 Mapping
Actor Network

Day 3 Power of Imagination

Day 4 Design as an Act of Care
Manifesto

Day 5 Debate

Imagination 2035

Streets will be transformed into pedestrian-friendly avenues, lined with vibrant gardens and community spaces where people can gather and enjoy the outdoors. Public transportation will be efficient, clean, and powered by renewable energy, making it easy for residents to move around without relying on personal vehicles. Rooftop gardens will flourish atop buildings, providing fresh produce and a habitat for urban wildlife. Solar panels will adorn rooftops, harnessing the sun's energy to power homes and businesses.

In this city, air quality will be pristine, and the sound of chirping birds will replace the hum of traffic. Local markets will thrive, offering organic and sustainable products to the community. Schools will incorporate outdoor classrooms, emphasizing environmental education and fostering a deep connection with nature in the younger generation.

The city will be a harmonious blend of modern living and natural beauty, serving as a model for sustainable



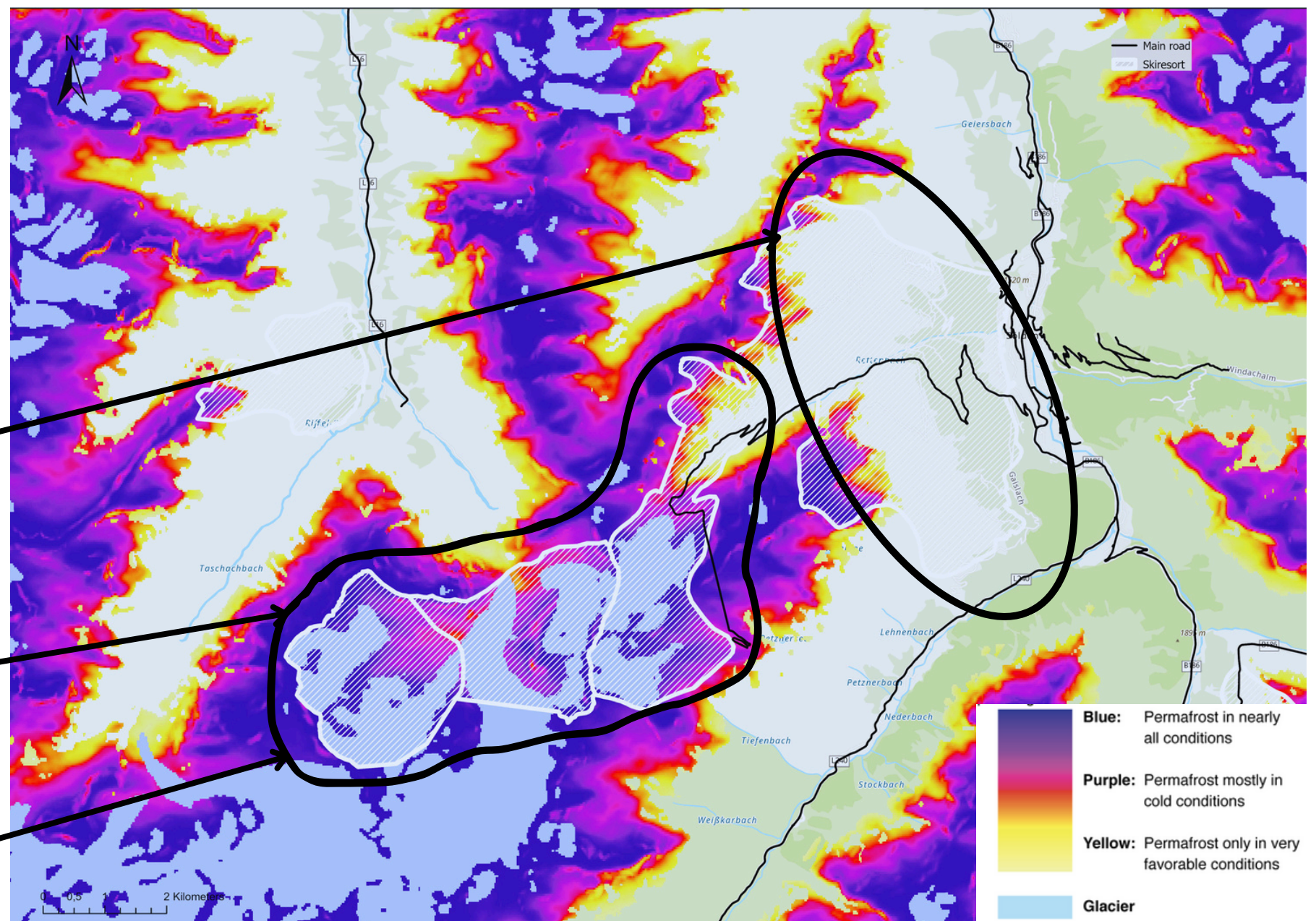
Permafrost map

The map shows that big parts of the skiresort is placed on the permafrost area. When the permafrost melts the mountain will destabilize and the area can be risky to use. The map also shows that the glaciers are big part of the ski resort which will also melt. These areas will in the future be hard to use for skiing.

