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22

YEARLY REPORT  
a condensed English language version



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## **Introduction**

*What are the goals of Skyss?*

The county of Vestland carries the responsibility for public transport within its borders, including buses, boats, ferries and Bergen Light Rail. Skyss is part of the county administration, as well as a unified competence body for mobility and public transport, including school transport.

This includes planning and developing line networks and schedules; awarding contracts for the operation of bus, express boat and ferry services; and providing information about and marketing customer solutions.

In addition, the mandate of Skyss includes the development of a connected mobility system. What does this entail?

### **A holistic perspective**

Traditionally, a sharp divide has been made between different ways of getting around, leading to a focus on either the driver, the cyclist, the pedestrian or the user of public transport. From an administrative point of view, there has often been a one-dimensional focus on each of these groups individually. Through talking about mobility as a whole – and not just, for example, about public transport – the focus changes. For each of us, mobility is simply about getting around. Sometimes it may be by car, sometimes by bicycle, sometimes in an entirely different way. Actual *mobility* is often a combination of several different ways of getting around.

Consider, for instance, Trine. Trine is a commuter who drives from her home to a park-and-ride, and then takes the bus, before switching to the light rail. When she arrives at her light rail stop, she still has a bit of walking to do to reach her workplace. Sometimes she opts to use a motorized scooter instead. Or think about Arne, a student. He mostly cycles, but when the weather is too wet, he prefers public transportation. Or think of Ayoub, a retiree, who uses a car-sharing service for longer trips, but who mostly gets around as a pedestrian. All three of them move around in different ways. A well-functioning mobility system combines several forms of mobility, including public transport, cycling, walking, and other means.

The county of Vestland seeks to be a driving force for sustainable development. The Regional Transport Plan for Vestland 2022-2033 aims for «an efficient, safe and forward-looking transport system that promotes climate-friendly and environmentally-friendly mobility, as well as sustainable societal development». In the strategy for sustainable mobility, which makes up part of the transport plan, the individual needs of the citizens are balanced with common goals for societal development. The strategy provides guidelines for the use of county resources.

### **What defines a sustainable mobility system?**

To have a sustainable mobility system, resources must be utilized in such a manner that services and natural resources can be maintained for future generations. Public transport and shared solutions can contribute to a smaller ecological footprint in terms of space, noise and waste, as well as greenhouse gas emissions.

The concept of sustainable development encompasses both ecological, social and economic sustainability, as defined in the UN's goals for sustainable development. Reducing inequality is among these goals, and also part of Skyss' social mission. A sustainable mobility system can connect people from different parts of the region, and at the same time contribute to reducing inequality by providing everyone with practical and affordable opportunities to participate in work and education, and to be active in their leisure time.

### **Goals**

The Vestland County Strategy for Sustainable Mobility states that Skyss should aim to make public transport easier and more efficient, while also developing and offering further transport options and a greater extent of personalized services. These aims are based on several overarching goals, including the targets set by the Paris Agreement, the UN's goals for sustainable development, as well as the nationwide goal to shift growth in personal transport in our urban areas away from cars and towards public transport, cycling and walking.

The strategy also points to four specific goals:

**Developing the mobility system:** Public transport should be developed further where demand is high and where most people travel. We will build on established principles for developing public transport networks. In areas with lower demand, where there is no basis for high-capacity and frequent public transport services, we will prioritize services for those who do not have their own car. On-demand transport can be an important example of what we offer. Skyss will also use available dynamic planning technology to provide flexible and individualized services.

*Read more in the chapters: «On demand-services» and «Large-scale changes in 2022».*

**We will make travel easy:** Skyss is to offer mobility as a service, and should seek to make it easy for travellers to combine different modes of transportation, regardless of who owns or operates them. Travelers should experience the mobility system as a seamless service, tailored to their needs. They should be able to book and pay through our digital platforms. Using available data, we will adapt the services and solutions we offer to individual travellers' needs.

*Read more in the chapter: «Vestland as one public transport kingdom».*

**We will reduce the carbon footprint:** To achieve the goal of a zero-emission society, all modes of transportation within our mobility system must be based on zero-emission technology. We will reduce greenhouse gas emissions from our operations, through electrification and transition to other renewable fuel sources. Throughout the value chain, we will focus on sustainability and circular economy principles, including stipulating requirements related to the production of, use of and recycling of materials.

*Read more in the chapter: «Zero emissions for the future».*

We will cooperate to reach the goals: Skyss should collaborate nationally and internationally with other mobility actors, both to develop ourselves and to influence others in finding solutions to shared challenges. Innovation also includes cooperation with our operators and service providers, as well as the involvement of our travellers. Upcoming development and changes will require new financing solutions. We will seek new models to combine financing from multiple sources, such as state, county, municipalities and private businesses. A mobility system that includes several different actors also requires the establishment of new systems for sharing costs and revenues.

## Back to normality

*The recent pandemic led to changes in travel habits, with fewer daily trips and fewer public transport trips. In 2022, we saw a normalization.*

Miljøløftet is the name of the urban growth agreement in the Bergen area, an agreement which in 2020 was made between the municipalities of Bergen, Alver, Askøy, Bjørnafjorden and Øygarden, as well as Vestland County and the Norwegian state, represented by the ministries of Transport and Local Government and Modernisation (now Local Government and Regional Development) respectively.

### Affected by the pandemic

The Norwegian travel habit survey (Reisevaneundersøkelsen, RVU) is an important source for monitoring the development in the distribution of travel modes between private cars, public transport, cycling, and walking. The latest figures are from 2021, but were made available in 2022.

The figures from both 2020 and 2021 - two years affected by COVID-19 - show that the pandemic had a very clear impact. This is not unexpected. At times during the pandemic, travel by public transport was discouraged. In addition, customer concerns about possible infection may have led many to choose other modes of transportation. Working from home also meant that many no longer travelled on a daily basis. In the Bergen region, the average number of daily trips decreased from 2.8 to 2.3 in 2020, and to 2.5 in 2021.

At the same time, the percentage of those traveling by car, and the proportion traveling by public transport decreased. As Miljøløftet's status report for 2021 points out, the zero growth goal was nevertheless achieved, mainly because we travelled less during the pandemic than before.

