

DEVELOPMENT AND SUSTAINABILITY AGENDA FOR ÅLAND

STATUS REPORT 1

APPROVED BY THE DEVELOPMENT AND SUSTAINABILITY COUNCIL 12 JUNE 2017

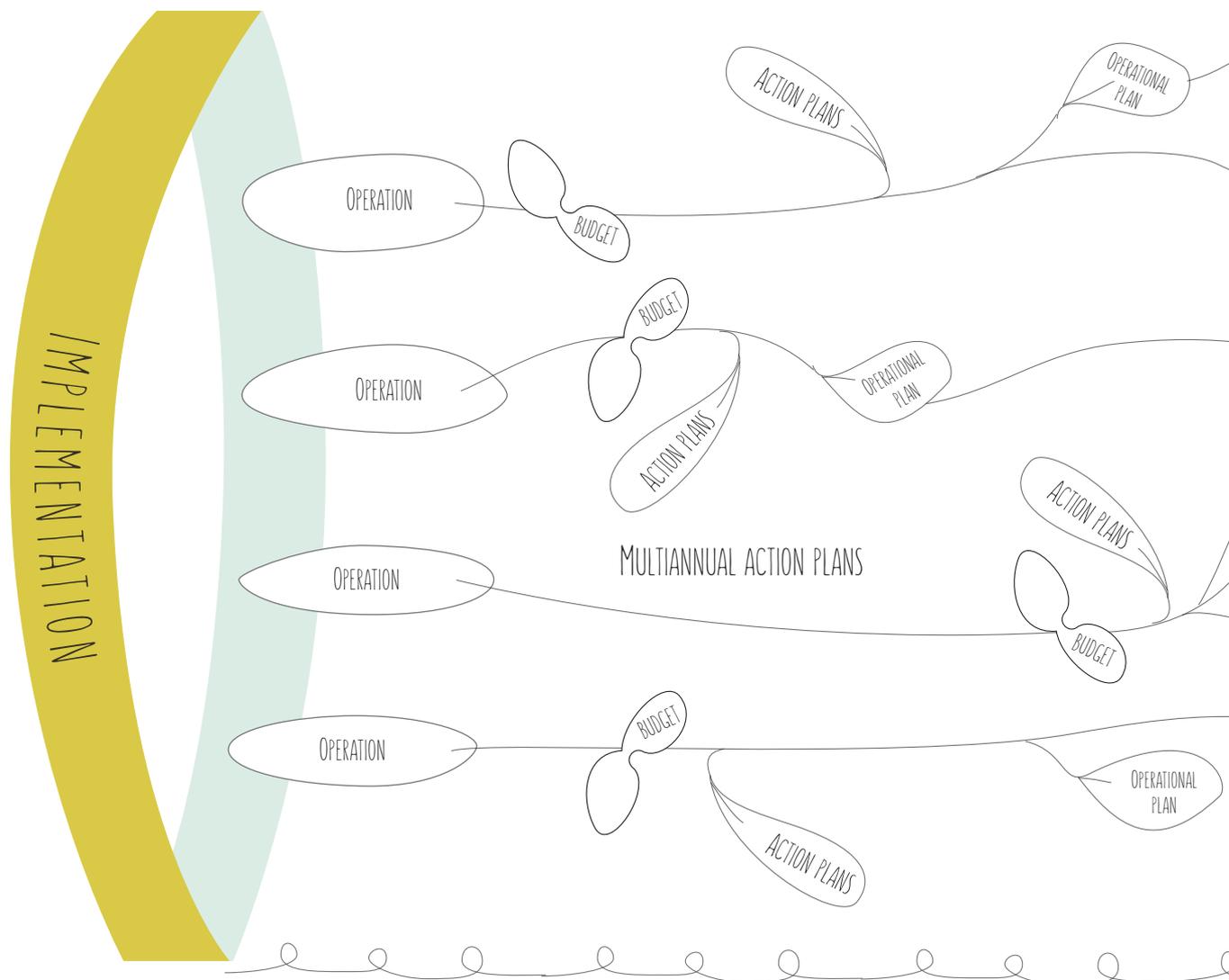


www.barkraft.ax

THE PROCESS

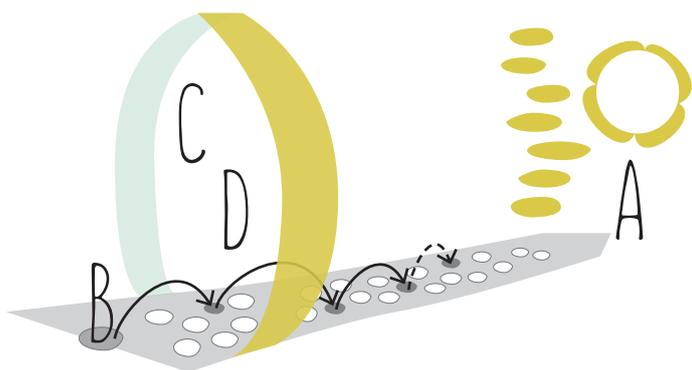
Development and Sustainability Agenda for Åland

IMPLEMENTATION IS PART OF EVERYDAY OPERATIONS



2017 - 2051

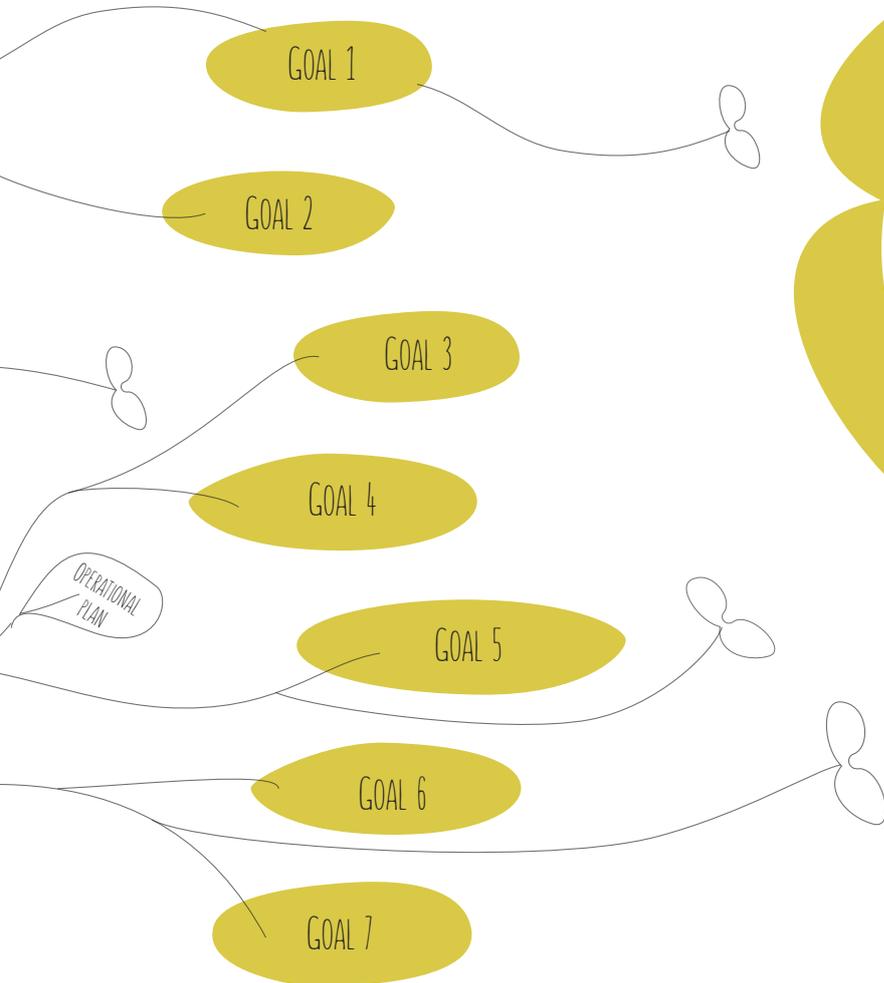
Support for the realization of the vision and strategic development goals



SHORT PRESENTATION OF THE ABCD-METHOD

An ABCD-process is about first (A) defining an operation's desired position in the future (vision and goal). Then the current position (B) is analyzed relative to the principles of sustainability, and the gap between (A) and (B) is identified. This is followed by brainstorming possible short and long term actions and solutions (C) that can contribute to promoting the operation from the current position (B) to the desired position (A). This is followed by a prioritization of the possible actions (C) and the definition of a concrete action plan (D).

STRATEGIC DEVELOPMENT GOALS 2030



VISION 2051*



*Framed by four sustainability principles (see below)

ANNUAL MONITORING INCLUDING INDICATORS



- with the network Bärkraft.ax as hub

THE FOUR SUSTAINABILITY PRINCIPLES

In a sustainable society, **nature is not subject to** systematically increasing...

1 ... concentrations of substances extracted from the earth's crust (fossil fuels, metals and minerals)

2 ... concentrations of substances produced by society (synthetic substances, chemicals that contain persistent substances; or natural substances that are in use in larger quantities than nature can handle)

3 ... degradation by physical means (over-exploitation of natural resources, such as water, woodland, fish-stocks or farmland; the use of important natural environments for, for example, building, the introduction of alien and invasive species, production that results in waste rather than being a closed substance cycle)

4 And in that society people are not subject to structural hindrances for health, influence, skills development, impartiality and creation of meaning.

1. THE DEVELOPMENT AND SUSTAINABILITY COUNCIL LOOKS AHEAD

The vision for Åland and the seven strategic development goals provide a clear picture of the desired direction for the future development of society.

With the help of the status report we can all gain an in-depth understanding of the current position and thereby even increased understanding of the gap between the vision and the current position.

The status report also reveals those areas where we today lack access to data for the current position or fully developed indicators that can be used to measure how we progress toward the strategic development goals. Among other things, it would be desirable to be able to follow the development of trust in society. A further development of data collection for sustainable and mindful consumption and production is also desirable.

We are now ready to progress. The good examples that are presented in the status report demonstrate several of the activities that contribute to the realization of the Development and Sustainability Agenda, and which are currently being implemented. It is the hope of the Development and Sustainability Council that even more activities will be initiated during the coming year.

Together we have the strength that is needed for the realization of the agenda. It is above all else desirable that businesses, municipalities, associations, authorities and the regional council adopt a program of strategic sustainability based on the agenda's vision, the strategic development goals and the principles of sustainability, within their regular operational plans and budgets for the year 2018.

We must all take responsibility, both as individuals and collectively. As council members we wish, in our everyday lives, to make conscious decisions and correct choices for the sake of nature, the climate and our common future. It is important that we allow each other to test new ways, to learn from the experiences, attempts and mistakes of others, and to share that which has succeeded well.

The Development and Sustainability Council in May 2017

Head of Government Katrin Sjögren
(the council's chair)

Children's Convention Adviser, Save the Children Åland, Danielle Lindholm

Deputy Head of Government Camilla Gunell

Head of Administration and Development, Government of Åland, Dan E Eriksson

Chair, Ålands Producentförbund [Åland's Agricultural Producers], Tage Eriksson

Chair, the Åland Chamber of Commerce, Peter Wiklöf

Principal, Åland University of Applied Sciences, Edvard Johansson

Mayor, the Town of Mariehamn, Barbara Heinonen

Vice-Chair, Ålands Natur & Miljö [Åland Society for Nature and Environment], Petra Granholm

Manager, Emmaus Åland, Robert Jansson

President and CEO, Viking Line Abp, Jan Hanses

Deputy CEO, Eriksson Capital Ab, Rebecka Eriksson

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The report is produced within the framework of the network Bärkraft.ax

2. INTRODUCTION

2.1 How to Read the Report

DESCRIPTION

The status report is intended to be read in parallel with the “Development and Sustainability Agenda for Åland”, in which the vision and the seven strategic development goals for the year 2030 are described in detail (www.barkraft.ax).

The agenda describes each one of the strategic development goals in the vision’s powerful and inspiring form: in the present, as if we were already there. In this status report the equivalent texts describe the situation today, 2017, with the aid of the latest statistics that are available. In addition to the more evaluative text, the chosen indicators, with the help of statistics, make the current position more measurable and comparable.

The strategic goals are not totally comparable with each other. Energy consumption is easier to measure than people’s happiness, and water quality is definable in a very different way than people’s trust and close relationships.

SEE THE PROCESS

Our society is extremely complex. The very welfare that we take for granted is partially constructed on unsustainable systems, such as access to cheap fossil energy and over-consumption of finite resources. To change completely is to test new territory. Sustainability work is a process in which we all learn new things.

This year’s status report is the very first. An important part of the work has been to find the right factors to measure. The indicators should be internationally comparable yet still of maximum relevance for Åland: How can a few questions be chosen for every strategic development goal so that they are relevant to as many people as possible and reveal as much as possible about reality? The search for indicators poses new questions, such as the absence of a certain type of statistic. In this initial status report,

the thoughts behind the selection process are therefore made visible.

BE INSPIRED

If the transition to a sustainable society is to succeed, it requires that every one of us exercises the responsibility of leadership and assesses our personal role in the realization of the vision.

Åland is full of good examples of just this sort of thing, both multisectoral and more specific to one sector. Some of these are included in the status report to demonstrate how the Development and Sustainability Agenda can be implemented in various business operations: “You can work like this”.

Sustainability work is about learning more and feeling involved and motivated. The hope is that you, reading this report – politician or civil servant, business leader or self-employed, cultural worker, farmer or parent – will find something that concerns you:

I want to know more about this. I want to be involved with this. I can work with this. The most important questions concern us all, regardless of occupation and position in society: What does the vision mean for me? How can I contribute, precisely where I am now?

DON'T JUST READ ABOUT “YOUR” SECTOR

Åland in its entirety, a municipality, the hospital or a kindergarten, a company, an association – or a family: everyone can conduct a sustainability analysis.

- ✂ Where do we stand in relation to the vision?
- ✂ How does our organisation work with regard to the sustainability principles?
- ✂ Which of the strategic goals can we in particular help to realize?

Human activities are seldom as limited to one special sector or special area of interest as we would like to think. The issues of social sustainability in the strategic development goals 1 and 2 are important

in all activities. We all use water and energy, we are all consumers and, regardless of our position in society, we would all be happy to know that the Baltic Sea is in good condition and that society is characterized by trust – a security beyond that of the number of locks on the door. To familiarize yourself with the current situation in relation to the strategic development goals gives an overall picture of Åland society from the perspective of sustainability.

2.2 Toward the Vision

2014

Nature constitutes the foundation of human existence. Based on this insight, the democratically elected members of Åland's parliament and government decided on a common endeavour: Åland shall be a sustainable society at the latest by 2051.

This is in accordance with the so-called sustainability principles, an internationally used definition of the concept of sustainable development.

The sustainability principles are a description of what is required in order to maintain life on our planet, but at the same time they function as a common reference framework. With a common language we can all, citizens, politicians, public institutions and associations, pull in the same direction despite varied knowledge, resources and interests.

2015–2016

This common endeavour needed an image that could motivate and show the way: What does our sustainable Åland look like?

Within the framework of the newly started network, Bärkraft.ax, everybody was invited to contribute to this question. Hundreds of Ålanders took part in workshops and discussions. The process resulted in the Development and Sustainability Agenda for Åland, with a vision for Åland:

Everyone can flourish in a viable society on the Islands of Peace.

To support the realization of the vision, the Development and Sustainability Agenda defines seven strategic development goals for 2030, which follow both the sustainability principles and contribute to achieving the UN's 17 sustainable development goals for the world as stated in Agenda 2030.

2017

The status report that you now hold in your hand is a description of the current situation.

How far from the vision is Åland today, in the year 2017?

By mapping the current situation in various areas today, it is easier to visualize the sustainability gap. Where is change needed? What needs to be done, and who shall do what? Which areas need to be prioritized? How can all of us who live and work in Åland, in our location and in our work, contribute to our achieving the vision of a sustainable Åland?

HOW can Åland become a sustainable society?

Now is the time to find solutions and remove obstacles to enable the realization of the vision and the strategic development goals. Ideas and commitment in quantity are required at all levels and within all sectors in society. The next step is to choose and prioritize: to create the route plans.

Many activities and actions are already underway. A selection of these are presented in this status report. But the work must be continuously evaluated. Are we doing the right things in the right way? Is the gap between the vision and reality reducing, or do we need to rethink? Invest differently? The annual status report is intended to both measure and motivate work with sustainability.

3. THE CURRENT SITUATION

IN RELATION TO THE VISION AND THE SEVEN STRATEGIC DEVELOPMENT GOALS

3.1 Introduction

The texts in chapter three are a concise and general description of the current situation in relation to the vision and the sustainability principles, and are divided between each of the seven strategic development goals. Each goal is different in both theme and range, and the material for the descriptions of the current situation has in addition been produced by different people and in different ways. That the descriptions sometimes overlap on some point is natural: the goals, as constituent parts of the same vision, also partially overlap.

The descriptions of the current situation are intended to say something about how people experience their reality and about the structure of society in 2017. They describe the sustainability gap – the difference between the vision and our reality here and now – but also touch on ideas and initiatives: What could we do next? How could we bridge the sustainability gap?

The descriptions are not complete, but can be developed in future reports when we have more information. They can also function as starting points while we seek the right way to describe, measure and monitor the work that is being done on the way to a sustainable society.

Systematic monitoring is the Alpha and Omega of ensuring that we achieve the vision. It is important to measure what we do to enable us to see that we are approaching the strategic goals at the right time and with the right resources, and also within the framework of the sustainability principles. Every text is therefore complemented with a number of so-called effect indicators, which have been chosen to describe essential aspects of the current situation, and which should be relevant to monitor in future reports during the journey toward a sustainable society. The effect indicators say something about

“How does Åland feel?” and “Are we going in the desired direction?”. In addition to the effect indicators, essential aspects are listed, *which are relevant to develop further, possibly as indicators or another form of monitoring.*

A condition of success is that the multisectoral work (see chapter 6) takes place systematically and coordinated according to plan. In the future we will therefore need to develop indicators that enable the monitoring of questions, such as: “Are we following our own plan.... in other words, are we doing what is necessary so that Åland will feel better?”.

3.2 Strategic Development Goal 1 – Happy people whose inherent resources increase

How can we measure happiness and the degree to which people flourish in numbers and statistics? Every person is unique and changeable. She is a child of her time and culture, her background and experiences; a product of society’s structures. But she is also a being in constant change. She is affected by the people around her, by the personal choices she makes and by how she herself understands her place in the world. The sum of all this can be measured in collective tendencies, but individual people and their lives are more difficult to fully capture in bar charts and tables.

Åland in 2017 is a society that is flourishing in many ways: a safe island in the midst of the Nordic welfare countries. Low infant mortality and the right to health care and basic education of high quality are self-evident for us, unlike many places around the world. In the year 2015 the expected lifespan at birth was 84.0 years for women and

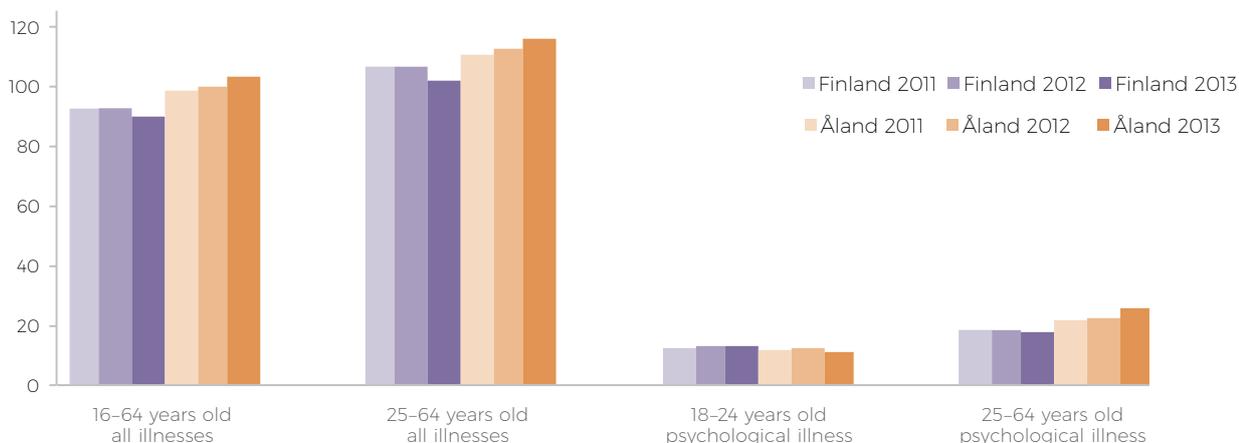
80.6 years for men. In Åland we have a high level of health care despite our small size. We have good compulsory basic education (age 7 to 16), with many schools, small classes and qualified teachers.

