

# Roadmap for Lofoten Green Islands 2030

## 1. Introduction

***"Lofoten will be powered by renewable energy in the not-so-distant future. Lofoten is a lovely place to live, and our business sector is both sustainable and viable."***

***We are working hard to achieve the United Nations Sustainable Development Goals for 2030".***

Lofoten Green Islands 2030 is the name of our growth strategy leading up to 2030. The Lofoten Regional Council adopted the Lofoten Growth Strategy (Case 40/2020) on 10 December 2020, which was subsequently adopted by all the municipal councils in all 6 municipalities of Lofoten. The strategy highlights the six defined program areas for development in and around Lofoten as a region. This document is the roadmap for Lofoten Green Islands 2030 that functions as an action plan for further strategy implementation.

The roadmap is governed by the premise that it provides opportunities and support for the Green Shift, i.e. green restructuring and local green value creation, through coordinated efforts and cooperation. It aims to minimize the barriers that slow down the Green Shift, making it easier to choose green solutions for the future. The roadmap shall not prohibit, ban or punish those who do not wish to take the lead in green restructuring. But it will allow for and support new opportunities so that municipalities, businesses, local inhabitants and visitors can lead the way towards sustainable development and value creation in Lofoten.

Lofoten Green Islands 2030 is a pilot project that puts young people in the driver's seat to achieve the Green Shift and allow them to make Lofoten and the world a greener place. The roadmap shows the route toward interaction, making Lofoten a diverse, contrasting and safe place to live and visit. The roadmap will lead us towards the best solutions for a viable future and promote growth through the sustainable use and management of Lofoten's advantages.

## 2. Background information

Lofoten is a viable island chain and coastal community in Northern Norway. It is iconic in a national context for its distinctive character and wealth of marine resources, nature, history, traditions and cultural heritage. Strong contrasts give Lofoten a unique character, encompassing the intersection between sea and mountains, coastal culture and agriculture, urban living north of the Arctic Circle in close proximity to virgin nature, and island communities located far out in the ocean without road connections – yet with a world-class business community.

Lofoten currently faces a number of challenges related to sustainable management of natural resources, growth in tourism (pre-corona), harmful influences on nature, negative population growth, the need for year-round jobs and increased business development on the path to a low-emission society.

A robust foundation has been built for regional cooperation in Lofoten, first through the ETT Lofoten strategy, and further developed through the Lofoten Growth Strategy entitled Lofoten Green Islands 2030. Lofoten is in a great position to become a national pilot for regional green restructuring. The Lofoten region is working to build the world's cleanest island community as an attractive place to live and as a travel destination with a competitive business sector based on strong green values.

Lofoten Green Islands 2030 is a strategy for growth that makes Lofoten a national pilot for regional interaction and holistic innovation for green regional restructuring. Our combined strengths and willingness to lead the way can make Lofoten a green, competitive and sustainable community in the long term. Our goal is to help the region reach the UN Sustainable Development Goals, stimulate business and green competitiveness, and at the same time develop a sustainable local community. This will ensure a good and viable home and place of work for the inhabitants of Lofoten in the future.

### 3. The Process

The roadmap is the result of a long process of discovery that lasted from April to November 2021. The roadmap was prepared on behalf of the partnership for Lofoten Green Islands 2030, which consists of the Lofoten Regional Council, Lofotkraft Holding AS and Destination Lofoten AS.

The proposal was submitted to the Chief Administrative Officers Committee for further follow-up, which recommended establishing several working groups that included stakeholders from the sector to lay the foundation for the program areas on which the roadmap is based.

Six working groups were set up with 39 members from 30 different organizations, including all the municipalities in Lofoten, the Nordland County Council, government agencies, private businesses, special interest groups and academia. The working groups were led by the chief municipal/executive officers from the municipalities of Lofoten. A total of 125 meetings were held for 8 weeks to develop a rough sketch of the roadmap: The working groups met digitally every week, and extended dialogue meetings were held for each program area. There were more than 100 participants in total, and the working meetings were divided into smaller groups to conduct commitment meetings that included leaders and other stakeholders. The climate adviser for the Lofoten Regional Council coordinated the process and attended all the meetings to ensure the transfer of knowledge and compliance with the chosen methodology.

