

# 50 Best Practices from the Nordic Countries

Mikko Halonen, Gaia Consulting

16.11.2017

Nationell verkstad för hållbara livsstilar, Umeå

# Presentation content

Nationell verkstad för hållbara livsstilar – Umeå 16.11.2017



- **Introduction** - Nordic Best Practices in Sustainable Consumption and Production
- **Approach and outreach** - Three Nordic reports and UNEP SCP Clearinghouse outreach
- **Cases included in Umeå presentation**
  - The Soul of Nørrebro, Denmark
  - Urriðaholt sustainable neighbourhood, Iceland
  - Technology-Neutral Procurement of a Full-Electric Ferry, Norway
  - Eco-labelled Cleaning Services in Reykjavík, Iceland
  - New Circular Business Models - Purchases, Work Clothing and The Textile Service Industries, Denmark
  - Wild Sweden, Sweden
  - Pyhätunturi - First carbon neutral ski resort in the Nordic countries, Finland
  - Destination Røros – award winning Sustainable Destination, Norway
  - Ocean Forest, Norway
  - “Heimablídni – dine in the homes of the Faroese”, Faeroe Islands
  - Harvest season calendar, Finland
  - Pregnant? Know your chemicals, Denmark
  - Healthy and eco-smart dietary recommendations by the Swedish National Food Agency, Sweden
  - Free public transportation in Tórshavn Municipality in the Faeroe Islands, Faeroe Islands
- **Q& A**

# Nordic Best Practices

## in Sustainable Consumption and Production

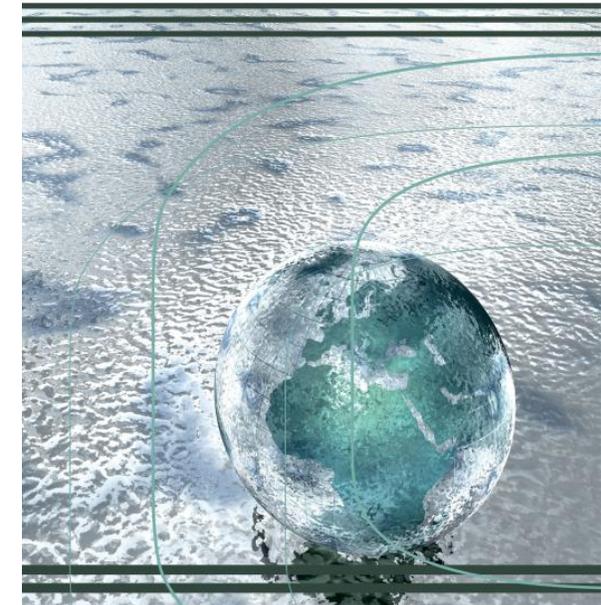
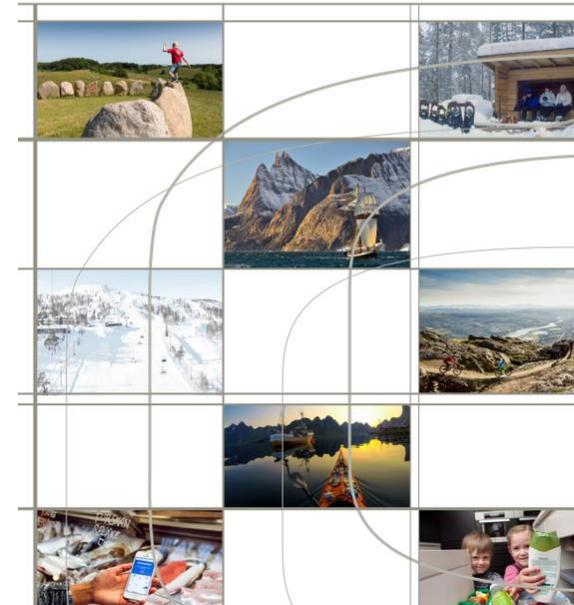
- The series of Nordic Best Practices (2015-2017) showcases **Nordic experiences in promoting sustainable consumption and production** in order to
  - ❖ **share Nordic Best Practices and lessons learned with other stakeholders and partners** in Nordic countries and internationally and facilitate the spreading of **knowledge on effective and successful means** of advancing SCP
- Covering **over 50 initiatives**, selected in collaboration with the NCM-SCP group, presented **in six themes**
  - Sustainable Public Procurement
  - Sustainable Lifestyles and Education
  - Sustainable Tourism
  - Consumer Information for SCP
  - Sustainable Buildings and Construction
  - Sustainable Food Systems
- The work is linked with **UNEP's 10-Year Framework Programme**