*Table 1 Travel habits in the Bergen area, from the Norwegian travel habit survey*

	2008	2013	2017	2018/2019	2020	2021
Car (driver)	51%	46%	44%	42%	48%	51%
Pedestrian	23%	25%	26%	25%	28%	22%
Public transport	13%	16%	17%	18%	11%	11%
Car (passenger)	8%	7%	8%	10%	8%	11%
Bicycle	4%	3%	4%	3%	6%	3%

### Normalization

While the most recent numbers from the national travel habit survey were still strongly influenced by the pandemic, Skyss' own passenger numbers show a normalization, particularly from fall 2022. This trend has also been reported by other actors within Norwegian public transport.

The tendency is the clearest in the Bergen area. The Bergen Light Rail saw a 2.5 percent increase in the number of passengers in 2022, compared to 2019. The number of bus passengers in the Bergen area still had a decrease of 1.8 percent, compared to 2019; however, growth compared with the pandemic years of 2020 and 2021 was considerable. Considering the development throughout the year makes the tendency even clearer: the first two months of 2022 were still very much affected by the pandemic, while passenger numbers in the fall were higher than those in 2019.

Figure 1 - Skyss passenger numbers in the Bergen area, for bus and light rail, 2019 and 2022.



Outside the Bergen area, another picture emerges. In Hordaland, the decrease in passenger numbers compared to 2019 remains at 29.8 percent, and for Sogn og Fjordane the number is 15.5 percent. For boat traffic, the passenger numbers were 11.7 percent lower in 2022 than in 2019 on a county level. Compared with 2021, however, this is a 33 percent increase.

**A new normal?**

As mentioned, the average number of daily trips decreased during the pandemic years of 2020 and 2021. One explanation was the increase in working from home, something which may also be a more lasting effect of the pandemic.

A report from NHO Transport in February 2021 pointed out that the proportion of employees working from home could increase from about 7 percent before COVID-19 to up to 40 percent within the current business structure. Each percentile of growth could, according to the report, mean a 0.21 percent reduction in transport needs, and 0.16 percent fewer public transport trips on a national level. The report also points out that this could have a considerable effect on rush hour traffic and the need for road infrastructure, and that increased internet shopping may have the same effect.

In the last three months of 2022, around 15 percent worked from home 2 to 3 days per week or more. The increase in working from home has also led to increased public interest in flexible ticketing solutions, something which is also tested by Skyss in 2023.

## Reducing emissions for the future

The total CO<sub>2</sub> emissions from county public transport were 92 000 tonnes in 2022. This was a decrease of around four percent from the previous year.

In the Regional Development Plan of Vestland County, it is stated that Vestland must be a driver in the transition away from fossil fuels, targeting zero emissions by 2030. A considerable proportion of the climate gas emissions of Vestland County has come from energy use within the transport sector. Switching to zero emission operation within public transport, and in the mobility system as a whole, is therefore a necessary contribution to achieving regional – and national - climate targets.

In 2019, CO<sub>2</sub> emissions from county public transport were 157 100 tonnes. In recent years, this has decreased markedly, to 92 000 tonnes in 2022. From 2021 to 2022, the decrease was around four percent.

Table 2: CO<sub>2</sub> emissions from the use of fossil fuels, as well as from the production of renewable energy (tonnes CO<sub>2</sub>)

Mode of transportation	2019	2020	2021	2022	Change 21-22
Bus	43 600	28 700	18 000	21 100	17%
Boat	46 300	44 100	44 700	47 400	6%
Ferry	67 000	47 400	33 100	23 300	-30%
Light Rail	200	200	100	200	100%
Total	157 100	120 400	95 900	92 000	-4%

## 78 percent emission reduction in ferry operations since 2016

For ferries, the reductions in emissions have been considerable over several years. In total, the greenhouse gas emissions from ferries have decreased by 78 percent in 2022 compared to 2016.

However, this remains somewhat lower than expected. While new contracts were agreed for ferry services in Hordaland between 2018 and 2021, there have been delays in the completion of charging infrastructure, meaning that 2022 was the first year of fully electric operation for most of the connections. Skyss is monitoring ferry operators closely, to ensure that the targets are reached.

For buses, greenhouse gas emissions have decreased in recent years. However, we saw an increase in 2022. This development is linked to the use of biofuel in the Bergen area. Biofuel was put into use from 2019. Based on advice from the Norwegian Environment Agency, however, a reversion to diesel was made in early 2022. National regulations, however, ensure a certain amount of biofuel being used in road traffic. Based on this, it can be assumed that at least 15.5 percent of the fuel used in bus operations is derived from renewable sources. In total, the calculated greenhouse emissions from buses are 17 percent higher in 2022 than in 2021.

The electricity used for electric buses and the Bergen Light Rail is purchased with guarantees of origin. With the completion of Line 2 on the Bergen Light Rail, from the city centre to Fyllingsdalen, the greenhouse gas emissions from Bybanen did however increase. In any case, emissions from the Bergen Light Rail do remain very low. For comparison, the average Norwegian was responsible for 7.6 tonnes of greenhouse gas emissions (measured in CO<sub>2</sub> equivalents) in 2021, while the total emissions from the Bergen Light Rail were 200 tonnes.

Boat traffic remains a considerable source of CO<sub>2</sub> emissions, and no emission-reducing measures were implemented in 2022. In fact, as a result of the production returning to normal after the pandemic, the emissions have increased somewhat.

## Where are we at?

The goal of Skyss is to base all modes of transport within our mobility system on zero-emission technology.

Within recent years, major steps have been taken. Light rail services run entirely on electricity, gas-powered and electrically-powered buses now make up a total of 20 percent of the buses in the

county, and 22 out of 28 ferries are now hybrid vessels, which mainly use electric propulsion. Other boat connections, however, are still using conventional fossil fuels.

However, several measures have been decided which will further decrease greenhouse gas emissions from county-run public transport within the next few years. Specific contractual requirements mean that we expect 2 400 tonnes of CO<sub>2</sub> emissions to be cut for local boat routes in Sogn and Fjordane (the northern part of Vestland) between December and May 2024. For the boat routes from Bergen to Askøy and Nordhordland, we also expect a reduction of around 27 000 tonnes of CO<sub>2</sub>, starting between June 2024 and January 2025. New contractual requirements will also give a 17 000 tonne reduction in CO<sub>2</sub> emissions for the regional boat routes between Bergen, Nordfjord and Sogn, starting between December 2025 and December 2026.