Skiresort area with existing infrastructure that will stay stable in the future which makes it a potential development area

Skiresort area that will likely be unstable in the future and is not good for future development

Skiresort area that will likely be unstable in the future. Through stabilization measures the lifespan on this area as a skiresort can be prolonged






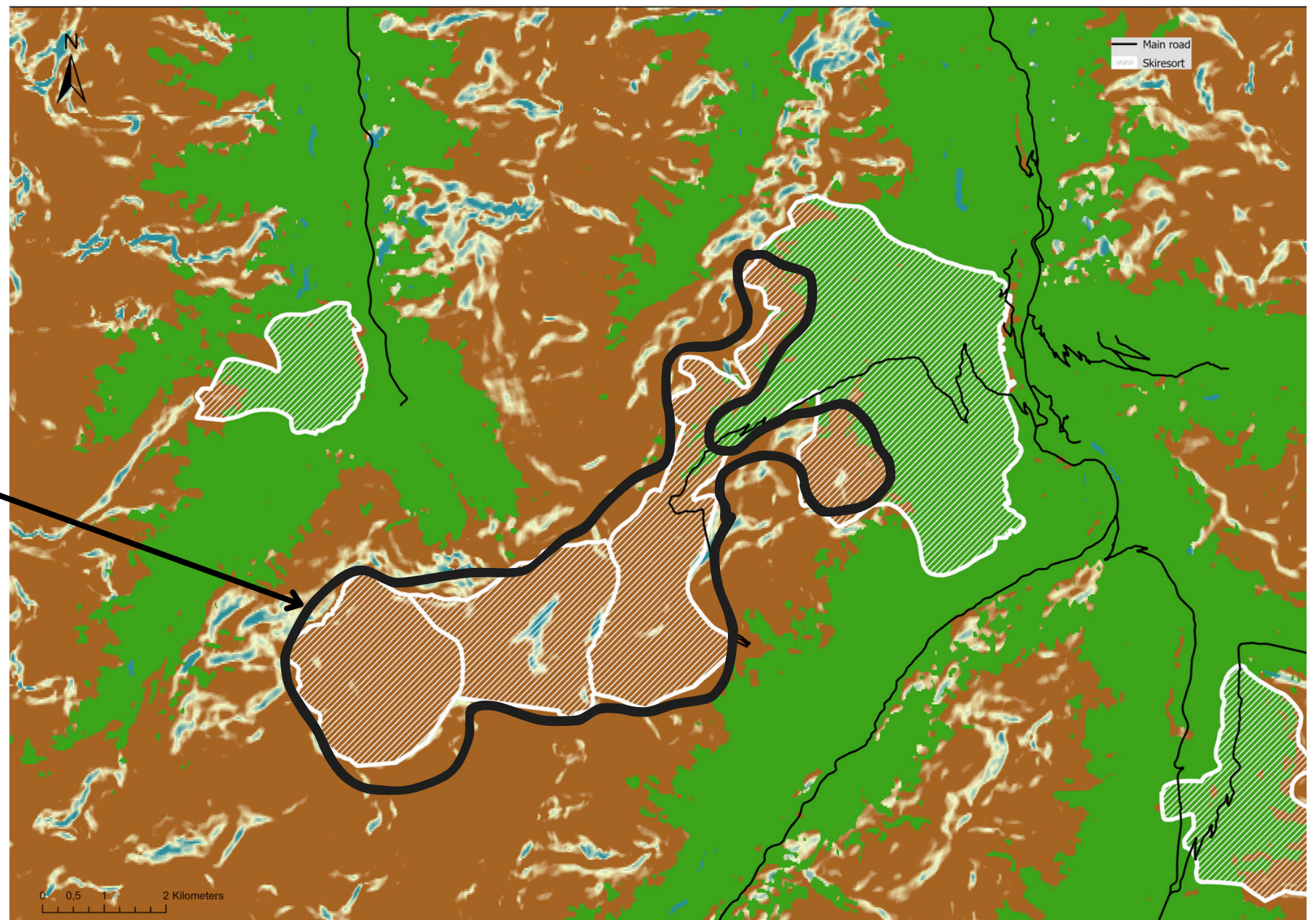
Permafrost Index Map: <https://www.openstreetmap.org/relation/77772>
 Open Street Map: https://microsite.geo.uzh.ch/cryodata/PF_map_explanation.html
 Open Data: <https://www.data.gv.at/suche/?typeFilter%5B%5D=dataset>

Steepness Map

The brown area is below 35 degree and there it's possible for trees to grow. The brown area therefor shows potential areas to become forest in the future.

Potential area for forest expansion when the skiresort phase out.

-  1: Steep Bedrock (slope angle $\geq 55^\circ$)
-  0: Debris Cover (slope angle $\leq 35^\circ$)
-  2: Vegetation