# Three Nordic reports and UNEP SCP Clearinghouse

## Approach and outreach

- The cases have been **compiled and presented in a coherent manner to facilitate uptake and replication** with a focus on
  - ❖ comparison of strengths
  - ❖ key results
  - ❖ novelty
  - ❖ lessons learned of each particular case
- The cases have been reported in two **TemaNord reports**, with the third one soon to be published.
- The cases have been introduced also into the **UNEP's 10 Year Framework Program (10YFP) information platform, the SCP Clearinghouse**.
  - a web-based information sharing tool that also provides additional information & links to cases presented in TemaNord reports, at <http://www.scpclearinghouse.org/>



1. <http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A905930&dswid=911>
2. <http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A1044854&dswid=911>

# **Selected Best Practice Cases**

# The Soul of Nørrebro

## Denmark

- **Lead actor:** SLA Architects
- **Objectives:** To promote the interaction between the immediate natural and built environment in Nørrebro, residents and visitors.
- **Activities:**
  1. Climate adaptation with city nature
  2. Differences for all: expectations and dreams of good urban life
  3. Schools as drivers for change for urban nature
  4. Links - linking local areas and their contexts
  5. Working with the urban landscape
- **Results:**
  - **Novelty:** Aesthetic value, where the play and flow of water brings logic to the landscape
  - **Sustainability:** Climate resilience
  - **Cost-effectiveness:** Reduction in negative water impacts
- **Challenges and potential for further development:** Community engagement, integration of nature values in urban development.
- **Next steps:** Both laypeople and professionals, are invited to become involved in the actual implementation, with the project also being part of the overall Copenhagen Climate Adaptation Plan.



# Urriðaholt sustainable neighbourhood

## Iceland

- **Lead actor:** Municipality of Garðabær in Iceland
- **Objectives:** Land use master plan for Urriðaholt, with special attention on sustainable solutions and on the relationship between the urban character of the area and the unique natural environment.
- **Activities:**
  1. Breem certification of the master plan
  2. Sustainable drainage system (SUDS) to safeguard lake Urriðavatn
  3. Community participation - a key element in the preparation of the land use master plan (Charrette method used)
- **Results:**
  - **Novelty:** First application of BREEM communities certification in Iceland. The northernmost SUDS plan implemented.
  - **Sustainability:** Environmental and social impacts
    - Safeguarding of the water level of the pristine lake
    - Sustainable building materials used and energy efficient planning solutions applied
    - Mixed use area with human scale development with focus on pedestrians and accessibility of public transports
  - **Cost-effectiveness:** The cost was somewhat higher because of the sustainable solutions used, but resulted in a high quality living environment.
- **Next steps:** Continued development of the area that is expected to be fully built in 5 to 10 years.



# Technology-Neutral Procurement of a Full-Electric Ferry

## Norway

- **Lead actor:** The Norwegian Directorate of Public Roads
- **Objectives:** To develop a new ferry that is 15 - 20 % more energy efficient than the diesel ferry that was then in operation.
- **Activities:**
  1. A two stage procurement procedure
  2. In order to develop a solution, ferry operators bid for the tender while working in partnership with both engineering firms and ship building yards.
- **Results:**
  - **Novelty:** The new ship was developed as the world's first electrically-powered car ferry.
  - **Sustainability:** Reductions of environmental impacts:
    - kWh/PCUkm: 37 % reduction
    - MJ/year: 60 % reduction
    - ton CO<sub>2</sub> /year: 89 % reduction
    - kg NOx/year: 100 % reduction
  - **Cost-effectiveness:** The cost of this vessel was more expensive than a typical reference vessel. However, fuel cost per km is 70 % lower than for conventional diesel-electric ferries.
- **Next steps:** In approving the National Budget for 2015, the Norwegian Parliament adopted the following decision: "The Government is requested by the Parliament, to ensure that requirements for zero-emission technology (and low-emission technology) are included in all future tenders for public ferries, when the technology allows for it."