By 2026, these measures will ensure that approximately 45 percent of boats used for public transport in Vestland will be run on electricity or other environmentally-friendly technology. Compared to 2022, the expected cut in greenhouse gas emissions will be 25 percent. Work is also being done to reduce the remaining emissions. By 2029, contracts for ferries in Sogn og Fjordane, boat contracts in Hordaland and most bus contracts outside of the Bergen area are all expected to be renewed. New contractual requirements will then lead to further decreased emissions.



## One public transport kingdom

From 20 June 2022, Skyss is used as the name for all public transport in Vestland County, and *skyss.no* became the shared point of information. At the same time, zone-based pricing was introduced in the northern part of the county.

These changes meant that bus travel became cheaper for most customers in the northern part of Vestland, the former county of Sogn og Fjordane. Rather than paying a kilometre-based rate, customers now pay a fixed price based on the number of zones they cross. This meant, for example, that a 30-day ticket between the cities of Florø and Førde, was reduced from 2150 NOK to 755 NOK.

The former county of Sogn og Fjordane has been divided into four zones, meaning that there are now a total of 10 zones in the county of Vestland. Traveling by bus, customers never pay for more than 4 zones.

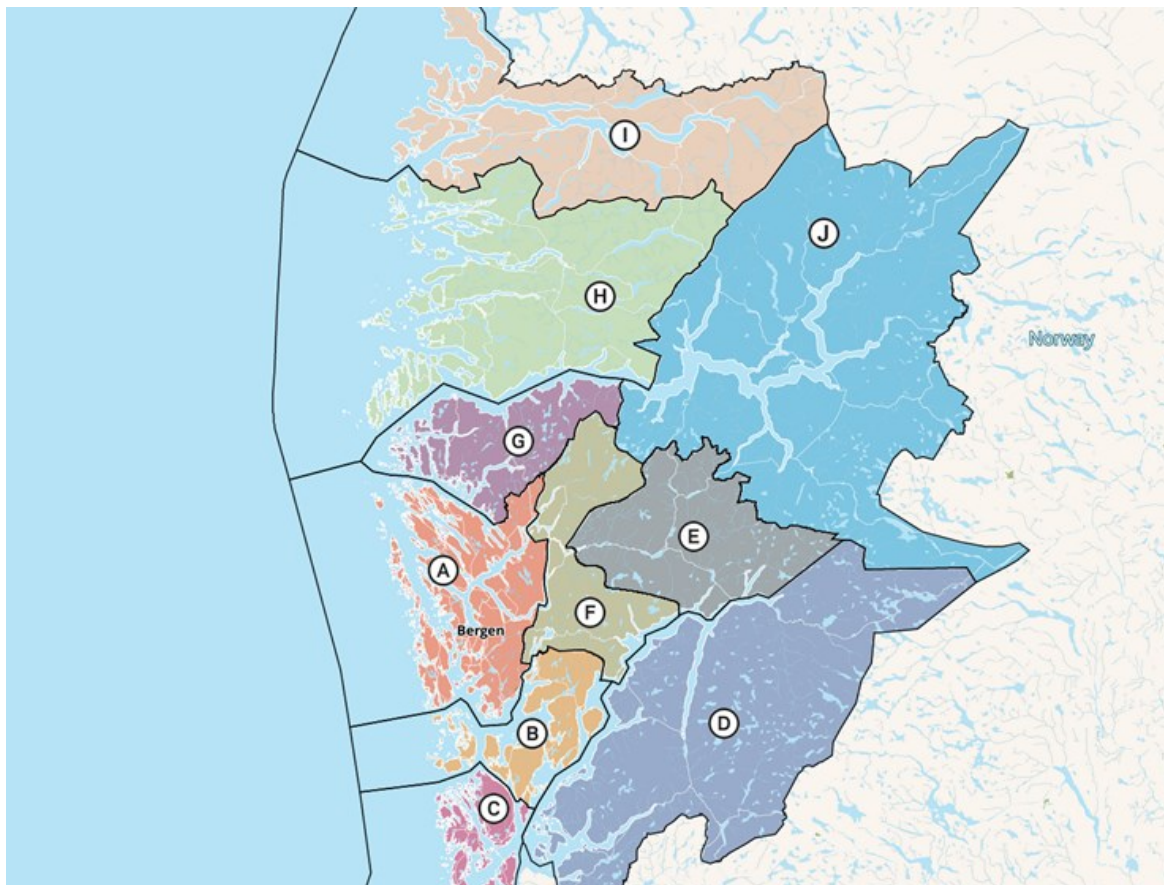


Figure 2 - Bus zones from 20 June 2022. The Bergen Light Rail, as well as some boat routes, are also included in the zone structure, while other boats follow separate pricing schemes.

## Shared discount schemes and app

With the introduction of zone-based pricing in Sogn og Fjordane, the discount schemes were also harmonized throughout the county. The age limit for child tickets was thus changed in the northern part of the county, meaning that children travel free until the age of six, and they can now use a child ticket until they turn 18. The family discount on weekends and public holidays – since expanded to be valid all week – also became available in the whole of Vestland. Furthermore, it became possible to buy tickets through the Skyss ticket app in Sogn og Fjordane.

In connection with these changes, Skyss carried out a major marketing campaign, focusing on reduced prices on many routes, a better selection of tickets and better discounts. The campaign was based on the concept «We travel together» (Vi reiser saman), and sought to strengthen the Skyss brand.

## Fewer passengers on city buses

The changes outlined above led to much cheaper prices for longer distances, but also to somewhat higher prices for short distances, and to a 100 percent price increase on city lines in Førde and

Florø. Some boat connections also became cheaper; amongst them the routes in the Flora basin, which were included in the zone structure.

The overall figures for this part of the county show a decrease in bus traffic when compared to 2019. However, we see an increase in passenger numbers for longer bus routes with relevance to commuters. On the route Florø-Førde, for example, the increase is 17 percent when comparing week 47 in 2022 and 2019. The city buses in Førde and Florø, on the other hand, have seen a decrease of 24 percent and 16 percent respectively.

### Population satisfaction

Through the Norwegian Public Transport Barometer/Benchmarking in European Service of Public Transport (BEST), we have figures indicating the satisfaction of the population with different facets of public transport.

