



The value creation strategy

Regional strategy for value creation in Trøndelag 2022-2025

- with associated action plan 2024-2025



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The strategy's placement in the regional planning system

The regional strategy for value creation in Trøndelag 2022-2025 with associated action plan for 2023-2024

The United Nations Sustainable Development Goals provide the basis for all regional planning. The Trøndelag Plan defines the overall goals for the region towards 2030. The value creation strategy and associated action plan expands on the Trøndelag Plan and is a guiding regional strategy. In its community development role, the county authority has a special responsibility, through its regional planning work, for ensuring that all stakeholders move in the same direction to develop Trøndelag. "Næringspartnerskap Trøndelag" (Business Partnership Trøndelag) has played a central role in the development of the Value creation strategy and action plan. Trøndelag has been recognised as a Sami administrative area and has special responsibility to prioritise that pertain to Sami and Sami areas in Trøndelag. The cooperation agreement with the Sami Parliament contains important directions for this work.

Directional goals in the Trøndelag Plan of major importance for the value creation strategy:

- In 2030, good quality of life and diversity will characterise Trøndelag
- In 2030, Trøndelag is best in Norway when it comes to interaction
- In 2030, Trøndelag has an adaptable and future-oriented work life and business sector.
- In 2030, business and industry in Trøndelag is based on environmentally friendly economic development and technology.
- In 2030, Trøndelag has sustainable production of food and bio-based raw materials.
- In 2030, Trøndelag has a sustainable land use and transport structure.
- In 2030, Trøndelag has a balanced development and settlement pattern.
- In 2030, Trøndelag has a coordinated transport and communication system.

Rooting in the planning system:



Adjacent regional plans:

- The Art of Balance Cultural Strategy for Trøndelag 2019 2022
- Competence Strategy for Trøndelag
- International Programme of Action 2020 2023
- Regional plan for cultural heritage 2022 2030
- Trøndelag's strategy for transformation to mitigate climate change
- Regional plan for land use (work in progress)
- Transport strategy and organisation towards 2030
- Strategy for training of speakers of minority languages



The Value creation strategy replaces the Strategy for innovation and value creation in Trøndelag and the R&D strategy for Trøndelag. The strategy will be followed up through two-yearly action plans and a four-yearly Action plan for agriculture.

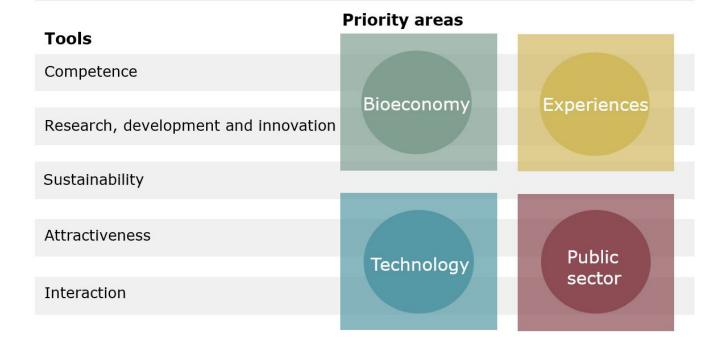
THE STRATEGY IN BRIEF

The Value creation strategy is a normative strategy for Trøndelag. It is a joint responsibility and an expectation that the entire Trøndelag region contributes to fulfilling the goals and priorities.

The strategy uses five tools that are common for efforts involving value creation in Trøndelag. The four priority areas are areas where Trøndelag has special advantages and opportunities – our defined priorities.

Main goal

Increased sustainable value creation and international competitiveness in Trøndelag



A summary of the strategy's action plan for the priority areas is included at the end of this document.

Introduction

A prerequisite for achieving the main goal of increased sustainable value creation and international competitiveness is that value creation and growth takes place throughout Trøndelag. A challenge, especially for the rural areas, is the declining population and shortage of labour. To succeed in achieving the goal, we must recruit labour, develop new jobs and strengthen existing ones. The business sector in Trøndelag must be competitive both nationally and internationally. It is important that contributing to ensuring that businesses in Trøndelag develop innovation, competitiveness and attractiveness is put clearly on the Trøndelag agenda. This will be Trøndelag's contribution to efforts to prepare Norway for export growth when revenues from oil-related activity declines.

Sustainable development

has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

UN World Commission on Environment and Development

Sustainable value creation

is understood here as profitable and resourceefficient growth, without affecting the environmental and social dimension in the UN Sustainable Development Goals.

The strategy is based on the following three prerequisites:

The Norwegian model

On an overall level, the Norwegian model involves a trust-based tripartite collaboration between organisations representing employers, employees and the state. Based on the Norwegian collaborative model, employee-driven innovation is believed to be one of Norway's leading competitive advantages and a strategy for value creation and innovativeness. The cooperative model involves interaction between employees, union representatives, managers and other stakeholders. It is characterised by flat structures, democratic leaders and autonomous, knowledgeable employees with opportunities for participation.