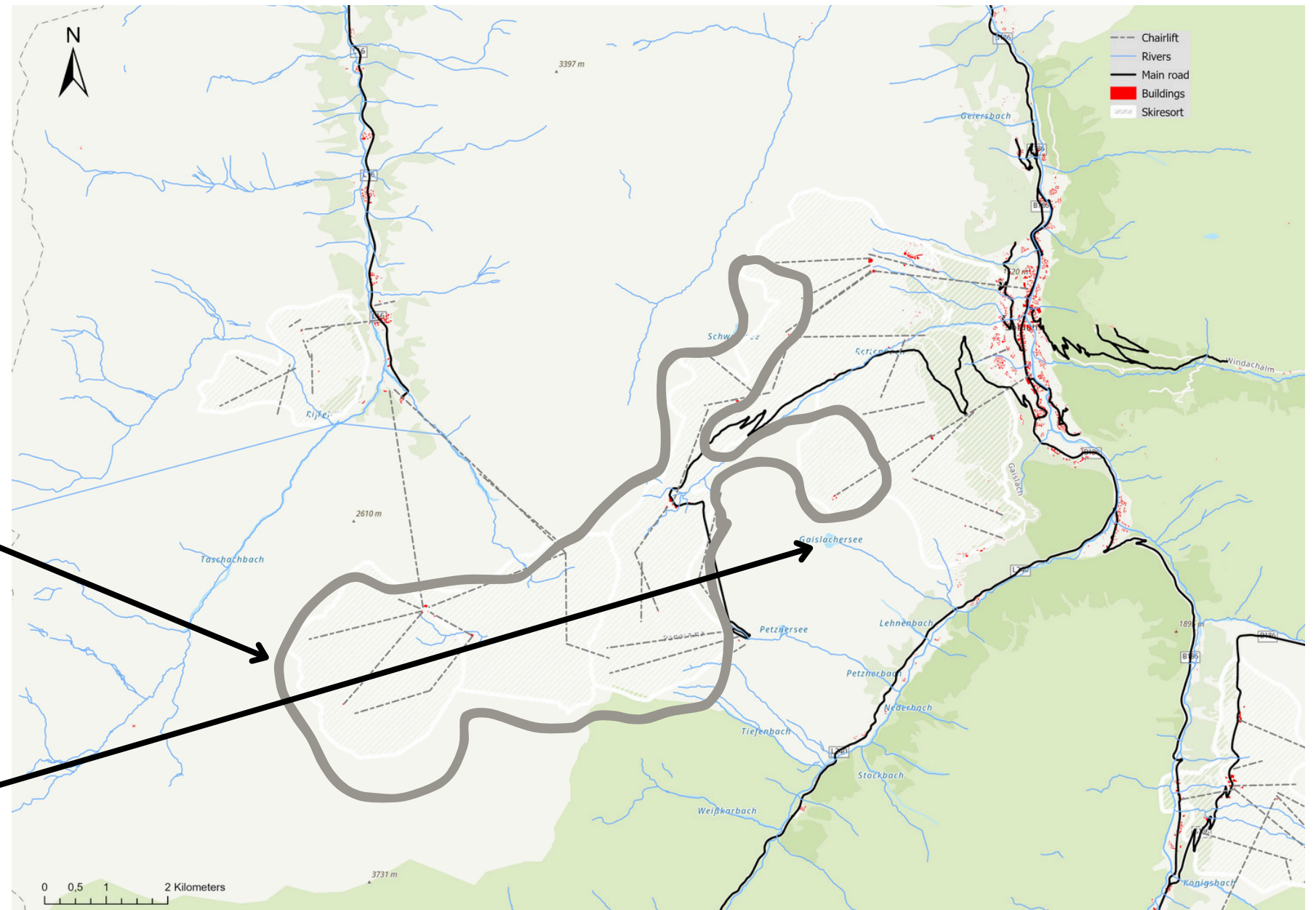
Infrastructure map

By keeping as much of the infrastructure as possible in the future less intervention has to be done in the landscape. The usage of Sölden will change in the future and the infrastructure can still be used for other activities than skiing.

Potential area border copied from previous map for forest expansion

Within the area existing infrastructure such as roads and cablecars can be used for other activity purposes