Survey respondents considered a range of statements and rated them depending on the extent they agree with them. For several of the indexes below, the percentile scores (full or partial agreement) are based on averages for different statements.

For example, the index for population satisfaction is based on statements concerning how well public transport works for different travel purposes (work/school, leisure) in different geographical locations (central, rural), as well as statements relating to distance to stops, travel time, waiting time when switching buses and the number of departures. The index «value for money» is similarly based on whether the population feels that public transport provides value for money, whether the prices are considered reasonable and whether Skyss has a choice of tickets that meet their needs.

*Table 3: Data from the Norwegian Public Transport Barometer/BEST, 2022*

Index	Hordaland	Sogn og Fjordane	Rogaland	Trøndelag	Oslo/Akershus
Public transport provision	59%	42%	60%	56%	75%
Punctuality	83%	83%	72%	69%	69%
Information	59%	38%	59%	53%	65%
Staff conduct	77%	87%	71%	77%	76%
Safety	83%	85%	81%	82%	84%
Comfort	72%	76%	71%	72%	72%
The role of public transport in society	76%	71%	76%	78%	82%
Value for money	52%	46%	51%	43%	42%
Population satisfaction	56%	39%	54%	49%	70%

In Sogn og Fjordane, population satisfaction with public transport provision has varied in recent years. In 2021, 32 percent of the population expressed satisfaction. In 2020, the figure was 41 percent, while in 2019, the figure was 34 percent. The fluctuating values may be a result of the limited number of respondents. In Hordaland, figures have been more stable, with around 52-53 percent satisfaction in the years leading up to 2020, 58 percent satisfaction in 2021, and a small decrease to 56 percent in 2021 and 2022.

Background data reveals that satisfaction has increased somewhat in Hordaland outside of Bergen, while there has been a slight decrease in the Bergen area.

Considering the introduction of zone-based pricing in Sogn og Fjordane, the increase in people who feel they are getting value for their money is worth noting. In 2022, this was true for 46 percent, as compared to 35 percent in 2021. Background data also reveals a positive trend throughout the year.

Regarding information, we see a positive tendency both in Sogn og Fjordane and in Hordaland outside of Bergen, while the numbers are stable in the Bergen area.

## Customer satisfaction

While the Norwegian Public Transport Barometer/BEST tells us about population-level satisfaction, Skyss also carries out frequent surveys on board our vehicles.

In 2020 and 2021, the number of such surveys was limited, due to the pandemic. In 2022, however, more than 22 000 people traveling by bus or by the Bergen Light Rail were asked about their satisfaction with the trip, their impression of Skyss, punctuality, etc. Almost 3 000 passengers travelling by boat were also asked.

The compiled data shows us that many of those using public transport are satisfied, and also have a good impression of Skyss. Bergen Light Rail passengers are even more satisfied with punctuality than bus passengers, while they are somewhat less satisfied with the amount of room on board the Bergen Light Rail. Regarding boat travel, 98 percent are satisfied with the trip; however, fewer are happy with the route provisions.

Figure 3 - Percentage of customer satisfaction, bus and light rail

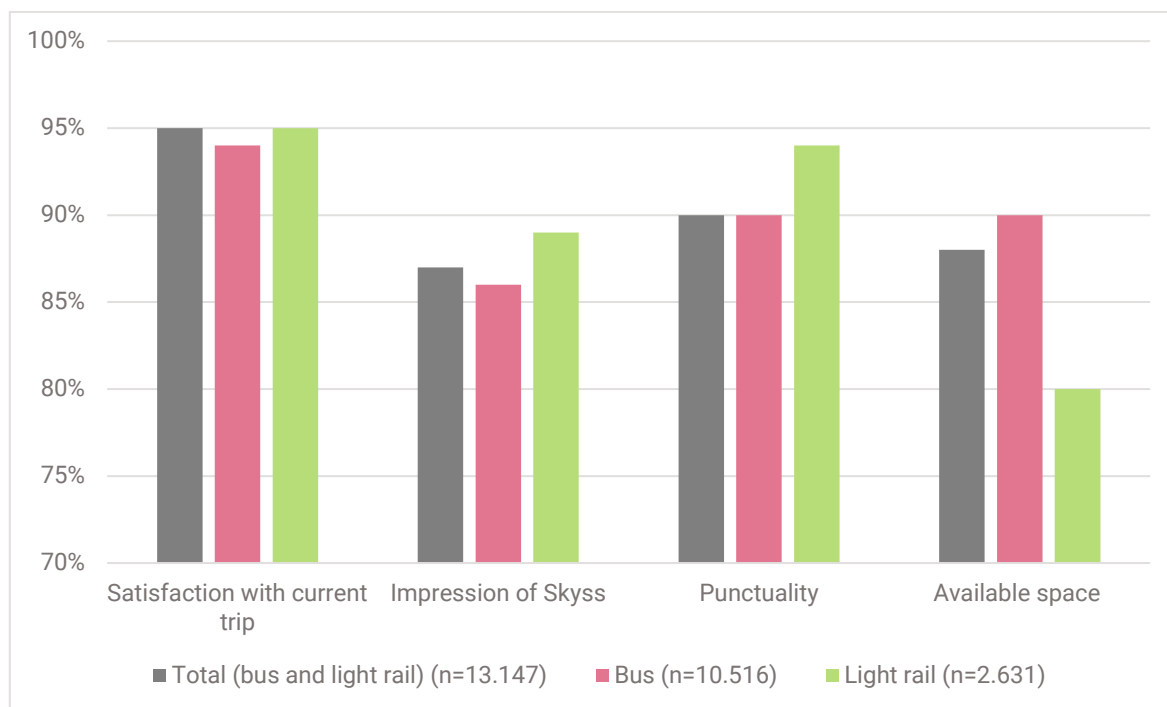
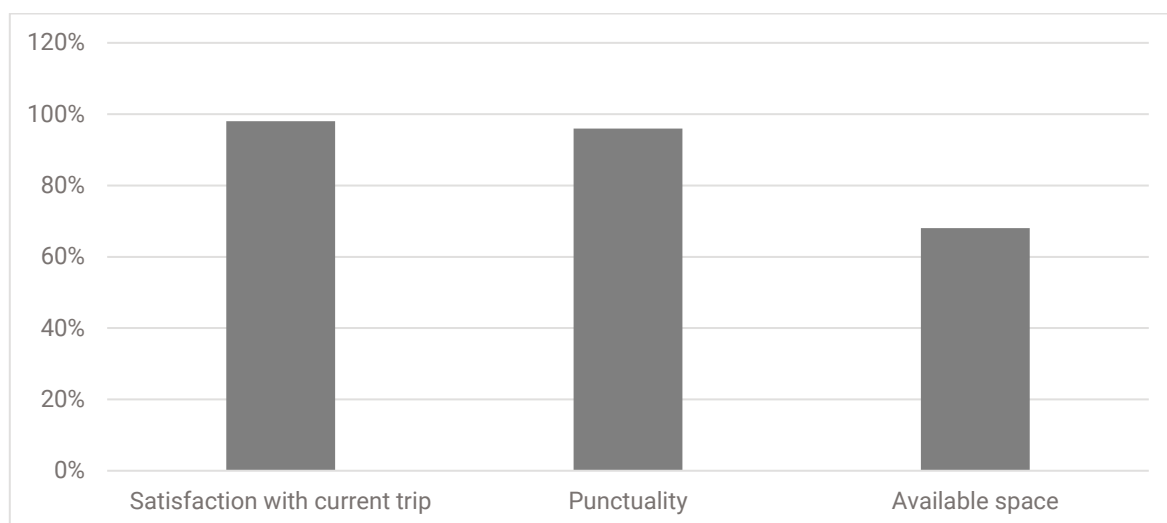