**News:** The ferry was named Ampere and it has performed really well. There is an on-going process for ordering of *60 new full-electric ferries* to replace a part of the 200 ferries in Norway by the year 2021.

# Eco-labelled Cleaning Services in Reykjavík

## Iceland

- **Lead actor:** The City of Reykjavík
- **Objectives:** The aim of the Green Cleaning Program in the City of Reykjavík is to obtain environmentally sound cleaning services for the city's operations.
- **Activities:**
  1. Market survey to assess availability of eco-labelled alternatives
  2. Pilot projects in two procurement processes of cleaning contracts
  3. Assessment of cleaning needs and procurement criteria
- **Results:**
  - **Novelty:** In two years, the market share for eco-labelled cleaning services in Iceland grew from less than 10 % to over 50 %. Number of Nordic Swan eco-label licenses (also in other sectors) has grown to be five times larger from 2009 to 2015.
  - **Sustainability:** Lowering the cleaning frequency resulted in better quality of cleaning and a decrease in the use of cleaning products, water and less wastewater production.
  - **Cost-effectiveness:** The cleaning costs were lowered by 50 % - a total annual saving of 539 700 Euros.
- **Challenges and potential for further development:** Given the market expansion, it may be possible to include the more ambitious criteria as part of the technical specifications in future tenders.
- **Next steps:** The Green Cleaning Program will continue as a part of the Municipal plan of the City of Reykjavík.



# New Circular Business Models: Focus on Purchases, Work Clothing and The Textile Service Industries



## Denmark

- **Lead actor:** City of Herning, Denmark
- **Objectives:** The City of Herning wanted to find out how to include reuse and recycling of work clothes into daily operations in the purchase and supplier chains, both practically and legally.
- **Activities:**
  1. Criteria for reuse were defined
  2. Circular economy aspects were introduced to the contract for textile services
  3. Compilation of a general guide into circular economy, which can be used in other purchasing areas and by other municipalities.
- **Results:**
  - **Novelty:** Criteria for recycling and disposal of work clothes
  - **Sustainability:** Saving of 1011 tonnes of CO<sub>2</sub> in four years time, and positive social impacts through dialogue
  - **Cost-effectiveness:** Saving of 6 700 euros in four years time
- **Challenges and potential for further development:** Technical and commercial challenges, and development of material transfer from old to new clothes as well as value assessment of clothes.
- **Next steps:** Introducing concept of circular economy to other new tender processes by the City of Herning. To advance aspects of commercial applications and business development.



# Wild Sweden

## Sweden

- **Lead actor:** Skogens Konung AB / Wild Sweden
- **Objectives:** Wild Sweden aims to offer genuine nature experiences that support both wildlife conservation and sustainable local economic development.
- **Activities:**
  1. Wild Sweden takes its customers to see moose, wolves, brown bears, beavers, and wolverines in the Swedish wilderness. The tours range from 5-hour excursions to 8-day trips and include accommodation, food, and transport.
  2. Guides are local nature experts. Wild Sweden cooperates with small guesthouses in rural areas, supporting local jobs and providing an authentic atmosphere.
- **Results:**
  - **Success:** Wild Sweden's success has gained them several awards, including the Swedish tourism award "Stora Turismpriset" in 2015 and being one of the "50 Tours of a Lifetime" listed by National Geographic in 2015.
  - **Sustainability:** Wild Sweden offers sustainable nature excursions, with unique wilderness experience and wild animals in their own habitats.
- **Challenges and potential for further development:** Most of the clients are not Swedish and the biggest potential lies abroad. It is good to know the other local tourism companies and meet with them, even though they might be competitors, since it provides opportunities to learn from each other.
- **Next steps:** Wild Sweden is planning to begin to offer more long, multi-day trips and probably less of the short day-trips. They have also started offering Northern Lights tours to the Swedish Lapland, which have already proven a success.