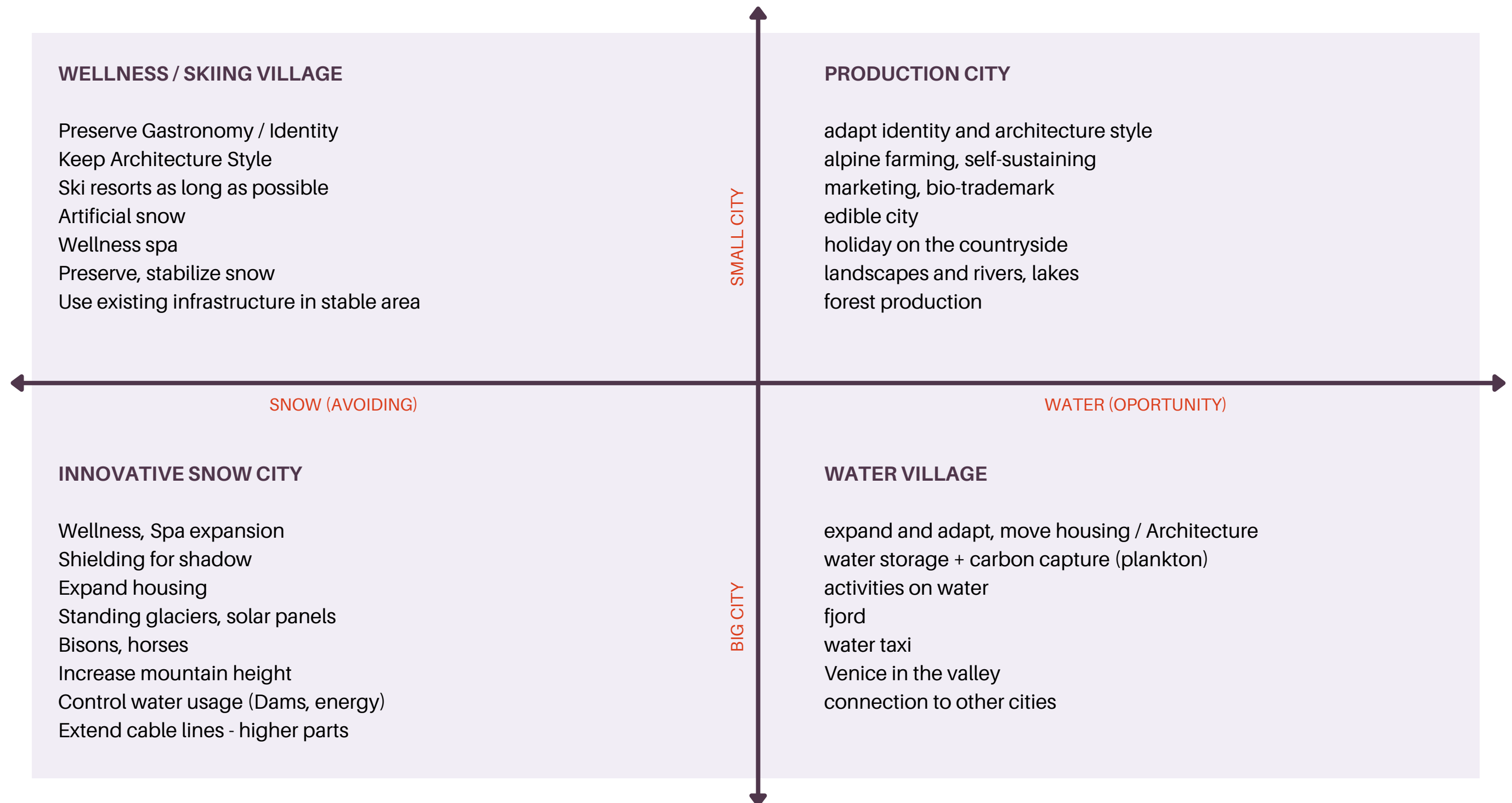
Mountain lakes can be used to store CO2 emissions with the help of phytoplankton



Actor-Network-Mapping



Power of Imagination



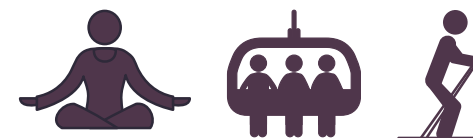
The village of Sölden wants to keep their identity and maintain the image of Sölden as a alpine skiing resort with gastronomy and wellness. The architectural style in Sölden is kept and the size of the village is similar to before. The skiing resorts have decreased but are kept alive by artificial snow and by skiing on the glaciers on the top of the mountains. This solution will be maintained

To prevent flooding and stabilize the soil more trees are being planted.

Wellness / Skiing Village



AI-Generated



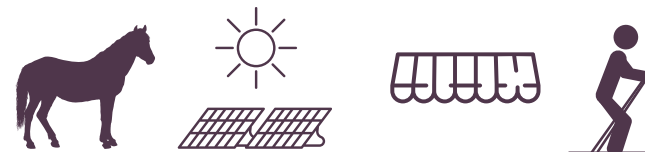
PROMPT: Create an image of an Alpine town with less snow than today. There are more trees and forests. The town focuses on health and spas. The town is called Sölden and is a tourist town but not overexploited. Add ski slopes and gondola lifts and some more snow. Emphasise the city as a city with restaurants, gastronomy and more focus on health and spa

Innovation Snow City

The innovation snow city wants to keep Söldens identity of a skiing city and with innovative solutions this is possible. Bison oxes compact the snow to increase its stability and solar panels are used to throw shadow on the glaciers to prevent them from melting. At the same time energy is produced from the solar panels that are used to produce artificial snow.



AI-Generated



PROMPT: Create an image of an Alpine Wellness/ skiing city. we want to keep the snow and skiing with technical interventions. - wellness/ spa expansions - expanded housing - shaded glaciers with some kind of cover, maybe combined with solar power - bisons and horses/ other large animals on the glaciers - increased mountain height - controlled water usage - water dams and hydropower - extended cable lines reaching all the way up the mountain.

Production Village

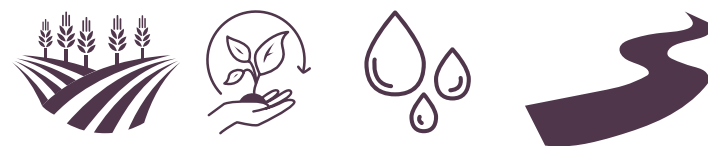
The production city is a small city that takes advantage of the warmer temperature. Sölden has gone from being a skiing resort to a production city of crops and farmland. The tree line is going up further on the mountains and can be used for forest production. Further changes to the landscape is the increased water in forms of lakes and rivers. The building need to adapt to the increased water and also used for new water activities. The tourists that are attracted to this village are looking to get away of the big city and have a nice holiday on the countryside.

Final Prompt:

Please create an image portraying a futuristic Alpine village in the year 2100. In this vision, the village has shifted away from its reliance on ski tourism and evolved into a productive and sustainable community. The settlement prioritizes bio-farming and natural livestock management, with expansive fields and farmland seamlessly integrated into the surrounding Alpine panorama.