The results of the work carried out by the working groups were summarized in a preliminary sketch of the roadmap. This was adopted by the Lofoten Regional Council on 10.06.2021 at a meeting on the island of Røst, to further develop the roadmap and secure commitment from the municipal governments. A new part of the process began in the autumn of 2021, which aimed at acquiring regional input and securing commitments from municipal leaders and stakeholders. The six municipal councils for the Lofoten region were informed about progress on the roadmap. A series of dialogue meetings were held with local businesses and youth from the region to acquire more input and commitment.

### 4. Our Vision

The Lofoten Regional Council drafted a formal decision to ratify the Lofoten Green Islands 2030 strategy, which was adopted on 9 December 2020 with the following vision:

The Green Shift deals with how Norway can become a low-emission country by 2050. In order to achieve this, we need to reorganize society to restrict growth and development within the limits of what nature can tolerate.

The Lofoten Green Islands 2030 project invites Lofoten's six municipalities, the business community in the region and its inhabitants to joint efforts to achieve the goal of becoming a low-emission society by 2030.

Lofoten Green Islands 2030 (Lofoten De Grønne Øyene/DGØ) will be a ten-year growth strategy for Lofoten that meets regional, national and international climate goals and ensures green and sustainable growth for the municipalities in Lofoten."

Lofoten Green Islands 2030 is a national pilot project to reach the potential of interaction; regionally and among public and private enterprises, visitors and local communities.

### 5. Overall goals for the Lofoten Green Islands 2030 Roadmap

*Lofoten Green Islands 2030 is a national pilot project to reach the potential of interaction; regionally and among public and private enterprises, visitors and local communities.*

Lofoten Green Islands will lead the way and navigate through barriers:

- to realize the potential that lies in interaction.
- to be a catalyst and active enabler for those who want to take the lead, prioritize and invest in green restructuring, value creation, innovation and competitiveness.
- to become a low-emission society by 2040.
- to be a platform for active youth participation and commitment, where the adults of the future are given the tools, arenas and responsibility to build and develop their region for the future.
- to support good choices that strengthen the region's response to climate change and reduce Lofoten's vulnerability to climate change. Measurement and management tools shall be developed to monitor developments, evaluate and align measures based on knowledge-based and comprehensive evaluations.
- to achieve sustainable land management of our natural, cultural and environmental resources. As the foundation for this, and to achieve optimal utilization of existing buildings and commercial zones and infrastructures, we need to count the regional space available in all the municipalities of Lofoten by the end of 2023.
- to build a local understanding of the value of biodiversity on land and below the sea, insight into what is lacking in terms of knowledge of biodiversity, and a local basis for the precautionary principle to be applied where there is a lack of knowledge about biodiversity that may be affected, or where the consequences of current measures are uncertain.
- to map the flow of materials and look for opportunities to realize new solutions for circular value chains through interaction between municipalities, across industries and through private-public cooperation. This will provide sustainable local and regional value creation with values that can be transferred to other regions in Norway.
- to show measurable and documented results in the ripple effects from green restructuring. The program will highlight how the development of green competitiveness in commercial and public sectors is related to demographics and settlement, regional competence building, recruitment, green value creation locally and regionally, and attractiveness as a sustainable travel destination.

## 6. Assumptions & Premises

The roadmap lays out some forward-looking and ambitious goals for further initiatives, in line with our Strategy and Vision, to lead the way. The roadmap is an action plan leading up to 2030 with long-term objectives that look beyond 2030. The objectives are therefore set with several assumptions and premises:

- An expectation of rising prices for fossil fuels and CO<sub>2</sub> emissions. Dependence on fossil fuels will thus be costly and weaken competitiveness in the long term.
- The development of low-emission/emission-free technology and solutions is rapidly evolving.
- In the future, the market value of products will be directly dependent on the product's or service's carbon footprint.
- In several cases, the transition to emission-free alternatives is associated with other positive ripple effects in relation to Environment, Health and Safety (EHS).
- Coordinated knowledge and competence building in the business sector and municipalities. This is crucial in a region with small municipalities and a business profile consisting of many small businesses and few or no large, individual point emissions.