Figure 4 - Percentage of customer satisfaction, boat



## **Simple and effective ticketing**

*The simplification, modernization and effectivization of ticket purchases continued in 2022.*

The trend from previous years continued in 2022, and almost 85 percent of all public transport tickets from Skyss were purchased via the mobile phone app Skyss Billett. In June 2022, the app was also introduced for buses and some boat connections in Sogn og Fjordane, and there is reason to expect a further increase in its usage in 2023.

While the mobile phone app is the easiest choice for most people, there are alternative ways to buy tickets. Consequently, other options are an important part of the ongoing development of the ticketing system, and Skyss seeks to provide good alternatives to those who do not have access to (or do not want to use) a smartphone with an app installed.

At the same time, only a small minority pay using cash. In 2022, 98 percent of tickets were bought through other means of payment.

### **Paying by card on buses**

Throughout the spring of 2022, all buses in Hordaland had bank terminals installed, meaning that it is now possible to pay by bank card on all Skyss buses and boats in Vestland.

During 2022, new ticketing machines were also installed at all stops of the Bergen Light Rail, both on Line 1 (Bergen city centre - Flesland) and Line 2 (Bergen city centre - Fyllingsdalen). The ticketing machines allow customers to pay using a bank card, or using a bank card stored on a mobile phone or a smartwatch. The bank card also functions as proof of purchase, as the ticket is stored in a cloud service. The machines have been developed in line with accessibility requirements, providing an audio interface and button navigation.

At the same time, the old ticketing system was phased out. This system was based on fixed equipment in buses, boats, light rail carriages, as well as at stops and at terminals. As almost nine out of ten travellers now opt for buying tickets via the Skyss app, phasing out this old system was a natural choice. This meant that ticketing machines at bus stops and bus terminals were removed and that it is no longer possible to buy tickets in kiosks and stores. The old travel card system has also been retired.

As it remains possible to buy a single ticket and 24-hour tickets on board all buses and boats, as well as at light rail stops, customer needs are well covered. It is also possible to buy tickets through an internet store, at the Skyss customer centre at the Bergen bus station, as well as through a text message service.

### **ID-based ticketing**

With the new ticketing machines on the Bergen Light Rail, Skyss has begun implementation of ID-based ticketing, with bank cards used as proof of purchase. ID-based ticketing is an international trend. It is also a step towards creating flexible systems for combined mobility across public and private service providers. Often, a bank card will function both as ID and as proof of purchase, at times in combination with a smartphone or smartwatch.

The ticketing machines at light rail stops will provide Skyss with useful experience in the further development of modern, flexible and effective ticketing systems.

### **An upcoming purchasing solution for companies**

Skyss has worked on a new purchasing solution for businesses and organizations, to be launched in 2023. Using this system, employees and members can use business accounts as a payment method in their mobile phone app. Companies and organizations will themselves control usage, and can set specific restrictions on purchases.

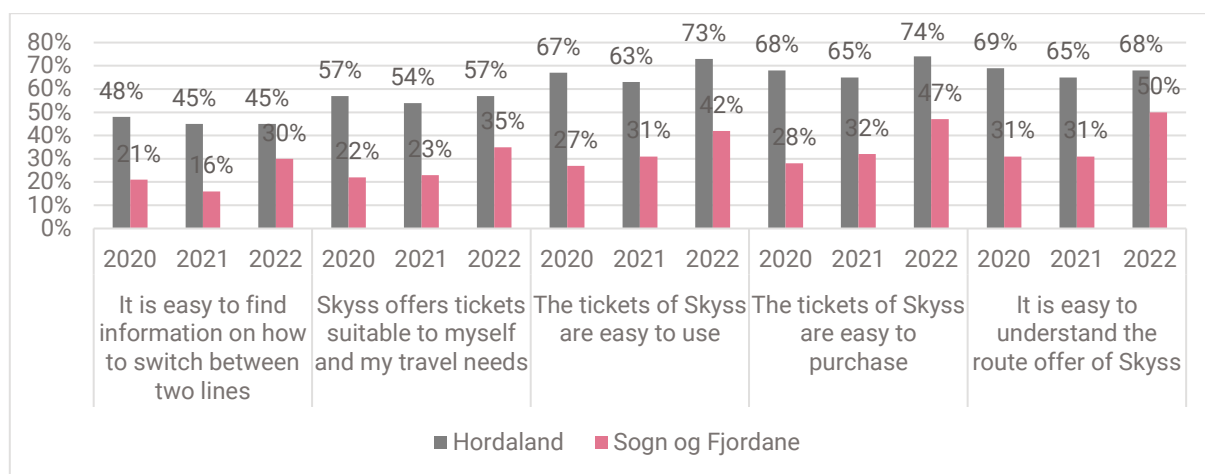
### Increased customer satisfaction with ticketing

Brand research carried out by Skyss in 2022 indicates that there is a small increase in the percentage of the population who are completely or partly in agreement with the statement: «It is easy to use and easy to buy tickets from Skyss».