The themes that are included in the social sustainability principles represent a norm in the Nordic welfare society. But that which we think is obvious should not be taken for granted. And that something is considered to be the normal state does not mean that everyone is similarly favoured. Here are a few examples of the challenges with which we still have a way to go.

Health

“Sick-leave caused by psychological illness is more common on Åland than in Finland” as stated in the report, *Folkhälsorapporten 2015* [Health Statistics 2015]. And further: “sick-leave caused by psychological ill health is more common in women than men, and more common in older adults than in younger adults”. We see also that: “the level in older adults in Åland has risen during recent years unlike the situation in Finland where the levels have sunk”.

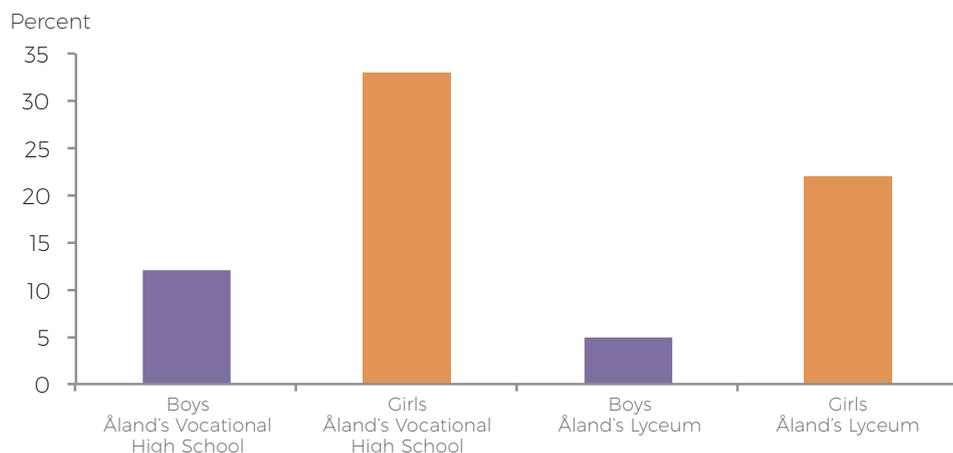
Proportion of people per 1000 in respective age-groups in Finland and in Åland that have received sickness allowance or sickness allowance solely due to psychological illness



Source: Åland Folkhälsorapport 2015, p. 19. [Health Statistics 2015]

We can also see that young girls are experiencing worsening health, which is a common trend in the Nordic countries. Nordic research shows that the causes depend partially on body image and looks, the need to perform, and pressures in connection with social media.

Moderate or severe anxiety amongst upper-secondary school students 2015 by school and gender



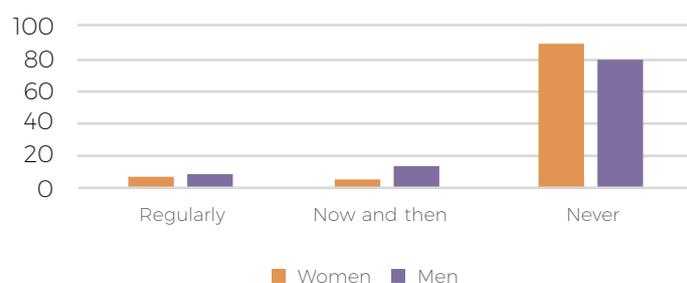
Source: THL. School Health Promotion study 2015, first and second year students

An urgent question in the current situation is how we can work in a preventative way and create a society where children, teenagers and adults receive the tools to cope with difficulties and relationships without resorting to violence and drugs. Alcohol is today

socially accepted. The statistics show that Åland's upper-secondary school pupils drink more than in mainland Finland. Narcotics are available on Åland today, and have dire consequences both for drug users and the surroundings.

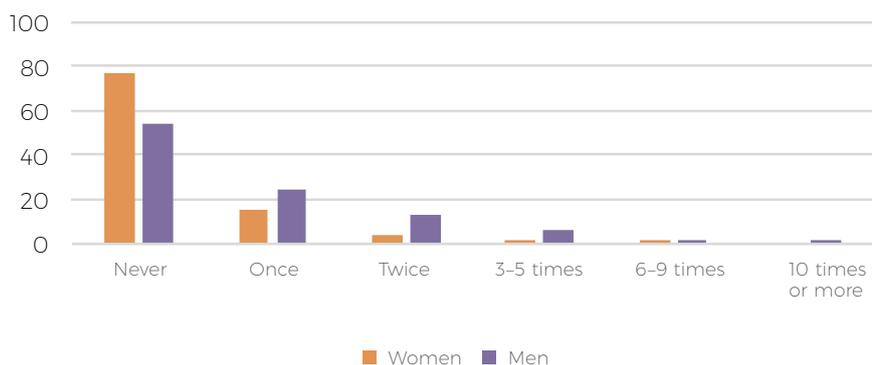
Proportion of people aged 18-79 who smoke according to gender

Results from a survey conducted in 2016.



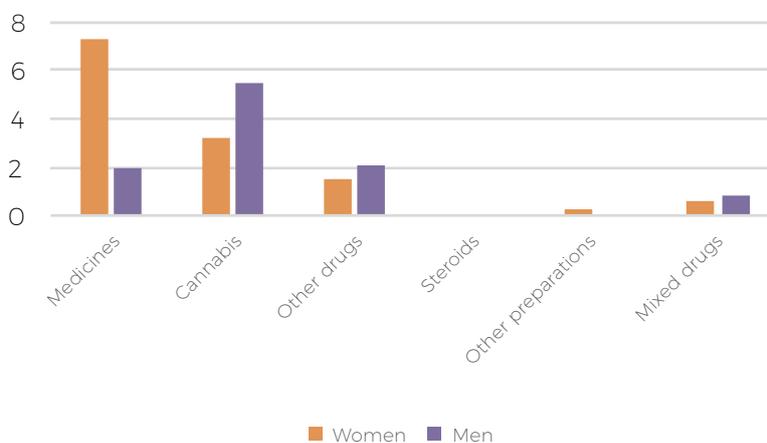
Alcohol consumption among people aged 18-79 according to gender

Proportion of 18-79 year olds who have consumed at least 6 units of alcohol at one and the same time during the last month. Result from a survey conducted in 2016.



Use of intoxicants among people aged 18-79 according to gender

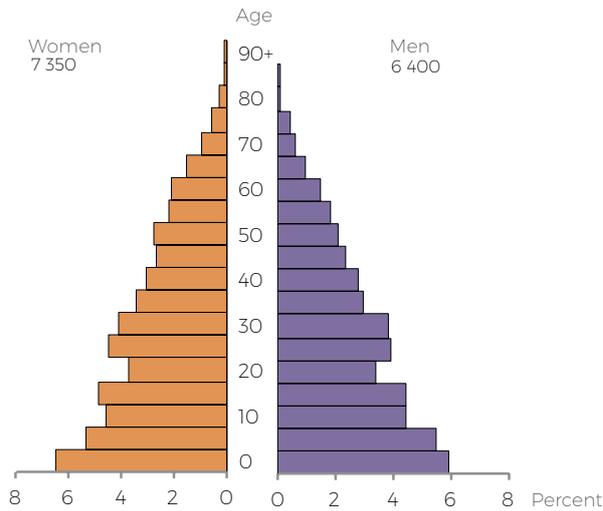
Proportion of people aged 18-79 who have used intoxicants at least once during the last five years. Results from a survey conducted in 2016.



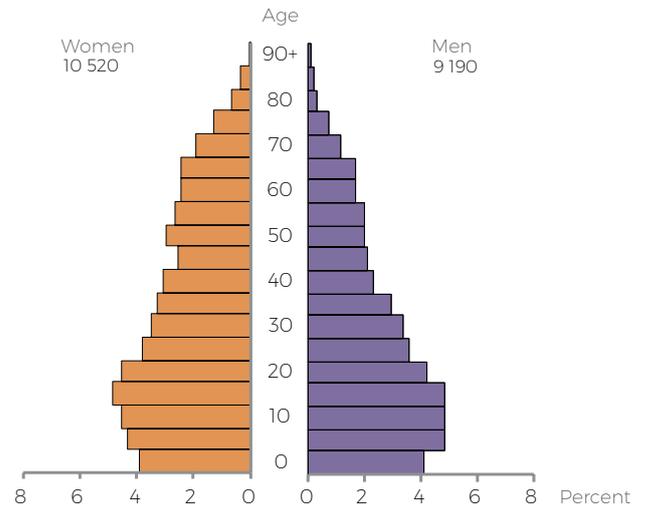
The population is growing in size and becoming older. Today every fifth Ålander is 65 years or older. By 2040 the population is predicted to have increased to just over 34 000 people, of which over 1000

people will be over 85 years old. This will put demands on elderly care and healthcare, and increase the need to focus on accessibility.

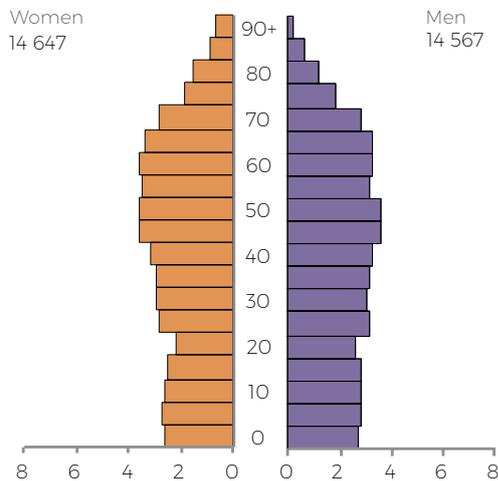
Distribution of age groups 1830



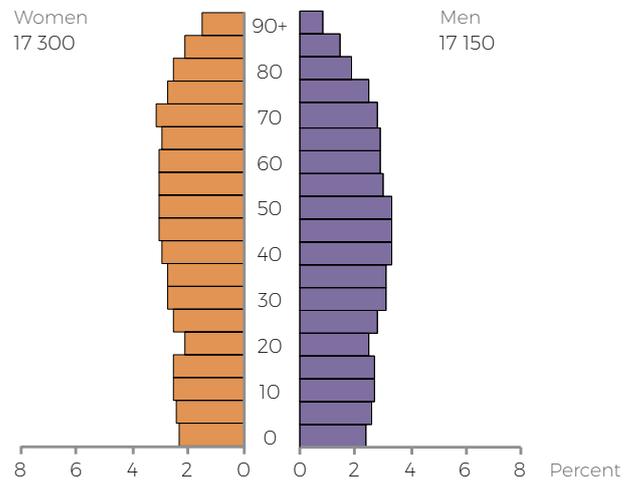
Distribution of age groups 1930



Distribution of age groups 2016



Estimated distribution of age groups 2040



Source: ÅSUB, Population

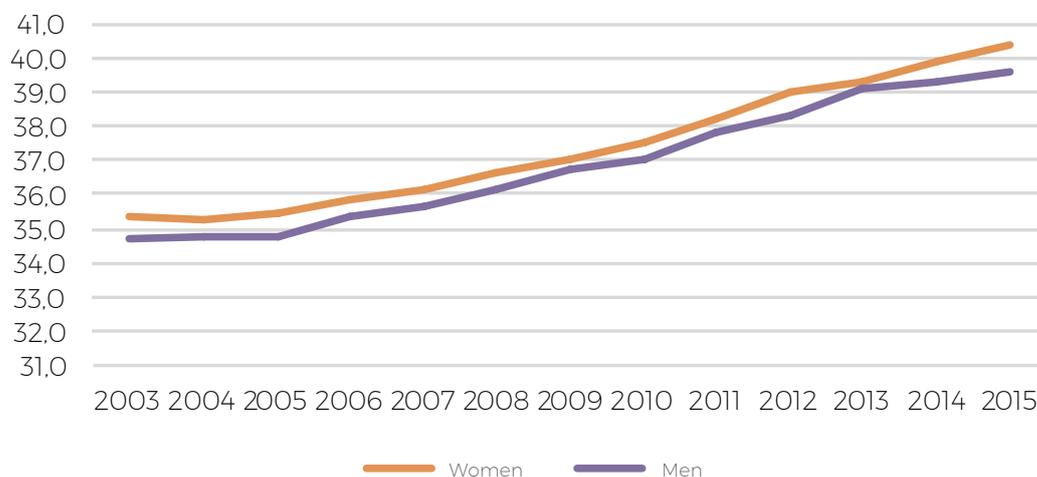
The pyramids show the population's structure. The total number of inhabitants was 13,750 in 1830, 19,710 in 1930, 29,214 in 2016 and by 2040 the population is estimated to have reached 34,450.

Education and development

The basic compulsory education in Åland maintains a high standard, with good results in the Pisa ranking, qualified teachers and proximity to the pupils.

It can be seen as a base for achieving a sustainable society, where new generations receive common, fundamental knowledge and skills.

Proportion of the population (15+ years old) who have completed upper secondary education



Source: ÅSUB, Education

Note: The diagram's y-axis does not begin from zero.

But we must observe that variations can exist depending on where in Åland one lives. Here there are similar trends to other parts of the western world; boys risk falling behind. It is important that compulsory basic education meets the individual requirements of each child. To lack credentials and the competence to progress to higher level education can be devastating and increases the risk for unsustainability, marginalization. The ongoing revision of the law regarding compulsory basic education is one possibility to strengthen sustainability work in primary and secondary schools, with regard to both ecological and social sustainability.

We live in a knowledge society that is continuously developing, and the possibilities to pursue lifelong

learning are important. The participant statistics for the Open University and Medis (The Citizen's Institute) show that Ålanders are active on that front. The statistics show, however, that a larger proportion of those taking part are women. Where are the men? Statistics from vocational education show that participation is highest within the transport and communications branches. Is it possible that men receive further education to a greater degree at work? However, lifelong learning is not only about learning at work. It also includes other aspects of betterment in society and the exchange of knowledge within other networks than daily contacts. It is important that everyone is included so that a gap doesn't open between the sexes.

Participants in various types of education according to gender 2005, 2010, 2015 and 2016

Type of education	2005		2010		2015		2016	
	W	M	W	M	W	M	W	M
Courses Open University ¹⁾	643	149	485	90	338	88	452	65
Apprenticeship training	31	35	81	87	34	37	34	44
The Music Institute	167	53	210	65	236	104	311	120
Medis	4 543	1 440	3 689	1 069	2 348	625	2 473	712

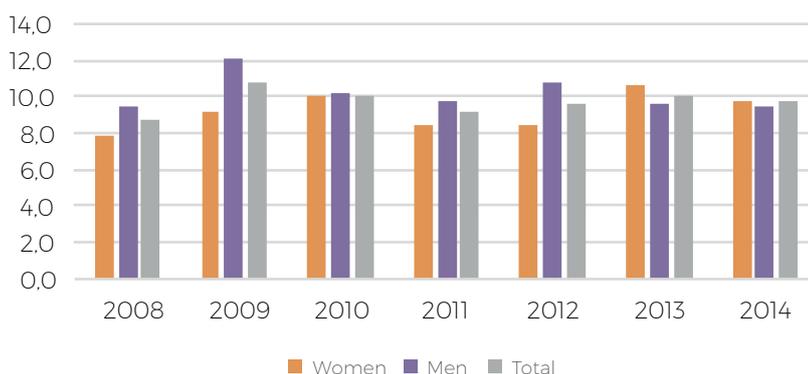
1) Applies to academic courses at the Åland University of Applied Sciences

Source: ÅSUB, Education

How can the educational system and healthcare cooperate to a greater extent to prevent problems and to promote children's and youth's health and happiness based on their own needs and conditions? Even if we can see many positive areas of cooperation today, there are both barriers to and possibilities for a developed cooperation and better utilization of resources.

We particularly need to focus on young adults and their opportunities to take an active part in society. Almost ten percent of young men and women are today outside education or employment. *Ungdomens hus* (The Young People's House), which opened in 2017, is actively working with these issues.

Proportion of youths who do not work, study or perform military service, 15–24 years old, percent



Source: ÅSUB, Labour market

All those who live and work in Åland are not born here, and therefore the perspective of integration is an important one to take into account, both within education and the healthcare sector. This may concern everything from communication and language to differences between healthcare systems in different countries and how health is understood.

Many structural barriers to happiness are considered in Goal 2. Participation in society, possibilities to influence, equality, work, peaceful relations and more affect our health in a positive direction.

Chosen indicators:

- **Life expectancy at birth (w/m)**
- **Trends for sickness allowance**, all illnesses relative to psychological illness
- **Use of alcohol and drugs/narcotics**, must be done at the same time in order to see fluctuations between the usage of different intoxicants and change over time
- **Levels of education**, proportion of those who have completed upper secondary education (g/b) relative to higher education (w/m)

- **Youths (15–24 years old) who neither work nor study** (so called NEET – Not in Education, Employment or Training, common indicator within the EU)

Aspects that are relevant to develop further, possibly as indicators or other form of monitoring:

- **Developed world or western diseases in different population groups**, mortality and/or onset of western diseases? Otherwise expected healthy life-span, an international indicator?
- **Participation in education and training** could be an indicator also if we supplement it with information from ÅSUB's [Statistics and Research Åland] employment market barometer, where employers state the proportion of staff who have completed training/certification, etc + supplementation with information from studies of leisure, eg. active involvement in associations can reveal inherent resources (participation in education and training depends on a number of aspects, eg. choice and regulation, and comparability with other regions can be difficult to achieve)
- **Days of sickness allowance**, according to age and gender

3.3 Strategic Development Goal 2 – Everyone feels trust and has real possibilities to participate in society

TRUST

Trust is an essential cement in society: that we trust each other and our institutions to such an extent that we are motivated to be trustworthy ourselves, to contribute and to follow common rules. Many studies show that a high degree of interpersonal trust is a sort of social capital and an indicator of a socially sustainable society. Gender equality, equality and peaceful relations contribute to an increased level of trust. The conditions for trust are that people have the possibility of good health, feel that they can influence and participate in society and the group, have the chance to develop their skills, feel that they are impartially and equally treated, and that life feels meaningful.

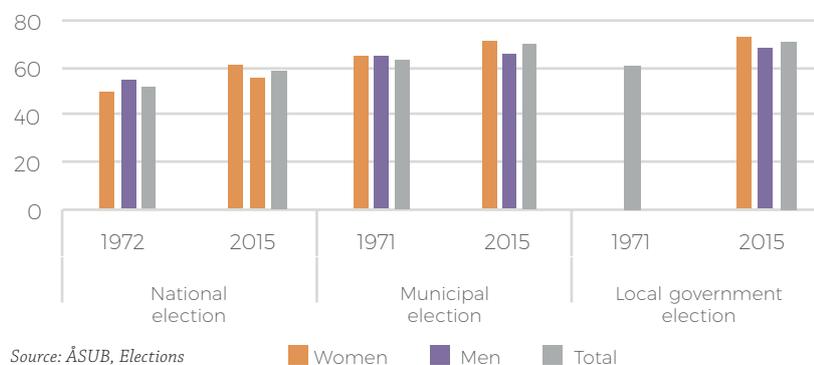
In Sweden the level of social trust is amongst the highest in the world: 80% believe that people “in general” are trustworthy, in contrast to for example

France (20%) or Serbia (8%). Research shows, however, that trust is diminishing, even in Sweden, and that an unequal distribution of trust in different social groups is beginning to erode the general reserve of trust existing in society as a whole.

In order to measure the level of trust on Åland we need a study of trust made specifically for Åland. One possibility is to establish an index in which, apart from state of health, voter turnout and representation, we can measure factors such as presence of discrimination (age, sexuality, ethnicity, disability, etc), trust in the media, police and the law courts, trust in elected representatives, and even immigrants’ experiences of integration and influence.

Voter turnout on Åland is low, seen in the context of the Nordic region. Voter turnout has consistently been higher in municipal and local government elections than in national parliament elections. The latest election year, 2015, was characterized by an increased voter turnout. In the national elections approximately 58% of the eligible voters took part (the highest since 2003), in the municipal elections the turnout was just over 67% (also the highest since 2003), and in the local government elections the turnout was more than 70%, the highest ever.