The diverse Trøndelag

Trøndelag has a varied business structure with a variety of producers of goods and service who operate in a European and international market. We are less vulnerable because the business sector does not have strong links to just one industry. The diverse, or diversified, business structure means that Trøndelag has relatively stable value creation and productivity during international fluctuations. Consequently, it is

important to further develop a future business sector with a diverse business structure. In Trøndelag, the primary industries of agriculture, forestry, aquaculture, fisheries and reindeer husbandry, with related industry as well as ICT and R&D, currently emerge as the strongest industries. Our advantages and diverse structure provide new opportunities through interdisciplinary connections and cooperation.

Sustainability

The UN Sustainable Development Goals and efforts involving economic, social and environmental sustainability offer great opportunities for business and industry in Trøndelag. This involves strengthening green competitiveness and making sustainability a strategic competitive advantage. Trøndelag must contribute to reducing greenhouse gas emissions, halting biodiversity loss, creating good towns and local communities, strengthening local food production, facilitating lifelong learning, offering clean energy, gender equality, good infrastructure, fair consumption and production as well as decent work for everyone. In a business sector where a shortage of competent labour is a challenge, an active effort must be made with inclusion and social sustainability through integration into working life.



The European Green Deal

In 2020, the EU presented the European Green Deal. This is a cross-sectorial plan to make Europe the world's first climate-neutral region by 2050. It is an important strategy for implementing the Paris Agreement and Goal 17 – Partnerships for the Goals – of the UN Sustainable Development Goals. We are part of this strategy and associated instruments through the EEA Agreement.

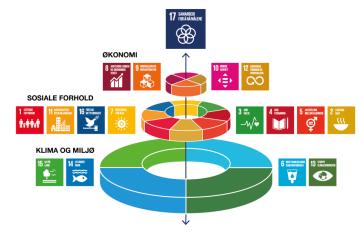
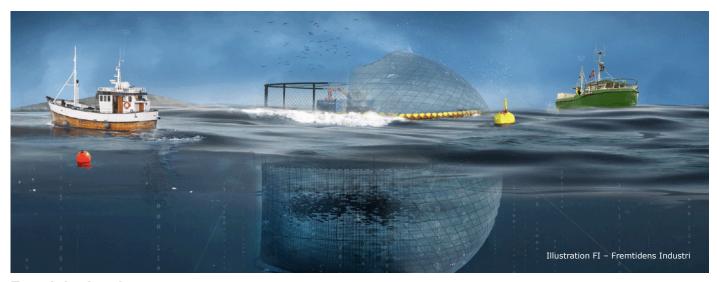


Figure: Stockholm Resilience Centre. Translated by Trøndelag County Council.



Trøndelag's advantages

Trøndelag distinguishes itself by having complete value chains in the agriculture, forestry, reindeer husbandry, fisheries and aquaculture. Furthermore, the region has national and international research and scientific communities as well as good networks and clusters in several of the value chains.

Industries based on natural resources

Trøndelag accounts for approx. 20 % of the total Norwegian food production. Production, further processing and sale of food contributes to significant value creation and employment. We are at the forefront of the development of small-scale food and experiences, which are of major importance for increasing attractiveness in the region. Trøndelag has large wood processing and sawmilling industries including a diversity of small and medium-sized businesses specialising in further processing of the wood. Clusters in the forestry and wood industry contribute to new national knowledge, which is of major importance in the development of the country's most complete value chain. Trøndelag accounts for the largest part of the Southern Sami area. Consequently, the county has a responsibility for developing, strengthening and highlighting the Sami language, culture and society. Reindeer husbandry is practiced in 29 of the municipalities in Trøndelag. This contributes to jobs and value creation in the meat production as well as in creative industries.

The region is a leader in the aquaculture sector and in parts of the traditional fishing industry. Trøndelag has a rich and varied biodiversity and is a leading centre for modern aquaculture and industrial production of salmon. With a world-leading supplier industry to the marine and maritime sector, the aquaculture industry

in Trøndelag has a significant role in value creation, growth and innovation in the region. The aquaculture industry's strong national and international position, in combination with scientific communities and technological competence, constitutes an important advantage. Trøndelag also has major values linked to mineral resources, which are of importance to existing and new business activities.

Trøndelag exports significant quantities of naturebased goods. Large and productive areas that may be used for biological production means that we still have potential for growth. We will contribute to increased value creation in the blue and green sectors through competence, new connectivity between value chains and processing of raw materials.

Trøndelag has strong scientific and technology communities

The presence of strong research institutions and universities with world-leading scientific communities represents one of the county's biggest advantages. A decentralised structure contributes to a balanced development av the region. The scientific communities are key suppliers of in-demand knowledge and competence and contribute to attracting students and future labour to the region. Trøndelag has a special advantage when it comes to technological competence. The scientific communities are of great significance concerning the development of specific industries, growth, the establishment of start-ups and the development of new products and services. The scope and size of these scientific communities mean they constitute an important industry. The universities and research institutions form a significant part of the innovation system.