The village retains a compact structure, avoiding high-rise buildings, and embraces a style reminiscent of idyllic countryside holidays. A central plaza, featuring a church and a small market, serves as a focal point for community life. The surrounding landscape is enriched with smaller lakes and rivers, contributing to both agricultural productivity and leisure. The architectural style harmonizes traditional Alpine elements with modern adaptations, preserving the cultural identity of the Alps while addressing the challenges of a changing climate.

This image should capture the balance between functionality, sustainability, and the aesthetic charm of a thriving rural Alpine village in the context of the 22nd century.



AI-Generated

Water City

The water city is completely adapting to nature. The houses are moved or built up on poles which creates these islands in the flooded area around the city. The increased water and lakes are good for carbon storage now that the permafrost has melted. Activities are adapting to the new landscape with rafting in the rivers, hiking and climbing. The infrastructure is now taking place in the water, with boats and water taxis- like it the Norwegian fjords.

Final Prompt:

Please create an image depicting a futuristic Alpine city in the 22nd century (the year 2100). As a consequence of climate change, the mountains have lost their snow cover entirely, and the vegetation line has shifted almost to the peaks. The region has moved away from its traditional reliance on ski tourism, adopting innovative strategies for utilizing meltwater resources.

The landscape is characterized by newly created lakes, serving as wakeboarding venues, swimming areas, and recreational hubs, while the iconic Alpine scenery remains preserved. The city itself draws inspiration from the architecture and layout of Venice, with a network of canals weaving through its urban fabric. In the higher mountain regions, artificial lakes have been developed to house plankton farms, contributing to sustainable production. This image should capture the harmonious integration of traditional Alpine culture, cutting-edge technologies, and the adaptive responses to climate change.



AI-Generated

Large herbivores like horses and bison can help stabilize permafrost by compacting the snow, which reduces insulation and allows more cold to reach the ground. They also graze on plants, promoting growth of species that provide less shade, keeping the soil cooler. Together, these actions slow permafrost thaw and reduce greenhouse gas emissions.



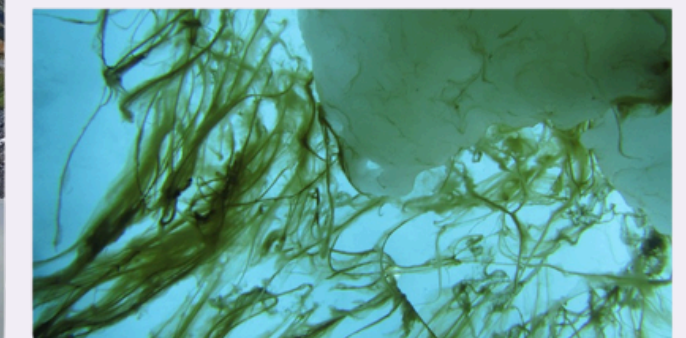
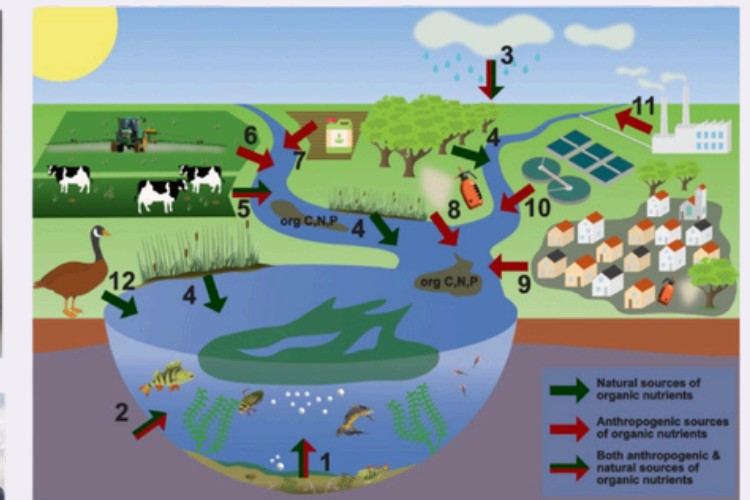
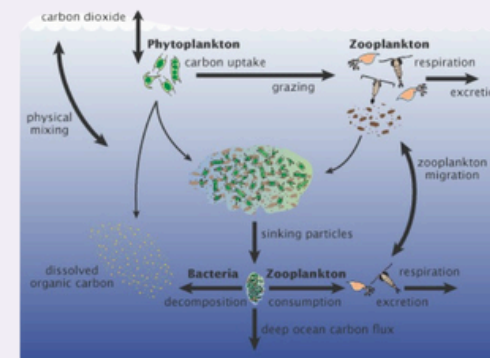
Design as an Act of Care