Voter turnout in national elections 1972 and 2015, and in municipal and local government elections 1971 and 2015, percent



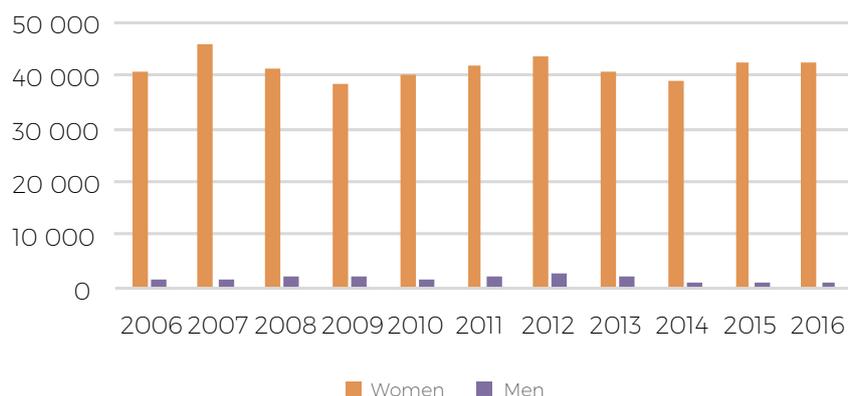
GENDER EQUALITY

Even if women’s rate of employment on Åland is high in an international comparison – even a bit higher than men’s – the employment market is still very segregated. The typically male-dominated employment sectors have higher salaries than the typically female. Women’s average monthly salary is in overall terms 85% that of men’s. Seen in relation to the taxation of earned income and capital income,

women paid 37% and men 63% of the total amount of tax collected in 2015. Women also perform the larger part of the unpaid care and housework.

A father in Åland on average takes only between 3 and 5% of the parental leave. This has significant consequences both for gender equality in society at large and for his chances to play an active role as a parent.

Parental allowance according to gender, days with paid allowance



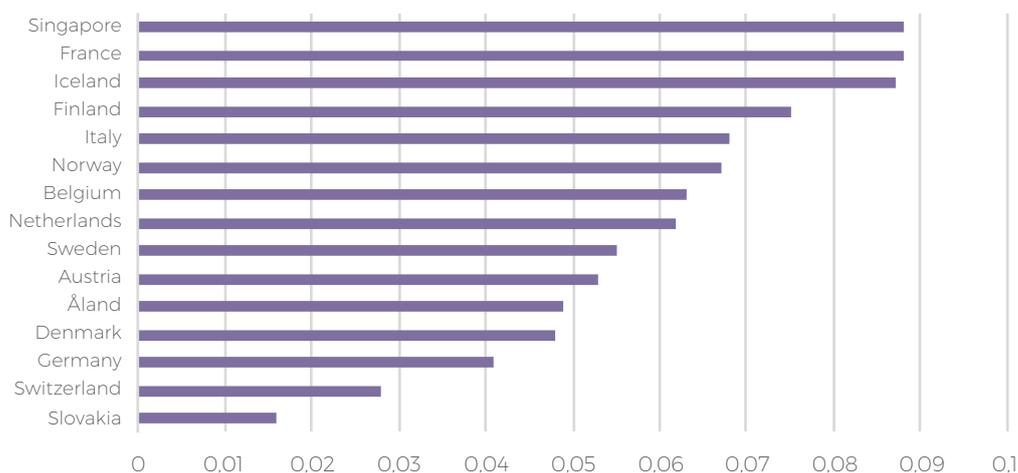
Source: Social Insurance Institute, ÅSUB På tal om jämställdhet 2017 [Speaking of gender equality 2017]

In political life, voter turnout remains higher among women than men, but there are fewer women standing as candidates for election than men and being elected both at municipal and at local government level. Today, 9 out of 30 regional council members are women. In the municipal councils, the percentage of female members is marginally higher at 40%.

One way of measuring Åland's status in a global context when it comes to gender equality is to use the United Nations Development Programme's Gender Inequality Index. It is a method of

measuring that picks up biases between women and men in areas such as health (mother mortality rate and teenage mothers), participation (number of elected members in parliament, level of education after secondary school) and level of employment. The values are between 0.000 (total equality) and 1.000 (total inequality). The GII for Åland in 2014 shows a 4.9% deficit to total gender equality. The deficit is not larger thanks primarily to women's high level of employment in Åland. The index does not take into account differences in income.

Gender Inequality Index (GII) 2014



Source: ÅSUB, Hållbar utveckling [Sustainable development]

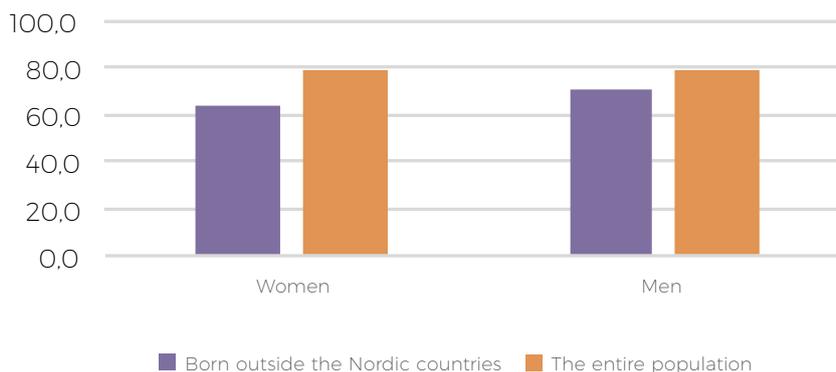
EQUALITY - EMPLOYMENT, DISTRIBUTION OF INCOME, VULNERABLE GROUPS

Åland in 2017 is a relatively well-functioning society, where the fundamentals of democracy and welfare are in place.

The level of employment is high for both men and women. Immigrant men who were born outside of the Nordic countries have almost the same level of

employment as men born in Åland, while immigrant women who were born outside of the Nordic countries have a significantly lower level of employment. The employment market is regulated, and rights and obligations are in place to protect both the individual and social system. Despite this, there are occasions when everyone does not have access to fair working conditions or can, by means of taxation, contribute to society. These questions are important in order to ensure long term equality.

Proportion of employed people in the age 16–64 2014 according to country of birth and gender

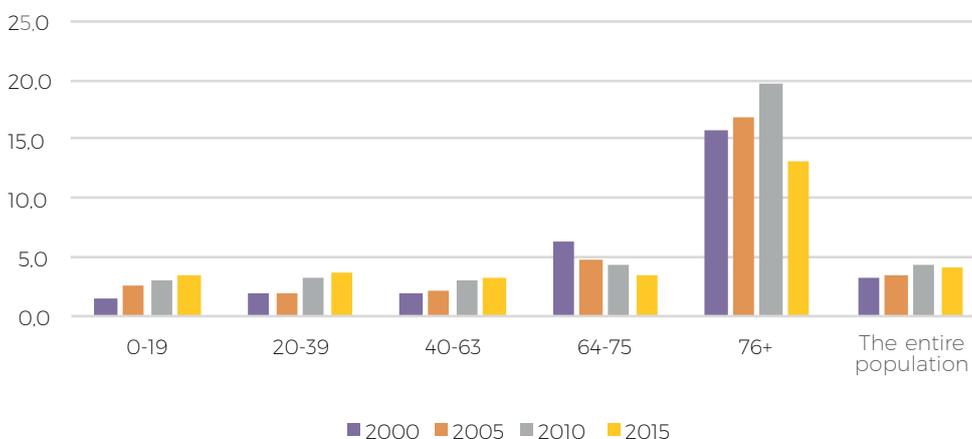


Source: ÅSUB, Labour Market and ÅSUB, Population

If the gap between the poorest and the wealthiest in society becomes too large there is a risk that trust will be eroded. Today, there are men, women, boys and girls in Åland that live in an economically vulnerable position. ÅSUB has conducted studies of economic vulnerability in Åland. In the year 2015 there were 1184 people in Åland (4.1 % of the population) whose income was under the relative poverty

line for three years or more, which means that the individual has belonged to a low income household both during the statistical year and during two of the three preceding years. This concerns particularly single parents with children (36 % of single care providers with one child and 59 % of single care providers with 2–3 children) and single women over 70 years of age.

Risk for economic vulnerability according to age group 2000–2015, percent of population



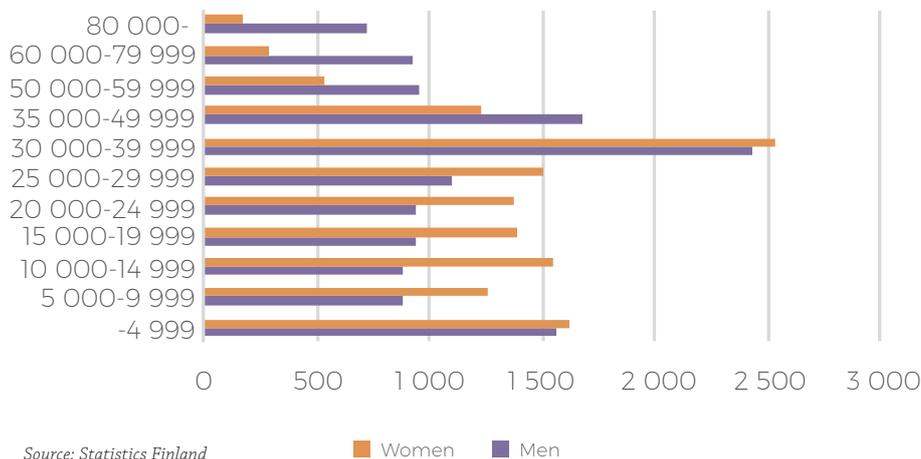
Note: Due to changes to the concept of income the information for the years 1995–2009 and 2010–2015 are not entirely comparable. Information in euro has been specified according to the currency value in 2015.

Source: Statistics Finland

Of those with a yearly income over €40,000 a significant majority are men, whereas in the lower income classes the majority are women.

To attain social equality it is necessary to ensure that all groups are included, see especially the description in Strategic Development Goal 1 about young adults who are outside education and employment.

Number of wage earners according to income class and gender 2014



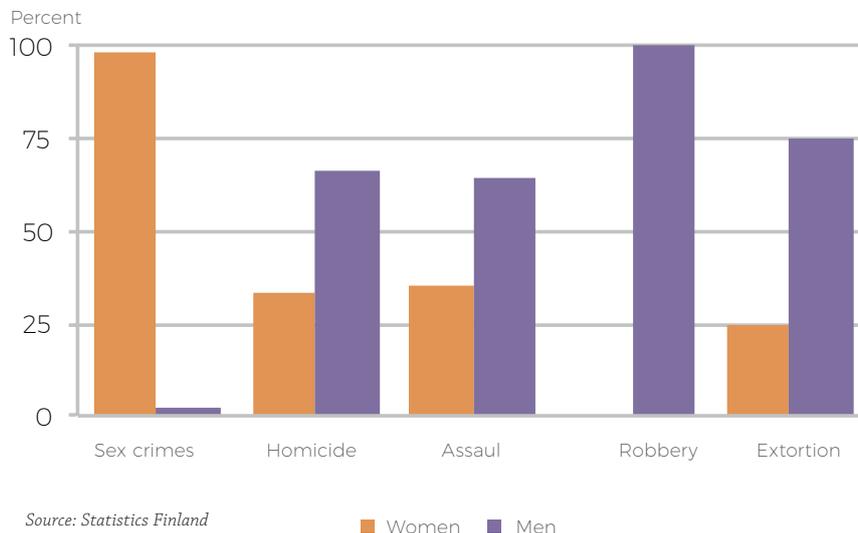
PEACEFUL RELATIONS

Åland’s position as “The Islands of Peace” is emphasized in the Development and Sustainability Agenda. Åland is demilitarized, and the Åland Example is quoted in peace and autonomy processes internationally.

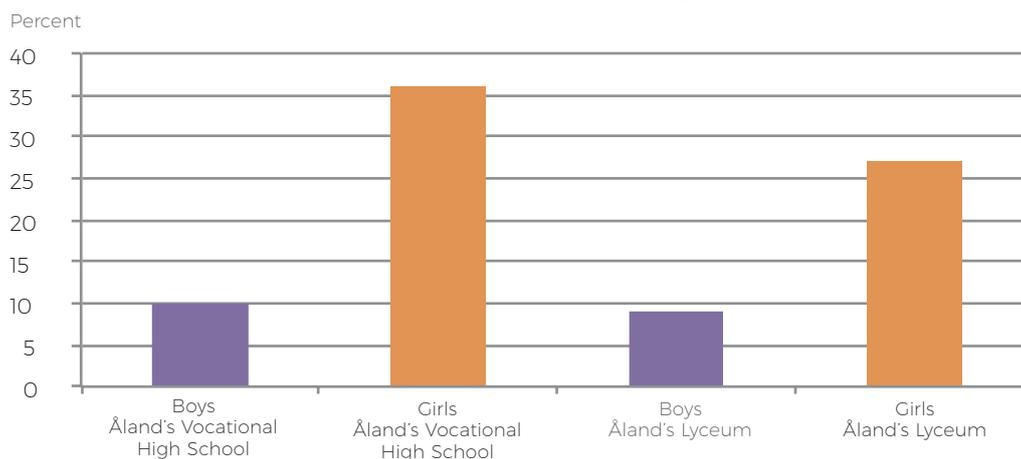
But peace is not only the absence of the military and war. Peace is about non-violence, respectful use of language and how we treat each other as people.

According to crime statistics for 2016, 87% of those suspected of crimes are men and 13% are women. Men are overrepresented in all kinds of crime: property crimes, crimes against people, sex crimes, crime against society, traffic crimes and other kinds of crime. Men are also overrepresented in victim statistics, with the exception of sex crimes, where almost all victims are women and all offenders men.

Proportion of women and men among crime victims according to certain types of crime 2012-2016



Exposure to sexual harassment by telephone or Internet among upper secondary students 2015 according to school and gender



Source: THL. School Health Promotion study 2015, first and second year students

Those who have been exposed to physical or psychological violence do not live with a sense of security and lack the ability to develop trust. At the same time, violence statistics also tell of offenders who don't feel good – and thereby of a society that is failing. Offenders are people who do not experience participation and meaning, and who lack the will or ability to take responsibility for their relationships. Police crime statistics reveal however probably only part of the truth with regard to crime in close relationships. We know that unreported crime is significant, based on research conducted by the Swedish National Council for Crime Prevention (*Brottsförebyggande rådet – Brå*). Of those who were exposed to crime in a close relationship during 2012 in Sweden, only 3.9% stated that they had notified the police of the incident or any of the incidents.

During 2017 the Åland government together with ÅSUB is conducting a survey on violence in close relationships. The results will be presented during the second half of the year.

Chosen indicators:

- **Risk for economic vulnerability**
- **Number of wage earners according to wage class m/w** Use of parental leave, parental allowance paid to mothers or fathers, reckoned in days and not euro in order to reveal unequal withdrawal, plus that all are not parents
- **Gender Inequality Index (GII)**
- **Rate of employment**

Aspects that are relevant to be further developed, possibly as indicators or other monitoring:

- **Åland trust study**
- **Monitoring of violence in close relationships**

3.4 Strategic Development Goal 3 – All water is of good quality

Water is a prerequisite for all life. Globally, 663 million people lack access to clean water. Climate change means drought, flooding and other extreme weather conditions that will worsen the situation. Even Åland is affected by drier summers and downpours, which flush nutrients from the soil into the watercourses.

Around Åland the increase of algal blooms has cast a dark cloud over the pleasure of bathing and made us aware of overfertilization. Almost all coastal water is of moderate quality, and even if all discharges were stopped today it would take 40–50 years before the Baltic Sea was totally restored.

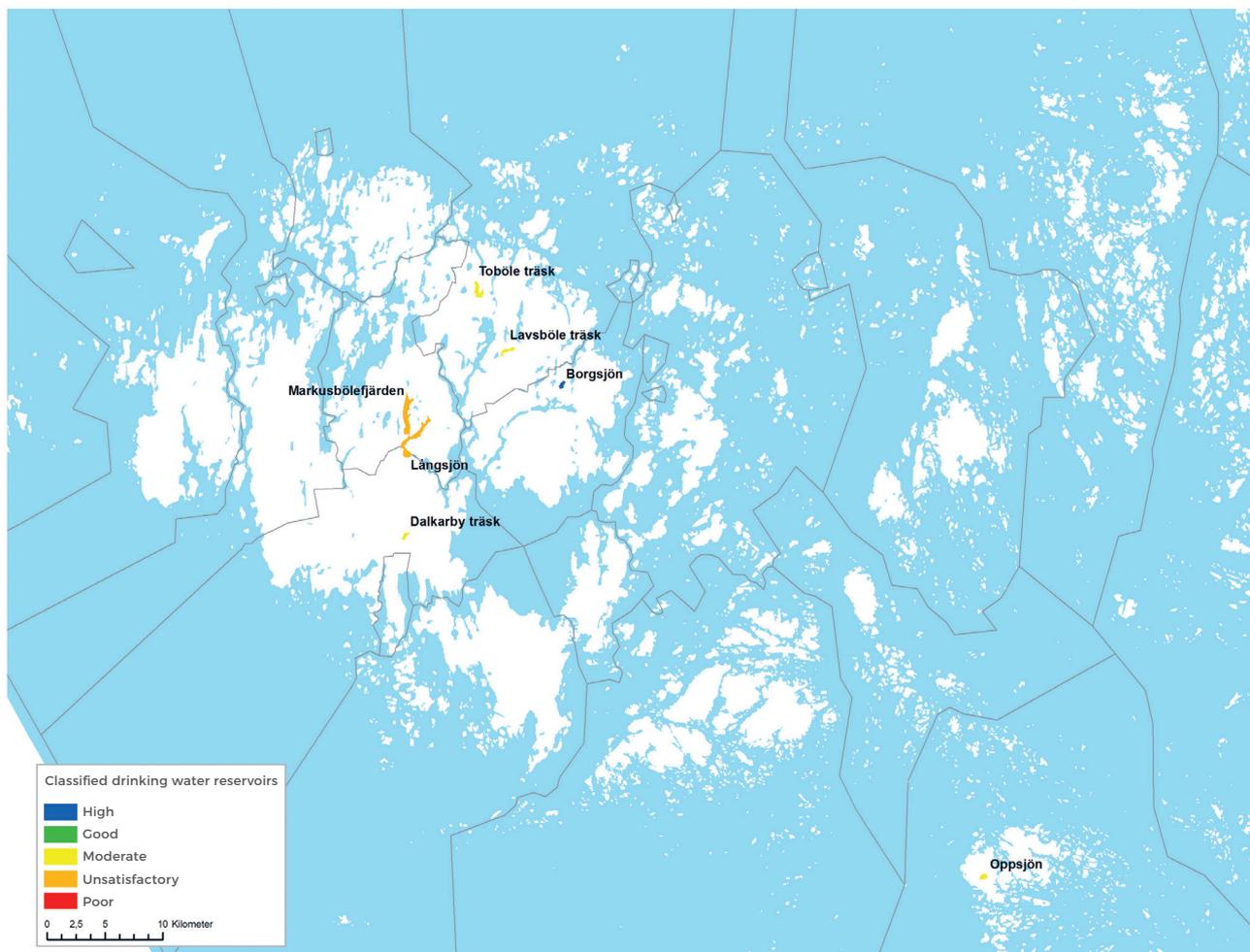
Drinking water of good quality is still something that we take for granted, despite the fact that it is a limited resource. In the autumn of 2016 we were not

far from water rationing. The largest changes today can be achieved by improving the conditions in shallow bays, ditches, etc. Maps showing the status of the inner bays form part of the Management Plan for water.

We also need to protect our drinking water in the long term against discharges from specific sources (for example damaged sewerage facilities) and diffuse sources (runoff from land). It is therefore necessary to set aside all drinking water reservoirs as water protection areas.

Legislation alone is not enough if we are to achieve the goal that all water is of good quality. Further effort is needed, and at all levels. We can all take responsibility for our own influence, whether as private individuals or those active within farming, forestry or aquaculture.

Air traffic that passes over the waters around Åland affects water quality.