- Today's tourism and outdoor activities cause depletion in a different way than before. We can no longer expect that these values will last forever. We need to say this loud and clear, to ensure that important biodiversity values are not depleted and destroyed.
- Long-term and holistic sustainability (economic, social and environmental) in priorities and investments by business and the municipalities, with risk relief and support from public policy instruments.
- The circular economy is a nature-positive economy that creates lasting values over time, based on what nature can tolerate. Lofoten Green Islands 2030 builds on an economy that protects its resources over time, where material resources and human resources are valued and safeguarded in all parts of the cycle.
- Energy efficiency needs to cover the need for activities and services in a smart way. Efficient use of energy will be an important prerequisite in the development of future energy systems, the Green Shift and to reach our climate goals.
- Several industries (agriculture, aquaculture, coastal fishing, tourism) are particularly vulnerable to changes in climate and market trends, and therefore need particular focus on climate and environmental challenges.
- It is assumed that Lofoten will strengthen its position as a food-providing region for sustainable local production and harvesting raw materials, as well as processing high-quality products with a strong green brand. A large part of the emissions from agriculture are due to digestive processes and processes in soil, but overall sustainability must also be prioritized here. Emissions from machinery and equipment can be reduced in the same way as other industries.
- The roadmap should be a dynamic action plan which is rolled out during the implementation period. We should check the results and achieved development during roll out while further developing the plan in line with changes in priorities, opportunities and assumptions – locally, regionally and nationally. The council proposes updating the roadmap at least twice on the journey to 2030 (e.g. in 2024 and 2027) if necessary.

## **7. Policy instruments and tools**

- The proposed visions are based on an ambitious initiative for Lofoten as a pioneer region and national pilot area for regional green restructuring. These efforts will require significant investments with long-term goals to strengthen green competitiveness.
- A coordinated strategy and holistic approach to lead the way and establish Lofoten Green Islands 2030 as a national pilot program. The strategy is a necessary step in
  - increasing our visibility and clarify our goals and priorities
  - building knowledge together
  - optimizing and reaping synergies of a consistent interaction, and
  - aligning the restructuring with policy instruments by leading the way as a national pilot zone for green regional restructuring.
- Funding:
  - Support from public agencies and policy instruments will be absolutely necessary to realize our vision. It would be a great advantage to have long-term and predictable support at a program level, rather than support for individual projects.
  - Efforts will be made to promote the program as a national pilot, with international, state and county policy instruments invited as partners for competence building and financing.
  - Efforts will be made to extract opportunities in green financial products from banks and insurance companies, which provide better terms and conditions for projects in line with the content of Lofoten Green Islands 2030. Examples of this include green loans or sustainability loans. Regional financial institutions will be challenged to develop products that respond and promote the region's green competitiveness.
  - One should also investigate whether the municipalities can set aside funds for the Lofoten Green Islands 2030 Project for their commercial funds that are earmarked for projects that

support the program areas in the green islands. This will provide an important signal effect and commitment going in the desired direction, beyond the support itself.

- Lofoten will take a holistic and sustainable approach to strengthen and balance tradition and innovation, where green restructuring, value creation and growth are based on local resources, distinctiveness, identity, integrity and pride.
- The municipalities play a key role as community developer, planning authority and facilitator. The municipalities in Lofoten should strive for a dynamic and opportunity-oriented role to promote green growth and local value creation in line with national and international goals, priorities, framework conditions and opportunities. Through a willingness to communicate roles and exercises consciously and competently, the municipalities of Lofoten shall stimulate the realization of the opportunities that lie in green business models, digitalization, the circular economy, green competitiveness and green growth.
- Digitized marketplaces for secondary raw materials, sharing solutions etc. are important aspects of the possibilities of reuse and utilization of secondary raw materials. Lofoten Green Islands will enable businesses, local communities and the public sector together to make better use of the opportunities that lie in developing green and more sustainable business models and services.
- Under the auspices of Lofoten Green Islands 2030, we will actively take the initiative to enter arenas for interaction, for cross-sectoral competence building and development of project ideas, which will bring Lofoten closer to being a low-emission society and more sustainable management of the region's nature for the benefit of industry, local communities and visitors. Think tanks, corporate networks and clusters are examples of arenas for interaction with established purposes, members and mandates. Dialogue for competitive tendering for innovative procurements for DGØ projects, breakfast meetings, brainstorming workshops, themed meetings etc. are examples of ad hoc arenas for participation and cooperation.

