

Co-Creation Workshop Focus Group Summary

Information collected from Arctic Food
Arena stakeholders during 5 focus group
sessions on March 14, 2024

Introduction

The first Arctic Food Arena co-creation workshop was held in Gällivare on 14-15 March 2024, where ~50 people attended. We brought together innovators, researchers, businesses, agencies, and community members to co-create Arctic Food Arena.

During the two days along with inspiring talks and the taste of the north, we workshopped together around the following sessions:

The Challenge Session- At the end of this engaging session we had 5 prioritized challenges around the goal of diversified circular food production in an arctic climate.



Photo by: Staffan Westerlund, LTU

The Focus Session- Here we described each challenge, envisioned unique solutions and identified needs and resources in small groups.



Photo by: Staffan Westerlund, LTU

Bringing it all together- Through an outdoor session by the fire and an open stage session, we came together to share knowledge and actions with the whole group.



Photo by: Staffan Westerlund, LTU

The Focus Groups

During the workshop, the participants were divided into 5 working groups working with the following challenges that are described by some examples in each. Participants chose the challenge that they were most connected to, so some groups were larger than others, but each group provided diverse perspectives.

Industry and Nature: Diversified Food Production

- Getting industry involvement in food production.
- Developing sustainable business models.
- Challenges in scaling diversified production.
- Collaboration between industries and local producers.
- Environmental impact and conservation.
- Circular food production systems.
- Utilizing industry waste heat.
- Promoting local products and traditions.

Profitability for food production in the arctic

- Creating viable business cases for entrepreneurs.
- Pricing strategies for local products.
- Market expansion from local to international.
- Challenges in profitability and competition.
- Financial incentives for industry participation.
- Sustainable farming practices.
- Automation and technology for efficiency.

Attracting investors and large food companies

- Attracting investment for large-scale solutions.
- Engaging actors in the food industry.
- Financial support and funding opportunities.
- Incentivizing investment in arctic food production.
- Collaboration between small and large producers.
- Market attractiveness and potential.
- Building alliances with investors and companies.
- Demonstrating long-term profitability and sustainability.

Human capital: competence and attracting talent

- Attracting and retaining skilled workforce.
- Training and education for food production.

- Developing skills and competence within the food chain.
- Challenges in attracting talent to the arctic region.
- Community engagement and awareness.
- Promoting food-related education and careers.
- Collaboration with educational institutions.
- Incentives for professionals to move to the arctic.

Sustainable Logistics: The supply chain from producer to consumer

- Transportation and logistics challenges.
- Infrastructure for food production and distribution.
- Sustainable transportation solutions.
- Circular supply chain management.
- Environmental impact of logistics.
- Cold storage solutions without energy consumption.
- Collaboration in the supply chain.
- Efficient and sustainable distribution networks.

Below you can find a summary of the ideas from each group during the sessions and notes collected during each presentation of results.

Group 1: Industry and Nature: Diversified Food Production

Opportunity Statement: We want to produce food here without harming nature and people (locally and globally)

Describe the problem	Envision a solution	Needs and resources
<p>Scale: From small holdings/ small scale farmers and local communities to the Arctic regional scale</p> <p>Who: Industrial greenhouses, small scale farmers</p> <p>Risk: Greenhouses- winter, cold, dark. We need energy for citizens so we need good management of resources</p> <p>Compliance</p>	<p>Start with the local market (no imports, exports) and feed people from the Arctic</p> <p>R&D in Greenhouses- opening for dialogue, open greenhouses to communities, beyond food production- other community oriented activities</p> <p>Other sorts of foods too</p> <p>Bringing sustainable, nourishing foods to future humans</p> <p>Educate people about the conditions of local food productions (seasonal food, farming practices)</p> <p>Using historical knowledge</p> <p>Make use of bigger parts of food products (animals, vegetables)</p> <p>Not competing, complementing each other</p> <p>e.g. small-scale production within greenhouses</p>	<p>Resource needs: legal resources to make collaboration easier</p>

Notes:

Educating people to appreciate local products

Coordinated research or an experimental site and laboratory where people can do research and experiment on food production for the future. This includes experimenting the right plants to grow, the suitable growing method for the region, the scale, the processing of the products etc.