Smart specialisation

The Value creation strategy has been developed using the "smart specialisation" method. This means that the authorities, business/industry, residents and research institutions work together to ensure competitive development based on the region's various advantages. This involves creating innovation through new combinations of existing knowledge, skills and competence.



Tools



The strategy uses five tools to achieve the goal. The tools are common for the efforts involving value creation in Trøndelag.



Competence – the competent Trøndelag

The concept of competence means to "have the knowledge, skills, talents and attitudes that make it possible to perform functions and tasks in accordance with defined requirements and goals". Competence at all levels is essential for achieving value creation in the business sector combined with sustainable and balanced development. Education and scientific communities are also important for recruitment and continuing and further education. An increasingly rapid development creates the need for lifelong learning and transition. Technology development, climate challenges, internationalisation, changes in business structure, immigration and an aging population are changing the competence needs and employment opportunities. Employee-driven innovation and tripartite collaboration is an important competitive advantage and a work method that must be used actively.

The Value creation strategy and Competence strategy for Trøndelag strengthen and complement each other.

We prioritise

Recruitment and growth

- Further develop the collaboration between school and business/industry
- Increase the knowledge about business and industry in Trøndelag among pupils and students
- Integration in working life to secure access to labour
- Mobilise for the business sector to secure more apprenticeships and trainee places as well as more internships at businesses
- Mobilise for increased use of students and trainees in working life and business/industry

The workplace as a learning arena

- Motivate and mobilise competence measures in businesses
- Stimulate the development of flexible and specialised training opportunities in businesses
- Develop and implement competence measures adapted to suit the needs of working life

Transition and innovation

- Motivate businesses to map future competence needs
- Develop a stronger culture for, and competence about, entrepreneurship
- Develop competence and culture for growth in businesses
- Increase the competence about sustainability in working life and business/industry





Research, development and innovation

Trøndelag is one of the most innovative regions in Norway and Europe. Despite this, there is major variation when it comes to how systematically and structured work involving innovation is in different industries and different parts of the public sector. It is essential that time and resources are allocated for this work in order to build and further develop a strong innovation culture. Trøndelag will be developed and promoted as a living laboratory through increased cooperation with the region's specialists in research, development and innovation. Platforms must be developed for exchanging knowledge and competence. Moreover, new and international markets must be established for our products and services.

We prioritise

Mobilise for research and innovation

- Contribute to more businesses and municipalities adopting research and innovation in their development work
- Contribute to more succeeding in the national and international competition

Increased cooperation

- Develop dialogue across sectors and industries
- Establish long-term and binding cooperation structures and priorities
- Use the student resource and connectivity with the academic communities

Trøndelag as a test and pilot arena

- Make the testing facilities in Trøndelag known and available to more interested parties in the region
- Use the districts and residents actively in the development of new products and services
- Market Trøndelag as an attractive location for national and international partners
- Further develop the test arenas in Trøndelag

Development and research capacity in the municipalities

- Strengthen the municipalities' cooperation with R&D communities, business/industry and stakeholders in the government and voluntary sectors
- Establish a culture of sharing and cooperation between municipalities







Sustainability – mobilise for transition

"Increased sustainable value creation and strengthened international competitiveness" requires transition. This means that everyone must adopt knowledge, technologies and services by further developing the cooperation between administration, business/industry and research institutions. The UN Sustainable Development Goals form the basis of all municipal planning to ensure that we create a society that tackles the challenges of adapting to a changing climate while safeguarding an inclusive working life and economic growth. The European Green Deal will lead to increased demand and greater demands for green and sustainable products and services. The green growth strategy gives a clear direction and a diversity of opportunities for products and services with little or no climate footprint. This will have an impact on the markets of Trøndelag companies. Given our strong research institutions and stakeholders within bioeconomy and technology, Trøndelag has great potential to assert itself nationally as well as internationally.

We prioritise

Responsible consumption and production

- Mobilise for a circular economy in new and existing businesses
- Contribute to the development of new business models and innovation across value chains
- Stimulate entrepreneurship in areas such as reparation, recycling and reuse
- Stimulate transition through digital transformation and public procurement

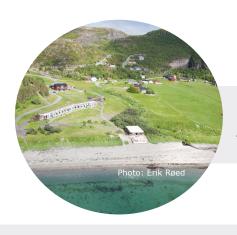
Climate and environment

- Reduce greenhouse emissions and loss of biodiversity
- Mobilise for use of renewable energy sources and increased use of resource efficiency in all sectors
- Use measurements of greenhouse gas emissions and indicators of sustainability actively
- Strengthen the competence in Trøndelag business/industry about EU classification/taxonomy for sustainable activities

Decent work

Secure enough labour and promote decent work for all





Attractiveness – attractive Trøndelag

An assumption of the value creation strategy is that it will contribute to building a diverse business sector in Trøndelag. Places that have a broad business sector, varied leisure offer and good services for the residents and businesses alike can more easily attract new residents. Attractiveness involves being attractive to residents, business/industry and visitors. Positive changes contribute to attractiveness, and attractiveness requires continual development.