## **8. Main objectives of each program area**

### **PROGRAM AREA 1: ENVIRONMENTAL REQUIREMENTS IN PUBLIC BUDGETING AND PROCUREMENTS**

**Main objective 1.1:** *The municipalities of Lofoten are a driving force for the development and realization of green solutions and procurement through innovation and interaction with each other and the market.*

**Main objective 1.2:** *The municipalities of Lofoten will be among Norway's top 10 municipalities in the reduction of the percentage of greenhouse gas emissions from own activities in the period 2022-2030.*

**Main objective 1.3:** *For the municipalities of Lofoten, circular and holistic solutions are no longer a choice; they must be a matter of course.*

### **PROGRAM AREA 2: ZERO-EMISSION TRANSPORT ZONES**

**Main objective 2.1:** *Lofoten will grow to become a holistic low-emission zone tailored for green transport.*

**Main objective 2.2:** *The low-emission zone aims to increase the quality of transport services, contribute to a stronger desire for housing and create a competitive advantage for the business sector.*

**Main objective 2.3:** *Lofoten will become a preferred testing and development area for zero-emission transport technologies and SMART solutions.*

### **PROGRAM AREA 3: RENEWABLE/LOW-EMISSION DESTINATION**

**Main objective 3.1:** *In Lofoten, values are created in the interaction of visitors, tourists, businesses and local communities through climate-friendly and sustainable solutions all year round*

**Main objective 3.2:** *Lofoten will be Norway's most climate-friendly, resource-smart and renewable travel destination by 2030*

**Main objective 3.3:** *Lofoten will offer and provide value and job creation in the tourism sector, in accordance with nature, culture and society*

**Main objective 3.4:** *Lofoten is a national pilot area that demonstrates sustainable, zero-emission destinations for the future.*

#### **PROGRAM AREA 4: LOW-EMISSION COASTAL FISHING**

**Main objective 4.1:** *Coastal fishing in Lofoten will have cut greenhouse gas emissions in half by 2030, with the goal of becoming a low-emission value chain from coast to market by 2040.*

**Main objective 4.2:** *Coastal fishing in Lofoten will be a viable industry and sustainable value creator for the region, with green competitiveness and low greenhouse gas emissions. Coastal fishing will develop attractive jobs for the future based on sustainable value creation.*

**Main objective 4.3:** *By the end of 2024, Lofoten will have realized several pilot projects with low-emission infrastructures and associated vessels. Emission-free fuels must be widely available in our fishing ports by the end of 2026.*

**Main objective 4.4:** *A climate and environmental offensive for the coastal fishing industry in Lofoten to become a sustainable and knowledge-based industry by 2030 that provides recruitment, commitment and pride.*

#### **PROGRAM AREA 5: LOW-EMISSION AGRICULTURE AND AQUACULTURE**

**Main objective 5.1:** *Through cooperation with public agencies and the business sector, the agricultural and aquaculture industries must achieve low-emission status (80 – 95 %) by 2040 for their machinery and production equipment.*

**Main objective 5.2:** *The industries will realize opportunities for becoming a circular economy and the sustainable utilization of local resources by initiating R&D projects, building facilities and adopting new solutions.*

**Main objective 5.3:** *Lofoten will maintain its production volume and take a leading position in reducing emissions into air and water.*

**Main objective 5.4:** *The industries shall contribute to increasing knowledge about the environmental impact of local food production and what is being done to reduce it.*

#### **PROGRAM AREA 6: LOW-EMISSION AVIATION/ ELECTRIC AIRCRAFT**

**Main objective 6.1:** *Lofoten will be a pilot region for zero-emission air traffic*

**Main objective 6.2:** *In cooperation with the industry, Lofoten will demonstrate to the world that the future of aviation is emission-free*

**Main objective 6.3:** *Future emission-free aviation will contribute to sustainable value creation*

**Main objective 6.4:** *Low-emission aviation shall be a significant driver for green tourism*

## 9. Main objective and secondary objectives for each program area

### PROGRAM AREA 1: ENVIRONMENTAL REQUIREMENTS IN PUBLIC BUDGETING AND PROCUREMENTS

**Main objective 1.1:** *The municipalities of Lofoten are a driving force for the development and realization of green solutions and procurement through innovation and interaction with each other and the market.*

Secondary objective 1.1.1: The municipalities of Lofoten shall cooperate to create a common comprehensive strategy for green procurements – starting in 2022.

Secondary objective 1.1.2: The municipalities of Lofoten will be innovative and dynamic in their approach to developing solutions and measures that provide green value creation for Lofoten as a community. Through innovative procurement, green business models and holistic and smart solutions will be developed to reduce greenhouse gas emissions and improve resource utilization.