# Pyhätunturi - First carbon neutral ski resort in the Nordic countries



## Finland

- **Lead actor:** Pyhätunturi Ltd
- **Objectives:** To sustain the surrounding nature and ensure future profitable business opportunities.
- **Activities:**
  1. Implementing an environmental program and training employees.
  2. Purchasing renewable energy, more energy efficient slope machines and launching an incentive program rewarding employees for energy savings.
- **Results:**
  - **Novelty:** The first carbon neutral ski resort in Nordic countries.
  - **Sustainability:** Since 2008, the electricity consumption of slope operations has reduced by 6 % and the fuel consumption of slope machines has reduced by 50 %. Since 2010, Pyhätunturi has compensated CO2 emissions from fuel use in the slope machines through Nordic Offset.
  - **Cost-effectiveness:** Improved energy efficiency and increased automation have reduced costs.
- **Challenges and potential for further development:** Involving employees in the environmental program development and implementation from the beginning is seen as crucial to the success.
- **Next steps:** Developing mobile fences for natural snow collection in order to minimize need for artificial snowmaking and related energy and water consumption. Surveying possibilities to implement a "solidarity fridge" for tourists in order to minimize food waste.



# Destination Røros – award winning Sustainable Destination

## Norway

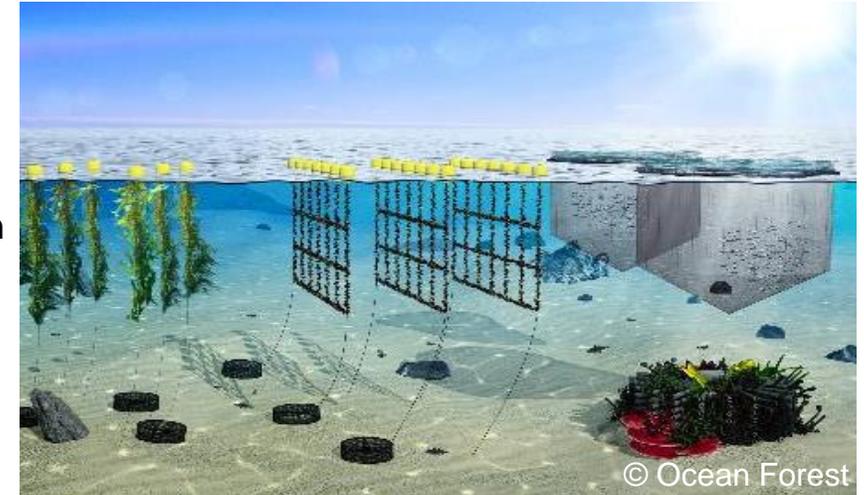
- **Lead actor:** Destination Røros
- **Objectives:** To increase the attractiveness of the World Heritage Site Røros Mining Town and the Circumference in a sustainable manner.
- **Activities:**
  1. In 2007, a new strategy focusing on the World Heritage and Sustainable tourism was launched. Investments focused in environmental improvements and local food culture.
  2. Encouraging companies to go through an environmental certification process and encouraging visitors to act in a sustainable manner.
- **Results:**
  - **Novelty:** Destination Røros helped Innovation Norway to develop a certification scheme for sustainable tourism at destination level. Røros was among the very first to receive the Sustainable Destination certificate.
  - **Sustainability:** Destination Røros offers visitors authentic cultural experiences, which are based on the world heritage, local food culture and many cultural events.
  - **Cost-effectiveness:** Destination Røros has managed to turn a deficit into positive numbers. Local food industry has grown from less than 30 people to over 100 people working directly with local food production. Around 1 million tourists visit the World Heritage mining town Røros annually.
- **Challenges and potential for further development:** The possibilities of Destination Røros to influence the transportation choices visitors make remains a challenge.
- **Next steps:** Destination Røros renewed its certification in 2016 (needs to be renewed every three years). The strategy of Destination Røros is to constantly improve the sustainability of the destination and to encourage even more companies to apply for a certificate.