We prioritise

Recruitment

- Focus on development of place attractiveness
- Stimulate attractive co-working spaces/working communities in the district municipalities
- Support a diverse and varied business sector in the district municipalities
- Retain the students after they have graduated

Sustainable establishment of businesses

- Develop commercial areas, infrastructure and public services
- Increase the available capital for investments
- Tell the good stories
- Stimulate established companies to remain and grow in Trøndelag

Research activity and studies

- Highlight Trøndelag's outstanding research communities
- Mobilise for active interaction between research communities and businesses
- Further develop Trøndelag as an attractive place to study

Visits

- Highlight Trøndelag as a region for experiences
- Develop and safeguard living cultural environments





Interaction – Trøndelag is the winner

Trøndelag has a culture for interaction. The ambition is balanced development in the region achieved by various social actors interacting for the common good and to help their neighbour succeed. Cooperation between the towns/cities and the surrounding districts must be based on mutual generosity and respect. We must be better and more aware of the possibilities and potentials that lie in working as a team and playing to the strengths of others, while developing a strategic cooperation for Trøndelag.

We prioritise

Urban and rural

 Mobilise the universities, university colleges, vocational colleges and upper secondary schools to increased interaction on joint competence nodes in the districts

The innovation system

- Strengthen and further develop existing arenas between the innovation actors
- Develop and communicate clear and understandable functions and roles
- Further develop a seamless regional public funding scheme

New and strengthened cooperation

- Strengthen and further develop efforts involving business networks and clusters
- Further develop the dialogue at the intermunicipal arenas for political cooperation
- Identify the needs for and composition of interaction arenas for research communities, universities and university colleges, business/industry and the public sector



Priority areas



The four priority areas are areas where Trøndelag has special advantages and opportunities – our defined priorities.



Bioeconomy is value creation based on the sustainable utilisation of renewable biological resources for food, health and fibre products, industrial products and energy.

Directional goals

- In 2025, Trøndelag is a leading region in the development of bioeconomy
- In 2025, the biomass resources as raw materials for creating increased values in complete circular value chains
- In 2025, the production areas in the sea and on the land are used to achieve sustainable growth in reindeer husbandry, agriculture, forestry, aquaculture and fisheries.
- In 2025, Trøndelag's position as Norway's most complete food producing region is strengthened and contributes to an
 increased degree of self-sufficiency.

We prioritise







Competence / Research, development and innovation

• Stimulate knowledge development, innovation and internationalisation in the service/supply and processing industries

Sustainability

- Stimulate local, national and international cooperation that contributes to increased sustainable production
- Develop and use technology to increase competitiveness and improve the climate and energy profile in the value chains
- Protect and utilise the areas for sustainable biomass production in the short and long term

Attractiveness

• Highlight Trøndelag as an excellent bioeconomy region

- Strengthen the cooperation between the sectors in the bioeconomy
- Strengthen the interaction between the scientific communities, administration and business/industry



Experiences in Trøndelag are a diversity of activities, attractions and environments related to food, nature, cultural heritage and events of regional and national importance that are offered to residents and visitors. The experiences are not necessarily commercial products, but visits that generate economic value creation among various stakeholders, business sectors and providers.

Directional goals

- In 2025, Trøndelag is a sustainable, attractive and diverse region for experiences
- In 2025, experiences in Trøndelag give greater value creation, a lower climate footprint and positive spin-off benefits for local communities

We prioritise

Competence

- Develop hosting competence for residents, businesses, event organisers and municipalities
- Contribute to recruitment in the experience industry
- Stimulate measures to raise competence to increase the level of professionalism

Research, development and innovation

- Mobilise for increased use of research and innovative cooperation with R&D communities
- Stimulate increased cooperation with various fields, e.g. design, architecture, art and culture

Sustainability

- Mobilise for more destinations, stakeholders and experience products to be sustainable
- Develop year-round experiences that contribute to year-round jobs
- Use the experience industries to push for local community development through interdisciplinary cooperation on visitor management
- Focus on accessibility, sustainable transport and corresponding transport systems

Attractiveness

- Develop and communicate stories from throughout Trøndelag
- Develop the concepts "Trønderske gjestebud" (Trøndelag hospitality), "Trønderske underverk" (Trøndelag wonders) and "Trøndersk naturglede" (Trøndelag joy of nature)
- Contribute to the experiences being available to residents and visitors alike

- Further develop joint marketing and reputation building of the entire Trøndelag region
- Ensure good interaction between business/industry, event organisers and the voluntary and public sectors



Technology is driving the development of business and industry, the public sector and society in general. The technological development creates a need for competence and adaptation. The strategy is aimed at the suppliers of the technology and those who will adopt new technology.