Secondary objective 1.1.3: The municipalities of Lofoten will be the driving force behind external cooperation and knowledge generation on green innovation and sustainable societal development.

Secondary objective 1.4: Interact actively with public policy instruments, government projects and pilots within regional climate work of national interest; these must be realized in Lofoten.

**Main objective 1.2:** *The municipalities of Lofoten will be among Norway's top 10 municipalities in the reduction of the percentage of greenhouse gas emissions from own activities in the period 2022-2030.*

Secondary objective 1.2.1: All the municipalities of Lofoten will have implemented climate accounts and budgets by 01.01.2023.

Secondary objective 1.2.2: The environment and climate shall be key elements in all public procurement. Climate and environmental requirements must be systematically incorporated into public procurements by the end of 2023.

Secondary objective 1.2.3: Environmental certification according to EPD criteria is set as an absolute requirement for products and suppliers starting in 2025.

Secondary objective 1.2.4: All new acquisitions of public vehicles shall be emission-free, starting in 2022. If the requirement must be waived for any reason, the lowest CO<sub>2</sub> and NO<sub>x</sub> emissions shall be chosen.

Secondary objective 1.2.5: The municipalities of Lofoten shall be active drivers and facilitators to make emission-free transport infrastructures widely available at all public buildings, parking lots and ports in Lofoten by the end of 2024.

Secondary objective 1.2.6: The municipalities of Lofoten will only have emission-free construction sites by 2026.

Secondary objective 1.2.7: Lofoten will work purposefully to become a pioneer in water management leading towards 2030.

Secondary objective 1.2.8: Teaching materials relevant to Lofoten Green Islands for knowledge building and information for children and young people in Lofoten will be developed for implementation in school curricula by the end of 2024.



**Main objective 1.3:** *For the municipalities of Lofoten, circular and holistic solutions are no longer a choice; they must be a matter of course.*

Secondary objective 1.3.1: The municipalities of Lofoten shall facilitate efficient, sustainable resource utilization and the sharing economy.

Secondary objective 1.3.2: Life cycle analyses (LCA) shall be included as a part of decision-making on all public investments over MNOK 50 as of 2023.

Secondary objective 1.3.3: Circular solutions shall be considered in all public projects for new construction and rebuilding of existing buildings.

Secondary objective 1.3.4: Municipal real estate operations must be at the forefront in prioritizing maintenance and reuse.

Secondary objective 1.3.5: Investments must be made for the next generation and climate change assessment must be a part of all investments.

Secondary objective 1.3.6: Opportunities for local production of heat and/or electricity from renewable energy sources and waste shall be considered in all public construction/buildings/development projects.

Secondary objective 1.3.7: In the case of public procurements of products including food and beverages, criteria such as environmental and carbon footprint, ecological production, contributing to reduce food waste and the circular economy shall be requested and assessed by tender weighting

Secondary objective 1.3.8: Comprehensive regional land accounting for Lofoten will be ready by the end of 2023.

Secondary objective 1.3.9: A comprehensive knowledge base on biodiversity at the municipal and regional levels must be ready by the end of 2023. All the municipalities of Lofoten must have prepared and implemented a biodiversity plan by the end of 2025.

Secondary objective 1.3.10: When assessing the development of untouched areas, an updated knowledge base on biodiversity and carbon-rich areas must be included in our grounds for decision-making.

Secondary objective 1.3.11: The municipalities of Lofoten shall help reduce quantities of waste and pollutants that escape our infrastructures, and facilitate the development of solutions to increase resource utilization and material recovery within sustainable frameworks. Together with operators in the waste and recovery industries in the region and the municipalities' environmental departments, Lofoten Green Islands will contribute to increasing knowledge, expertise and awareness of waste and pollutants, waste management and resource utilization within the local population and the business sector in the region.

## **PROGRAM AREA 2: ZERO-EMISSION TRANSPORT ZONES**

**Main objective 2.1:** *Lofoten will grow to become a holistic low-emission zone tailored for green transport.*

Secondary objective 2.1.1: Lofoten as a low-emission zone shall be a committed driving force for green transport by choosing green alternatives and actively influencing regional and national decision-makers within the transport sector to do the same.

Secondary objective 2.1.2: Planning and development of infrastructures for emission-free transport vehicles and equipment shall be predictable and organized for optimal capacity, so that emission-free land, sea and air transport will be a natural feature throughout Lofoten by 2030.