Group 2: Profitability for food production in the arctic

Opportunity Statement: With the right scale, ambition and market we can efficiently and with precision offer attractive food in collaboration

Describe the problem	Envision a solution	Needs and resources
<p>Scale: small producers, value creation and diversification, high food tech is a niche group not associated to volume</p> <p>Who: primary production, refinement (cereals)</p> <p>Geographically dependent</p> <p>Risk: No output (no food), many suffer if industrial symbiosis is not profitable, food security, destruction of wealth, trust problems, logistical problems</p> <p>Bigger dependency on LKAB</p>	<p>Knowledge and Communication of Value added- what is our talent, prove local is a wise choice</p> <p>We must simulate pricing strategy</p> <p>Horticulture possibilities to scale up</p> <p>LKAB wants to work with companies with the right ethics</p> <p>Policy making- top down approach would help</p> <p>Primary production sell directly</p> <p>Refinement and collaboration (attract the willing and able)</p> <p>Efficient production, knowledge</p> <p>Digitalized and automatized</p> <p>Certification- circular, charge more</p> <p>Branding and education of the market- branding 'Norrbotten food'</p> <p>Combination of tourism- mix what you offer</p> <p>Look for export markets Business Sweden</p> <p>Policy instruments- subsidies for green vegetables</p> <p>Consumer awareness- public debate might bring up interest in food production</p>	<p>Knowledge gaps: What is the right scale? What is large and small scale, what is the benchmark?</p> <p>Knowledge of refinement, education and collaboration is needed</p> <p>Knowledge on value creation, sensory science, prove that local is sustainable, what market pays the most- what is that product? = precision to market</p> <p>Resource needs: Scale up competence</p> <p>Attract the willing- calculation on the value chain</p> <p>Knowledge and know how to grow coffee</p> <p>Framtids scenarier</p>

Combine/connect consumer and producers

Communicate what is attractive, tasty, healthy

Forestry as a protein source

Strengths: food security

Local market is loyal to fresh local products (Coop case)
'local is best'

Create circularity in the society to save resources (nutrients from black water) and solid waste/mixing

Maximize market!

Notes:

Prepare the value chain to help the planning from production → processing → marketing

Profitability relates to efficiency:

Require study, research on improving efficiency.

One obstacle for smaller producer is to rightly scale the business activity. Need science and method for flexible scaling, both upscaling and downscaling according to demands.

Need support from senior leaders in the field, in this case the larger industry to help smaller industry

Need policy innovation

Need collaborative innovation between those with experience and the new comers.

Group 3: Attracting investors and large food companies

Opportunity Statement: The coolest knowledge hub for symbiosis and circular food production

Describe the problem	Envision a solution	Needs and resources
Scale: global	Family package (including housing)	Knowledge gaps: Connect to the physical place (Gällivare)
Who: investors lack of patience, family offices, food industries	Invest in enabling systems (infrastructure, etc.)	Need local knowledge on the investor side
Risk: exploitation	The 'right' kind of investor (more than profit only)	Emotional connection
Money leaving the region	Investor patience	Worker skills in the area
Lack of interest	Packaging and communication- adaptive storytelling	Mapping opportunities and industry insight in the region
	Proof of profitability	Resource needs: combined industries to attract long term residence
	Ambassadors (e.g. Petter Stordalen)	Lobbying
	A variety of large to small scale entrepreneurs and organisations	Government funding and support
	Create a Centre of Excellence- Hubs, Incubators	
	Financial incentives from the government	

Notes:

Create circular symbiosis between investors, producers (food producers and processors) and scientist/researchers

Create integrated and collective business plan rather than individual

Storytelling and promotion to convince investors to come and invest in the North of Sweden

Create or find uniqueness of the Northern region to offer and attract investors

Create package for business opportunities in food production for people, e.g. families who will relocate to the region. For instance, for someone who relocate to the region for a job in the mining industry, a business package could be offer to the spouse to start a business in food production. This will encourage the whole family to relocate, rather than only one of the family members who come for the job in mining but leave the family in other city/town.