The increase from 2020 and 2021 is notable, both in Hordaland and in Sogn og Fjordane. However, the pandemic likely affected the numbers for those two years, as onboard ticketing was prevented by necessary infection control measures. From 2019, we only have data from Hordaland, where 71 percent reported that tickets were easy to buy and use.

The language in the survey was simplified in 2022. Amongst other changes, the term «travel products» was replaced by the word «tickets». This may have had an impact on the results. However, 73 percent in Hordaland indicated that it was easy to use Skyss tickets, and 74 percent indicated that it was easy to purchase them. In Sogn og Fjordane the comparable numbers were 42 and 47 percent.

Figure 5 - Data from Skyss brand survey



## **On-demand transport – development in 2022**

*Two pilot projects have shown promising results; however, they provide insight into challenges.*

Sustainable mobility means that we - as a society - will have to change the way we travel in the future. We know that car ownership is the most important driver for car usage, both for shorter and longer journeys. The car takes you from where you are to where you are going and is available around the clock. Using your own car is easy, it provides you with a high level of comfort, and is often perceived to be reasonably priced compared to other forms of transport, not least because a considerable part of the actual cost already has been taken upon purchasing the car.

This is a reality that Skyss - as a mobility actor - will have to address and challenge, by offering mobility solutions of such quality that the individual traveller sees it as easy, cheap and comfortable to choose walking, cycling, public transport and shared solutions, rather than opting for the car. New and flexible transport services may be part of the answer. Digital booking solutions and automatic route planning enable us to offer more individualized services, as well as integrate new and existing services. Cooperation between the private taxi industry and public transport services may also lead to better use of existing resources.

During 2022, Skyss has drawn up a target image and a road map for digital and flexible on-demand transport. We have set about acquiring technology helpful for further development. New technology and changing travel habits have made it possible for us to test flexible solutions in new ways, seeking to provide the individual traveller with a better offer and with better travel experiences.

### **Traditional on-demand services**

What is flexible on-demand transport? To explain, it may be useful to look at the many traditional on-demand services available in Vestland County, for boats, buses and ferries. These are based on regular departures following a fixed route with fixed stops and at fixed times - but only available if travellers book a trip. In some cases, there may be only very few or no passengers at all on a trip or at a stop. In these cases, on-demand services allow us to avoid unnecessary consumption of resources, mainly fuel.

In Sogn og Fjordane, we have also provided Serviceskyss, a transport service that is open to everyone, but tailored specifically to the needs of seniors. All municipalities in this part of the county have one or more Serviceskyss routes available, and the local solutions have been developed in collaboration with local municipalities. Serviceskyss provides transport to the municipal centre, often in connection with specific services and events during the day. The Serviceskyss routes have fixed routes on fixed days, but only run when bookings have been made, directly to the operator and a day in advance. On some routes, you can be picked up at home and given a ride from door to door, but still along a fixed route, at fixed times and with a fixed destination. The ticket price has been set at 30 NOK, paid to the operator. It has not been adapted to the new zone structure at the time of writing.

Another such offer is Trygt Heim (Get home safe), which targets travellers aged between 16 and 24; however, it can also be used by others depending on availability. In Sogn og Fjordane, Trygt Heim is available in Førde, Florø, Nordfjordeid, Sandane, Sogndal and Stryn. Some of the Trygt Heim routes are on-demand services, others are not; all of them follow fixed routes on Saturday nights and in connection with certain holidays. A similar service is found in several municipalities in Hordaland, but these are not on-demand services.

### **Digital and flexible on-demand solutions**

In recent years, Skyss has been testing new solutions based on digital technology with enhanced flexibility. These cover transport within a defined area, but without fixed routes and times. Different variations are possible:

- The possibility of door-to-door on-demand journeys within a specific area
- The possibility of on-demand journeys from one set bus stop to another, both within a specific area
- The possibility of a journey from a specific area to a hub (where you can continue your travel using other public transport, or where a local centre offers different functions)

In Odda, Skyss has introduced Hent Meg (Pick me up), a system first introduced in Suda by Kolumbus. Hent Meg is an example of flexible, on-demand transport between bus stops. It began as a trial project, but has now been in operation for several years. Travelers can book a trip at hentmeg.no or by calling Skyss' customer service. A digital and automated planning system sets up the route of the bus as new bookings come in.

In October 2022, a trial project with an on-demand bus service was also started in Tertnes, a suburb of Bergen. In Tertnes and the area around central Åsane, you can - within specific times on weekdays - be picked up wherever you are and driven to where you are going, door-to-door, using a normal bus ticket. The order is placed via an app, on a website or by calling a telephone number. The driver uses an app to plan his route according to which trips have been booked, allowing for shared trips if several people book at the same time.

## Results

Both Hent Meg in Odda and the on-demand service at Tertnes provide us with useful experiences and insight into our continued work on on-demand transport. In Odda, Hent Meg now has a steady customer base, and quite a high degree of shared transport, 43 percent, despite somewhat low demand. For Tertnes, the results were as follows for fall 2022<sup>1</sup>:

*Table 4 - Results from the on-demand bus service as Tertnes*

	October (from start)	November	December
New users registered	280	211	152
Trips booked	270	519	541
Boardings	344	654	663
Kilometres driven	2000	4000	4150
% of bookings made digitally	53%	78%	70%
Average waiting time, minutes	12	11	15
Average driving time, minutes	8	7	8
Trips with more than one passenger, in %	62%	65%	69%
Degree of shared transport	24%	30%	31%

We have also had positive feedback from users of these services, including through a survey. The survey also indicated that 45 percent of on-demand bus trips would have otherwise been carried out by private car.

Some challenges have also been identified at Tertnes. While more than 80 percent of bookings are made digitally, many amongst the more elderly customers do not wish to book via digital channels. Many young people have also been using the on-demand service, despite seniors being the main target group.