Directional goals

- In 2025, Trøndelag business and industry is a leader in development, commercialisation and use of technology
- In 2025, Trøndelag's research communities are active in the transfer of competence for the development and application
 of technology for the entire Trøndelag region
- In 2025, Trøndelag has increased the number of high-growth technology companies and technology exports
- In 2025, business and industry in Trøndelag is leading in the work on digital transformation

We prioritise

Competence

- Actively connect the technology needs of the business sector with education institutions, pupils and students
- Stimulate and make an active contribution to digitisation and digital transformation in business/industry and the public sector

Research, development and innovation

Strengthen Trøndelag as a resting and demonstration area for new technologies

Sustainability

- · Highlight how developments in and use of technology can contribute to the green shift
- Highlight the development of sustainable services in health and welfare using technology

Attractiveness

- Highlight the region's diversity of testing and demonstration facilities
- Promote the region's competence in technology and the technology capital Trondheim
- Strengthen efforts to retain and attract competence in technology

- Strengthen the interaction between R&D, business and industry, the public sector and firms that lend investment capital
- Develop and reinforce the systems and interaction between them to realise technological opportunities



The public sector is important as a facilitator, service provider and cooperation partner for business and industry and, in some areas, the public sector is also an innovation leader. Trøndelag has large government agencies and directorates, public enterprises and municipal administrations. The range in the scope of the undertakings, and in responsibilities and tasks is large, as are the prerequisites and wiggle room to contribute to value creation. The strategy is limited to tasks of importance for the municipalities' role in economic development, and research and innovation in the public sector.



Directional goals

- In 2025, the municipalities throughout Trøndelag make a clear effort in economic development and its own development activities
- In 2025, the public sector throughout Trøndelag has a culture for research and innovation

We prioritise

Competence

- Strengthen planning and development competence in the municipalities
- Develop the regional competence forums as an arena for recruitment and competence development
- Strengthen development work through enhanced knowledge about public measures
- Strengthen the competence in innovative procurement in the public sector
- Strengthen the business sector's competence in procurement processes and competence requirements

Research, development and innovation

• Mobilise for more use of research and innovation in the public sector

Sustainability

- Use our purchasing power to contribute to more sustainable products and services, and more circular solutions
- Solve the challenges related to integration and demographic changes through social entrepreneurship and innovative solutions

Attractiveness

- Develop and highlight commercial areas, attractive places and towns/cities, living quality and public services for entrepreneurs, visitors and job seekers
- Highlight the good research stories
- Market the public sector as a possible research and test arena

- Strengthen the dialogue with the business sector to gain good knowledge about its needs
- Strengthen cooperation with other municipalities and stakeholders in business and community development
- Strengthen cooperation between the municipalities, innovation companies and research communities

Appendix - measures and descriptions

Joint measures:

Measures

Develop and initiate the project The Green Industrial Initiative Trøndelag.

Description

The project will strengthen the regional prerequisites for a green industrial initiative in nine prioritised value chains. The Green Industrial Initiative Trøndelag reflects the national Roadmap 2.0 the Green Industrial Initiative ("Veikart 2.0 Grønt industriløft") which aim to create new jobs, reduce emissions and increase export from Norwegian industry. The project is a response to Missions – large challenges in society which require cross-sectoral collaboration to be solved. The project will contribute by mapping, coordinating and highlighting current measures which an contribute to transition and new green industry in Trøndelag. This entails highlighting the needs and challenges of existing and new green industry in Trøndelag. This includes power, area, infrastructure, raw materials, capital, research, technology development, digitalisation, workforce, skills and the export market. Ongoing projects, such as Climate Partner ("Klimapartner"), can contribute with important experiences in developing the project the Green Industrial Initiative Trøndelag.

Create a common understanding and further develop the work package on labour, competence and transition.

The work package on workforce and competence is viewed in connection with the Competence strategy 2023-2027 ("Kompetansestrategi 2023-2027") and the project Green Industrial Initiative Trøndelag. The measures will collectively contribute to both retaining the workforce already here and attract new needed competence, for example the work on Talent attraction. Special attention is wanted in regard to; - inclusion of those on the outside of working life, - competence building, continuing education of employees in businesses. Measures in the work package include:

- Continuous mobilisation of businesses and recruitment of students to the Trainee Trøndelag-scheme and associated summer job-scheme.
- Continue the summer job-scheme for pupils in collaboration with the municipalities.
- Further develop the business sector's role in the regional competence forums.
- Closer collaboration with NAV in the work on inclusion in the working life.
- Participate in the follow up of measures emerging from the mapping of the competence system.
- Mobilise the business sector and public sector to competence building trough among others continuing education.
- Develop a common understanding for the mission given to Sivas industrial competence programme.