Need to do a homework on matching the food producers and the potential investors

Aggregating the effect of the investment, not only for food producers but for the whole community.

The value of investment should not be considered only from the amount of the money, but also from other factors. (Investors need to be interested not only in the financial potential but also other factors such as investing in the region in sustainable business etc. We talked about family offices rather than financial investors being interested in also the “soft” sides of the investments)

Need to lower the risk to invest.

Need to educate all actors, i.e. food producers, processors, investors, consumers, etc., on the symbiotic collaboration.

Encourage and involve large companies in the region to contribute to philanthropic action to support small farmers or other food producers in the surrounding community e.g. by supporting with capital, organize training, buying the local products, providing market place, etc.

Group 4: Human capital: competence and attracting talent

Opportunity Statement: Talents, operators, educators, come to be part of future industry with proud consumers eating tasty food that they know where it comes from. People choose to try work in industries rather than professions (lower threshold)

Describe the problem	Envision a solution	Needs and resources
Scale: Local, regional, national → competition! Who: People who will do the work on the field level Thinkers and Doers Risks: Secure the industry Attracting society	'Education Ecosystem'- educating kids and young people about food and food production Use technology and automation to compensate for lack of human resources Funding- support for local farmers and people who come to do food production activity commercially Promotions- locally produced food and traditions Learn from others! Ex. Skellefteå How to transform society- go together!	Knowledge Centre and communication Sponsor and access to funding Simple bureaucracy What are the drivers? What are we creating? How are we thinking? Knowledge Gaps: Rules and regulations Solutions for families Spreading the word from fore-runner such as Dutch dairy farmer (could afford the land) Gender pattern- what to do with new kinds of produce? Resource needs: 'Knowledge Centre' resource centre Focus on food production and agriculture Up-scale Re-scale

Notes:

Need to look at the local, regional and national area, not only about attracting people to the north, but to consider national competition – attraction from the south that creates appealing factors for people to come to the region.

Need to grow people pride to consume and support local or regional produce.

Education since early stage – introduce children in schools about food production (small farm in schools, universities and other educational institutions) to engage young people to food production activities.

Support automation to fill the gap of lack of human capital

Create center for research and development in food production and processing, to generate talents

Balance between high skill workers (researchers, engineers) with people who deliver the activities on the field as the shortage is mostly at this field levels.

Make it easier to attract workers not only from other parts of Sweden, but also from outside the country to work in farming sectors.

Need a physical center for education and research (colleges, universities) for people to collaboratively study and make continuous and sustainable development about food production, agriculture etc. in the region.

Story telling about the positivity and success story of the Arctic region, so that people are willing to come.

Provide infrastructure such as housing, schools and other facilities that make people come to the North without losing what they left in their original place.

Access to support, e.g. funding, guidance, etc. for people who are willing to move to the north for food production activities.

Need coordinated top-down initiative to create an eco-system to grow talent in food production in the region, open education program in university/college in agriculture technology, food technology, traditional food culture, etc.

Address gender factor – encourage girls to study agriculture and continue to take a profession in the area.

Group 5: Sustainable Logistics: The supply chain from producer to consumer

Opportunity Statement: How might we get access to large volumes of sustainable transport solutions to the main logistic centres in the Nordic region