## The possibilities of new technology

The new generation of on-demand services is driven by technology that offers automatic planning. While it is necessary to define opening hours and to set parameters such as pick-up times, capacity and maximum time for detours, the system itself will plan the trips and will provide drivers and customers with appropriate information. Flexible on-demand services can be adapted to specific target groups or in connection with specific activities. In our continued work in this area, it is therefore necessary to acquire knowledge about the local community and the needs of target groups before a new service is offered.

Systematic cooperation with municipalities and others is important to this work. Flexible on-demand services can also be adapted to individual needs, providing solutions better tailored to each individual customer. One example could be door-to-door transport for those who need this type of service. Another example would be so-called 'first mile/last mile transport', offering travel between a home address and a public transport hub.

<sup>1</sup> At the time of writing, 2023 results were even better, with more users, a higher degree of shared transport and lower costs per trip and per passenger.

Skys has noted increased interest in these types of solutions from several municipalities, and in the wider debate. At present, experience tells us that flexible on-demand services require a considerable amount of resources, and that it may lead to more driving per passenger than traditional route-based approaches. We hope that new technology, further trials and data drawn from these, can help us provide more effective solutions in the future. However, this is resource-demanding development, leading to reprioritization and/or the need for additional resources. New on-demand services should be considered in connection with other public transport services within an area, and should be founded on an analysis of how on-demand services can best integrate into a larger mobility framework.

Therefore, further trials and testing are needed, to find the right types of on-demand services for the right target groups in the right areas.



## **Major changes in 2022**

*In November 2022, two major changes were made to public transport in the Bergen area, in connection with the opening of the new E39 to Os, as well as in connection with operations starting on the Bergen Light Rail's new Line 2 to Fyllingsdalen.*

The new motorway between Svegatjørn and Rådal (in Os and Bergen) provided Skyss with both a challenge *and* an opportunity. The opportunity lies in providing faster public transport, especially to the area surrounding the Lagunen shopping centre. The challenge lies in providing services that are as good as possible along both the new road and the old road. In addition, a motorway improves the competitiveness of private cars.

Skyss established Line 600 as a new regional main line, along the new road. A local line – 610 – was established on the old road (now FV583) from Osøyro, over Søfteland, to Nesttun terminal. These changes were implemented on 1 November 2022. At the same time, local routes were adapted to fit the new lines, and the number of departures between Eikelandsosen and Osøyro was also increased.

### **An increase in boardings**

In November 2022, 18 percent more passengers boarded buses between Os and Bergen than in September. In December, traffic was lower, something which is usually the case, due to the Christmas holidays. In January 2023, we saw a similar tendency as in November. Notably, we have also seen an increase in passenger numbers when compared with the pre-pandemic year 2019. However, the 2019 numbers are more uncertain, due to the implementation of new, automated passenger counting in the meantime.

60 percent of those traveling between Os and Bergen follow the new motorway, E39, while 40 percent follow the old road. During rush hour periods, the difference is less pronounced. There have been capacity issues with some departures during rush hour, and from March 2023, we chose to increase the frequency of buses at these times.

### **Improving the network, focusing on hubs**

21 November was a big day for Bergen and for public transport in the capital of Vestland. On that day, a new line opened on the Bergen Light Rail, Line 2 between Kaigaten in the city centre and Fyllingsdalen terminal. With departures every 7 to 8 minutes during rush hour, and with a new underground light rail stop at the Haukeland University Hospital, this had huge consequences for public transport in the city.

Together with bus lines 5, 6, 12 and 16E, the Bergen Light Rail stop means that Haukeland Hospital becomes a more central hub for public transport. Other light rail stops will also function as important hubs: Fyllingsdalen terminal, Kristianborg, Kronstad, Bergen bus station and the central stops at Byparken and Kaigaten. These hubs make up an important part of the overall public transport system and allow for an increased network effect. Via focus on main lines with high frequency and the possibility of switching to other lines, both commuters and those traveling for leisure are provided with public transport at a higher frequency throughout the day. With the changes made in connection with the opening of Line 2, an additional 8 000 residents are now offered public transport with a frequency of (at least) every ten minutes.

The opening of Line 2 also led to adjustments being made to the bus routes in Fana, Ytrebygda and the western parts of Bergen, and the light rail service replaced several direct commuter lines to and from Haukeland Hospital.

### **Increased passenger numbers**

As mentioned in a previous chapter, the passenger numbers of the Bergen Light Rail have normalized after the pandemic, and in 2022 we saw an increase compared with the pre-pandemic year of 2019.

In January 2023, around 80 percent of Bergen Light Rail travellers used the longer and more established Line 1, while around 20 percent used Line 2. Comparing January 2023 with pre-

pandemic January 2020, there was a decrease in the number of passengers boarding Line 1. Line 2, however, contributed to overall passenger growth.

## Numbers

### Economic results

Gross operating expenses (NOK)	2022	2021
Bus	2 082 656 000	1 974 443 000
Light rail	267 971 000	260 997 000
Boat	377 125 000	329 721 000
Ferry	1 125 021 000	1 038 080 000
School transport	248 053 000	213 491 000
Allocations to restricted funds	0	140 300 000
Administration	194 403 000	176 225 000
<b>Gross operating expenses</b>	<b>4 295 229 000</b>	<b>4 133 257 000</b>

Operating income (NOK)	2022	2021
Bus and light rail tickets	728 042 000	527 594 000
Boat tickets	54 106 000	46 794 000
Ferry tickets	183 274 000	242 031 000
School transport, municipal funding	197 266 000	201 600 154
Reward grants	265 000 000	288 950 000
Reward grants allocated to a fund	0	140 300 000
Other income	103 982 000	52 532 846
<b>Operating income</b>	<b>1 531 670 000</b>	<b>1 499 802 000</b>

County financing (NOK)	2022	2021
Actual net operating costs	2 763 559 000	2 633 455 000
Budgeted net operating costs	2 750 512 000	2 783 962 000
<b>Difference</b>	<b>-13 047 000</b>	<b>150 507 000</b>

### Bus and light rail production

	Route kilometres, 2022	Number of buses in full production
Austevoll	403 470	10
Sunnhordland	2 179 661	53
Hardanger and Voss	5 449 293	104
Modalen and Vaksdal	379 175	11
Nordhordland	3 453 984	80
Bergen north, incl. Osterøy	9 163 923	153
Bergen south	5 706 790	112
Bergen central	6 322 508	118
West	5 431 650	124
Service lines in Bergen	51 570	4
Sogn	2 092 867	46
Nordfjord	1 568 756	40
Sunnfjord	4 632 705	106
<b>Total for bus</b>	<b>46 836 352</b>	<b>961</b>
		Number of carriages in production
Bergen Light Rail	2 327 415	20 (26 with Line 2)
<b>Total number of route kilometres</b>	<b>49 163 767</b>	