Initiate a collaboration to describe various collaboration models between the higher education sector, the business sector and the public sector in Trøndelag, such as university-municipality, bridgehead aquaculture and so on, and document the results and effects of various established projects.

Input on how to extract added value in connection to increased interaction between the large institutions in the higher education sector, business sector and public sector in Trøndelag has been received throughout the process. Students are highlighted as a resource which to a greater extent can be used in the business sector and public sector in Trøndelag. To further develop the collaboration, it is important to build broad and long-term relations between academic environments at the higher education institutions and actors in the working life through collaborative research- and innovation projects. This is how to reap lasting effects of student collaboration, which exceeds the period an individual student is in contact with businesses in Trøndelag or municipalities. We have many examples of such broad and well-functioning collaboration constellations in Trøndelag, and it is important to learn from these.

4. Develop «the poster» visible Trøndelag.

There is a need to have a common understanding and create awareness in Trøndelag on attitude and action in how we together can become more visible and attractive. Important momentums in the work are (i) Create awareness of the responsibility to give good experiences when meeting Trøndelag for those who live here and for those who visit and create a good reputation. (ii) What can we offer the business sector of facilities, competence, and capital. (iii) Highlight what we achieve. The first step is to develop a "poster" of 5 points on how we are going to collaborate to become more visible and attractive.

Document and further develop best practices on efficient establishment of broad consortiums and collaboration in Trøndelag, to get in position to obtain national and international researchand innovation instruments.

More calls to action, both national and international, demand collaboration and consortiums. Collaborative relations through ongoing and conducted research- and innovation projects are important platforms to establish new consortiums. There is fierce competition for research- and innovation instruments and we need to take advantage of the experiences we have, geographical closeness and close ties, to be able to rapidly establish well-functioning consortiums relevant to meet national and international calls to action. The clusters have an important role in the work with establishing consortiums. The economic incentives for further development of established clusters and the establishment of new clusters must be strengthened. The Regional Research Fund has been an important contribution to reinforce regional development and is of great significance to the business sectors qualification to national and international instruments. Trøndelag must consider how to compensate in the future in the event of a potential cut of the scheme.

Facilitate and mobilise to increase the accumulation of entrepreneurs and founders.

The demand for grants for entrepreneurs and start-ups is reduced, simultaneously as the number of applicants to the student scheme increases. Entrepreneurship and founders are an important factor to achieve the goals of increased export and new jobs. Facilitation is needed to ensure that more people get access to competence on how to establish their own business. We will therefore increase mobilisation, especially aimed at pupils, student and immigrants.

Increase competence and mobilise to increased ICT security and security of supply in the business sector.

Emergency preparedness in the business sector is an important part of Norway's and Trøndelag's total preparedness. The business sector consists of both businesses supporting critical society functions and of businesses which can be used for preparedness and crisis management. It is important to increase the business sector's awareness level of its vulnerabilities, among other things when it comes to security of supply and digital threats; work on shortening the value chains; develop incentives for preparedness in the business sector, for example by using public procurement and acquisitions; and support other measures contributing to increase ICT and security of supply in the region.

Bioeconomy:

1

Measures

Description

Develop new future-oriented education to strengthen recruitment and lift the bioindustries into the green shift

Development in the biobased industries is rapid. The development of new technologies, new ways of producing and competence on use of research in innovation processes require competence. It is important for the biobased industries to closely collaborate with the educational institutions to develop education and study programmes, both when it comes to capacity and content. The established collaboration with Trøndelags educational institutions, such as high schools, higher vocational education and universities must be further developed to ensure good processes and that study programmes matches the need within the bioeconomy. Simultaneously it is important to pay attention to strengthening recruitment of students to choose the educational programmes.

Mobilise to development of new feed sources with a lower carbon footprint, to meet the sector's future protein requirements

The need for vegetable protein, soy to animal feed in Norwegian food production is today not covered by Norwegian produced protein, and import is the only option. Many feed producers work on phasing out imported vegetable protein, and look to alternative feed sources. The alternative feed sources can not be in competition with food production, but derive from sustainable sources. Mobilising to increase knowledge on the subject is needed, by supporting R&D projects meeting the needs of the industry.

Contribute to development, commercialisation and use of new biobased products to replace petroleum based products.

The use of biobased raw materials in new innovative products is going full speed ahead, and issues tied to this is currently worked on. A specific example is packaging, where sustainable solutions, with use of polymers/fibre from marine- and forest-based raw materials, is tested. The need for competence is great, both in terms of R&D- and commercialisation of replacement products. It is important to mobilise the whole value chain in the work.

Develop and follow up a new knowledge base to maintain the bio sectors requirements for future production area, including common use of areas with other industries- and society-interests.