Describe the problem	Envision a solution	Needs and resources
Scale: national/regional Redundancies needed Who: WA3RM, other producers, Inlandsbanan, Trafikverket, Energimyndigheten, the government Risk: Access to general capacity/rail capacity Slow change in the system Longer leadtimes with trains High toxic emissions from tires due to lack of rail capacity/ bad price incentives	<p>A clearly stated need of future transport and energy</p> <p>Public authorities going from being administrators to being proactive problem solvers (e.g. Onestop myndighets shop)</p> <p>A lot of cheap energy</p> <p>Create and make heard a positive voice together</p> <p>Dialogue with companies about their needs</p> <p>Communicate a plan and a vision for what we want to achieve- Growing in the Arctic!</p> <p>Build trust in that this is really going to happen. The future is exotic fruits grown in Gällivare/ the Arctic</p> <p>Right price on rail</p> <p>Authorities implementing policies towards goal</p>	<p>Knowledge gaps:</p> <p>Share knowledge we have and make that knowledge visible</p> <p>Resource needs:</p> <p>Zero carbon transport</p> <p>Good working conditions</p> <p>Infrastructure for hydrogen fuel and electricity</p> <p>Train drivers</p>

Notes:

Improve infrastructure support and address transportation needs

Communication and dialog with transport company, including train, freight, nationally to find optimal solutions about transport and distribution of produce from/to the Northern region.

Communication with the Kommun – coordinated initiatives involving the regional government rather than individual.

Need to develop and implement the right policy

Need to talk openly about opportunities and also risks, so that investors have a better understanding of what to expect.

There is no one way forwards, Therefore it is important to formulate the direction and the goals clearly and not in an ad-hoc or one-off way

The Next Steps for Arctic Food Arena

Key work streams and activities - autumn 2024

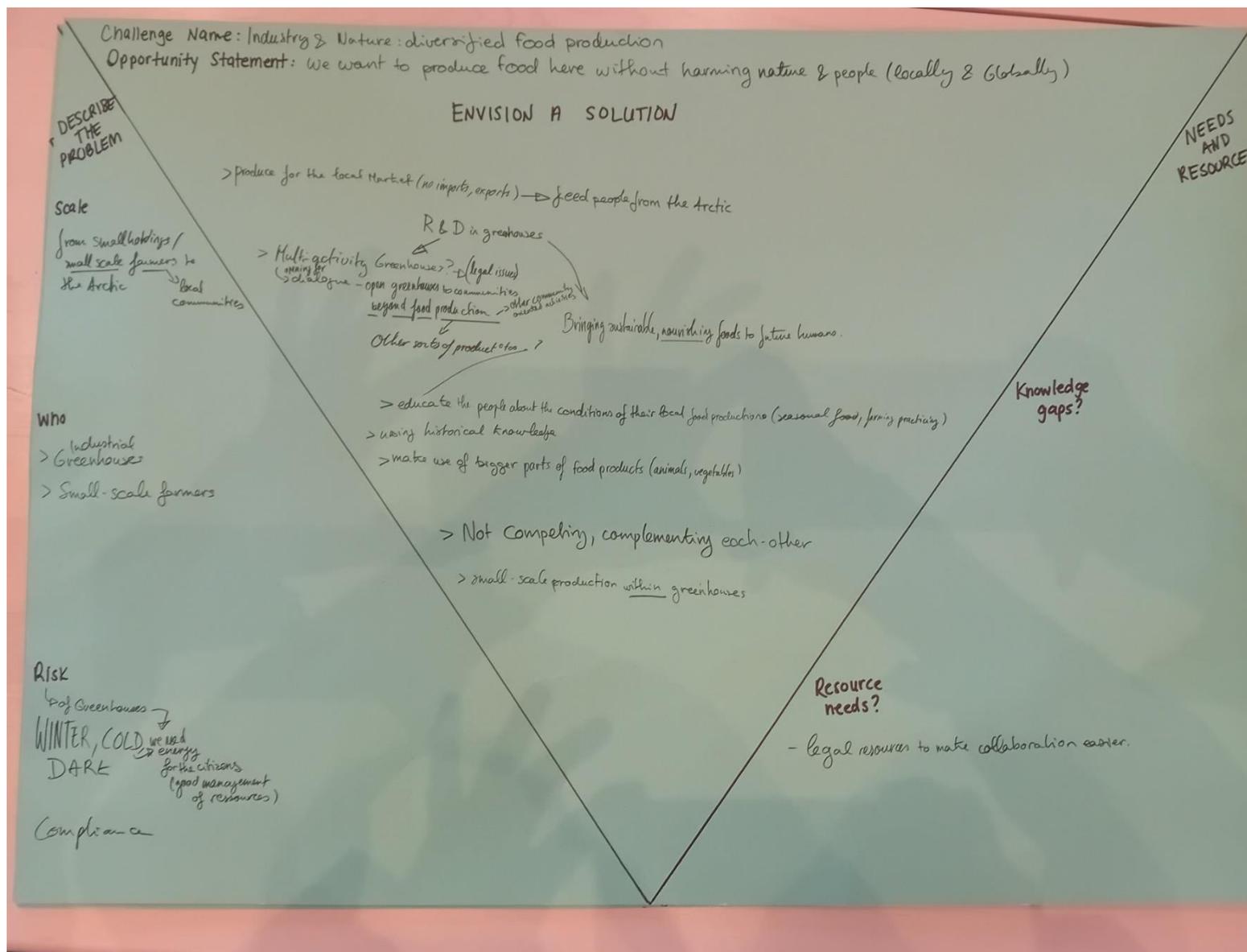
From the work in the five working groups at the March co-creation workshop, three key areas have been selected as priority areas for the fall 2024. These are:

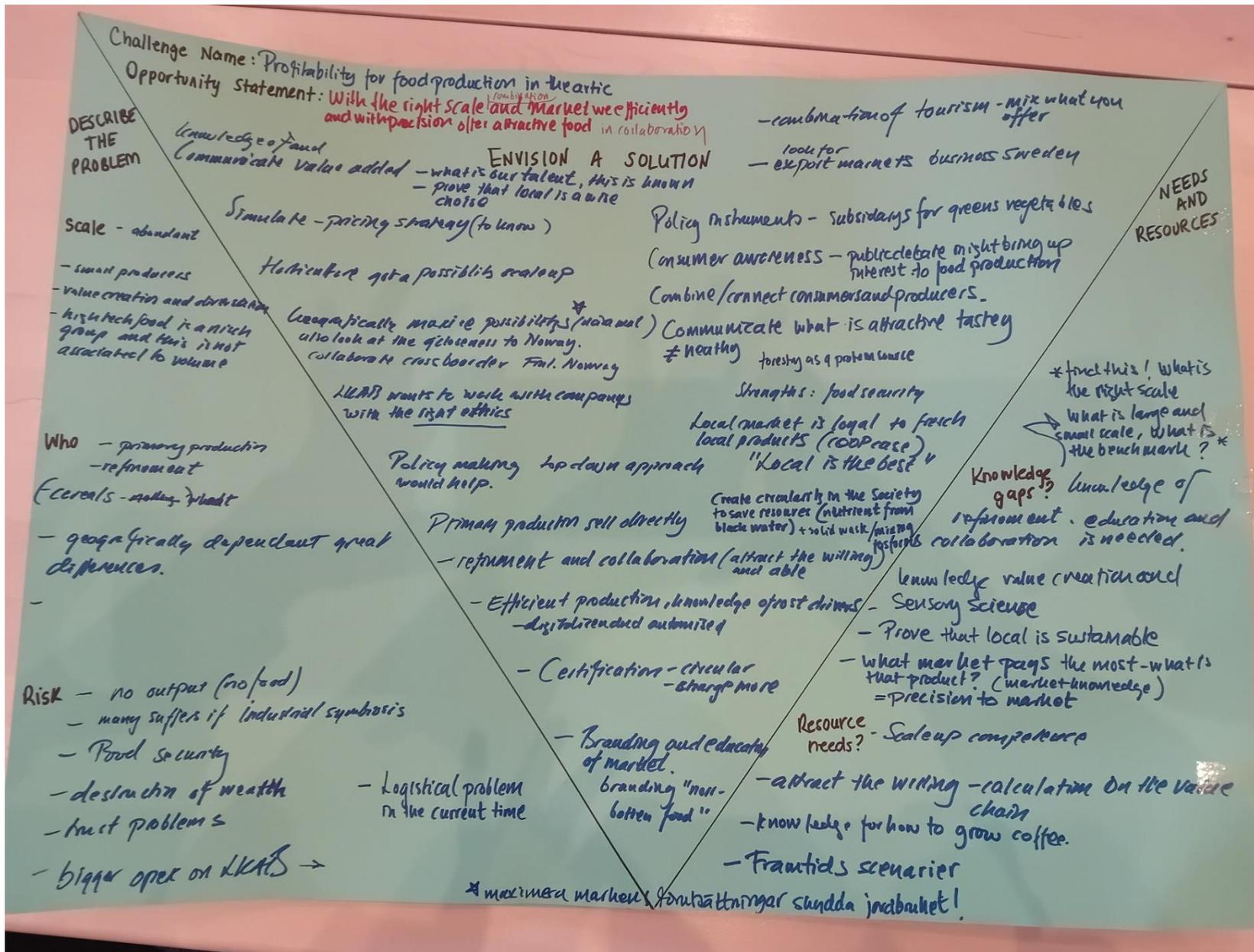
Challenges	Solution areas
Diversified food production	<p>Prepare for collaboration in the value chain for selected product categories</p> <ul style="list-style-type: none"> Investigate the needs in each part of the value chain (primary production, food processing industry, investors, distributors, academy/innovation) by interviewing selected persons to investigate their needs. Focus will be three selected product categories. Describe real life commercial examples of diversified circular food production.
Investors	<p>Become an enabling hub and prepare investment models</p> <ul style="list-style-type: none"> We want to become an enabling hub as the first step. This will be done by arranging a co-creation workshop for investors. Relevant investors connected to the Arctic will be invited to identify their information needed to be able to evaluate investment possibilities. The above also includes an educational part about diversified, circular food production (in the Arctic). Develop a partner model for investors, a kind of 1-2-3-step process, as preparation for the next phase (which will include letter of intent to invest etc).
Logistics	<p>Knowledge build-up by collaborating with external partners in our network</p> <ul style="list-style-type: none"> <u>Logistics/supply chain</u>: Investigation on sustainable logistics solutions for the north. Case studies with a selected university. <u>Product calculations</u>: Calculate real life business cases for selected product categories. Case study together with expert. <u>Sustainability model</u> for Arctic Food Arena, based on our compass and other relevant models. Case study at selected university. <p>To all participants: Please provide us with relevant network contacts for this work stream!</p>
Profitability	
Human capital	<p>Continuous dialogue with the authorities responsible for attracting competence to the north</p>