Secondary objective 2.1.3: Areas with high transport loads shall be prioritized, where stricter requirements are imposed to obtain sustainable logistics and traffic.

Secondary objective 2.1.4: Public transport in Lofoten will be emission-free by 2030.

**Main objective 2.2:** *The low-emission zone aims to increase the quality of transport services, contribute to a stronger desire for housing and create a competitive advantage for the business sector.*

Secondary objective 2.2.1: The residents of Lofoten shall feel a strong commitment to our low-emission zone and take part in developing it by being involved in decision-making processes.

Secondary objective 2.2.2: The residents of Lofoten shall feel confident about making emission-free transport choices.

Secondary objective 2.2.3: Lofoten Green Islands shall, with the help of the policy instruments and national support schemes, facilitate emission-free solutions and infrastructures for transport.

Secondary objective 2.2.4: Raw materials and products from Lofoten can be marketed as low-carbon-footprint products throughout the value chain, with a holistic approach that also includes low-emission transport and circular solutions for packaging and resource use.

**Main objective 2.3:** *Lofoten will become a preferred testing and development area for zero-emission transport technologies and SMART solutions.*

Secondary objective 2.3.1: Lofoten Green Islands 2030 will, together with relevant operators, be a driving force in the facilitation, development and marketing of Lofoten as a testing and development area for low-emission solutions within transport and logistics.

Secondary objective 2.3.2: The municipalities of Lofoten will test and evaluate solutions that can help reduce emissions, manage high-load transport areas and increase the quality of transport systems.

Secondary objective 2.3.3: Lofoten will be a focus area for relevant research projects that can contribute to the development of knowledge about regional low-emission zones and island communities.

Secondary objective 2.3.4: A minimum of 3 relevant tests/pilots/development projects will take place each year, with a geographical spread around Lofoten.

### **PROGRAM AREA 3: RENEWABLE/LOW-EMISSION DESTINATION**

**Main objective 3.1:** *In Lofoten, values are created in the interaction of visitors, tourists, businesses and local communities through climate-friendly and sustainable solutions all year round*

Secondary objective 3.1.1: Dissemination and marketing of Lofoten as a green destination shall contribute to reaching the goal of 'the right guest in the right place at the right time'.

Secondary objective 3.1.2: In Lofoten, customers will be highly valued through a high level of value creation within the limits of what nature and society can tolerate.

Secondary objective 3.1.3: Lofoten will strengthen its position by delivering sustainable experiences in nature zones, culture, food and good encounters with the local community.

Secondary objective 3.1.4: Lofoten will be the best place in the country where sustainable travel destination management is concerned. Active cooperation across the private and public sectors and between the municipalities regarding sustainable visitation management to stay within the framework of what nature and culture can tolerate.

**Main objective 3.2:** *Lofoten will be Norway's most climate-friendly, resource-smart and renewable travel destination by 2030*

Secondary objective 3.2.1: For Lofoten as a travel destination, holistic and smart solutions will be the natural choice.

Secondary objective 3.2.2: The tourism industry and its partners will prioritize and aim to become a circular economy, also through the utilization of local resources.

Secondary objective 3.2.3: Visitors travelling to and around Lofoten will use public transport and/or emission-free transport options.

Secondary objective 3.2.4: 60% of tourism companies in Lofoten will have their own climate accounts by the end of 2023 and a climate budget by 01.01.2024.

Secondary objective 3.2.5: Greenhouse gas emissions from the local tourism industry in Lofoten will be reduced by 60% by 2030.

**Main objective 3.3:** *Lofoten will offer and provide value and job creation in the tourism sector, in accordance with nature, culture and society*

Secondary objective 3.3.1: The Lofoten Green Islands 2030 story will build pride and inspire locals to tell the world about our business community and our inhabitants.

Secondary objective 3.3.2: Lofoten's tourism and municipalities will facilitate green innovation and be a natural arena for entrepreneurial enterprises.

Secondary objective 3.3.3: Tourism in Lofoten will create a culture of openness and curiosity that contributes to learning and knowledge exchange with and in the Lofoten population and the outside world.

Secondary objective 3.3.4: In Lofoten, our food culture will serve locally sourced ingredients and products for all meals.

**Main objective 3.4:** *Lofoten is a national pilot area that demonstrates sustainable, zero-emission destinations for the future.*

Secondary objective 3.4.1: Lofoten will be the first destination in the world to offer a commercial zero-emission journey, with experiences and stays from A to Z.