# Ocean Forest

## Norway

- **Lead actor:** Lerøy Seafood Group and the Bellona Foundation
- **Objectives:** To develop more sustainable seafood production and to reduce the environmental footprint of aquaculture.
- **Activities:**
  1. First R&D aquaculture facility was established 2014. Plantation of mussels and seaweed was begun in September 2014.
  2. Activities include cooperation with third parties in research and production of end products.
  3. Fish feed tests have been done with pellets including mussel meal. Reliable methods to cultivate seaweed have been found.
- **Results:**
  - **Novelty:** Industrial seaweed cultivation in Europe is in the very early developmental phase. Lerøy Seafood Group has launched new products, including seasonings based on seaweed, dried seaweed for chefs and seaweed-seasoned salmon.
  - **Sustainability:** Kelp can remove 30-100% of dissolved nitrogen produced by fish farming. Each wet ton of sugar kelp binds 2,4 kg nitrogen, 340 g phosphorus, and 100 kg CO<sub>2</sub>.
  - **Cost-effectiveness:** Seaweed processing and storing cause the largest costs.
- **Challenges and potential for further development:** Seaweed has to be processed in less than 24 h after harvesting. The chemical composition of seaweed varies with the season. Separating the soft and hard parts of the mussels and processing the mussel meat into dry powder requires further development.
- **Next steps:** A commercial seaweed facility is going to start its operation in autumn 2018, with target being stable industrial production of seaweed, and with increased focus on sales and marketing.



# “Heimablídni – dine in the homes of the Faroese”

## Faeroe Islands

- **Lead actor:** Households in the Faroes Islands
- **Objectives:** To make it possible for the local families and farms to gain some additional income from providing hospitality services to visitors to the Faroes and to offer the possibility to dine in remote areas, where few or no restaurant services exist. To introduce visitors as well as Faroese to the distinct traditional Faroese cuisine and to preserve the culture.
- **Activities:**
  1. Heimablídni, or home hospitality, is a dining concept that involves serving local, often traditional, Faroese food in a home.
  2. Legislation changes were necessary to make it possible to enable serve home cooked food to visitors
- **Results:**
  - **Novelty:** Anna and Óli Rubeksen have been pioneers of the concept and have, as representatives for Heimablídni home hospitality, received the Nordic Council of Ministers Embla award for best food tourism destination for the service in 2017.
  - **Sustainability:** Develops and preserves traditional methods of cooking traditional for Faroes Islands such as the raest
- **Challenges and potential for further development:** Good potential for development as food related tourism services are highly valued.
- **Next steps:** There seems to be a good potential for providing and developing these types of services. Even visitors that usually do not want to spend a lot of money on other types services, such as hotels, often value highly unique food experiences and are willing to pay more for better quality. Gastronomy is increasingly an integral part of the tourist experience.



# Harvest season calendar

## Finland

- **Lead actor:** Sesonkia Ltd
- **Objectives:** The objective is to change the consumption habits of consumers to include more fruits and vegetables and to diversify the choice of the produce that is being used.
- **Activities:**
  1. Publication of a calendar that guides the use of seasonal vegetables and fruits
  2. Cooperation with food retailers on guiding consumers to use seasonal produce
  3. Calendar also for fish
- **Results:**
  - **Novelty:** Consumers have forgotten how to use produce seasonally and use very few different products
  - **Sustainability:** Using seasonal produce reduces CO2 emissions from transports. Seasonal produce has better nutritional content, taste and quality.
  - **Cost-effectiveness:** Using seasonal produce enables saving money
- **Challenges and potential for further development:** Food is a personal issue. Positive communication and examples work much better than preaching and negative communication. Consumers are most interested in cost savings and the taste of the food. The threshold for adopting new behaviors needs to be very low. There are many food related beliefs that are not based on scientific facts.
- **Next steps:** The calendar has been published annually and has been very popular. Several cookbooks have also been published, based on seasonal thinking.



© Sesonkia Ltd

# Pregnant? Know your chemicals

## Denmark

- **Lead actor:** Danish Environmental Protection Agency
- **Objectives:** To provide women with easily accessible impartial information on chemicals to be avoided before or during pregnancy.
- **Activities:**
  1. Information campaigns since 2006 including a homepage, social media and a folder with specific information on pregnancy, children and family life as well as printed materials in magazines and local papers.
  2. The information folder is distributed to pregnant women during visits at the midwife or doctor's office.
- **Results:**
  - **Novelty:** Provides information on substances, which may be harmful for the endocrine system.
  - **Sustainability:** About 86 % of the target group have learned something new and useful on how to avoid harmful chemicals during pregnancy through the campaign.
- **Challenges and potential for further development:** To ensure that the information also reaches less aware and less informed women. Focusing more on other recommendations than to avoid smoking and alcohol, because the awareness of these particular risks is already high.
- **Next steps:** The campaign will continue and the materials will also continue be distributed to women through doctors.