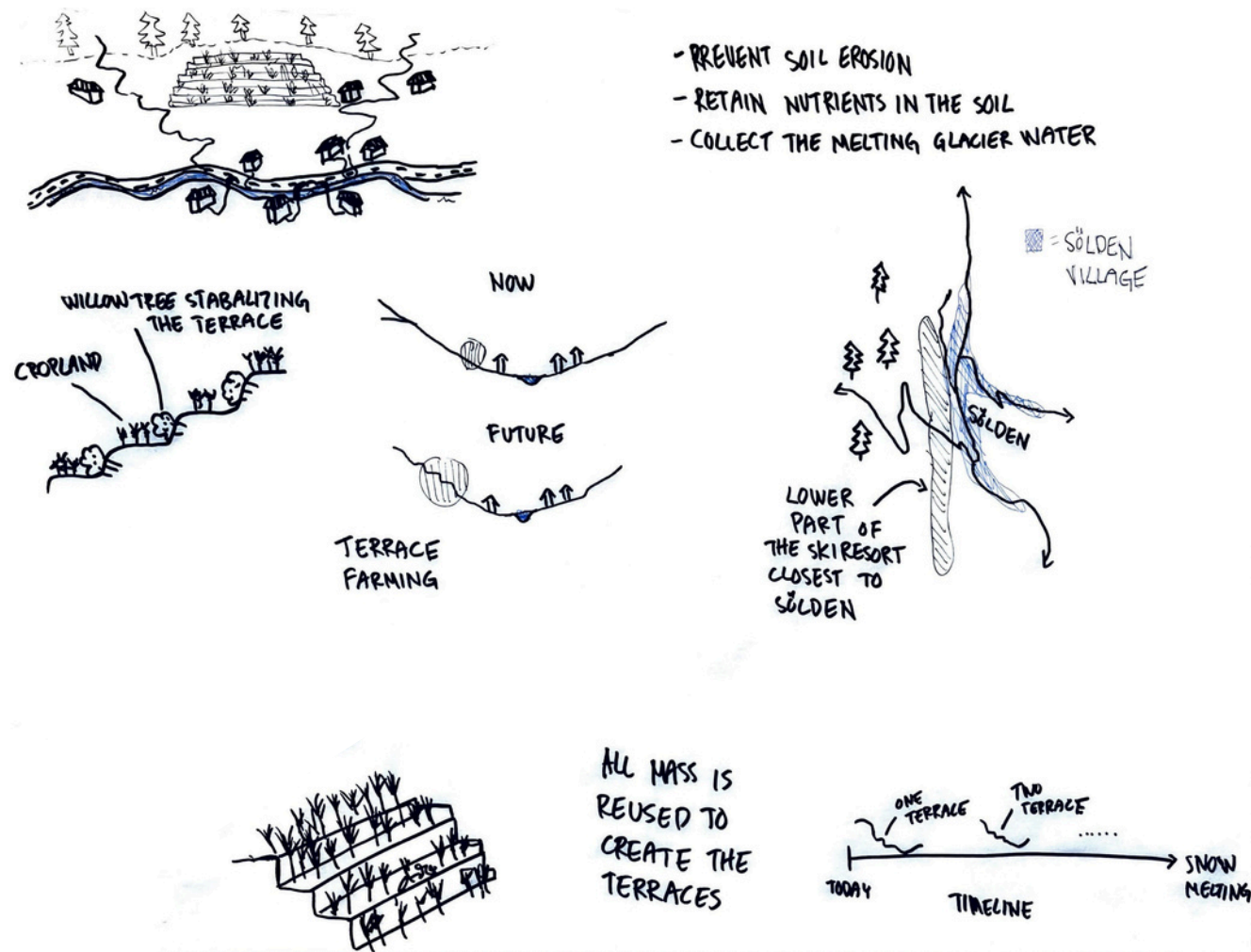


Design as an Act of Care

Artificial snow reservoirs, once used exclusively in winter, are reimagined as carbon sinks. During the warmer months, these bodies of water host phytoplankton, which absorb CO₂ from the atmosphere, counteracting emissions released by melting permafrost. Plankton breeding “reactors” are used before the plankton population is being released into the lake.

These “blue-carbon” lakes capture greenhouse gases at a local level, helping to stabilize the climate. Produced phytoplankton could then be used as fish feed, or even for other animals.





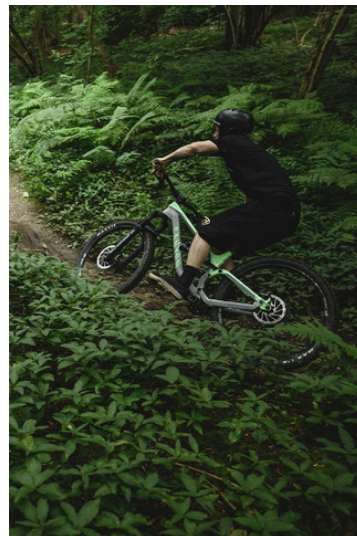
Design as an Act of Care

TERRACE FARMING



The snow is melting and parts of the former skiresort area is being converted to farmland. By creating terrace farming the steep parts on the side of the valley can be utilized. All mass that is dug out is reused to create the formation of the terraces. Sölden is on its way to be partially self sustained.

Design as an Act of Care



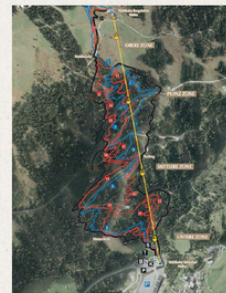
Downhillparks as a movement to rebuild the forest

THE FUTURE IS TODAY: DEFINE A SPATIAL ACTION THAT YOU COULD BRING TO LIFE TOMORROW...