Secondary objective 3.4.2: Lofoten as a destination will become a preferred testing area and pioneer in piloting low-emission, renewable and regenerative solutions within the tourism industry.

Secondary objective 3.4.3: Pilot projects shall be developed and integrated in cooperation with the public sector, local communities and other business enterprises.

Secondary objective 3.4.4: The municipalities of Lofoten and tourism shall be unique, exemplary and courageous endeavor in a national and international context in their willingness and ability to co-create and promote green and sustainable growth in tourism.

## **PROGRAM AREA 4: LOW-EMISSION COASTAL FISHING**

**Main objective 4.1:** *Coastal fishing in Lofoten will have cut greenhouse gas emissions in half by 2030, with the goal of becoming a low-emission value chain from coast to market by 2040.*

Secondary objective 4.1.1: Together, the coastal fishing industry and the municipalities of Lofoten will be a national driving force for a comprehensive regulatory framework and public support schemes that promote green restructuring and green competitiveness for the industry and the region.

Secondary objective 4.1.2: By the end of 2024, 30% of the fishing vessels in Lofoten will have had an "energy and climate report" prepared, with technical analyses of the state and opportunities for energy efficiency to become low-emission vessels.

Secondary objective 4.1.3: Fishing ports in Lofoten will have access to charging infrastructures on land and seaside by the end of 2025.

Secondary objective 4.1.4: By the end of 2026, 10% of existing fishing vessels in Lofoten will be converted to zero-emission vessels, at least 30% by the end of 2030.

Secondary objective 4.1.5: By 2026, low- or zero-emission solutions will be chosen for all new fishing vessels acquired with a home port in Lofoten.

Secondary objective 4.1.6: The receiving and processing of fish and seafood on land shall be part of a low-emission value chain from coast to market.

**Main objective 4.2:** *Coastal fishing in Lofoten will be a viable industry and sustainable value creator for the region, with green competitiveness and low greenhouse gas emissions. Coastal fishing will develop attractive jobs for the future based on sustainable value creation.*

Secondary objective 4.2.1: The municipalities of Lofoten shall facilitate green restructuring, climate measures and innovation – through action plans and budgets.

Secondary objective 4.2.2: The entire value chain for coastal fish shall be certified and classified as environmentally and climate-friendly, with the supply of 'green' raw materials and products in accordance with international and recognized certification and classification.

Secondary objective 4.2.3: Coastal fishing shall take an active approach and role in promoting circular solutions, where the standard is to utilize resources optimally and sustainably across sectors.

Secondary objective 4.2.4: Fish and seafood with a low carbon footprint shall be an important part of Lofoten's food culture; a common priority area in the interaction between private businesses and the public sector.

**Main objective 4.3:** *By the end of 2024, Lofoten will have realized several pilot projects with low-emission infrastructures and associated vessels. Emission-free fuels must be widely available in our fishing ports by the end of 2026.*

Secondary objective 4.3.1: Lofoten shall be a preferred testing area for low-emission fishing vessels and the use of emission-free fuels.

Secondary objective 4.3.2: The national pilot for testing green incentives in fisheries resource legislation and regulations is established in Lofoten with support from the authorities.

Secondary objective 4.3.3: The country's first climate-neutral fish receiving center, seafood company and shipyard will be built and ready in Lofoten by the end of 2025.

Secondary objective 4.3.4: The country's first low-emission zone in an active fishing port will be realized in Lofoten by 2026 and include commercial activities, transport and homes.

Secondary objective 4.3.5: The national pilot program for testing the zero-emission value chain from coast to market for seafood will be realized from Lofoten by the end of 2026.

Secondary objective 4.3.6: Norway's first zero-emission round-trip sea journey (from quay to the fishing field and back in again) throughout the Lofoten fishing season – without the use of fossil fuels – will be realized by one or more fishing vessels with a home port in Lofoten by the end of 2026.

**Main objective 4.4:** *A climate and environmental offensive for the coastal fishing industry in Lofoten to become a sustainable and knowledge-based industry by 2030 that provides recruitment, commitment and pride.*

Secondary objective 4.4.1: Through R&D collaborations, vocational schools and higher education programs, Lofoten will build skills, interaction and pride for climate-friendly coastal fishing and innovative communities.

Secondary objective 4.4.2: The coastal fishing industry in Lofoten will actively cooperate on research and development on green technology in the fishing industry.