The natural resource-based industries are important to Trøndelag. Local production of renewable raw materials, on land and by sea, lays the foundation for complete value chains. Trøndelag has a leading role nationally within industrial biomass processing. If the potential in the bioeconomy is to be extracted, development of new technology, sustainable management and a build-up of biomass resources is required. Simultaneously the "battle for land" intensifies. Various types of developments and interventions consume more and more land. Development of industry, housing, cabins, road construction and wind power are examples of this. There are conflicts on the use of land at multiple levels, also between the various biobased sectors.

Continue the programme initiative bioeconomy, including follow up on the results of "The mapping of residual raw materials in Trøndelag" ("Kartleggingsstudie restråstoff I Trøndelag").

The regional initiative "Program initiative bioeconomy" was initiated in 2022. The mapping of occurrence and status on the use of residual raw materials in Trøndelag, within blue and green value chains, was one of several prioritised areas. The mapping of residual raw materials is to be completed in December 2023. Results and findings of the study and potential within the occurrence of residual raw materials in Trøndelag must be followed up. A digital tool was developed as a result of the mapping and will be introduced to business sector, to ensure data flow. The clusters from the blue and green sector will be important contributors. In a time with energy scarcity it is also important to be able to use suitable raw materials for bioenergy.

6. Establish and follow up on a vendor development programme for the aquaculture industry.

Trøndelag has a significant supplier industry to the aquaculture industry, and most of these have the potential to export. Many takes advantage og this today, but not all. A supplier development programme will be explored, in terms of both content and organisation.

4.

5.

Experiences:

	Measures	Description
1.	Mobilise more businesses in the experience industry to use R&D instruments in their development work and establish collaboration structures to position the region to make use of national and international R&D calls for proposals.	There is a need for more development of knowledge and research within the experience industry. The industry's demand for R&D-funds is limited. When calls for proposals for national and international instruments are announced, Trøndelag comes short due to lacking collaboration structures which prepares us to establish larger R&D projects.
2.	Implement measures based on the concepts «Trønderske gjestebud, Trønderske underverk og Trøndersk naturglede». The measures will contribute to seasonal expansion, new experiences, professionalism, year-round employment and prioritising target groups with high value creation and low emissions.	To develop the experience industries in Trøndelag there is a need for measures which contribute to year-round jobs and expansion of seasons. To increase the quality there is a need to work with further professionalism. Market measures must be aimed at target groups contributing to a sustainable direction.
3.	Follow up the collaboration agreement with the Sami Parliament ("Sametinget") regarding the Sami experience industry.	The collaboration agreement with the Sami Parliament must be followed up through mobilising to, and the initiating of, measures taking advantage of the potential in the Sami experience industry which the industry want to pursue.
4.	Develop new collaboration models between innovation companies, the regional tourism mission, destination companies and industry actors within the experience industry.	Many development actors have various roles within the experience industries (business gardens and incubators, Trøndelag Reiseliv, the destination companies and various industry actors). These don't know each other well enough and does not collaborate enough. New collaboration models should be developed which contribute to take advantage og the potential within these environments.
5.	Establish an initiative on visitor management and destination management to follow up the NOU 2023:10 and the Scenario project.	To follow up the Destination committee's NOU (Official Norwegian Reports) an initiative in Trøndelag needs to be established on visitor management (following up on the ongoing visitor management project) and destination management.
6.	Develop a knowledge base that highlight the connection between green mobility, availability, transport systems and the experience industry in Trøndelag	It is important for sustainable development of the experience industries that visitors more easily can choose public transportation. Systems must be harmonized for more seamless travel for visitors. This requires knowledge, understanding and coordination across sectors. There is a need for more knowledge about the connection between transportation systems and the experience industries.
7.	Further develop the initiative Trøndelag as a food region to strengthen the region's position in food and meal experiences and shape a common goal for the initiative in Trøndelag	Trøndelag has for years had a systematic initiative on food and meal experiences. We have succeeded with several initiatives nationally and internationally and have come a long way in achieving the political ambition North Europe's food region nr. 1. It is important to implement measures which builds upon this initiative and define common goals for the future. It will be important to analyse the whole value chain, from producers to customers, to evaluate the challenges and the opportunities. One of several routes can be Food tourism. These are travels motivated by unique meal experiences, such as local culinary traditions, gourmet restaurants, cooking courses, fascinations of special foods and more.