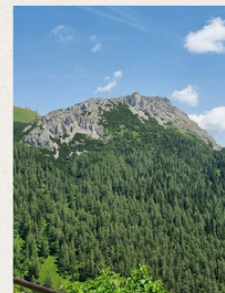
Agenda



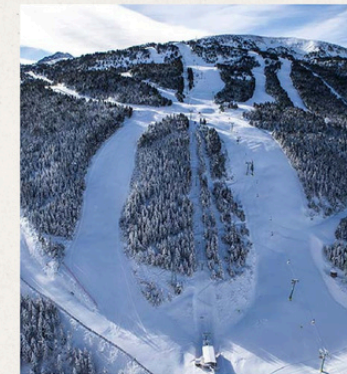
1. SKIRESORT



2. BIKEPARK



3. FOREST



Stopp Ski-highways

Ski slopes take up huge areas
divide the region's natural forests
disturb ecosystems



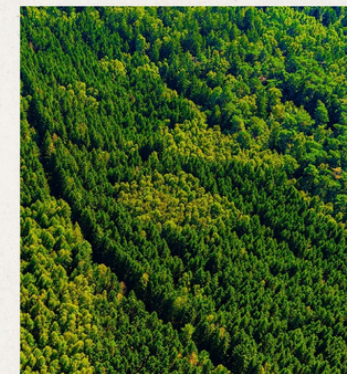
Build Biketrails

all-year usage
are built from the materials on location
take up significantly less space
community building



Plant Trees

during the trail construction
between the forest border and bike trails
take up significantly less space



Get back the big forest

Close the tracks after some time
Tracks become covered and overgrown
Forest ecosystem restored



kreislauf

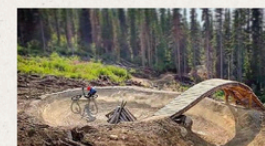
The process can work well as a cycle.
one ski slope is rebuilt,
one track is used,
one forestline
once all the slopes have been transformed, move on to the next ski area

further thoughts

Infrastructure
Simple restructuring of the existing infrastructure



ramps and obstacles
equip trails with ramps and obstacles and dismantle them again later to limit usability and strengthen the forest growth



The Alps are at a tipping point, and in the Sölden region, the melting permafrost that once stabilised these mountains signals that traditional winter tourism is no longer compatible with our environmental reality. Clinging to skiing and snowmaking only exacerbates these challenges, straining water resources, accelerating erosion and fueling climate change. It's time to reimagine Sölden, to transform it into a place where nature and community thrive in harmony.

By adapting our approach, we can turn these challenges into opportunities. Imagine if slopes that were once reserved for skiing could be transformed into mountain bike trails, open all year round and less dependent on snow. Over time, parts of these trails could be reforested, stabilising the soil and increasing biodiversity. Repurposed ski lifts could transport bikers and walkers, welcoming eco-conscious visitors while preserving the landscape. Closer to the village, terrace farming can support sustainable local agriculture, providing food security while preventing soil erosion.

On higher slopes, herds of bison and horses can roam, compacting the soil to protect the permafrost and enriching the ecosystem. Their presence helps maintain the integrity of the mountains by reducing heat absorption and stabilising the ground. Water reservoirs once used for snowmaking could become carbon-storing wetlands, harbouring plankton and algae that sequester CO₂ and promote biodiversity, helping to offset emissions from melting permafrost.

Through these small but powerful changes, Sölden can become a model for sustainable alpine living, where human needs and the rhythms of nature coexist. In this vision, Sölden retains its unique charm and natural beauty, positioning itself as an example for future living in the Alps. With each adaptive step, Sölden inspires a future that preserves landscapes, promotes biodiversity, and adapts our community to a changing world, proving that modest changes can indeed pave the way to a resilient, hopeful future.

DESIGN WORKSHOP

The human roles were quite dominant in the discussion. The farmer, the entrepreneur, and the cable car owner all had a lot of input.

