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In the event of the republication of information in this annual report, Landsverk must clearly be mentioned as a source.

### Landsverk Under the Microscope



At the beginning of the year, Landsverk conducted a public opinion poll where they asked the Faroese people how satisfied they were with the institution's services. Overall, Landsverk received good feedback. At the end of 2014, the Government also wished to take a closer look at Landsverk's activities. A quick and effective group of analysts have now made an assessment of the institution. We ourselves believe we have come to a crossroads where it is necessary to reshuffle the cards. "Where There's A Will, There's A Way" is the title of this annual report, because if we still wish to protect and improve the services Landsverk provides to the society, it demands will power from all parties involved in order to make the necessary fundamental changes.

Landsverk has recently been under close observation by the public eye, which has examined what we do, how we do it and which things we could do better. Landsverk initiated a public opinion poll on how satisfied people were with Landsverk's work. At the same time political authorities also decided to examine Landsverk more closely.

This past year has also been a year where many of the projects that Landsverk has been in charge of have come to completion. For instance, the community housing residency Eystan Heyg in Tórshavn, which provides housing and support for people with a mental health disorder, was completed. Renovations on the hospital in Klaksvík were concluded and in Runavík the Centre for Children with multiple disabilities was also completed. Work has also commenced on major projects such as the Viðareiði tunnel project and the new H-building at the National Hospital. Furthermore, many of the smaller road construction projects have been completed, which has improved the safety of the road network. In addition to all of this, Landsverk has been

given its role in the new Tunneling Association, which was established in the autumn of 2014. Many major projects have come to an end and equally great challenges await us.

#### Recurring Satisfaction Polls

Landsverk is a well-founded institution of knowledge and experience with expertise in many different areas. We are skilled in the areas we are in charge of and strive to be leaders when it comes to solutions and future planning within these areas. This is why we



set high demands to our employees and the quality of our services. It is therefore also important for us to know the needs of our clients, and to a large extent we feel we do know their needs.

Periodically the institution orders that satisfaction polls be conducted. This way we always have a finger on the pulse when it comes knowing how satisfied our customers are with both our services and our employees. We feel it is informative and constructive when people from outside the institution voice their opinions about Landsverk and come with suggestions for change. It is precisely this element that keeps the institution's continuous development alive. The satisfaction poll is aimed towards the average citizen, where 500-600 people who represent the nation are asked questions. The results of the poll are used to revise and adjust our services so that we are in sync with the times and are able to offer the best service possible. This year it is Gallup Føroyar that has conducted the survey and we are of course thrilled to have so much positive feedback from the Faroese people. More information on the poll can be found elsewhere in this report.

#### The Public Sector Needs to Cut Costs

It is no secret that the political side of the equation has expressed the need for more cost cuts and efficiency within the public sector.

At the end of 2014, the Minister of Finance, along with the Government, requested an account of Landsverk's activities with the purpose of making revisions and improvements in the institution. The political authorities also wanted to know how sensibly the institution was performing, whether there was sufficient transparency, if there were projects being contracted out and which projects could perhaps be given to Landsverk to administrate. The report was handed to the Ministry of Finance in May 2015.

All in all, the results of the account were positive. It describes Landsverk as being a well-functioning public

institution where the transparency of both the accounting and the finances were in order.

The report suggests that further assessment should be made as to whether or not it would be economically beneficial to merge various activities belonging to the public sector, thus creating large-scale operation advantages in the public sector. This type of merging is used in our neighbouring countries, where more and more tasks are being put under one roof that have to do with road networks and transportation communication in general. The group writing the report also suggests that we further examine whether it would be an advantage here in the Faroes to merge institutions such as Landsverk, Strandfaraskip Landsins (The National Faroese Transport Company), Akstovan (Faroese

#### »It is no secret that the political side of the equation has expressed the need for more cost cuts and efficiency within the public sector.«

Vehicle Administration), Ráðið fyri ferðslutrygd (Road Safety Council) and the undersea tunnels.

As a type of pilot project, the group also proposes a call for bids of the road maintenance in Sandoy and the quarry in Porkeri. This would be carried out in order to find out how beneficial it is for public sector tasks to be contracted out to the private sector.

With regards to public buildings, the group suggests that a system be created that ensures better maintenance of the country's buildings and that various departments and institutions eventually pay rent for offices and facilities owned by the government.