## Passenger statistics – an overview

	2019	2020	2021	2022	Change from 2021
<b>Hordaland</b>					
Bus, Bergen (municipality)	46 153 000	29 465 000	33 050 000	43 674 192	32.1 %
Bus, Bergen area*	50 477 000	32 462 000	37 967 000	49 586 239	30.6 %
Bergen Light Rail	18 655 000	12 425 000	13 901 000	19 122 433	37.6 %
Total, Bergen area*	69 804 000	45 320 000	52 302 718	69 296 603	32.5 %
Boat Kleppestø – Strandkaien	672 000	433 000	434 718	587 932	35.2 %
Bus, Hordaland excl. Bergen area	8 568 000	5 760 000	5 794 000	6 013 519	3.8 %
Boat, Hordaland, excl. Bergen area	686 600	423 900	430 518	565 351	31.3 %
<b>Total, Hordaland</b>	<b>79 058 600</b>	<b>51 503 900</b>	<b>58 527 236</b>	<b>75 875 473</b>	<b>29.6 %</b>

\* Here, the Bergen area is defined as the contractual areas of Bergen north, Bergen south, Bergen central and West. The summarized numbers also include the Bergen Light Rail and the boat route Kleppestø – Bergen.

	2019	2020	2021	2022	Change from 2021
<b>Sogn og Fjordane</b>					
Bus, Sogn og Fjordane*	2 609 936	1 794 003	2 024 571	2 205 410	8.9%
Boat, Sogn og Fjordane	444 439	305 890	329 598	438 287	33.0 %
<b>Total, Sogn og Fjordane*</b>	<b>3 054 375</b>	<b>2 099 893</b>	<b>2 354 169</b>	<b>2 643 697</b>	<b>12.3 %</b>

\*These numbers have been updated compared to earlier annual reports, where the 2019 numbers were based on an estimate and the 2020 and 2021 numbers included estimates related to school transport. The numbers for 2022 are the actual registered database numbers. To generate relevant comparisons, these have now also been used for earlier years.

<b>Public transport boardings, Vestland County</b>	2019	2020	2021	2022	Change from 2021
Bus	61 654 936	40 016 003	45 785 571	57 805 167	26.3 %
Bergen Light Rail	18 655 000	12 425 000	13 901 000	19 122 433	37.6 %
<b>Total, bus and light rail</b>	<b>80 309 936</b>	<b>52 441 003</b>	<b>60 539 500</b>	<b>76 927 600</b>	<b>28.9 %</b>
Boat	1 803 039	1 162 790	1 194 834	1 591 570	33.2 %
Passenger number, ferries	5 107 134	4 787 028	5 100 301	5 538 603	2.7 %
<b>Total, Vestland</b>	<b>87 220 109</b>	<b>58 390 821</b>	<b>65 981 706</b>	<b>83 757 773</b>	<b>26.9 %</b>

<b>Ferry, Vestland County</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Change from 2021</b>
Passenger numbers	5 107 134	4 787 028	5 100 301	5 523 603	2.7 %
Private car units	3 942 217	3 651 354	3 910 188	4 135 274	5.7 %
Number of vehicles	2 729 859	2 483 106	2 733 108	2 925 109	7.0 %

### Passenger statistics, boat

<b>Passenger number for boat travel</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Change from 2021</b>
Sunnhordland-Austevoll-Bergen	415 000	269 000	269 518	324 590	20.4 %
Local boat, Austevoll	18 000	16 500	16 908	16 176	-4.3 %
Espevær-Eidesvik**	35000	35500	37146	35066	-5.6 %
Hellesøy-Lyngøy-Hernar**	7 000	6 700	6 868	6 846	-0.3 %
Hardangerfjordekspressen**	41 000	21 500	21 911	43 192	97.1 %
Reksteren-Våge-Os**	12 600	3 400	6 891	7 428	7.8 %
Kleppestø-Strandkaien	672 000	433 000	434 718	587 932	35.2 %
Knarvik-Frekhaug-Bergen	130 000	68 000	67 032	117 058	74.6 %
Tourist route, Hardanger	28 000	3 300	4 244	14 995	253.3 %
<b>Total, Hordaland</b>	<b>1 358 600</b>	<b>856 900</b>	<b>865 236</b>	<b>1 153 283</b>	<b>33.3 %</b>

Gulen-Solund	24 237	17 971	23 177	22 273	-3.9 %
Boat routes in the Flora basin	103 046	96 173	100 718	102 056	1.3 %
Kystvegekspressen	10 308	9700	10 853	12 797	17.9 %
Maløy-Silda	4 921	3 750	5 830	5 154	-11.6 %
Kaupanger-Frønningen*	1 322	1 653	1 301	2 276	74.9 %
Ortnevik-Måren-Nordeide	23 270	22 048	22 416	23 675	5.6 %
<b>Total, local routes in Sogn og Fjordane</b>	<b>167 104</b>	<b>151 295</b>	<b>164 295</b>	<b>168 231</b>	<b>2.4 %</b>

\*A ferry is used for this connection

Bergen-Nordfjord-Bergen **	153 462	112 939	118 715	162 069	36.5 %
Bergen-Sogn-Bergen **	54 064	35 417	38 457	55 790	45.1 %
Bergen-Sogn-Flåm-Bergen **	69 809	6 239	8 131	52 197	542.0 %
<b>Total, boat routes, Bergen - Sogn og Fjordane</b>	<b>277 335</b>	<b>154 595</b>	<b>165 303</b>	<b>270 056</b>	<b>63.4 %</b>

\*\* Net contracts

<b>Total, boat routes, Sogn og Fjordane</b>	<b>444 439</b>	<b>305 890</b>	<b>329 598</b>	<b>438 287</b>	<b>33.0 %</b>
<b>Total, boat routes, Vestland country</b>	<b>1 803 039</b>	<b>1 162 790</b>	<b>1 194 834</b>	<b>1 591 570</b>	<b>33.2 %</b>