Source: The Åland Government, *Förvaltningsplan för vatten 2016–2021, åren 2006–2012*. [Management plan for water 2016–2021, the years 2006–2012]

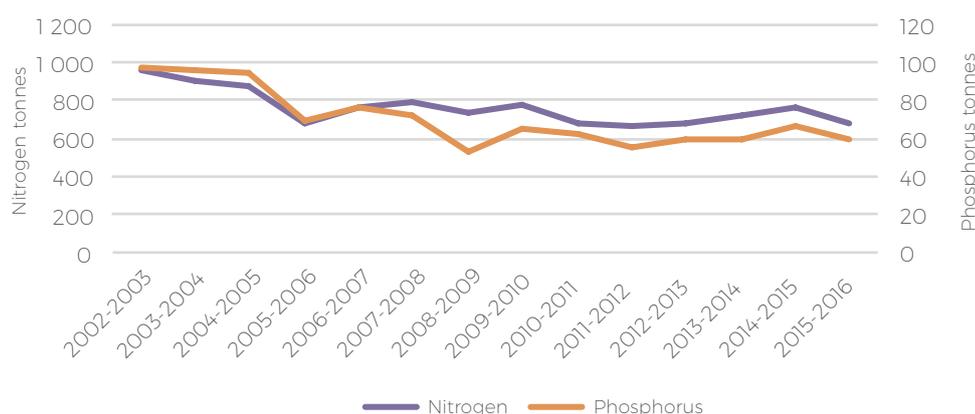
Farming and aquaculture

Today, farming is dependent on mined phosphorus: a finite and energy consuming resource, which, with time, is likely to get more expensive. According to the first sustainability principle, nature in the sustainable society is not exposed to “the systematic increase of concentrations of substances extracted from the earth’s crust” and we therefore need to reassess the use of artificial fertilizers. As part of the strategy for sustainable food production, irrigation dams with nutrient recycling are planned that can

catch any nutrient leakage from fields as well as acting as nutrient traps for phosphorus and nitrogen.

Today, two study sites for farmland on Åland are being investigated: Möckelbybäckens runoff area and Svartbäckens runoff area in Finby, Sund. Types of crops and nutrients as well as precipitation are documented, in combination with increased sampling of various substances. Yearly compilations reveal how different farming methods, fertilization and precipitation affect the runoff of nutrients from the study sites in question.

Sales of nitrogen and phosphorus to farms 2002-2016



Source: Yara Suomi, Tigoteam, ÅSUB
Note: applies to commercial fertilizers.

Forestry

Forestry affects our aquatic environment in several ways. Already from a growing forest there is a continuous leaching of nutrients, among others nitrogen and phosphorus. The leaching of nitrogen leads to an acidification of the ground, which in turn can lead to heavy metals such as aluminium and cadmium being released into the groundwater, lakes and watercourses.

In connection with in particular regeneration felling, the nutritional turnover and water balance in an area of forest is radically changed due to the fact that the felled trees no longer take up water and nutrients. Runoff and leaching of nutrients and sediment increases, which can have significant consequences for certain aquatic resources. Even tyre marks, scarification, the use of pesticides and the leakage of chemicals from forestry vehicles can affect water quality.

Forestry and nature conservation legislation and forestry certification have for a long time resulted in care of aquatic environments being a natural part of forestry in Åland, where measures include limiting tyre marks, creating protection zones near the coast and watercourses, protecting different types of

wetland, implementing water protections measures during ditching and limiting the use of pesticides. In the forestry program that the government is working with, further water protection measures will be suggested.

Ferry traffic

Ferry traffic also affects water quality. The tonnage is not sufficiently well adapted to the narrow fairways through the archipelago, and swell and suction can damage underwater environments (sustainability principle 3, degradation by physical means). Many bays of the sea are suffering, with dead seafloors due to the recurring stirring up of sediment. Further mapping of underwater biotopes and biological diversity is coming soon.

Nitrogen oxides (NO_x) are released in relatively large amounts from ship motors and contribute to both acidification and over fertilization. How much nitrogen oxide is released, or is emitted, depends on which fuel is used, the type of motor, and if there is emission purification equipment installed.

Sewerage

Individual sewage disposal systems and wrongly located overflow points are a major source of nutrient release. Responsibility lies with the municipalities. A water and sewerage plan is underway to create long-term, sustainable provision of drinking water and handling of sewage. This includes developing competence and strengthening the cooperation between the responsible parties. There is a risk that faulty individual sewage disposal systems and poorly functioning sewerage systems represent a large part of the problem today. At the same time it is difficult to obtain trustworthy statistics of both the number of sewerage systems and the amount of nutrients that leak out. Sewerage coordinators are needed that can function as advisors when it comes to sewerage systems and miniature treatment plants, and also draw up checklists for private individuals and act as supervisors, as well as monitoring treatment plants that are already in operation.

In 2018 a model for measuring the burden of nutrients in kilograms for different water bodies will be introduced. It will be an important monitoring instrument. The model will be able to show what proportion of the burden comes from different activities, for example treatment plants, farming and forestry, fish farming, etc. The model will consist of a land-based and a coastal zone variant.

With the help of the models local action plans can be developed and even the effect of the planned actions can be measured in, for example, a specific bay.

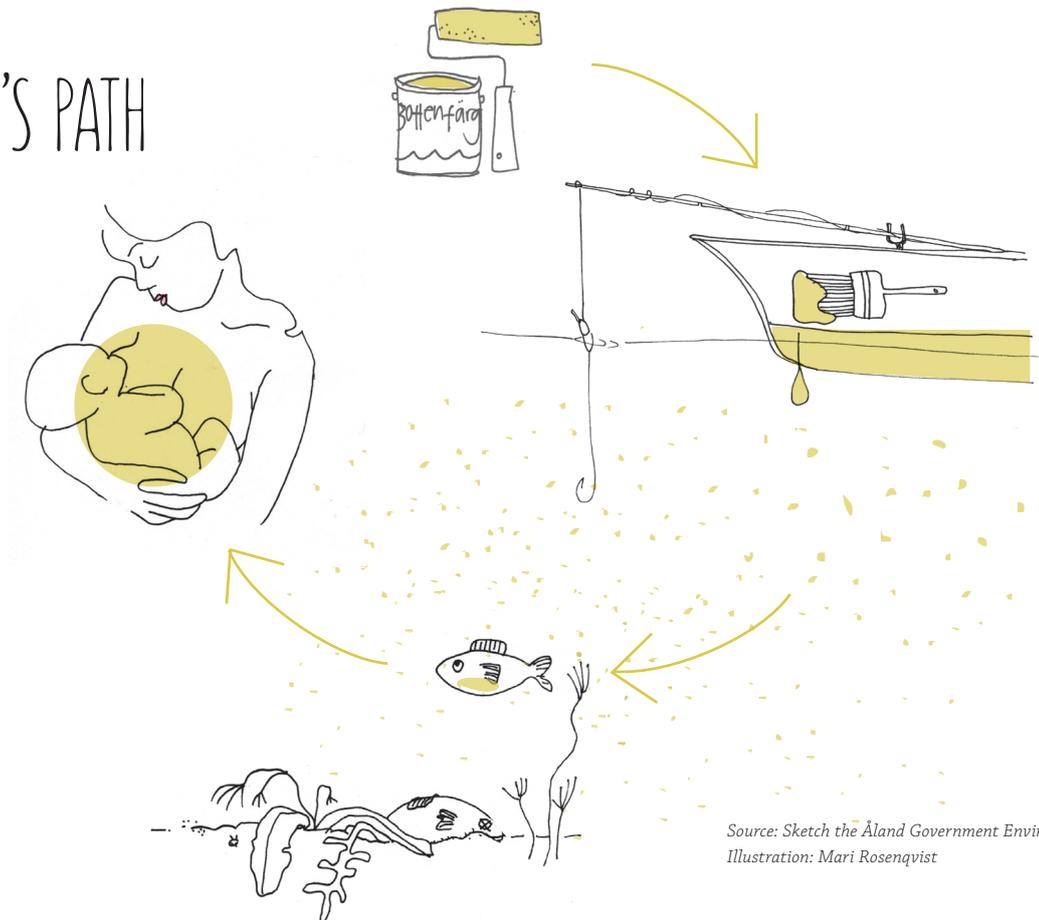
Chemicals, medicines and microplastics

Chemicals of various kinds affect water quality, the plants and animals that live in the water, and in the end also people. Ongoing research, started seven years ago, is examining the prioritized substances (environmental toxins) in the waters of Åland.

A more detailed monitoring has been conducted of the bottom sediment in Västrahamnen (the Western Harbour, Mariehamn). By investigating which substances exist at various depths in the sediment, trends in the use of various chemicals can be identified. Similar investigations are planned for Slemmern (the Eastern Harbour, Mariehamn).

The research shows that legislation gives results, shown by the presence of various substances, such as toxic anti-fouling paint, changing with time as usage is reduced. The use of chemicals is today internationally regulated, but monitoring is not always adequate. At the same time, many researchers believe that work with new legislation is too slow – we know, for example, that glyphosate is lethal for small aquatic organisms and that it penetrates down into the earth and can travel upwards in the food chain. Even so, use of the glyphosate-based herbicide Roundup is still permitted. Herbicides can also have a negative effect on the essential bees.

POISON'S PATH



Source: Sketch the Åland Government Environment Agency
Illustration: Mari Rosenqvist

Chemicals, residues of medicines and microplastics in the water can be said to break the second sustainability principle through the systematic proliferation of foreign substances, and the third sustainability principle through the systematic degradation of nature by physical means. The problem is that the effects of chemicals are often seen only in a longer time perspective.

Swedish research results show that the amount of substances in the bottom sediment is reflected in the concentrations found in fish and in the levels that can be measured in breast milk. An example of this from Åland is flame retardants found in pike-perch from Lumparn.

Blue-green algae (cyanobacteria) produce a neurotoxin (BMAA) that has been found in plankton and fish. The toxin can be transferred to people via food and is believed to be a cause of serious diseases such as ALS, Alzheimer's and Parkinson's. Because neurotoxins are absorbed by mussels there is a risk that they can be transferred to the mussel-eating eider duck. The causes of the eider's decline are however believed to be several, including lack of good quality food (possible lack of vitamin B) and predators. The hens are the first to be affected as they are the most sensitive.

Chosen indicators:

- **Discharge of phosphorus/nitrogen**, part of the management plan for water, can be checked every year when the monitoring model is ready
- **Sales of plant nutrients**
- **Concentrations of foreign substances**, in water, fish and other biota as well as in sediment
- **Presence of blue-green algae**, monitored on a Baltic-wide level (HELCOM/SMHI + possibly Finnish Environment Institute)

Aspects that are relevant to be further developed, possibly as indicators or other monitoring:

- **Use of medicines**
- **Import and use of chemicals**

3.5 Strategic Development Goal 4 – Ecosystems in balance and biological diversity

Biological diversity contributes to an increased resilience in ecosystems. It is not only a primary condition for the earth's life support system – and thereby for our own survival – but also for Ålanders to have access to a living and diverse landscape.

The most important question when it comes to promoting the ecosystems of Åland and biological diversity is how we utilize the land.

In a European perspective, Sweden and Finland are “mediocre” when it comes to nature reserves: circa 10–15% protected land area is about average in the European statistics. Åland though is much worse: here only 2.8% of the land area is protected, despite the fact that it is generally considered unacceptable to protect less than 10%.

There is a great need for land surveys and analyses to discover how much land needs to be protected specific to conditions on Åland.

Shoreline protection

How we protect our shorelines is a question with high priority, not least in relation to relaxation of the right of domicile and plans for increased immigration. In surrounding regions residential houses, summer houses and the like are seldom located less than 100 meters from the shoreline. On Åland many houses are built in practice not more than 35 meters from the shoreline, often with lawns that reach all the way to the water's edge. It does not just affect the landscape but is also a problem from the perspective of ecosystems. Continuous shorelines with access to protective vegetation and food function as corridors for wild animals.

Shoreline protection is also important with regard to access for the inhabitants of Åland, now and in the future. Large, contiguous areas of shoreline are today so built up that only the owners have the possibility to get down to the water's edge.

Questions regarding shoreline protection risk stirring up emotions, because landowners traditionally have had strong rights on Åland, and living close to the shoreline has additionally become something of a symbol for the attractiveness of Åland. In a long term perspective, and in relation to the vision of long term ecological and social sustainability, we need to make conscious decisions.

Biotope protection

To protect biotopes generally requires larger, continuous areas of undisturbed nature, parks and recreational areas. One problem today, 2017, is that there is not a coordinated plan for land exploitation. The application of holistic planning can both protect natural qualities, with regard to the need to protect different biotopes, and at the same time utilize those areas in an effective and attractive way. This might be exemplified by economic activities blending with

the landscape, housing estates not becoming, with time, surrounded by industrial zones, or that areas of natural beauty, such as untouched shorelines, should be inaccessible to the general public.

An aimless spreading of built-up areas, roads and other activities risks breaking the third sustainability principle: “In a sustainable society nature is not subject to systematic degradation by physical means.”

Åland shall also follow the global convention for biodiversity, the habitats directive and similar directives. We have, today, a number of biotopes that should be protected but are not, for example the Fennoscandian woodland meadows, different sorts of marshland and blue moor grass meadows. Furthermore, there are a number of different woodland biotopes that are in the risk zone due to a weak forestry legislation from 1998. Protection of, for example, alder stands, hazel groves from 0.1–2 hectares, areas of bracken and horsetail and natural stands of linden, elm, oak, maple, ash, whitebeam or rowan covering 0.1–2 hectares applies only to forestry areas. This means that if the usage of the land is changed then it is no longer protected. More detailed surveys are needed if we are going to be able to describe the current situation more fully.

Older woodland needs to be protected to a greater degree than it is today because a large part of the threatened woodland species is dependent on ancient woodland. The woodlands of Åland have been used during historical times for household timber, trade in firewood, ship-building and grazing, and the proportion of ancient woodland is relatively small. The proportion of woodland more than 140 years old constitutes 3.8% (2600 ha) of the total, whereas the proportion of woodland more than 160 years old constitutes 1.3% (900 ha) of the total. The woodlands of Åland are well documented, even more so from a forestry perspective than from a conservation perspective, but no surveys have been done of ancient woodland. The question of the proportion of ancient woodland is however discussed within forestry and, together with forestry plans and forestry programs, the issue is going in the desired direction.

With regard to species protection, red-listing is an important tool for the monitoring of threatened species. We need to conduct more surveys to find out more about threatened species and their biotopes. There are today several species that lack protection and that should be monitored, either because they exist only here in the whole of Finland or because they are generally rare in Finland or in the entire Nordic region. The number of threatened species is 372 and threatened biotopes 27.

We have initiated a regulatory framework regarding the prevention of the introduction and proliferation of invasive species, for example certain insects and aquatic organisms, but also the proliferation of domesticated plants such as Himalayan Balsam. Also, there are plans to develop wildlife conservation to keep the level of land-based predators down.

How we exploit our soil can also make a difference to biodiversity. The use of natural fertilizers increases life in the earth, increases the number of insects and birds, which in itself benefits biodiversity. Today, the production of animal feed from organically managed meadows is relatively common, because we still have quite a few farm animals that require fodder. This is positive for biodiversity.

Chosen indicators:

- **Threatened species and biotopes**
- **Proportion of protected areas of land and water**

3.6 Strategic Development Goal 5 – Attractive for residents, visitors and businesses

A high degree of attractiveness leads to long-term sustainability provided that it builds on human activities within the framework of the sustainability principles. The whole will be complete – and the goal reached – only if the other development goals are achieved in parallel.

According to the fifth strategic development goal, in the year 2030 Åland is a highly attractive place both for those who live here and those who don't. Åland is attractive both as a destination and for different types of investment. By describing the current situation or start-point for the goal's three parts – residence, visitors and businesses – we make it possible to evaluate the development of Åland's attractiveness up to 2030. The description of the current situation is based on earlier development.

Residence

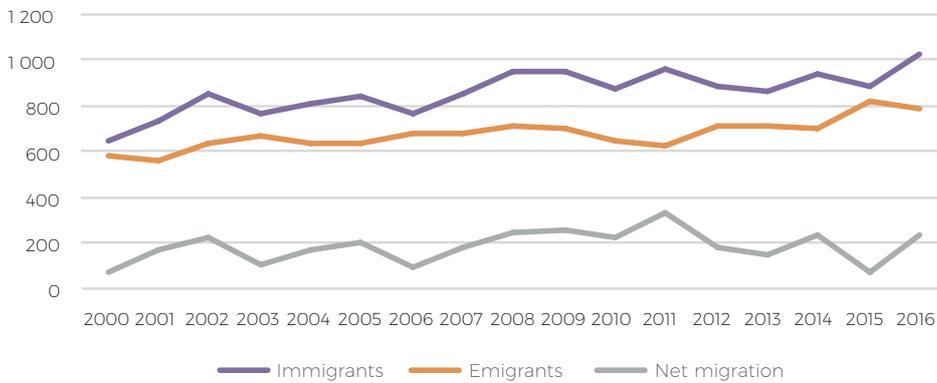
The birth rate is an important indicator for judging attractiveness for residence. During the period 2002–2016 an average of 280 babies were born per year in Åland. The previous fifteen years (1987–2001) an average of 310 babies were born per year in Åland. (ÅSUB, Population)

The development of net migration is an important indicator for judging attractiveness for residence. During the period 2001–2016 the yearly net migration varied

between 74 (2015) and 333 (2011). The yearly gross immigration during the same period varied between 728 (2001) and 1024 (2016).

Immigration and emigration have increased in scope during the 2000s compared with the 1990s, when the yearly gross immigration varied between 352 (1993) and 595 (1998).

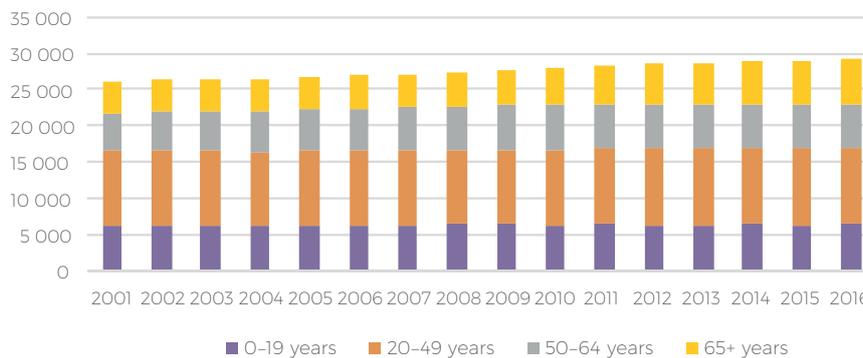
Immigrants, emigrants and net migration 2000–2016



The population's age structure is decisive for society's long-term sustainability. Therefore, the

population's age structure constitutes an additional indicator for this part.

Population according to age group 2001–2016

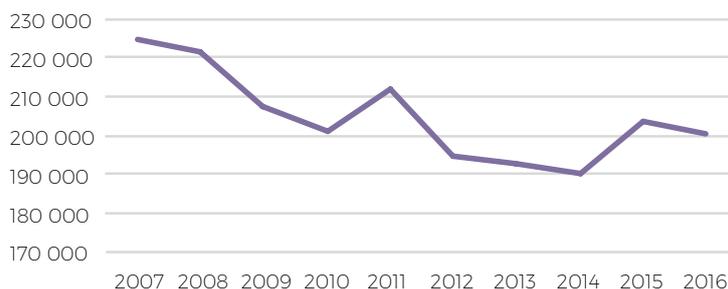


Visitors

The number of visitors arriving in combination with tourism's additional value are important indicators for judging a destination's attractiveness for visitors.

During the period 2007–2016, the annual number of visitors varied between 190,100 (2014) and 225,000 (2007). During the period 2009–2016, the number of visitors has stabilized around 200,000 per year (+/- 6%). During the period 2007–2016, every visitor spent on average just over two nights in Åland. (ÅSUB, Tourism)

Visitors 2007–2016

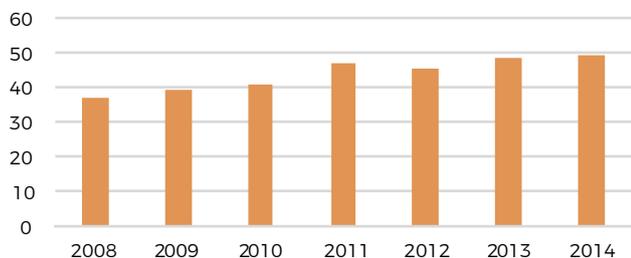


These numbers apply to the accommodation providers that ÅSUB's statistics include: hotels, guest houses, holiday villages with at least five rooms or cottages, and camping sites. Because many visitors stay in

private homes or in accommodation with fewer than five rooms, the actual number of visitors is significantly larger than can be seen in the statistics.

The annual added value of tourism, in this case land-based tourism's contribution to Åland's gross national product, has during the period 2011–2014 lain between 45–50 million euro. This is an increase from the period 2006–2010 when the yearly value was 40 million euro or less.