# Healthy and eco-smart dietary recommendations by the Swedish National Food Agency

## Sweden



- **Lead actor:** Swedish National Food Agency
- **Objectives:** To promote consumers' healthy and eco-smart food choices based on the newest scientific research.
- **Activities:**
  1. Developing new dietary guidelines with practical tips supporting consumers in their everyday food choices and highlighting healthy and climate smart food choices.
  2. Launching a "Diet check" –application to check how healthy a diet is and to evaluate what kind of dietary changes would be good to make.
- **Results:**
  - **Novelty:** Few national level guidelines by food agencies include recommendations for a healthy diet, where sustainability and ethical aspects are combined with recommendations for energy balance and exercise.
  - **Sustainability:** Each dietary recommendation is linked to information on the positive environmental impacts of the food choices. The aim of the concept is to inspire and motivate lifestyle changes.
- **Challenges and potential for further development:** Even if people know what a healthy diet is, ingrained behaviors are difficult to influence. Therefore, communication efforts target especially key groups such as dieticians, teachers and nurses.
- **Next steps:** Communicating the dietary recommendations to key stakeholders, such as dieticians, nurses and teachers, whose role is to inform and educate consumers and to get them to commit to making lifestyle changes. The project will also be further evaluated.



# Free public transportation in Tórshavn Municipality in the Faroe Islands

## Faeroe Islands

- **Lead actor:** Tórshavn Municipality
- **Objectives:** Reducing private car use and related negative environmental, health and social impacts.
- **Activities:**
  1. In 2008 the municipality of Tórshavn established free public bus transports for all.
  2. 2010-2011 the frequency of the buses was increased and old buses were replaced with new, smaller models more suitable for city driving.
- **Results:**
  - **Sustainability:** Increased number of journeys taken by bus. Reduced air pollution and CO<sub>2</sub> emissions.
  - **Cost-effectiveness:** Reduced road maintenance costs due to reduced traffic. Less investment required to provide parking facilities.
- **Challenges and potential for further development:** Route planning has been easier with good statistics collected on how passengers use the buses. The future challenge is mainly how to optimise the routes. The taxi drivers would like to limit the use of the free buses to the inhabitants of the city.



Pictures: © Tórshavn Municipality

# Our Clients Make the World Cleaner and Safer.



[www.gaia.fi](http://www.gaia.fi)

Mikko Halonen  
International business development  
Gaia Consulting Oy  
mobile: +358 40 700 2190  
email: [mikko.halonen@gaia.fi](mailto:mikko.halonen@gaia.fi)