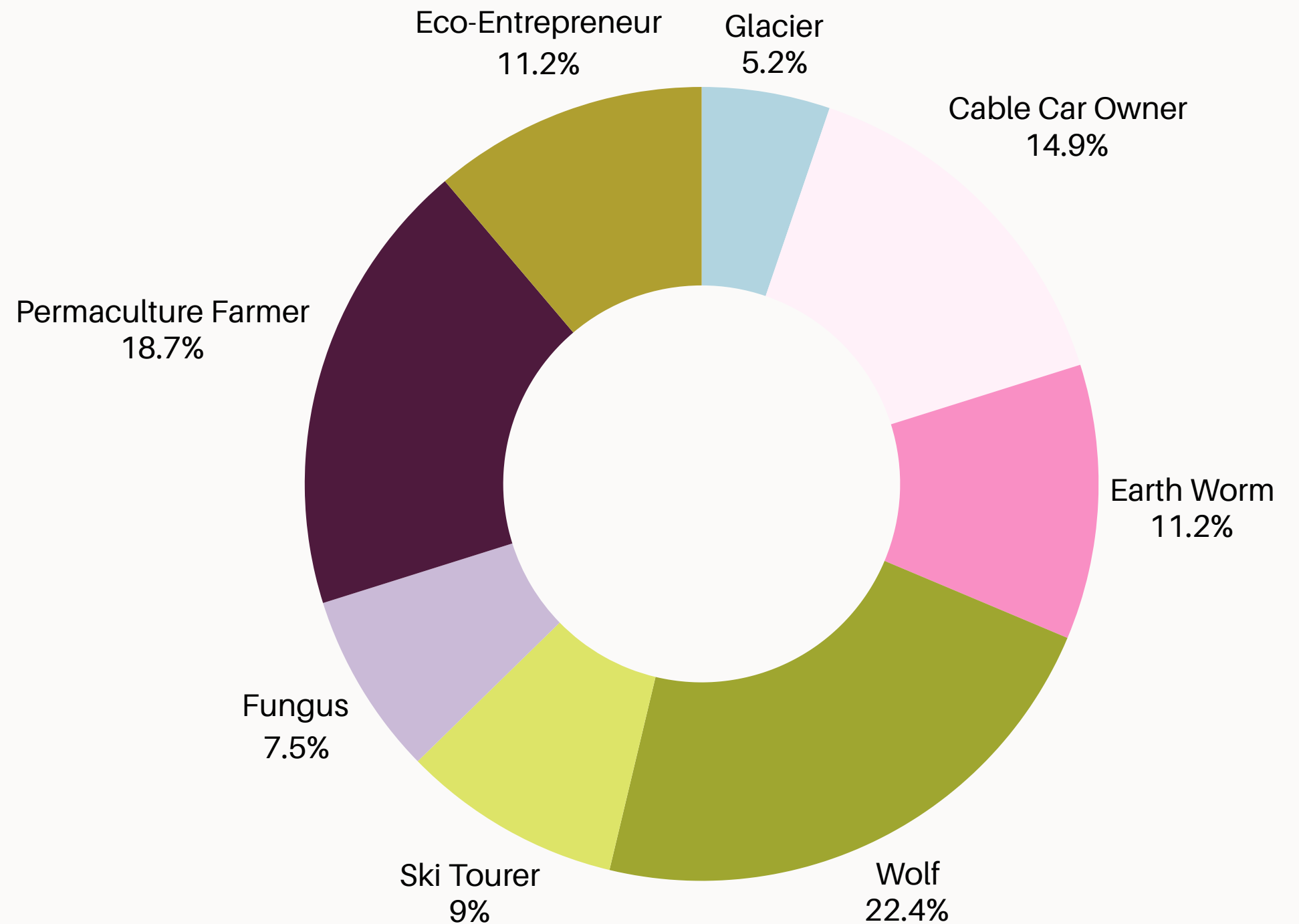
The wolf was the most important one because it was protecting the forest and had a positive attitude towards many different outcomes since the tree line will rise and the habitat will grow. This may be explained by it being easier to express a positive attitude than a negative one.

It was interesting to see the scenarios from a non-human perspective. Our scenarios were driven by tourism and the survival of the village, and therefore it was important for us to get a new perspective that we might have neglected a bit during the process.

The lack of knowledge on certain scenario outcomes hindered the discussion from evolving.

DAY 5

Reflection Discussion



Individual Overall Reflection

LINDA

It was interesting to take part in a course where we were encouraged to use our imagination. I really think that it opened up scenarios and solutions that we otherwise wouldn't have thought of. One thing I found interesting was that our group's scenarios differed a lot from each other and that none of them felt like exemplary scenarios to implement in reality. However, when our individual tasks, where we had chosen one thing that we wanted to explain more thoroughly, were combined, it presented as a good project proposal together. I think this shows that letting our imagination be free from the beginning might have led to weird scenarios in its entirety but made them contain valuable and useful approaches to be picked out to handle the difficulties within the Alps

LUCAS

When I signed up for the course, I expected a lot more designing, as it is called the design workshop - however I found myself challenged with other aspects of planning and thinking, which I usually don't use or come across. In the course it was encouraged to really think from other perspectives and I quite enjoyed that. At times I couldn't see how all of the different tasks would come together in the end, but I think we produced a good project out of the ideas we came up with. I also enjoyed seeing how the other groups and participants treated their projects and all of the different ideas that were born - each with their own approach.

ROXANA

I really enjoyed this course, as it introduced a fresh perspective and opened up new ways of thinking. Scenario construction was a concept we had never discussed during my Landscape Architecture master's program. I found it fascinating and appreciated how each group developed unique and exciting ideas. Even though the course wasn't strictly focused on design, it was really nice because it let us explore different viewpoints, including some very utopian ones. Who knows how the Alps will look in 2100? It was thought-provoking to imagine these possibilities and reflect on the future, its challenges, and how we, as landscape architects, can contribute positively to tackling climate change.

PAUL

The block seminar was an intensive and enriching experience that significantly expanded my understanding of design and research. The choice of topic was personally very interesting to me. Although I had initially expected a more traditional design approach, I was pleasantly surprised to learn a new method. The scenario development approach proved to be extremely engaging, and I can well imagine incorporating short stories and scenarios into my next project before starting the actual design. This method encourages creatively thinking through complex relationships and using free imagination, which leads to exciting new approaches. The structure of the seminar as a block course also worked very well for me, as the intensive engagement with the topic in a short amount of time was particularly effective. I believe this format should definitely be maintained. I also found it fascinating how well the outcomes of individual work later harmonized with group work. I recommend this seminar to anyone open to new design methods and looking to expand their creative practice.