Land tourism's added value, year 2014 prices, mill. euro



Source: ÅSUB, National accounts

Businesses

The demand from businesses for labour is an important indicator for judging Åland's attractiveness for enterprise and investment. During the period 2000–2014 the number of workplaces in the private sector has varied between 8441 (2000) and 8828 (2008). The year with the highest number of people working within both the public and the

private sectors was, during the same period, 2008, with 15,818.

The GDP-development in the private sector is an additional indicator for judging Åland's attractiveness for enterprise and investment. During the period 2008–2014, GDP in the private sector has varied between 849 and 937 million euro, and the average annual change is 0.3%.

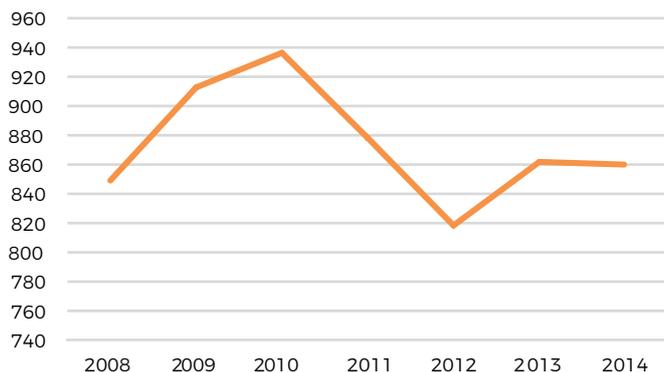
Number of people working within the private sector 2000–2014



Source: ÅSUB, the Labour market

Note: The diagram's y-axis does not begin at zero

The business sector's value, year 2014 prices, mill. euro



Source: ÅSUB, National accounts

Note: The diagram's y-axis does not begin at zero

Chosen indicators:

- Birth rate and net migration
- Demographic development
- Number of visitors
- Land tourism's added value
- Workplaces in the private sector
- GDP-development in the private sector

Aspects that are relevant to be further developed, possibly as indicators or other monitoring:

- Different aspects of attractiveness for immigration/remigration, such as for example, the population's level of education, the form of the local environment, the range of qualified and developing employment possibilities, children's daycare and schools, the range of cultural activities and other aspects that give quality of life.

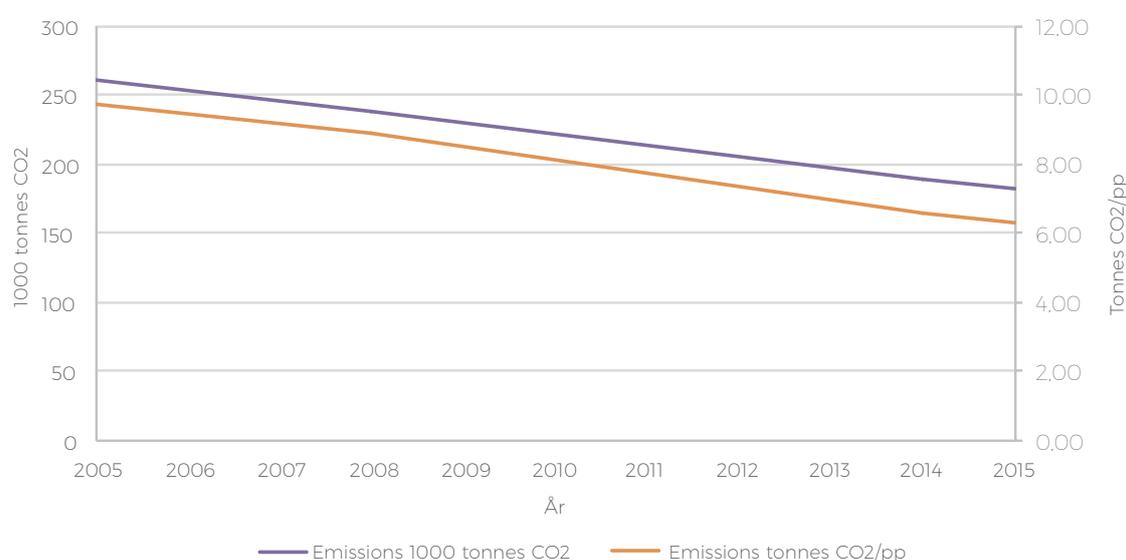
3.7 Strategic Development Goal 6 – Significantly higher proportion of energy from renewable sources, plus increased energy

Globally, we face a necessary adjustment of the systems that provide energy, and Åland is a part of this larger process. Every Ålander today emits 6.3 tonnes of carbon dioxide, CO₂, solely through their energy consumption (shipping excluded, 4.7 tonnes per capita). These numbers say, however, nothing about the emissions of carbon dioxide relating to the production of goods that we import and consume every day (see strategic development goal 7). On this point there is no statistic for Åland, but as our lifestyle is similar to those of the surrounding regions we can assume that our total emissions are almost double our energy related emissions.

Greenhouse gas emissions consist of carbon dioxide, methane, laughing gas and several other gases that contribute to the greenhouse effect and global warming. The various gases have different warming potential (different strength) and are therefore converted to carbon dioxide equivalents so that they can be compared. In the year 2015, emissions in Åland were the equivalent of 8.6 tonnes of carbon dioxide per capita. The corresponding figures for Sweden are 5.5 tonnes and for Finland 7.9 tonnes.

The emission of carbon dioxide in Åland has actually decreased by 30 % from 2005 to 2015. The goal is for total carbon dioxide emissions to decrease by 50–60 % by 2030 (compared to 2005).

Emissions of carbon dioxide from energy consumption 2005–2015

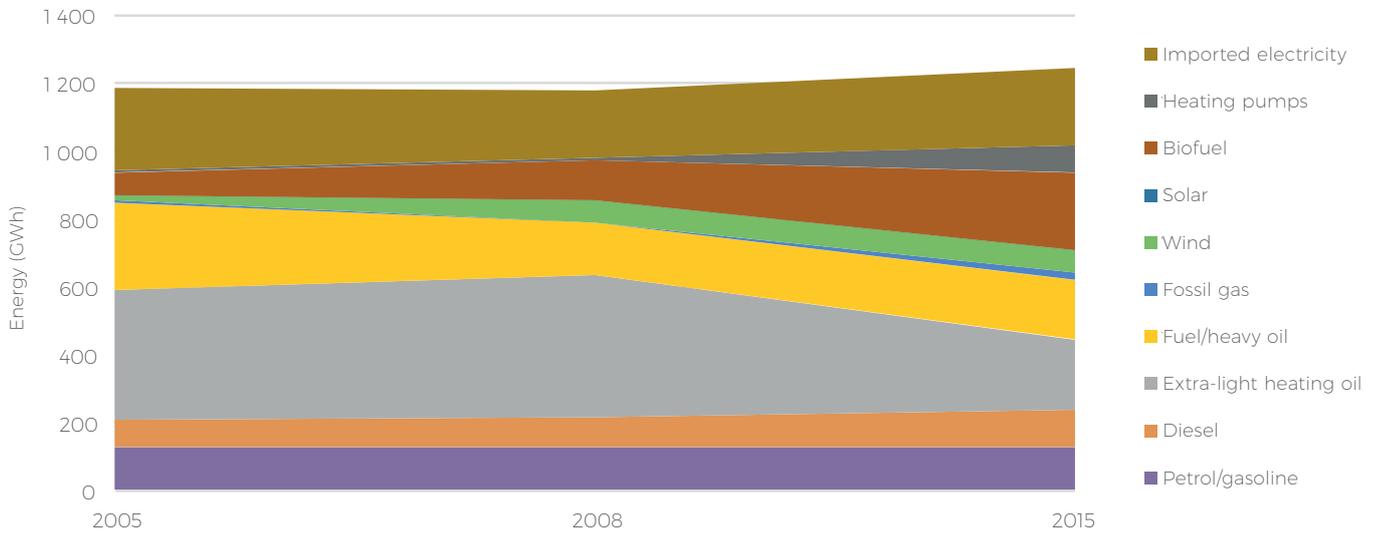


Source: The Åland Government, Energi- och klimatstrategi (2017) [Energy and climate strategy, 2017]

If we compare the calculations of emissions of carbon dioxide equivalents we can see that reductions occur primarily in the areas of sewage/waste and electricity/heating. Within the sectors of road transport and farming, emissions have however increased

somewhat since 2001. According to the statistics for current energy consumption and climate effect, the usage of heating oil has decreased during the period 2005–2015, while local renewable energy sources, such as wind and biofuel, have increased.

Consumption of energy by source (GWh) 2005–2015



Source: The Åland Government, Energi- och klimatstrategi (2017) [Energy and climate strategy, 2017]

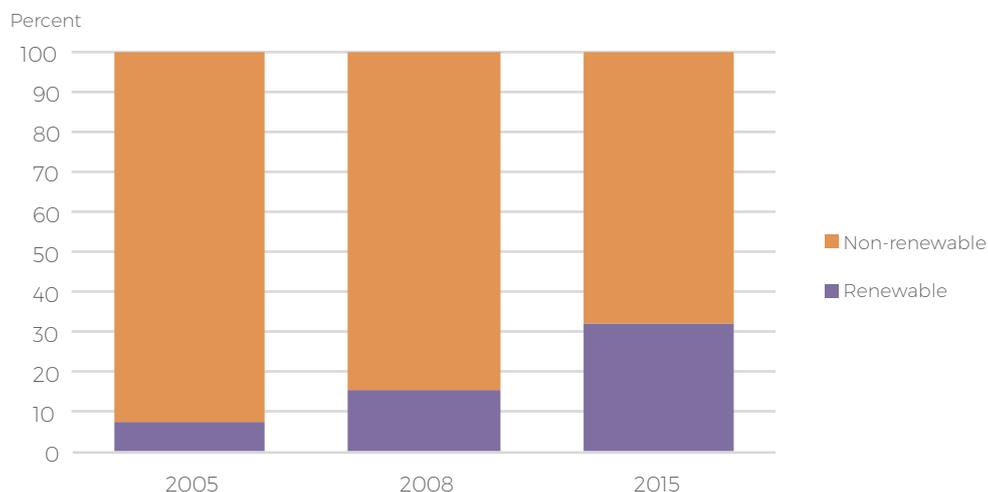
But Åland is not at the forefront when it comes to renewable electricity and electric cars – just the opposite. To switch to renewable is though fully possible. Precisely because Åland is a small society means that it would be relatively simple to change direction in preparation for an energy adjustment, even if initially it might require significant investments.

If we just look at the energy that we buy from external sources, and for example include Swedish hydro- and wind-energy as renewable energy sources in the

Nordic energy pool, then we can relatively quickly achieve a high proportion of renewable energy.

It is therefore important to keep an eye on the proportion of renewable energy, which today is 32 % of the total energy consumption (just over two-thirds of the energy is still derived from fossil fuels), and the proportion of locally produced, renewable electricity, which today is 23 % of the total electricity consumption.

Proportion of renewable energy to total energy consumption



Source: The Åland Government, Energi- och klimatstrategi (2017) [Energy and climate strategy, 2017]

The project, Åland Grid, is currently being developed, with the objective of making Åland into a test area for smart energy systems. A monitoring tool is being created that will make it possible to measure the effect of different initiatives in society, such as for example the introduction and storage of solar power.

Many Nordic operators are interested in Åland Grid. Here at home, the Åland University of Applied Sciences plays a key role through supporting research, competence development and monitoring. The next step is to sew together a financial package for the project.

Part of strategic development goal 6 is about changing the form of energy, another is to make energy consumption more effective. Both are totally feasible. But how we shall measure and monitor a transition of energy form from fossil sources to renewable electricity at the same time that we monitor a necessary effectivisation of energy is a challenge, not only in Åland but also internationally.

Energy effectivisation

Today, the total consumption of energy per capita is 43 MWh including shipping and 35 MWh excluding shipping.

Let's say that we will eventually connect up 10,000 electric cars in order to reduce dependency on fossil fuels. This leads to energy effectivisation of the transport system but at the same time the supply of electricity must be guaranteed so that the extra consumption of electricity will be possible. Increased local electricity production would stabilize the electricity system because imports would be reduced.

Looking at energy consumption by sector, transport is one of the key sectors in the transition. In the region's budget for 2017 funds have been made available for investment in a new, electrically powered line ferry and also a converted line ferry.

Interest for electric cars is growing, but the statistics regarding electric cars and hybrid cars are not complete today because hybrid cars have been registered as petrol cars. This makes the monitoring of the development more difficult.

And now we come to the complexity of measuring:

Houses form the other large sector for energy consumption. On the one hand, we need to follow energy effectivisation in our homes during the first five to ten years. On the other hand, more and more people will be charging electric cars from their homes, and this will increase the consumption of

household electricity. If we talk about energy effectivisation in the transport sector we must also take into account that additional electric cars in Åland will shift energy consumption from the transport sector to the household sector.

The benefit of energy effectivisation will be difficult to measure because an increase in electrification means that new functions are continuously being taken into use. The statistics need to be more specific, but we do not yet know in what way. It will also be important to employ a holistic view that bridges sector boundaries if we wish to follow the real changes that take place. It follows that the indicators can need to be adjusted over time. The indicators that are meaningful today might not always be so.

In this complexity, where energy is distributed over sector boundaries in a new way, the ongoing digitalization is going to be an enabler. We need user systems that are active and integral to the structure of society. An example would be a future Smart Grid, which would allow you to charge your electric car when necessary, at home or via a public charging point. Regardless of where, the charging can be connected to my personal consumption. I can as an individual consume energy in different ways in a common "smart" system.

Chosen indicators:

- **Total CO2 emissions from consumption of energy (a) including (b) excluding shipping/capita/GDP**
- **Total energy consumption per energy source**
 - windpower
 - solar energy
 - biofuel
 - fossil fuels (with suitable divisions)
 - other
 - imported
- **Proportion of locally produced renewable electricity of total electricity consumption**
- **Proportion of local renewable energy of the total energy usage**
- **The ferries' CO2 emissions** (on a yearly basis)
 - local traffic ferries
 - larger cruise ferries
- **Energy consumption /number of driven kilometers /energy form** (petrol, diesel, electricity, biofuel (diesel/gas))

3.8 Strategic Development Goal 7 – Sustainable and mindful patterns of consumption and production

We are all consumers and we can no longer ignore how our lifestyles affect the planet: The choices we make today affect the conditions for our children and grandchildren to live a good life. Whether we are private consumers or manage companies in Åland, active in the local or global market, we need to review where we are in relation to the seventh development goal: How sustainable and mindful are our everyday choices?

So how do we define a sustainable and mindful consumption and production? The starting point for the Development and Sustainability Agenda is an international definition of sustainability, which is based on four sustainability principles. This means that even sustainable consumption and production should take place within the framework of the four sustainability principles. Nothing of all that we produce on a daily basis in society, when we have achieved our goal of sustainable and mindful consumption and production patterns, shall break these principles.

We no longer systematically mine substances from the earth's crust – such as fossil fuels, metals and minerals – and disperse them in nature. We no longer systematically disperse foreign substances that nature cannot take care of. We no longer systematically degrade nature. And we have eliminated structural barriers to people's possibilities for health, influence, competence development, impartiality and creation of meaning. And this care and mindfulness applies not just to what we ourselves produce in Åland, but also for example to the clothes, foodstuffs, materials and electronics that we import from other countries.

At the present, several companies in Åland have started the process of mapping their production of goods

and services in relation to the sustainability principles. Several of the larger companies are also ready to establish sustainability reports.

No company in Åland uses, however, the tool Future-Fit Business Benchmark, which indicates how future proof a company is in relation to the sustainability principles.

Against this background and the complexity of the development goal there is a need for a further development of data collection with regard to sustainable and mindful consumption and production. Accordingly, no indicators for this goal have yet been chosen.

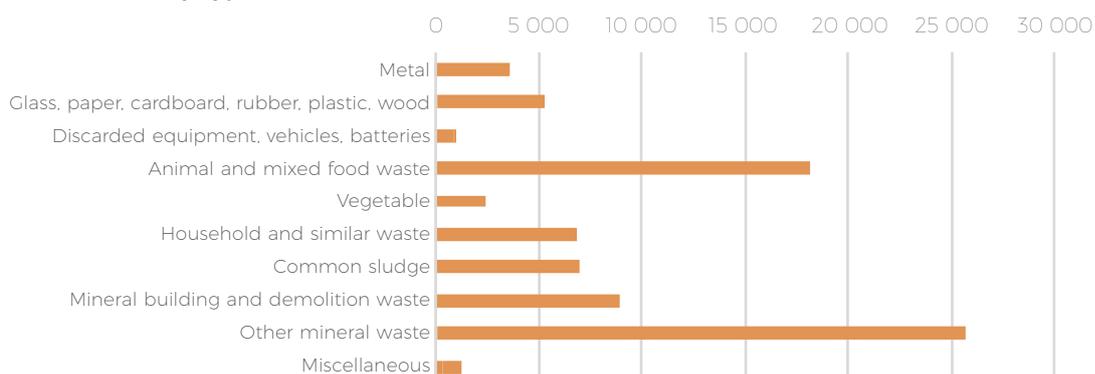
Increased mindfulness

“Overshoot Day”, the day when we, on a global scale, have consumed the year's proportion of the planet's resources, has, during the last few years, fallen in August. But this is when the poor countries are included. Overshoot Day for Finland's reckoning fell in 2017 on 3 April, compared with 18 April in 2016. Christmas trading, the greatest consumption party of the year, is also breaking new records.

At the same time, mindfulness of the fact that our consumption of cheap goods is breaking the social and ecological sustainability principles at home and abroad is growing, and our habits are gradually changing. It might be that we buy clothes and furniture second-hand or renovate our houses with reused material. The EU is working, among other things, to ban products that have built-in aging, which should in the long run remove the cheapest goods and influence the throw-away culture.

The insight into the importance of preventing waste by repairing, buying second-hand and borrowing instead of buying new is gradually awakening to life again. We see a growing number of operators who profile themselves through smart ways of recycling and reusing – someone's waste is someone else's resource.

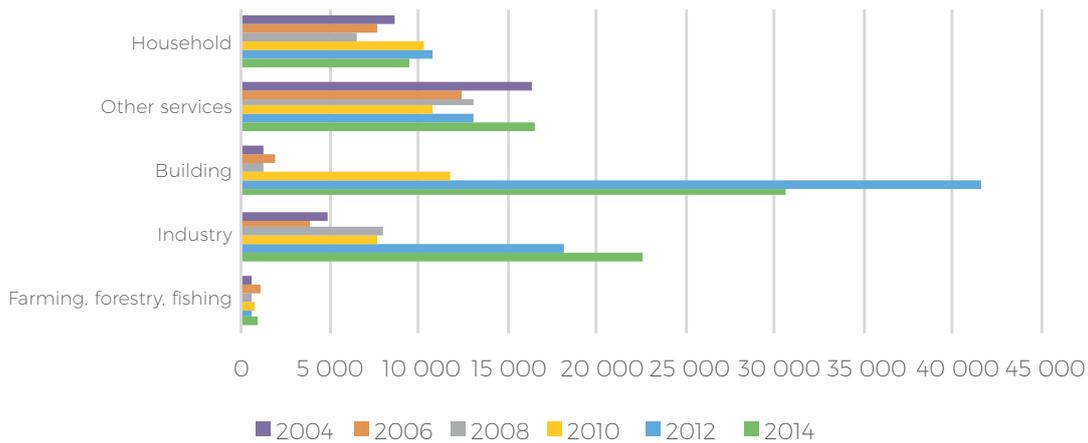
Produced waste by type 2014, tonnes



Note: Sludge is indicated as dry substance

Source: ÅSUB, Avfallsstatistik [Waste statistics]

Produced waste by sector 2004–2014, tonnes



Note: The figures are revised and indicated as dry substance. Because the classification of enterprises was updated in 2008 the figures by sector are not entirely comparable with earlier years.
Source: ÅSUB, Avfallsstatistik [Waste statistics]

The majority of countries are checking legislation and the EU is checking its directives in order to, for example, eliminate obstacles for barter economies or obstacles for donating food to charitable organizations. It is desirable that Åland assesses possible incentives to be able to go in the same direction.

A sustainable production needs also to take into consideration the entire lifecycle, in other words how the goods are handled and recycled when they are no longer of use. The residues from usage, wear, and washing of treated products, among other things artificial grass, clothes, furniture and decking, eventually ends up in the sea and becomes a problem for aquatic organisms.