Secondary objective 4.4.3: A cluster of expertise will be established and based in Lofoten for emission-free coastal fishing (catch-production-market) in collaboration with Innovation Norway (Norwegian Innovation Clusters).

Secondary objective 4.4.4: R&D projects on energy efficiency in fishing vessels of different sizes, designs and operational arrangements will be carried out in Lofoten

## **PROGRAM AREA 5: LOW-EMISSION AGRICULTURE AND AQUACULTURE**

**Main objective 5.1:** *Through cooperation with public agencies and the business sector, the agricultural and aquaculture industries must achieve low-emission status (80 – 95 %) by 2040 for their machinery and production equipment.*

Secondary objective 5.1.1: Agriculture and aquaculture will reduce emissions into air and water by adopting new technologies and innovative solutions.

Secondary objective 5.1.2: The focus will be on energy savings at all levels and producing our own energy from renewable energy sources or waste and by-products.

Secondary objective 5.1.3: The industries will demand and use new technologies for reduced carbon footprints (environmental and climate) in feeding, spreading manure, combating sea lice etc.

Secondary objective 5.1.4: Agriculture will reduce the transport of animal feed and manure by 50% towards 2030.

**Main objective 5.2:** *The industries will realize opportunities for becoming a circular economy and the sustainable utilization of local resources by initiating R&D projects, building facilities and adopting new solutions.*

Secondary objective 5.2.1: Use residual and waste products for local energy production, based on raw materials from all over the region. From agriculture, at least 35% of livestock fertilizer will be used for biogas production by 2030.

Secondary objective 5.2.2: Lofoten will be a leader in utilizing by-products and waste products for food production.

**Main objective 5.3:** *Lofoten will maintain its production volume and take a leading position in reducing emissions into air and water.*

Secondary objective 5.3.1: Locally-produced raw materials and food products shall be preferred by tourism companies, public institutions and the shops around the region.

Secondary objective 5.3.2: The production potential in Lofoten within agriculture and aquaculture will be exploited in new areas.

Secondary objective 5.3.3: Lofoten will be a leading region in ecological production by 2030

Secondary objective 5.3.4: Ensure efficient and sustainable use of land and localities used for agriculture and aquaculture.

Secondary objective 5.3.5: The municipalities of Lofoten will work actively to put in place green start-ups and recruitment in cooperation with the industries.

**Main objective 5.4:** *The industries shall contribute to increasing knowledge about the environmental impact of local food production and what is being done to reduce it.*

Secondary objective 5.4.1: The industries will invite tourism and other markets into their companies.

Secondary objective 5.4.2: The industries shall provide data and information on how they are implementing climate and environmental measures.

Secondary objective 5.4.3: Lofoten will initiate – and participate actively in – R&D work and other projects that increase knowledge about our own environmental and climate impact, as well as provide a basis for assessing future offers.



## **PROGRAM AREA 6: LOW-EMISSION AVIATION/ ELECTRIC AIRCRAFT**

### **Main objective 6.1:** *Lofoten will be a pilot region for zero-emission air traffic*

Secondary objective 6.1.1: The first commercial zero-emission flight by air will come to Lofoten

Secondary objective 6.1.2: Future FOT (PSO) routes to Lofoten will include requirements for zero emissions.

Secondary objective 6.1.3: Planning must consider and include acreage for emission-free solutions.

### **Main objective 6.2:** *In cooperation with the industry, Lofoten will demonstrate to the world that the future of aviation is emission-free*

Secondary objective 6.2.1: All air traffic to, from and internally in Lofoten shall have zero-direct CO<sub>2</sub> emissions by 2035.

Secondary objective 6.2.2: Together with the Norwegian aviation industry, Lofoten will play a key role in reaching the goal of fossil-free aviation in the world by 2050.

### **Main objective 6.3:** *Future emission-free aviation will contribute to sustainable value creation and regional development*

Secondary objective 6.3.1: Lofoten will be the testing ground for green innovation within the aviation sector.

Secondary objective 6.3.2: In cooperation with the industry, Lofoten will demonstrate to the world that the future of aviation is emission-free.

Secondary objective 6.3.3: Lofoten will exploit the potential for low-emission aviation opportunities to unite the region more closely together.

### **Main objective 6.4:** *Low-emission aviation shall be a significant driver for green tourism*

Secondary objective 6.4.1: The first commercial zero-emission flight by air will come to Lofoten