Technology:

	Measures	Description
1.	Define the priority area technology and establish a interaction group for the priority area.	Priority area technology is broad, and there is a need to choose, limit and define thematic areas and sectors. For example sector in which Trøndelag is leading today or areas in which Trøndelag has special advantages and can become leading. An interaction group is to be established which will be responsible for further developing, defining and following up the priority area technology.
2.	Conduct a mapping and develop a knowledge base on digital maturity, - transformation and - competence; TWIN transition and SMEs in Trøndelag.	It is acknowledged that businesses transitioning need to have good digital competence. In the near future business models must be both green and digital. It is necessary to know where the small companies in the region are knowledge-wise to develop measures to mobilise.
3.	Mobilise the business sector and municipalities to use the catapult system and the laband test arenas in Trøndelag.	Trøndelag has many lab- and test-arenas. Good test-arenas enable keeping and attracting companies to the region. The knowledge of these and the possibilities which lies in them, is not well enough known or exploited. A mapping of this structure is being conducted and will be important to get an overview. This will give important insight to private and public sector on how to benefit from the arenas in their development work.
4.	Evaluate the experiences from Industry 4.0 Trøndelag ("Industri 4.0 Trøndelag"), develop and make use of new competence enhancing models for green and digital transition in small businesses.	Based on experiences from the project <i>Industri 4.0 Trøndelag</i> , models will be developed for further work.
5.	Facilitate for technology entrepreneurs in Trøndelag by securing competitive conditions for growth and mobilise regional investors.	Entrepreneurs and founders contribute to increased value creation in Trøndelag. Simultaneously several start-ups move out of the region during the development phase. Part of the cause is the lack of regional investors and customers. An investigation of what it takes to mobilise more companies in Trøndelag to invest in technology start-ups in an early phase is needed. The business structure in Trøndelag needs long-term work and increase the dynamics by facilitating for entrepreneurship and piloting of new products.

Measures Description

Facilitate knowledge transfer between the various initiatives aiming at rural development; transition municipalities ("omstillingskommuner"), rural growth agreements ("Bygdevekstavtaler") and the rural development initiative Together ("I LAG").

The main project of the district initiative I LAG was initiated in May 2023 with six municipalities and several regional and national collaborators. In the fall of 2022 the government launched rural growth agreements as a new national instrument for rural development, and Trøndelag received two rural growth pilots. In addition to these initiatives, several rural municipalities in Trøndelag participate in the national transition municipality scheme. We therefore have several initiatives in Trøndelag aimed at solving the challenges in the rural areas municipalities. To ensure efficient use of resources and good measures in the individual initiatives, it is important to facilitate transfer of knowledge and experiences about district development across the initiatives.

Map and analyse different models of how we regionally should work on mobilising for increased research and innovation work in the municipalities.

For years the Partnership of research and innovation in public sector has collaborated to mobilise municipalities in Trøndelag to research based innovation, including through a network of R&DI-contacts, and in collaboration with the innovation companies in the county. In parallel with this work, other models has been tested to mobilise municipalities including through the Public health program ("Folkehelseprogrammet"), University municipality collaboration ("Universitetskommune samarbeidet") and KSF-pilots. There is a need to compile existing knowledge and develop new knowledge on which models and forms of collaboration works best for the municipalities and their partners.

Continue the rural development initiative Together ("I LAG") and strengthen the knowledge on sustainable collaboration models with the district municipalities.

Sustainable collaboration models which works well for the municipalities and their partners is a goal. The municipality index shows that centrality is a factor of importance for the municipality's role as a producer of services, and the Generalist municipal committee ("Generalist kommuneutvalget") highlight the need district municipalities have for closer collaboration to solve their tasks, both with other municipalities, and with regional and national partners. The county authority and the Centre of Competence on Rural Development ("Distriktssenteret") collaborate on knowledge development on sustainable collaboration models. The models is the basis for the evaluation of continuing the initiative I LAG.

Build competence by sharing knowledge between municipalities on visitor management, area management, energy, infrastructure and circular solutions for the green shift. Municipalities can be drivers of business development and at the same time evaluate the society's overall interest where conflicts arise. Transition and development of new industry can create more demand for commercial areas, energy and other resources, and proactive work is needed for business development to occur in areas already developed or suitable areas. The county authority has ongoing work to map business areas, accounts of area and nature. Increasing competence on industrial symbiosis is a useful tool and entry to the work on reducing the need for area, energy, water and materials. This is a part of the project on green industry transition in Trøndelag. In 2022 two pilots on visitor management in Trøndelag was established. In the coming action plan period it will be important to communicate knowledge from these initiatives to the municipalities which do not participate in the two projects.

Share knowledge and experiences about how public procurement can be used as a tool for innovation and transition, and simultaneously give new opportunities for the regional business sector.

The municipalities are major buyers, and the procurement processes provide good opportunities to think in new ways, and to challenge local and regional businesses. Too few municipalities take advantage of the opportunities of procurement. To contribute to increasing knowledge on these opportunities is therefore wanted.

Mobilise for more and closer collaborations between municipalities and students/ higher education sector, especially in areas where municipalities lack competence.

6.

The battle for labour is tough also for the municipalities. This is true for both the important services areas and in the development areas. For students, collaborating with a municipality can give insight into the opportunities in the local government sector, and for the municipality collaborating can give increased knowledge and a path to recruiting importance competence. Mobilising to increased use of students and a more systematic student collaboration between municipalities and the higher educational sector is wanted.