In order to realize the goal of a sustainable and mindful consumption and production there is a need to break the linear flow of material and resources. This can be done by completely phasing out certain substances, preventing other substances from entering any cycle, and developing a circular economy that is not based on a continuous supply

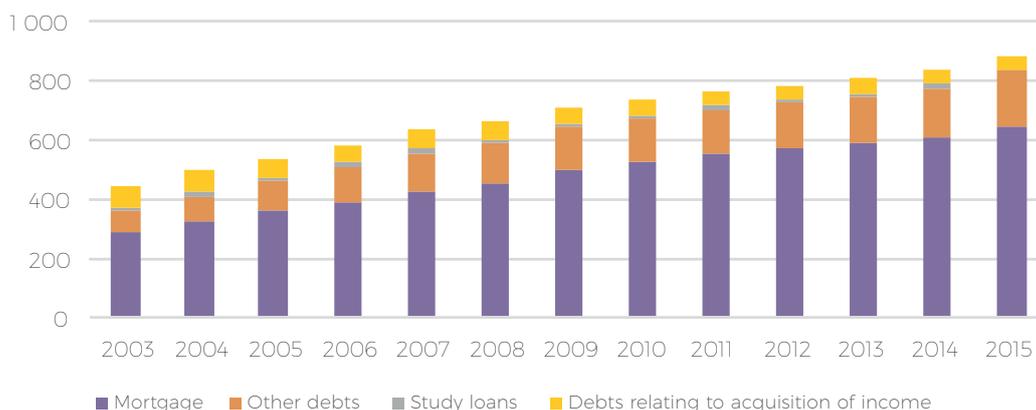
of raw materials and, consequently, a related and continuous growth.

A mapping of CO₂ emissions connected to Ålanders' consumption would increase our knowledge of the challenge facing us with a sustainable consumption and provide incentive for change.

In the year 2015 the level of indebtedness of the average Åland household was 138.8% of the disposable income. Taking only those households that have debts, the level of indebtedness was 201.7% of the disposable income. The level of indebtedness describes the debts in relation to the households' disposable incomes. Disposable income is defined as gross income minus paid transfers (e.g. direct taxes and social security payments). From and including the year 2015, study loans are included in other debts.

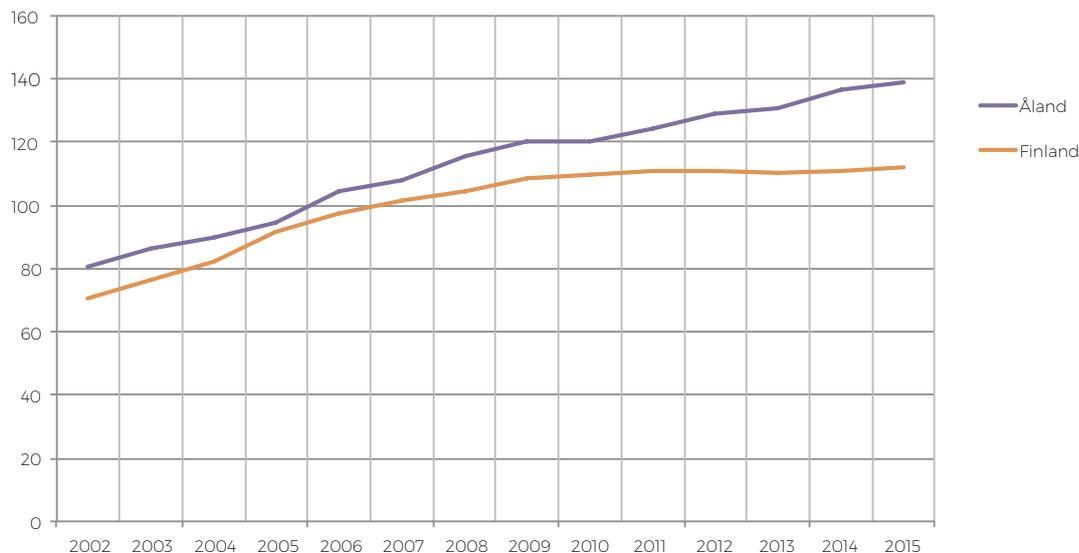
In the year 2015, the overall debt was more than €880 million. The largest part of the debt was mortgages, with ca €640 million. Other debts (consumption debt and study loans) were just over €191 million.

Households' debts according to type of debt 2003–2015, MEUR



Note: From and including the year 2015 study loans are included in other debts. Figures in euro have been given in year 2015 monetary value.
Source: Statistics Finland, Finance and insurance

Households' level of indebtedness in Åland and in Finland 2002–2015



Source: Statistics Finland, Income and consumption

In the right direction

How to motivate and make visible people's readiness for sustainability? "Intellectual knowledge" on its own is not enough to motivate people to make sustainable choices. It requires deeper insights and the will to change. On the other hand, in a little society there are unique possibilities to connect with each other on an individual level, to be inspired by each other and cooperate. Here it should be possible to quickly achieve a critical mass.

A new initiative is the project for sustainable and mindful patterns of consumption run by the Åland Chamber of Commerce. The organization will among other things map the production of goods and services by enterprises in Åland in relation to the four sustainability principles.

As part of the effort to promote a broad dialogue and innovation for a sustainable and mindful consumption and production, *Ålands Natur och Miljö* [Åland Society for Nature and Environment] has taken the initiative, together with other operators in the network *Bärkraft*.ax, to examine the conditions for starting a Transition Laboratory. The lab would act as a platform for the development and testing of new tools and strategies for progressing in the right direction.

Public procurement, but also legislation, can act as an effective lever and incitement to begin a dialogue on requirements for sustainability in the entire supply chain and a gradual adjustment in several ways. For example, the government is working through its environmental unit to completely phase out the procurement of products that contain microplastics.

But we also need voluntary contributions. All Ålanders can choose to take responsibility for which

pesticide they use in their gardens, which materials they build with, how they wash their cars, what they do with their medicines and paint residues, etc. Altogether, it amounts to large quantities of chemicals that are released – or not released – into nature.

The goal of sustainable consumption and production is closely related to several of the other development goals, not least the phasing out of chemicals and pesticides to achieve goal 3: All water is of good quality. The other goals interact with and reinforce each other.

Aspects that are relevant to be further developed, possibly as indicators or other monitoring:

- **Total CO2 emissions/capita**, including consumption of goods and services
- **Proportion of ecological crops**
- **Proportion of recycled material and proportion of reused material**
- **Proportion of enterprises and organizations that have adopted the sustainability principles in order to convert their business / Proportion of future proof enterprises according to Future-Fit Business Benchmark** (taking also the supply chain into account)
- **Proportion of public sector procurements that are made according to the sustainability principles**
- **The levels of microplastics**
- **Households' indebtedness**

4. STATEMENTS FROM CENTRAL OPERATORS IN SOCIETY

The Development and Sustainability Agenda defines the function for the six operators or sectors that have central roles in the realization of the agenda's vision and the strategic development goals (chap. 3.2, p.8). In the following text, representatives for the operators or sectors give their views of the current situation in relation to the agenda in general and their respective functions in particular.

The Parliament's Statement

Political responsibility

The previous parliament has agreed to the government's strategy for a sustainable development and thereby it is possible to say that the parliamentary groups have accepted the strategy as a political manifesto. Parliament has in other words the overall political responsibility for the realization of the strategy, and every single member can be said to have individual political responsibility, in the capacity of a member in a parliamentary group, to promote the strategy.

The conditions for steering and monitoring of the strategy's realization vary depending on whether the members are in the government or in the opposition. The political steering is done primarily by the parliamentary groups that support the government and that hold internal discussions in connection with the formulation of laws and budgets. The result of this steering can be seen in the suggestions that are presented to parliament. The opposition can affect the process primarily through motions.

The parliament's instrument for monitoring is primarily the government's annual report presented to the parliament, as well as questions (question time, written questions and issues) that are mainly used by the opposition.

Parliament as an institution

The parliament is conducting a project over several years, e-democracy, that is aimed at increasing participation and reducing paper consumption. In connection with the parliament building's renovation, parliament's goal has been to make changes aimed at energy effectivisation, as far as is possible within the limits of the original architecture. In choosing an alternative location for parliament during the renovation, the distance that parliament and government members, specialists and staff would have to drive was taken into consideration. When entertaining official guests, locally produced food is prioritized. The parliament has, however, cause to continue working for greater sustainability in purchasing patterns, travelling and official entertaining.

The Speaker
Johan Ehn

Director of Parliament
Susanne Eriksson

The Government's Statement

The government included the vision for Åland and the seven strategic development goals in the general motivation of its proposed budget for the region of Åland in the year 2017. There it is stated that the vision and the strategic development goals in the future shall be the basis for the direction of and planning of the region's budget and operations within the regional administration. Steps to integrate the development goals into the planning of general operations are ongoing and include the creation of processes and methods for the collection of information and monitoring of the vision and the strategic development goals. More concrete budget goals that concur with the overall goals are successively produced. The intention is that a sustainability report that is integrated in the ordinary annual report for

the region will describe the development starting with the annual report for 2017.

The government acts as a catalyst and coordinator for the realization of the agenda and has established a support function that assists the organization in this work. The support function is responsible for the maintenance of essential infrastructure, such as digital and physical forums, for the network Bärkraft.ax.

Head of Government
Katrin Sjögren

Head of Administration and Development,
the Government of Åland,
Dan E Eriksson

The Business Community's Statement

Within the business community in Åland there is a broad commitment to the Development and Sustainability Agenda. It is however important to remember that commitment varies depending on the size of the business. Åland has many small businesses and, generally speaking, it is our larger businesses that have a more substantial commitment. The reason is often connected to the consumer's behaviour. Today, customers ask for sustainable goods and services but they are seldom willing to pay more for them. It is therefore not possible for small businesses with limited resources to set aside so much time to work with the long-term strategic sustainability questions. Instead, they focus on actions that give a direct effect in their operations.

Generally speaking, though, good sustainability work goes hand-in-hand with good business. If the business is run in the best possible way then it is likely that many risks have been eliminated and there is good staff morale, which provides for good sustainability. Our next challenge is therefore to make sustainability action relevant for smaller businesses. The Åland Chamber of Commerce is convinced that this will happen by making sustainability action more concrete. Through indicators, projects and good examples we can in a concrete way make sustainability action relevant for the small-scale business community in Åland. This is how we can achieve a breakthrough that provides results.

Chairman, Åland Chamber of Commerce
Peter Wiklöf

CEO, Åland Chamber of Commerce
Anders Ekström

The Municipalities' Statement

The municipal sector is an important operator in the transition to a sustainable society. The municipalities' operations influence the population's everyday life since they provide services for people of all ages. Among the municipalities there are several that have already formally endorsed the Development and Sustainability Agenda, while the processing of the document is ongoing in others. The agenda's seven development goals, which are based on the four sustainability principles, show clearly that sustainability is about more than just environmental sustainability. Several of the municipalities are working consciously and in a structured way with sustainability and many have created goals and criteria for their work.

Example from the town of Mariehamn

The town council's overall goal for this electoral term (2016–2019) is aimed at economic, social, cultural and environmental sustainability. The town of Mariehamn has for a long time had an ambition and goal for environmental action, and in the work to reach a sustainable development the town's environmental goal plays a central role. The environmental policy and goals are determined by the town council. The town of Mariehamn has chosen to focus on the following target areas:

- Limited climate impact
- Sustainable energy
- Good indoor environment
- Sustainable consumption
- Sustainable premises and buildings

In order that Mariehamn's environmental action shall have an effect, an environmental management system according to the international standard ISO 14001 is used. The environmental management system constitutes the town's internal instrument for reducing the effect on the environment from the town's operations.

Association director, *Ålands kommunförbund*
[Association of Åland Municipalities]
Magnus Sandberg

Mayor, Town of Mariehamn
Barbara Heinonen

The Associations' Statement

Associations in Åland are today widespread and blooming and offer citizens possibilities for an active and meaningful leisure time. Historically, the third sector has had an important role in implementing change in society. We have a good possibility to act at the cutting edge of the important work that is being done within the framework of the Development and Sustainability Agenda, regarding all aspects of sustainable development. The saying "Everyone feels better if everyone feels good" is true for both physical and mental health, which are dependent on each other, at the same time that we as individuals are dependent on nature and the economy for our well-being and vice-versa – happy people have a greater inclination to protect nature and contribute to the economy.

Important elements in all associations are community, interaction and understanding between people for both learning and personal development. Membership and participation is on a voluntary basis and ensures everyone's right to have their say, to personally affect things and to promote the individual's own interests.

The associations are expected to take active part in the realization of the Development and Sustainability Agenda. In this task the associations have different starting points. Today, there is

everything from associations in which sustainable development permeates their activities to associations that are in the starting blocks with this work. An effort to raise awareness of these issues throughout the associations, together with a joint analysis of the starting point and goals, would be desirable, as well as discussions about how the associations can best meet the objectives that exist. The network Bärkraft.ax can contribute with a platform for discussions and exchange of experience.

Executive director, *Folkhälsan på Åland*
[Social and Healthcare Organization]
Niclas Forsström

Executive director, *Ålands Natur & Miljö*
[Åland Society for Nature and Environment]
Tove Fagerström

Culture and Education Sector's Statement

Sustainability work within the culture and education sector varies greatly, something that is completely understandable due to its diversity (from kindergarten to college to adult education). A step in the right direction to safeguard childhood environments is to embrace the interaction model developed by Sandra Rasmussen. We who meet children and youths through our work "respect cooperating operations' competence, mission and conditions". To implement the interaction model is an important step toward

enabling all people's inherent resources to increase. Is there a need to reassess the legislation so that the cooperation can take place as smoothly as possible?

An important element in many people's lives concerns existential questions. Subjects such as religion, perception of life and ethics should be integrated in a single school subject. This would hopefully create open minds, able to discuss questions regarding values from many different perspectives, where all can have their say, regardless of whether they have grown up in Åland or moved to the islands later in life.

A new core curriculum for primary and secondary schooling is being written. This is a golden opportunity to influence the curriculum that is developed and emphasise sustainability aspects. What we may not forget in this work is to include everyone, even those with special needs. For new residents maybe it is time to offer Swedish as a second language?

Rector, Ålands Lyceum
Marcus Koskinen-Hagman

NIPÅ (the Nordic Institute in Åland) is eagerly taking part in Bärkraft.ax with everything that we can offer, and our wish is to look deeply into the issues and challenges that can be easy to ignore. NIPÅ works with an internally formulated sustainability strategy that describes the four essential sectors;

enterprise, public administration, culture and education. The strategy describes the connection between cross-sector cooperation and successful sustainable results.

Our target groups represent many different Ålanders. NIPÅ's work is based on the Nordic motto "together we are stronger". We can only reach our goals if all sectors and groups are united in the work with sustainability. NIPÅ has defined sustainability areas that should be highlighted and addressed. For example, parliamentary sustainability, personal sustainability, cross-sector sustainability, religious sustainability, economic sustainability, social sustainability and infrastructural sustainability.

In everyday life we view sustainability from an environmental perspective but we can all have significant benefit by implementing the sustainability principles in our everyday duties in all sectors of society. If all sectors aren't included from the beginning there can be a risk that we squander valuable time and valuable resources.

Director, Nordens Institut på Åland (NIPÅ)
Jacob Mangwana Haagendal

5. HOW CAN I REALIZE THE DEVELOPMENT AND SUSTAINABILITY AGENDA?

5.1 Introduction

Visions and goals don't count for much – they must lead to actions in order to cause change. All around Åland a number of initiatives have already been started that will take us in a sustainable direction. Åland Post, Viking Line and Ålandsbanken have begun their sustainability reports, and Ålandsbanken is additionally the first in the world to offer a bio-degradable payment card of maize – *Östersjökortet* [the Baltic Sea Card] – which allows its user to see the carbon emissions that their purchases generate. ÅCA [Åland Central Cooperative] has for a long time operated a biogas facility and is currently developing the production of ecological milk. The Operation *Giftfritt Dagis* [Operation Poison-free Kindergarten] is mapping children's everyday environment, Plasto is launching plastic toys made from sugarcane instead of oil, Medis is running courses in ecological cultivation in order to increase the number of providers of organic vegetables, the quantity of locally produced, organic farm products is increasing and the government is initiating a wide-reaching educational program in strategic sustainability, to name just a few examples.

The sustainability journey is complex and we have all come different distances. The examples in this chapter represent four separate areas with very different operations. The idea is to motivate and inspire: This is how we can work!

We all share the same challenge. We need to make sustainability into a natural part of our everyday lives and our work, so that we all can contribute to achieving the vision of a sustainable Åland. During this journey we can learn from and be inspired by

each other. The network *Bärkraft.ax*, different certifications, courses and educational programs represent different ways to join in. One way to assess your operation or activity is to use the matrix at the beginning of this chapter, use the examples as models and answer the questions based on your own experience. The matrix is presented according to the ABCD-method: Where do we want to get to? Where are we now? And how can we bridge the sustainability gap – based on our own circumstances?

An ABCD-process is about first (A) defining an operation's desired position in the future (vision and goal). Then the current position (B) is analysed relative to the principles of sustainability, and the gap between (A) and (B) is identified. This is followed by brainstorming possible short and long term actions and solutions (C) that can contribute to promoting the operation from the current position (B) to the desired position (A). This is followed by a prioritizing of the possible actions (C) and the definition of a concrete plan of action (D).

5.2 Matrix

The operations that have contributed summary overviews as examples to the matrix have not implemented full ABCD-processes. The examples in the matrix and in the following articles should be seen as an inspiration for how every single operation makes progress on its journey to implement the Development and Sustainability Agenda based on its own circumstances. By using the same language within sustainability work we can begin to communicate over sector boundaries and formulate common challenges and possible solutions.

<p>Vision, core values, goal (which link back to the vision and goal for Åland)</p> <p>Where do we want to go?</p>	<p>The current situation</p> <p>Where are we now in relation to our vision? How are we breaking the sustainability principles (SP 1-4, see p. 2)?</p>	<p>Examples of solutions</p> <p>How do we bridge the sustainability gap between the current situation and the vision/the sustainability principles?</p>	<p>Priorities</p> <p>Short- and long-term priorities that together constitute our itinerary to achieve the vision</p>
<p>Optinova</p> <p>We have a Strategic Guide that shows the direction of our operations and which even includes our corporate culture, competence and CSR (Corporate Social Responsibility). A sustainability policy was added in May, including a vision and additional support policies (for example global policy for gender equality). We shall develop a number of sustainability KPIs (Key Performance Indicators) to show our development in this area</p>	<p>We are today pretty good at the social/cultural parts of sustainability, but need to improve by getting sustainability questions into the routine development of operations, measure the results as well as placing demands on our suppliers.</p>	<p>Get sustainability into our continuous improvement program, that is, get these actions up on our whiteboards listing improvements. Define KPIs on local and global levels as part of regular reporting. We should give more emphasis to sustainability issues when conducting supplier audits.</p>	<p>We see no obstacles, only to push forward and Rock on! Important with allocation of time, in other words, that this work isn't parallel to but an integral part of the ordinary operations.</p>
<p>Andersson's Guesthouse</p> <p>Our ambition is that our business, providing accommodation and the bakery and café, shall be as kind as possible to the environment. We value environmental awareness, continuous improvements, ecological ingredients and local production. We value our cooperation with local producers and suppliers who strive for sustainability.</p>	<p>SP 1: Dependent on transport</p> <p>SP 2: Very little, for cleaning and maintenance we choose environmentally certified products</p> <p>SP 3: Very little. Our business is small-scale, we respect the environment and culture and we try to reuse materials.</p>	<p>Electric vehicles, environmentally friendly production of electricity and packaging, centrally managed improved reuse and waste management.</p>	<p>The business prioritizes wholesalers who sell for example sustainable packaging and suppliers of locally produced electricity, and could effectivise and improve waste management if the overall waste management started up on a larger scale.</p>
<p>Emmaus</p> <p>Emmaus Åland's vision is a sustainable society. Emmaus wants to achieve a meaningful life, a real peace and joy for every individual and society. Every person and every society should be able to live, have a place and fulfil oneself in a mutual exchange and in a community where all have equal value.</p> <p>Mission statement:</p> <ul style="list-style-type: none"> - Fight against injustice - help those who are worst off - reuse and recycle - rectify causes of inequality - work for integration - create meaningfulness through cooperative work- <p>Fundamental values: respect, sharing, openness, solidarity, welcoming</p>	<p>SP 1: In principle, everything, a totally new approach is necessary, not just for individual operators but as a cooperative transition by the whole society.</p> <p>SP 2: Almost nothing at all, we have gone over to buying only environmentally approved products, but there is however some pain that we should find an alternative to.</p> <p>SP 3: Not directly, but indirectly, as we a part of the consumption society.</p> <p>SP 4: Not conscious obstacles, and we have an unspoken goal that everyone within the organization shall be equal in every way.</p>	<p>Common strategic work according to backcasting/ ABCD-model</p>	<p>Common strategic work according to backcasting/ ABCD-model</p>

“I want to challenge other companies”

ANDERS WIKLUND, OPTINOVA

5.3 Optinova

- Our guiding light, “The Feelgood Factory”, is all about both social and environmental sustainability. If people enjoy their work and feel that they can use their full potential and grow their competence, we believe that this also shows in the results, says Anders Wiklund, CEO at Optinova.