These were some of the main points and suggestions in the report about Landsverk, which will now be passed on for further political assessment.

#### A Lack of Correspondence Between Requests and Appropriations

It still is a great challenge for Landsverk that its funds for maintenance have been cut for several consecutive years, while new industries and working methods have been added. For example, in 1996 the institution was allotted 60,9 million DKK for infrastructure maintenance, while the same appropriation today has been reduced to 43,1 million DKK, the equivalent of 30% or 18 million DKK less than was allotted 20 years ago. This is significantly noticed and the infrastructure, as time goes by, suffers. This will of course cost the country in reparation work down the road.

Today Landsverk maintains 16 (soon 17) tunnels, nearly 500 kilometres of main roads, 3 National harbours and approximately 230.000 square metres of buildings. With the Centre at Marknagil and the new H-building at the National Hospital, Landsverk will soon have 260.000 square metres of buildings to see to, as well as the helipads and the lighthouses. All of this can obviously not be properly maintained for the same amount of money or less. Not unless there is a fundamental and innovative change in the way things are administered. We have to want to and dare to think effectively in a broader sense and dare to think large-scale production and have different collaboration methods. This type of innovation can be seen with regards to the ESCO project, which will be talked about later in this report.

#### Annual Report 2014/2015

This annual report contains several interesting sections that describe specific projects and the work over the past year. There are also sections that give an account of how Landsverk in several areas is moving in new directions in order to get the most out of the resources it administrates.



At the beginning of 2015, Gallup Føroyar conducted a public opinion poll for Landsverk. The results of the poll showed that citizens on average are very satisfied with Landsverk's work. On a scale of up to 7 points, the satisfaction rate in most cases scored on average between 5 and 6. It is especially road safety, weather notifications and snow removal that receive the best feedback.

Since 2008, Landsverk has on a regular basis ordered public opinion polls to be to be carried out, where people are asked what they think about the quality of the institution's services and what they think of the institution in general. The results of the poll have since been used to make necessary revisions in order to ensure that every task is done in the best possible way. A poll like this also helps Landsverk keep a finger on the pulse when it comes to customer satisfaction.

In this recent poll from 2015, Gallup asked 545 citizens from across the country that were older than 17 years of age, how satisfied they were on a general level with Landsverk. The average score for satisfaction was 5,3 out of 7. The most satisfied citizens came from the areas of north and south Streymoy, with only a slight difference in satisfaction feedback.

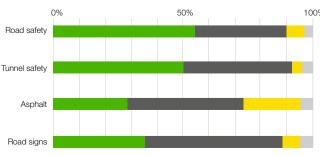


This chart shows the rate of satisfaction on a scale from 1 to 7 when people were asked to state their opinion with reference to this statement: "I am generally satisfied with Landsverk". The chart depicts that the average rate of satisfaction with Landsverk scores a 5,3 out of 7.

#### Safety Measures Have Made a Difference

Landsverk continues to work towards optimizing safety on the road network by initiating road safety measures. These are mainly necessary measures due to an increase or change in traffic since certain roads and tunnels have been created. Sometimes new safety measures are implemented to comply with modern safety regulations. Steps are also taken to try to prevent car accidents, or in other words, to implement as much road safety as money can buy.

The chart below shows that more than half, or 55%, of the people asked, feel that road safety between villages has improved over the past 5 years. It is obvious that the many safety measures implemented by Landsverk can be seen in people's satisfaction rating.