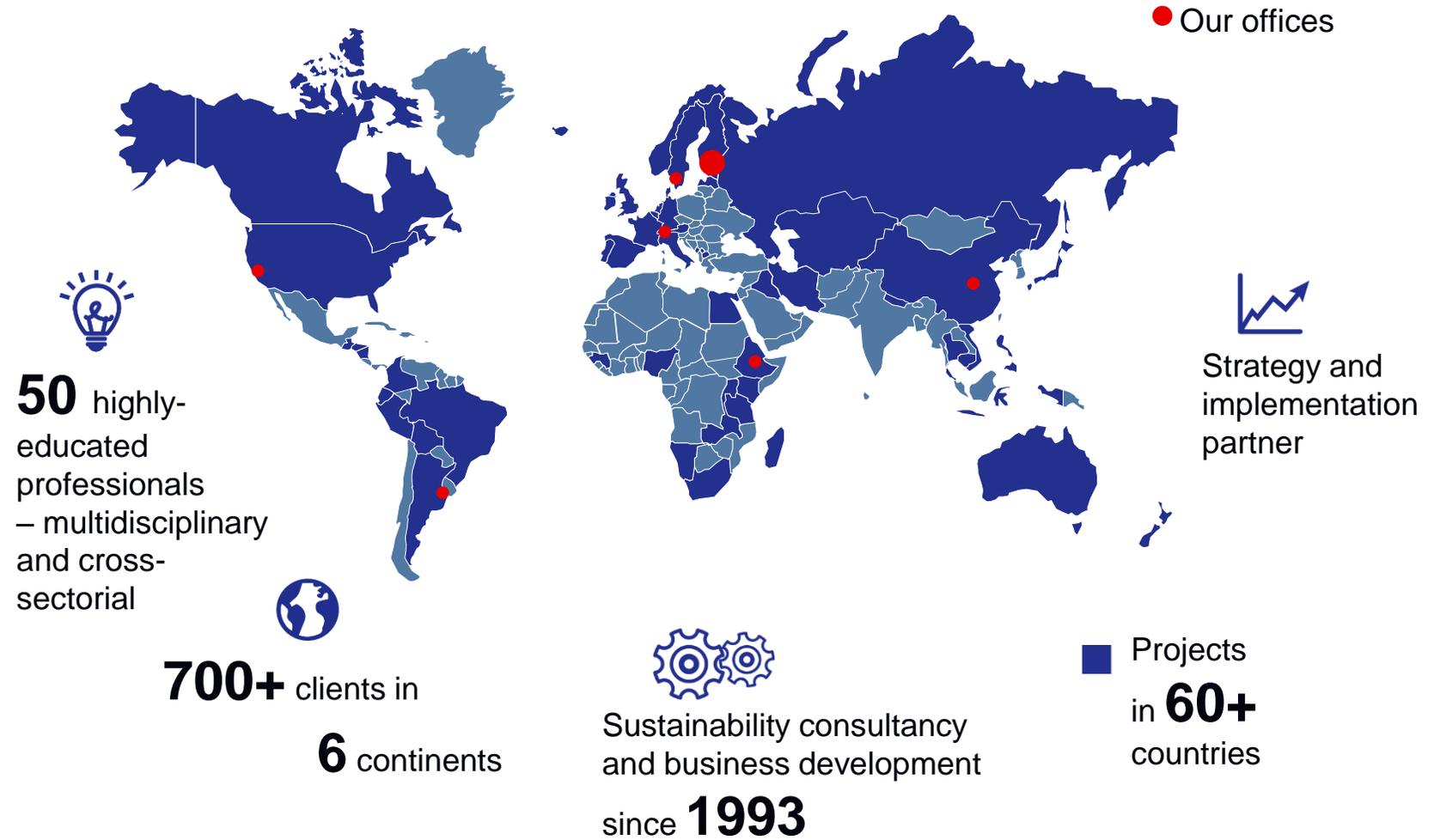
Anna Kortesoja  
Senior consultant  
Gaia Consulting Oy  
mobile +358 50 504 2440  
email [anna.kortesoja@gaia.fi](mailto:anna.kortesoja@gaia.fi)



# Our Clients Make the World Cleaner and Safer



Gaia is an independent consultancy for Sustainable Business. We help our clients become more competitive with responsible business that respects the environment. Sustainable business means efficiency, reduced risks and new opportunities. It is all about producing more from less.



**50** highly-educated professionals – multidisciplinary and cross-sectorial



**700+** clients in **6** continents



Sustainability consultancy and business development since **1993**



Strategy and implementation partner

■ Projects in **60+** countries

# Gaia Team – at Your Service



- 50 highly-educated experts  
– multidisciplinary and cross-sectorial
- Sustainability and business development consultancy since 1993
- Strategy and implementation partner
- Over 700 clients in 5 continents
- Offices in Helsinki, Turku, Addis Ababa, Beijing, Gothenburg, Buenos Aires, San Francisco and Zürich



# Our Solutions for Sustainability



## Energy & Resources

Our services help you generate more from less. Energy and resource efficient are in the heart of efficient business.



## Risks & Responsibility

Our services strengthen your license to operate. Responsible companies that manage risks and adhere to proper safety measures do better business.

## Environment & Climate

Our solutions serve to reduce your environmental impacts. The proper management of environmental impacts is a crucially important part of successful business.



## Cleantech & Bioeconomy

We can help you find new business opportunities. Sustainable business turns challenges into new business.