Optinova has for a long time focused on a softer corporate culture inline with the sustainability principles.

- But the Development and Sustainability Agenda creates a positive pressure to work more systematically than previously. We want to contribute to society and be a role model when it comes to embracing the vision, says Anders Wiklund.

Social sustainability is given high priority in the company. Optinova has consciously invested in management training for a leadership style that provides clarity and coaching. The competitiveness legislation’s extra 24 working hours will be used to train the staff in fun ways, and absolute zero-tolerance prevails regarding bullying on the basis of for example ethnicity, gender or sexuality. If this policy is broken then there are no warnings: you can leave directly.

- That we are “The Feelgood Factory” means that it should feel good to interact with us, whether you are staff or customer, says Anders Wiklund.

Optinova manufactures advanced tubing for medicinal and industrial applications for the global market and has just over 400 staff all around the world: five factories, two on Åland, two in the USA and one in Thailand, and ten sales offices worldwide.

- We more and more often get questions regarding our sustainability work from customers and partners. Business-wise, it is a clear advantage to be at the cutting edge, and also to put pressure on our own suppliers to act in the same way in the future.

In the Development and Sustainability Agenda it is goal 7 that is closest to Optinova’s operations: “Sustainable and mindful patterns of consumption and production”.

- For our part we need to break down this goal and transform it into extremely concrete actions that will give maximum effect for us, says Anders Wiklund.

- We don’t have much in the way of emissions from the production itself. However, we do transport a lot of raw materials and products, and have staff who drive to work every day. In our new sustainability policy there are several points regarding how aspects of sustainability should be included in travel and choice of transport.

Optinova’s sustainability policy will be formalized in May.

- Until now we have mostly tried to act on initiatives that have come from interested staff members. The goal now is to get sustainability into our general continuous-improvements-work. A policy increases clarity and makes it easier to communicate, so that the sustainability perspective will become an integrated part of our operation.

What does a company like Optinova wish from society so that it can contribute to a sustainable Åland?

- The circumstances are good. Bärkraft.ax is good: a combination of the right amount of pressure, external expectations and coaching. The vision and the strategic development goals clearly show the leadership’s expectations of what should happen, says Anders Wiklund.

- But I see a risk in saying that Åland will be sustainable first in 2051. It means that one can still just sit back and put things off. It is now that things need to happen, and the faster we work the better. In addition to this being done for corporate reasons, it is something we of course do for our children and grandchildren. Åland has an optimal size for the transition to a sustainable society, and we have really no excuses. It would be exciting if Åland could take a more active role and become an example for the world.

Anders Wiklund believes in the significance of good leadership.

- At Optinova there is a genuine interest in sustainability among the management and the owner. During the past year we have been involved in Bärkraft.ax, gone on courses and tried to learn as much as possible. Now we are on our way to active decisions. We are not there yet, and we are definitely not world leaders in sustainability. But we are on our way, and I willingly challenge other companies to follow us! Let me put it like this: In three years Optinova is the leading company in Åland with regard to sustainability as an integrated part of the corporate culture! Who will take up the challenge?

“We say to our guests that ‘this is how we do things here’”

ANNETTE & HASSE ANDERSSON,
ANDERSSON'S GUESTHOUSE

5.4 Andersson's Guesthouse

– I believe that many are a little bit afraid of the certification process itself. When you have got started, it isn't difficult, says Annette Andersson who runs the Green Key-certified Andersson's Guesthouse and bakery with her husband.

Annette Anderson was tempted by the idea of a guesthouse soon after she and her husband Hasse bought the property in Eckerö in 1984. Hasse was sceptical, but in the end he accepted – on the condition that everything would be as environmentally friendly as possible.

– My basic concept is that we shouldn't waste resources at the expense of others. It has been my role to develop things in a technically sound way, including everything from heating management to recycling models, he says.

Andersson's Guesthouse opened on a small scale in the summer of 2000. Today, Hasse is retired and Annette runs the guesthouse and bakery as a full-time job. New for summer 2017 are five small log-cabins that the couple have drawn and built, and that not only the guesthouse but even the bakery is now Green Key-certified.

Green Key is an international environmental certification for the tourism and hospitality industry, that has been issued in Åland since 2014.

– We have built up the property very carefully according to our own values. When Green Key came it suited what we had already done. It is a suitably strict way of working where we continuously develop our own environmental goals and evaluate what we have achieved, but in a rather soft way, without pointers, says Annette.

– We already had heat recycling, and those rooms that we renovated with sustainable materials prior to starting up in 2000 are still fresh. Now we have restrictors on the taps, we've changed to LED-lights where possible, use environmentally friendly soap and cleaning products, and practice source separated recycling.

The Andersson's own residence is located on the same property, and the guests quickly discover that they are expected to adopt the local customs.

– Many think perhaps that we are a bit formidable when they arrive and we say that “on our property we do things like this”. But many are also interested, says Hasse.

It's not possible to stay here without breakfast being included.

– It is more effective and more environmentally friendly with less left-overs, waste and washing-up than if we all were to do our own thing. But it is also a cultural experience and a question of comfort. And we can serve a locally produced and organic breakfast, says Annette.

To run a small, family establishment has both advantages and disadvantages when it comes to working with sustainability. On the one hand it's easy to test things. On the other hand there's not much available time, and you are dependent on the society around you.

How does waste disposal work, for example, both for residents and visitors? It should be possible to create a better system for recycling, Hasse thinks, so that useful material doesn't end up on the rubbish tip but can be used somewhere else. And how can the amount of packaging be reduced, and avoid all plastic?

– It would be good with more unified and cross-sector solutions, so that you're not simply dependent on how things work in your own municipality. The whole of society needs to work more systematically with these questions.

– Washing is also an important part of the tourist branch. As an environmentally certified establishment we are eager to source linen from a laundry with a good environmental policy. To get such a policy on paper from the two operators working in this branch on Åland today has proved to be difficult, says Annette.

– Furthermore, the choice of ecological products is still limited, even if it has increased considerably in the last few years. And it takes a lot of time to find out about everything. It would be more effective if the wholesalers were to take the initiative. And if there was some sort of support person that smaller companies that want to operate sustainably could turn to.

The first season with Green Key certification for the bakery is about to begin. Annette Andersson is sourcing products and building up an assortment: the right pastries, drinks for all tastes. She would prefer to recommend people to fill their flasks with good Åland water, instead of buying “long-distance” water in plastic bottles.

– You are of course never finished. But I am proud that it's possible to get ahold of so much that is locally produced. Organic flour from Åland, local vegetables, and ÅCA that has the best quality and now even organic milk. And it's necessary to get in touch with the customer, and to explain what the certification means and why we have it. There is a certain pride in being able to say ‘this is how we do things here. This is how we do things on Åland’.

“Mix more – both people and ideas”

ROBERT JANSSON, EMMAUS

5.5 Emmaus

– *The concrete things we do are already sustainable: reusing, recycling and social sustainability. Now we want to take a good grip of what we do and why, says Robert Jansson, manager of Emmaus, Åland.*

“We can recycle everything, both people and clothes.” The Emmaus advertising jingle sticks out, and some have raised an eyebrow: Respectless! You can’t say that about people! But maybe it’s possible to take the chance to joke a little when the whole operation is completely simmering with respect. For people.

During a normal day there can be 30–40 people working at Emmaus. In the shops in town and in Godby, at the centre for recycling of building materials and furniture, and in the Recycling Café. Permanent staff are mixed with project participants, people doing work-training, interns, people doing community service and volunteers.

– We have chosen to be in the centre of society and build relations, says Robert Jansson.

Much of the operation can be easily related to strategic goal 7: Sustainable consumption. But even so, Robert Jansson identifies himself most of all with the goals that are about people feeling good.

– We should keep an eye on our CO₂ emissions, that is very important, for example when we purchase transport services. But it is social sustainability that is our thing. Here we want to work more systematically based on the sustainability principles, and set an example for society.

Additionally: even reusing and recycling is created ultimately by over-consumption, Robert Jansson points out.

– Therefore we try to consciously find several legs to stand on, such as services and the café, where we use such things that otherwise would go to waste. The thought is to open a café on Strandgatan, and adjacent to it grow our own vegetables. Both to be able to have the raw ingredients and to demonstrate that it is fully possible to grow your own food even though you might live in the centre of town.

Robert Jansson meets many types of people, and he emphasises that the great majority want to work and contribute with something meaningful.

– There is a sense of pride and identity in what you do. Emmaus tries to create an environment where people may realize their full potential and do what they are good at. It is especially important with regard to vulnerable people who have previously experienced that everything just focuses on their problems, he says.

– It is also necessary to find flexible working possibilities and to adjust working times so that it fits everybody. For some people the workplace is their only social network and a solid base in their lives. For those who are alone or have an addiction weekends or four weeks of holiday can be a nightmare.

And it should really be good fun, also:

– We believe in breaking the everyday routines, to have fun and to test crazy things, even if we work with difficult issues.

Robert Jansson sees Åland’s Development and Sustainability Agenda as a possibility to work more systematically.

– We need a solid formulation of our goals, which connects everything we do and puts it into a context. Where are we today, and where do we want to get to? We would like to inspire other small operations in Åland and show that an organization can achieve rather a lot, even if you can’t manage with ISO-certification and other things. We are planning to employ someone to work with sustainability questions in the autumn.

Maybe at Emmaus it is unusually easy to find working duties for everybody. But the basic way of thinking can be applied to the majority of operations in some form, Robert Jansson believes.

– Open up! Accept interns and employees who need support. Make sure that it is a mixed group with regard to language and age. Do things together outside the hierarchies, brainstorm and make use of people’s ideas. Dare to test, dare to fail, dare to start over again!

“The challenge is to break down the goals into something concrete”

YVONNE ÖSTERLUND,
DEPARTMENT OF INFRASTRUCTURE

5.6 Department of Infrastructure

– *We need to support and influence the integration of sustainability in the construction, energy and transport sectors, says Yvonne Österlund, Permanent Secretary at the government's Department of Infrastructure.*

When the Development and Sustainability Agenda for Åland was launched in 2016, the permanent secretaries were assigned the task of implementing the agenda in their operations.

– It is not easy, says Yvonne Österlund at the Department of Infrastructure.

– The strategic development goals are rather vague, the indicators we shall work with don't yet exist and we don't believe in everything that is written in the agenda. For example, that all local ferries should be fossil-free by 2030 is not realistic considering the rate at which we can replace our ferries.

– As an introduction to the Department of Infrastructure's own process, Yvonne Österlund invited a Swedish lecturer who presented sustainability issues in a global perspective and shared experiences of sustainability work in the construction and building sector.

An initial workshop according to the ABCD-method (see chap. 6, Provision of sustainable drinking water) was held in March 2017.

– Since we are a rather practical department and had difficulty accepting parts of the strategic goals we decided to go directly to an analysis of the current situation, says Yvonne Österlund.

– You might think that our area of operations, construction, energy, transport and public transport, is all about materials. But actually, administration is always more about soft values. The transport sector influences people's possibilities for movement, and permission and supervision are about social change; about giving operators advice and support in how to follow the legislation. And economic support is a way to influence someone's choice. All of this touches the human aspect.

– Following the analysis of the current situation we wanted to concretize the agenda by defining goals within our area of operations. And by discussing the current situation we are of course already discussing actions. The next step will be to compile and prioritize

the ideas and relate them to our plan of operations. What can be included already this year, and what can be included in the proposed budget for next year?

The Department of Infrastructure's role as service provider – ie to manage machines and materials – makes up no more than 10% of the department's budget of € 30 million.

– On the other hand, we indirectly influence many things that happens within these sectors on Åland. And we are exploiters when we contract entrepreneurs. We plan roads, bridges and harbours, and we sometimes go into unexploited land for greater security, better economy or to make the system more flexible for the population. There is always a balance between different aspects. We assess our flow of materials and which vehicles that are used, but we also assess qualitative aspects, such as occupational safety, security and disability access.

The changes caused by the transition are communicated via the authorities to society in various ways. Economic support for public transport or solar panels act as incentives for change, while regulation through legislation is cheaper but can be considered harsh. Discussions with the operators, consultation groups, evaluations and assessments, education and media are important ways to inform and influence.

– As a public procurement unit, we have the possibility to both make demands and educate: 'now we are requesting this, but in five years we will request that instead, just so you know what to expect'.

The transitional work doesn't exactly follow the rails. But that is just how it is, thinks Yvonne Österlund.

– It is the first time that we're doing this, and everything doesn't have to be perfect. Next year the sustainability aspect will be more integrated in our operations. But this time the process is a way of learning, she says.

– So far the greatest gain is the sharing of knowledge within the team. Discussions lead to greater consensus, a more similar view of the current situation and our actions, and a commitment to all pull in the same direction. Time and resources are needed to work with these questions and make them yours. We need inspiration and good examples: what is happening around us that appears to be promising and that can be applied in a small society such as ours? But most important of all is political attention in the form of specific targets, resources and willingness to make decisions.

6. THE NETWORK BÄRKRAFT.AX TODAY

The realization of the vision “Everyone can flourish in a viable society on the Islands of Peace”, together with the seven strategic development goals, is made possible by joint action. Through a combination of commitment and mindful action from parties in every sector of society, we shall step by step realize the vision and achieve the development goals. The network Bärkraft.ax is the hub for coordination of work with the realization of the Development and Sustainability Agenda.

The network was created at the beginning of 2016 at the initiative of parties from the public sector, the business sector, associations and the education sector. Bärkraft.ax is open to the participation of parties from all sectors of society and all people who wish to contribute actively to a viable and sustainable Åland. The forms of interaction in and around Bärkraft.ax are transparent and continuously developing. It is the participants, individuals as well as contributing parties, that continuously give to and transform the network’s contents. The following text describes the present state of the network, with regard to content and groups in the spring of 2017.

The Forum for Social Development is the network’s annual meeting place. The forum is open to all who live and work in Åland. During the forum good examples of action to realize the agenda from all social sectors are highlighted. The annual status report, see below, is presented to the forum’s participants. The Forum for Social Development III

took place on 19 May 2017 at Åland’s Lyceum.

An annual status report, this is the first, shall be produced every year within the framework of the network Bärkraft.ax, and be approved by the Development and Sustainability Council. The realization of the Development and Sustainability Agenda requires systematic monitoring and reporting. The annual status report forms a central part of this systematic monitoring and reporting. The status report is expected to identify progress, challenges and critical factors of success with the aim of providing support for decision making in all sectors of society. The status report shall, among other things, measure the indicators of the strategic development goals. The government is responsible for the production of the status report within the framework of the network.

The website www.barkraft.ax and the Facebook page are at present the digital sites for information and dialogue regarding the network. The government is responsible for the maintenance of these digital forums.

The contributing parties constitute, in many ways, the hub of Bärkraft.ax. The contributing parties coordinate the ongoing planning of actions for the realization of the agenda. The contributing parties meet every 5–7 weeks for coordination meetings. It is easy to join as a contributing party. It is enough that the organization decides (the board or similar) that they wish to be a part of, and at the same time endorse, the Development and Sustainability Agenda. Following this, the organization is published as a contributing party on www.barkraft.ax. This means that the organization will even be

invited to the contributing parties' coordination meetings. At present the following organizations are contributing parties:

AMS [Labour market and studying]
Emmaus
Folkhälsan [Social and Healthcare Organization]
Företagarna på Åland [Entrepreneurs in Åland]
Enterprising Archipelago
Åland University of Applied Sciences
The Åland Government
Leader Åland
The Town of Mariehamn
Mise [Environmental Services]
NIPÅ [Nordic Institute in Åland]
Save the Children
The Baltic Sea Fund
The Red Cross
The Åland Chamber of Commerce
The Åland Islands Peace Institute
Visit Åland
Ålands Gymnasium [Upper-secondary schools in Åland]
Ålands handikappförbund [Åland Handicap Association]
Ålands Idrott [Åland Sport]
Ålands kommunförbund [Association of Åland Municipalities]
Ålands Marthadistrikt [Martha Organization in Åland]
Ålands Natur & Miljö [Åland Society for Nature and Environment]
Ålands Producentförbund [Åland Producers' Association]
Ålands Vatten [Åland Water]
ÅSUB [Statistics and Research Åland]

The Development and Sustainability Council is a part of the network. The council consists of leading individuals from different sectors, and is responsible for the networks vitality and long-term existence. The members are appointed by the government and the council meets in ordinary meetings twice yearly. Members are appointed for periods of two calendar years and the council shall consist of at least eight and no more than fourteen members. The Head of Government is one of the members as well as shouldering the responsibility of being the council's chair. The council shall regularly follow up the Åland society's work with the Development and Sustainability Agenda.

Events, everything from seminars to festivals, can be arranged within the framework of Bärkraft.ax by the contributing parties. Examples of such events are "Culture's role in Sustainability Action" (October 2016), "Åland for All" (the importance of good accessibility for all, January 2017), and "The Party" (May 2017).

A mentor function is in the making and could possibly be initiated during 2017. The possible mentor function's purpose is to support municipalities, companies, associations and private individuals in their respective endeavours to make the agenda their own.

A group representing the 15–20 largest companies in Åland shall be initiated during the third quarter of 2017. The hope is that the companies are willing to use their creativity and innovation to create profitable business that also contributes to the Development and Sustainability Agenda's realization. The largest companies' extensive and widely varying areas of competence make them a resource and potential that many regions of similar size to Åland can only dream of.

7. MULTISECTORAL INITIATIVES FOR REALIZATION

7.1 Introduction

The challenge with managing the transition of an entire society is to handle the complexity in multisectoral entities without getting lost in delimitations that obscure the line of sight: details where people are not in agreement, or solutions that work in one sector but lead to new problems in another. Sustainability work in Åland has adopted a structure which will facilitate work over sector boundaries, an ABCD-method (see page 2). In this way, healthcare, agriculture, fishing, education, culture, industry, infrastructure and more can coordinate their efforts despite differing circumstances. This structural work has the potential to develop further, which would give even greater synergy effects for society.

The following is an account of a selection of multisectoral initiatives for the realization of the Development and Sustainability Agenda that have already started or are in the process of starting.

In three sectors that are not mentioned below, healthcare, the building sector and the transport sector, there are hopes that a systematic sustainability action will get started.

7.2 Development of physical structure

How we use our land and how we move around is central for a more sustainable society and for a region's development. The physical structures that we today build are going to be with us for a long time to come, and affect the development of society in Åland. It is therefore relevant to be aware of different possibilities, choices and consequences regarding growth, sustainable development, land management, life quality and effect on the climate, and their connection to physical structures.

Through the collection, processing and analysing of geographical information on land usage, protected areas and workplaces, and relating this to growth and sustainability, we can make visible the need for development. All seven strategic development goals

have relevance for physical planning and structures to some degree. Above all else, there is a relevance in those goals whose cause and effect have a clear geographical connection to land and water usage or the exploitation of natural resources.

As part of the Åland government's development and sustainability work, the government is running a project to provide data for a physical development plan for Åland.

7.3 Social sustainability

Social sustainability - several multisectoral initiatives

"Everyone can flourish in a viable society on the Islands of Peace". The vision for Åland places people in focus: flourishing people that participate in society. Because people's lives move freely between different sectors, the sustainable society also needs to find different ways to meet its citizens' needs in a multisectoral way. Below are described several ongoing initiatives in social sustainability.

An accessible Åland

The government's work with disability politics is based on the UN's convention on the rights of persons with disabilities, that was adopted by the UN's general council in 2006. The purpose of the convention is to remove existing obstacles to permit people with disabilities to be able to exercise their human rights. The implementation of the convention is in one way a long term action for increased social sustainability within many different sectors.