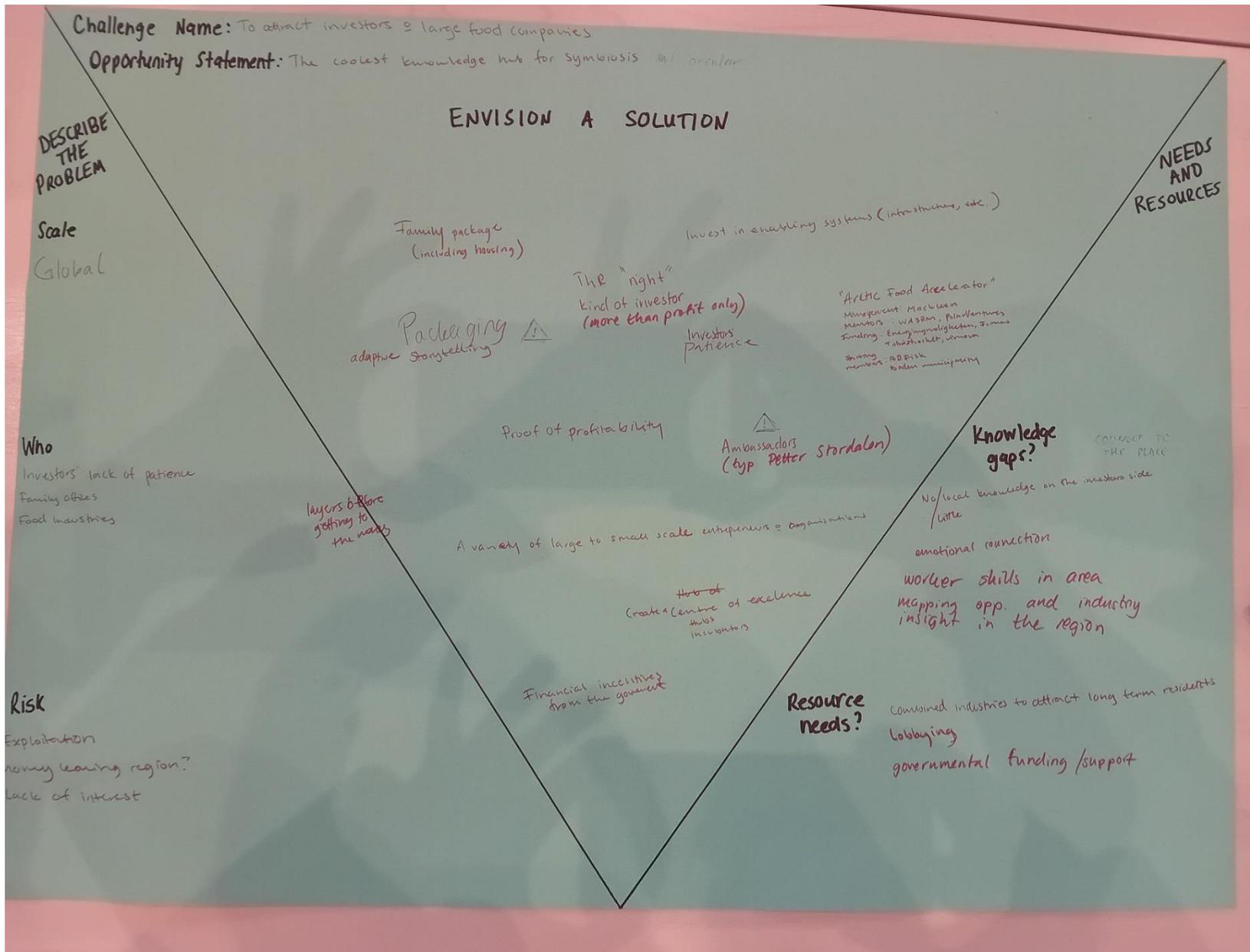


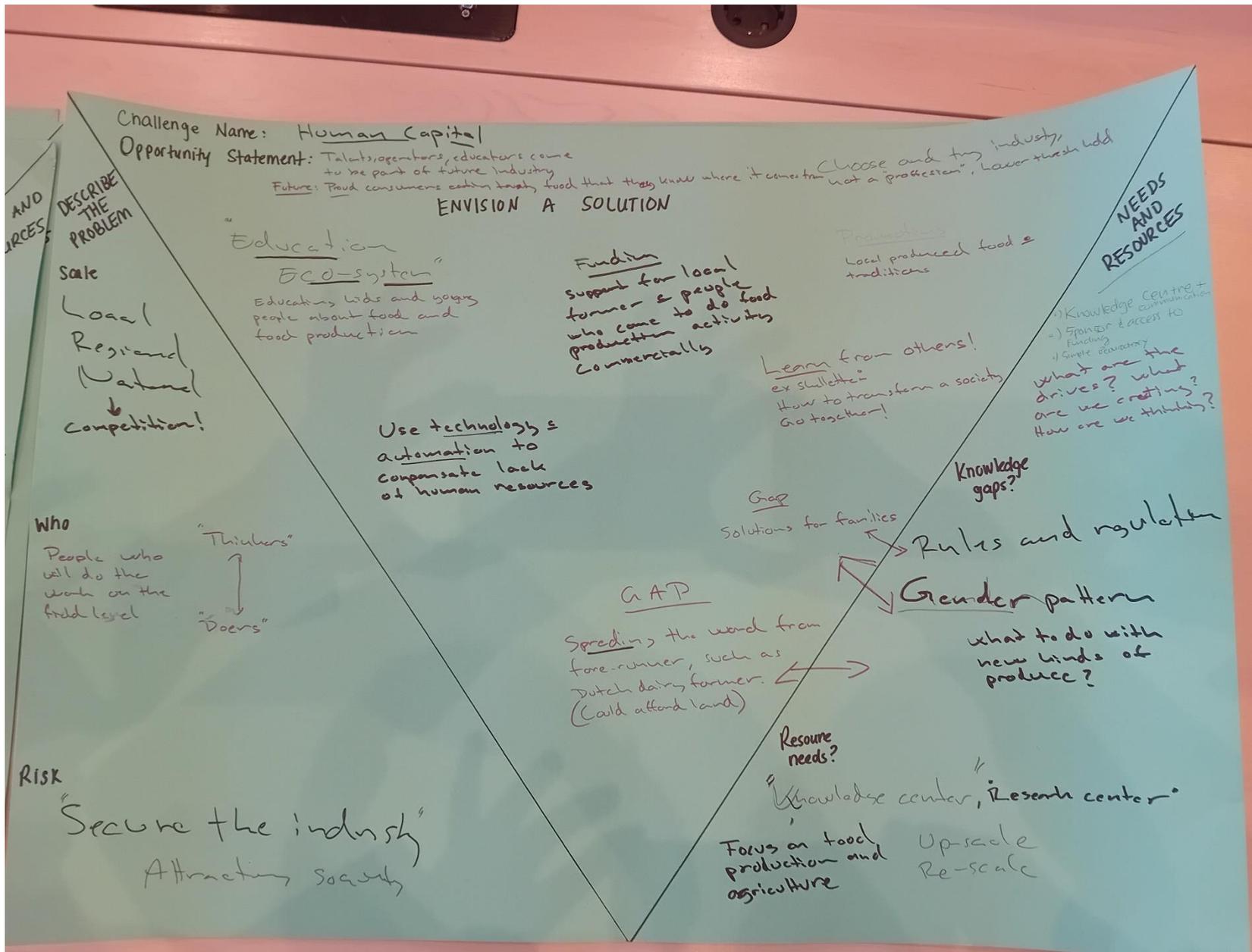
Thank you for everyone who participated in the first Arctic Food Arena Co-Creation Session in 2024- for your ideas, your openness and your insights. We hope to see you in 2025!

Appendix- photos of focus group posters









Challenge Name: Infrastructure

Opportunity Statement: How might we get access to large volume sustainable transport solutions to the main logistic centers in the nordic region

DESCRIBE THE PROBLEM

Scale and National/regional Redundance e needed

Who

- WABRM
- Other producers
- Inlandsbanan
- Trafikverket
- Energimyndigheten
- The government

Risk

- general Access to capacity / rail capacity
- Slow change in system
- Longer lead times w train
- High toxic emissions from tires due to lack of rail capacity / bad price incentives

ENVISION A SOLUTION

- A clearly stated need of future transport (and energy)
- Public authorities going from being administrators to being proactive problem solvers (one stop myndighets stop)
- A lot of cheap energy ^{BSS, GIS, GWS, Komoniters, ER, lae OUV, ruller}
- Create and make heard a positive voice together
- Dialogue with companies about their needs ^{ferdig / ruller}
- Communicate a plan and a vision for what we want to achieve

GROWING IN THE ARCTIC! 

- Build trust in that this is really going to happen
 - the future is exotic fruits grown in Gällivare / Arctic
- Right price on rail
- Authorities implementing policies towards goal

NEEDS AND RESOURCE

Knowledge gaps? Share knowledge we have Make knowledge we have visible

Resource needs?

- Zero carbon transport
- Good working conditions
- Infrastructure for hydrogen fuel and electricity
- Train drivers