The work for an accessible Åland is multisectoral and run in close cooperation with the third sector. The task of implementing, monitoring and reporting action relating to the UN convention in Åland is conducted by the disability council. The council consists of representatives from disability

organizations, the Åland government, the Åland health service, Ålands arbetsmarknads- och studiestyrelsemyndighet [labour market and studying], Ålands kommunförbund [municipalities] and the town of Mariehamn, each with a mandate period of two years.

“An accessible Åland” is the government’s action program for disability politics 2013–2016, with focus on increased accessibility. The action program has spanned different sectors and political areas. Among other things, a systematic accessibility survey of the government’s buildings and areas to which there is public access has been conducted in cooperation with the tourist sector, with the goal of increasing accessibility within tourism. A network with its base in culture, sport and education has also produced an educational package for leaders in work relating to youths, with the aim of increasing knowledge of disabilities.

The program, “An accessible Åland”, is being revised during 2017. Focus lies on accessibility, the labour market and the way people with disabilities are treated.

The work of implementing the UN’s convention on the rights of persons with disabilities contributes to the achievement of strategic development goal number 1, “Happy people whose inherent resources increase”, and development goal 2, “Everyone feels trust and has real possibilities to participate in society”.

Revision of primary and secondary school legislation and cooperation regarding children’s needs and rights

A revision of the legislation regarding primary and secondary education in Åland is taking place during 2017, and the multisectoral perspective has existed since the planning phase. The government’s own officials from three departments, together with five expert groups, have been engaged in this work, which during the spring has produced a series of suggested changes to the legislation. Members of the expert groups come from different sectors in society, officials from the government and from the schools.

The suggestions will subsequently be approved politically before the process of drafting the law begins.

Seminars have been arranged offering the possibility of in-depth analysis of various current issues. One of the seminars focused particularly on the Development and Sustainability Agenda for Åland. The discussion addressed among other things society’s responsibility to take pupils’ feelings seriously with regard to psychological and physical ill-health, bullying, abuse and stress. Evaluations show that the role of the school needs to be clarified, because school is the arena in which children are most of the time. A sustainable primary and secondary school legislation needs to reflect the daily realities of our children, and at the same time include a sustainability that provides security for pupils in the future. A multisectoral approach provides the opportunity for new solutions, where cooperation between the school, social workers, student healthcare, recreational leaders, parents and the third sector strengthens the school in terms of the goal to create happy people whose inherent resources increase – also in the form of confident pupils.

The so-called 3-stage support, or “Support for learning and schooling”, as it is called in the curriculum, is used to emphasise the possibilities provided by the multisectoral approach with focus on the pupil’s development and well-being. The aim of the support, which has been implemented in the primary and secondary schools’ curriculum in Åland during the school year 2016–2017, is to clarify the division of roles and to strengthen documentation, but primarily to ensure that the pupil receives the right support at the right time and from that sector that offers the help that is needed on that particular occasion.

Nordic 0–24 project: Cross-sector cooperation for vulnerable children and youths – Åland

Dropping out of upper secondary school, unemployment and alienation are significant welfare political challenges, both in a Nordic and in a European perspective. Better cooperation between officials in the social sector contributes to identifying and helping vulnerable individuals earlier. Long term, it also

contributes to better utilization of resources in the population, which is a condition for vitality in the Nordic welfare systems in the future. It is relevant also in Åland, and necessary in order to realize the goals of happy people whose inherent resources increase, and where everyone has the possibility to participate in society.

The government's education bureau is initiating, during 2017, a cooperation in order to find a model for working in a cross-sectoral way with vulnerable children and youths. The project will contribute to the exchange of experience and to knowledge regarding how various management levels and sectors focus their efforts. How can we develop a cooperation and relevant choice of services offered to vulnerable children and youths in Åland? The project can be seen as a link in a long term goal to counteract dropping out, alienation and poverty. The project 0–24 is a Nordic initiative with participants from the Nordic countries and autonomous regions, and is expected to continue until January 2020.

7.4 Energy and climate, food production, forestry and tourism

7.4.1 Energy and climate

The Development and Sustainability Agenda's goal 6 for 2030 has established that Åland shall have a "Significantly higher proportion of energy from renewable sources, plus increased energy efficiency". Today, ca 32% of the total energy consumption is as good as locally produced. According to the newly

produced energy and climate strategy for Åland, which is at the time of this report's production on referral, the suggested goal is 50–60% renewable energy consumption by the year 2030. The year for when Åland is proposed to be carbon neutral is 2051. Sweden is aiming to be carbon neutral by 2045, and Finland has the goal of reducing greenhouse gas emissions by 80–95% by the year 2050 (compared with 1990).

Prioritized areas for Åland are, according to the energy and climate strategy, the transport sector and to increase the proportion of locally produced electricity from renewable sources, plus the dissemination of information to increase awareness of the need to achieve a behavioural change in the general public.

The traffic sector stands for altogether 60% of carbon dioxide emissions (the import of consumer items is not included), divided between traffic 22%, local ferries 8%, other shipping 29% and flights 1%. The number of vehicles in Åland has increased considerably. Today there are over 40,000 vehicles, which is more than one for every inhabitant. Since 2011 the consumption of fossil fuels has though maintained a stable level, or even reduced somewhat, despite the number of vehicles increasing by 10%.

The development within the transport sector will be a crucial factor in whether we can achieve the energy goal, and we are far behind the surrounding regions when it comes to the transition of the traffic system. In the draft of the energy and climate strategy it is suggested that a first step would be to establish distribution systems for new fuels, for example charging points, filling stations for biofuel and possibly a local biogas plant in order to increase the possibilities to

SWOT-analysis for traffic in Åland

<p>STRENGTHS</p> <ul style="list-style-type: none"> Short distances. Shipping companies wish to maintain a high environmental profile and reduce running costs. Interest for primarily electricity as a fuel among professional drivers. 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> Large number of vehicles. Fossil fuels are the main source of fuel. Spread out community which means that public transport does not work. People do not want to use public transport. High emissions from shipping. Inadequate access to alternative fuels.
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> Significant reductions in emissions can be achieved by changes to traffic. Short distances make electric cars and bicycles realistic alternatives. Alternative fuels for traffic (electricity, hydrogen, biogas, natural gas). Driverless vehicles, transport pools, flexible routes, and more, can develop public transport. Electrically powered recreational boats can reduce emissions. 	<p>THREATS</p> <ul style="list-style-type: none"> A slow transitional process.

Source: the Åland Government, *Energi- och klimatstrategi (2017)* [Energy and climate strategy, 2017]

change to vehicles that use new types of fuel. The situation is favourable because the age of vehicles in Åland is relatively old.

Locally produced electricity from renewable sources is the other prioritized area in the strategy. The supply of electricity in Åland comes for the most part from imported electricity, mostly from Sweden. Currently, wind turbines produce ca. 20% of the yearly consumption of electricity in Åland. To achieve the goal of a significantly higher proportion of energy from renewable sources the goal is a continual increase of decentralization and own production of electricity alongside the regional supply. The suggested goal is that 50–60% of electricity consumption is produced by local and renewable energy sources.

From the heating sector it has been noted that various subsidy programmes for conversion to heating pumps and the installation of biofuel boilers and stoves have had a clear effect, and development is going in the right direction. Today, solar panels that produce warm water and those that produce electricity are still part of the government's subsidy programme. Perhaps more heating alternatives can receive support in those actions that the strategy is leading to. Additionally, the EU is working actively with energy effectivization and has as a goal that all new public sector buildings shall be close to zero net energy buildings by 2019 and all other new buildings by 2021.

The dissemination of information can increase by the establishing of an "Energy office" similar to those that exist in nearby regions. The information should be independent and aimed at private individuals, companies and the public sector. Greater awareness of energy questions is a way to contribute to both increasing the proportion of renewable energy and increasing energy efficiency.

A comment in the draft of the energy and climate strategy is that Åland, by becoming visible on the larger arenas, could attract capital and technology. A long term energy and climate politics is a way to attract investors in energy and climate actions, because it also provides a security for the investors.

For energy effectivization the most important goal is to reduce emissions of greenhouse gases in a cost-effective way. This needs above all else more knowledge of energy effectivization and energy saving. The suggestion is for an energy office offering independent, continual advice on energy to small-scale users, both companies and households, in order to increase energy awareness among the people of Åland.

In order to improve energy effectiveness within agriculture the government has offered advice for farmers. The government's bureau of agriculture has offered help to create energy plans and education in eco-driving for tractors but the level of interest has been low.

7.4.2 Food production

How we choose to consume and produce our food is decisive for a sustainable society. Food production, soil and water use, are the key to several of our most acute challenges: climate change, broken nutrient circulation and loss of biological diversity.

In the description of the seventh strategic development goal, sustainable and mindful patterns of consumption and production, it is stated that the food that is produced and consumed in Åland in the year 2030 is both good and healthy. The locally produced food is appreciated and sought-after. The range of organic products from Åland has increased considerably and the producers receive a fair return for their products.

In the newly produced sustainable food production strategy for Åland, the vision is that "The Baltic Sea's gastronomic islands are both climate smart and adapted to the future" – within the framework of the four sustainability principles. Ålands Producentförbund [Åland's Agricultural Producers] is the strategy's main partner and has developed the strategy in cooperation with a number of other operators, including food processing and manufacturing. The strategy's realization contributes to the achievement of the strategic development goals 3, 4, 5, 6 and 7.

The spearheads that have been developed in the sustainable food production strategy are:

1. Industrial symbiosis in the circulation of nutrients
2. Circular blue economy
3. Improvement of soil health
4. Biodiversity, living landscape and grazing animals
5. Gastronomic island worth visiting

The implementation of the sustainable food production strategy, which is accessible at www.barkraft.ax/ processor, will begin in June 2017. The aim is that implementation is monitored in the Development and Sustainability Agenda's annual status report.

7.4.3 Forestry

Even within the forestry sector efforts have been made to develop a multisectoral forestry program, which is expected to be adopted in the autumn of 2017. The program contains goals that are also relevant for energy and climate action:

- The amount of tree-felling increases and achieves a long-term, sustainable level.
- Forestry is practiced with the aim of achieving a high quality and versatile production of timber.
- The use of biomass and services from woodland increases significantly.
- A significant increase of wood as a building material.
- The generation of energy from locally produced biomass from woodland increases significantly.
- A sustainable use and favourable development of woodland ecosystems.
- The woodland of Åland is prepared to meet a changing climate.

Forestry will, similarly to agriculture, be affected to a great degree by the climate change that is expected; a greater frequency of downpours, drought, storms, insect infestation and unpredictable weather. To reduce the effects of climate change, forestry must adapt to the changes in good time.

Woodland and forestry can contribute to limiting climate change in a number of ways, by binding CO₂ in biomass and the earth, by storing carbon in long-lived products and by replacing fossil fuels and greenhouse gas-intensive products, such as plastic, concrete and steel. The reduction of greenhouse gases is greatest when timber products are used primarily for products with a long lifespan, e.g. construction, while the biomass used in generating energy is derived from byproducts, waste and from products that have reached the end of their life cycles. Timber production should therefore primarily focus on high quality sawtimber.

An increased use of forestry products, such as timber for building and wood chips for generating heat, leads to a better forestry practice while at the same time creating new jobs within several sectors. Increased information will also increase the general public's awareness of the advantages of choosing sustainable, local products.

7.4.4 Tourism

Within the tourist sector there is an ongoing, proactive sustainability action that has been running for several years in the form of the program "Sustainable Destination". The main operators in the program are Visit Åland, Ålands Natur & Miljö [Åland Society for Nature and Environment] and the Åland Chamber of Commerce.

Sustainable Destination is an example where long-term sustainability programs and broad commitment promote concrete action. Today, about 20 operators are working with the program Green Key. Green Key is an international sustainability certification for operations within tourism and recreation. These operators aim for long-term sustainability in their work and, through participation in the program they receive continual support and inspiration. As a part of Sustainable Destination, the environmental certificate Blue Flag will be initiated during 2017. Blue Flag is intended for guest harbours and beaches, and the program promotes sustainable development in sea and freshwater areas.

As the primary operators, Ålands Natur & Miljö, Visit Åland and the Åland Chamber of Commerce have agreed on the common target that Åland shall be a sustainable destination, and these organizations together drive the local programs within Sustainable Destination. The majority of operators within the tourist sector are private. It is therefore of great importance that the private sector itself aims to be more sustainable, and in this voluntary initiatives have a crucial role to play. Ålands Natur & Miljö, Visit Åland and the Åland Chamber of Commerce have as their ambition to make the most of the positive energies.

7.5 Åland Water

– Strategic Planning for the Sustainable Provision of Drinking Water

"Everyone needs drinking water"

– *We wanted to take a holistic approach to the issue of drinking water supply, not just talk about the environment and raw water resources, says Ann Nedergård of Åland Water, and project manager for the EU-financed project, Central Baltic WATERCHAIN..*

When Åland Water was granted money for “concrete knowledge increasing and environmental improvement actions” they also invited other sectors to take part in order to find new solutions. The project is an example of how a company or an organization can work with the backcasting method, the so-called ABCD-method, which is a cornerstone in the whole work with Åland’s Development and Sustainability Agenda.

During four workshops, the vision (A), the current situation (B), the solutions (C) and the plan of action (D) were explored. Altogether, more than 70 people were invited to take part in the process. Some of these participated in all four workshops and some only in one, and between each session the results were documented as the basis for the next step.

– Strategies and visions cost money. Traditionally, money has not been spent on sustainability. But this is about our future, and we must allow costs for this work. We have now achieved a broad foundation which provides good support for a future, sustainable drinking water supply, she says.

VISION

“Independent of human impact, our raw water is of excellent quality, and ecosystems in the lakes are in balance. At the same time, the production and distribution of drinking water is made in a sustainable way.”

RAW WATER

– Lakes and ground water, and in some cases sea- and coastal water

EXCELLENT QUALITY

– Complies with all regulatory requirements and is clean and healthy

ECOSYSTEMS IN BALANCE

– Lakes in balance can withstand more

INDEPENDENT OF HUMAN IMPACT

– Human activities include wastewater, use of pharmaceuticals, hazardous substances and harmful particles. In the precipitation area human activity does not affect the raw water in a negative way

SUSTAINABLE DRINKING WATER PRODUCTION

– Water production within the framework of the four sustainability principles

A. THE VISION

The first step in the ABCD-method is about defining a common goal: an inspiring vision within the framework of the four sustainability principles.

– We wanted to have a clear connection to Strategic Development Goal 3, “All water is of good quality”, so the vision would not be about the water reservoirs of Åland Water but about the drinking water supply for Åland. To this workshop we invited co-operation partners, experts and key stakeholders regarding water issues in Åland as well as two of the other water companies, so the vision itself was set by a core group, says Ann Nedergård.

– We were nine experts in the room, and we spoke about things ‘we already knew’. Even so, it was incredibly difficult to find a formulation that everyone could agree on. It goes to show how important it is to find words that describe where it is we want to go. We also discussed core values for sustainable drinking water production, such as shared responsibility, openness and a long-term perspective. That bit felt at first unfamiliar and somewhat trivial. But we found ourselves returning to the core values several times during the process. It was a way of turning our senses on and giving weight to our vision.

B. THE CURRENT SITUATION

The second step is an analysis of the current situation in relation to the vision. Where are we now in relation to the goal, and where are the obstacles that need to be removed?

To workshop no. 2 Åland Water invited both the core group from the first workshop and representatives of other sectors that, in different ways, are affected by water issues, such as agriculture, infrastructure and healthcare. The workshop included a mapping of processes and flows, both of external and internal factors, and an exercise in the form of a classical SWOT-analysis: the current situation’s strengths, weaknesses, opportunities and threats.

– To analyze the current situation was rather heavy. We were forced to put into words everything that was wrong and all the ways in which we break the sustainability principles, such as driving cars and contribute to eutrophication.

It was actually a little uncomfortable, but also beneficial. It became clear just how unsustainably we live. At the same time, the method itself created a space in which these questions could be addressed in a way that we otherwise wouldn’t do.

C. CREATIVE SOLUTIONS

The third step is a brainstorming: if we wish to realize the vision (A) from the current situation (B), which solutions are needed to bridge the gap?

Invitations to the third workshop were sent to over 70 people within different sectors and organizations, and over 30 attended. The idea was a workshop to encourage broad and new perspectives: a forum for ideas beyond the predictable and familiar.

– After a rather slow start it really picked up. It's a real release to discover that you can come with any and all ideas, says Ann Nedergård.

– We worked a lot with Post-it notes. It provides a space for everyone to think their own thoughts and to be anonymous, if they wish. It is also practical that the notes can be moved around and categorized. It is also inspiring and strengthening to see that others think in the same way as oneself. The workshop resulted in a 10-page list of suggestions for solutions, divided into different categories.

D. PRIORITIZING/PLAN FOR ACTION

The fourth and last step in the ABCD-method is to create a plan of action: what needs to be done, by whom and when, so that the vision can be realized?

Prior to the last workshop, a whole wall had been papered over. The list of idea categories created a vertical axis to one side. The rest of the wall was taken up by a long, horizontal time axis.

Participants, who had been given the opportunity to read all of the documentation, were now asked to work with the Post-it notes again: gather the ideas in the right categories and in the right year so that the full picture created a roadmap.

– The task was to see if we had enough actions to take us over the sustainability gap. To a large extent, we had achieved this, but there were also

gaps, and we had to create more Post-it notes, says Ann Nedergård.

When the participants had left the workshop the documentation process continued. Ideas and categories were compiled in the right order and year, and conclusions drawn: Is the roadmap consistent with the vision? How do we proceed? Who is responsible for what?

– Now it is important to make use of both the commitment and the documentation in order to formulate clear actions and project ideas. Then it will be time to prioritize and find funding for the various projects, says Ann Nedergård.

The projects can be about both concrete measures as well as dissemination of knowledge.

Drinking water supply concerns more than effective purification plants:

– At Åland Water we have an excellent purification plant with first class technology and cleaning. But the purification process itself is not sustainable before the substances that are added during purification are included in a cycle. Of great importance for a sustainable purification process is that the raw water is of the highest possible quality, and to be able to achieve that we need to raise people's awareness of how to keep the water clean.

If we can avoid breaking the sustainability principles then we will avoid problems in the raw water resources, she says.

Climate change is going to mean more drought and more downpours, and we need a larger number of raw water resources of good quality. Even if we increase the three raw water sources that we have today with one more, it might be that we need even more in ten to thirty years' time. Water is a big and complex issue, and we need to increase knowledge and work in a multisectoral way. Drinking water is just one part of the bigger picture.

ADVICE FOR A SUCCESSFUL BACKCASTING PROCESS

– Participants with different backgrounds and competence provide new approaches.

– Present the method thoroughly so that everyone understands the process and the tasks.

– An external process manager can introduce the exercises, offer tools and in general hold the reins so that the organizers can focus on the issues at hand and the participants.

– Reserve enough time for the process. Hold the workshops close to each other in time for increased focus, and account for the fact that documentation between the sessions takes time.

The documentation of the work process can be found in its entirety at www.vatten.ax.

INDICATORS FOR THE SEVEN STRATEGIC DEVELOPMENT GOALS

Strategic Development Goal 1

- Life expectancy at birth (w/m)
- Trends for sickness allowance, all illnesses relative to psychological illness
- Use of alcohol and drugs/narcotics
- Levels of education, proportion of those who have completed secondary education (g/b) relative to further education (w/m)
- Youths (15–24 years old) who neither work nor study

Strategic Development Goal 2

- Risk for economic vulnerability
- Number of wage earners according to wage class (m/w)
- Use of parental leave
- Gender Inequality Index (GII)
- Rate of employment

Strategic Development Goal 3

- Discharge of phosphorus/nitrogen
- Sales of plant nutrients
- Concentrations of foreign substances, in water, fish and other biota as well as in sediment
- Presence of blue-green algae

Strategic Development Goal 4

- Threatened species and biotopes
- Proportion of protected areas of land and water

Strategic Development Goal 5

- Birth rate and net immigration
- Demographic development
- Number of visitors
- Land tourism's added value
- Workplaces in the private sector
- GDP-development in the private sector

Strategic Development Goal 6

- Total CO₂ emissions from consumption of energy (a) including (b) excluding shipping /capita /GDP
- Total energy consumption per energy source
- Proportion of locally produced renewable electricity of total electricity consumption
- Proportion of local renewable energy of the total energy usage
- The ferries' CO₂ emissions
- Energy consumption /number of driven kilometers / energy form

Strategic Development Goal 7

Work in progress. To be decided.



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