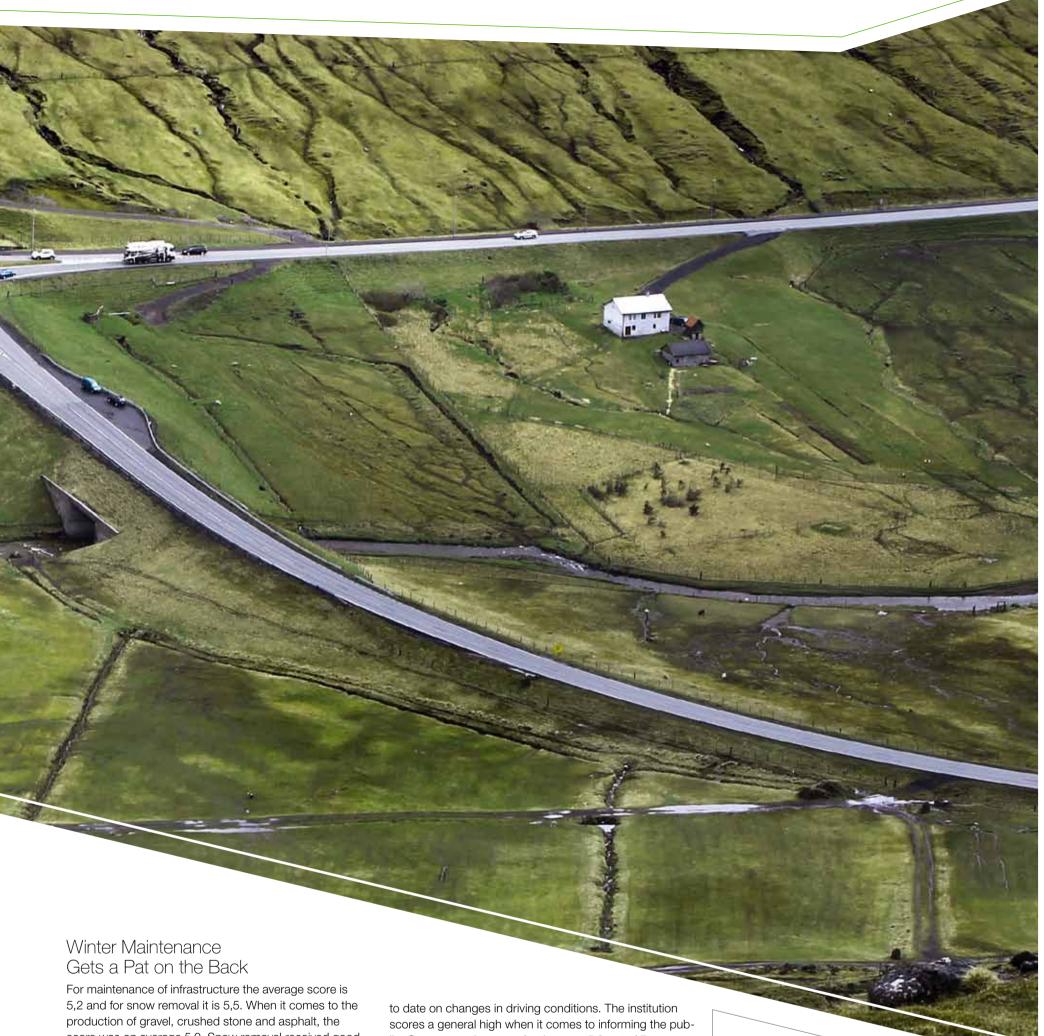
The chart tells us how those people asked have experienced various services along the infrastructure over the past 5 years.

A lot has also been done over the past few years in the area of road traffic safety. Also several crossings or cross-roads have been secured, for example the crossroads in Hósvík, Kollafjørður, Streymnes, Vágur and Suðuroy. Several road stretches have been broadened, roundabouts created as well as lights and new traffic barriers have been set up throughout the road network. And finally, rumble strips have been milled into the main roads.

The chart also shows that tunnel safety is at 50%. This may indicate that the tunnel safety measures that Landsverk has taken over the past few years have also made people feel safer. Here we can mention the fact that many of the older tunnels now have new lighting and exit signs, better signs, fire extinguishing equipment, cell phone connection as well as emergency preparedness.

#### Too Little Funds for Asphalt

Now on the other hand, the poll showed that only 29% of motorists feel the quality of the pavement has improved on the main roads, while 45% say the situation has not improved at all, and 21% of those asked did not know whether it had improved or not. Here we can confirm that the appropriation for asphalt has been cut these past few years, hence the poor condition of the asphalt on parts of the road network.



score was on average 5,0. Snow removal received good feedback in all of the opinion polls that Landsverk has conducted so far. Weather reports received a 5,8. Here the people in Vágar gave the weather reports top marks

Infrastructure Snow Removal Gravel, crushed stone, asphalt Weather reports

at 6,0.

Landsverk has now a total of 27 weather stations throughout the country, which for example, provide information about temperature, wind, wind direction and whirlwinds. This information is provided every ten minutes, 24 hours a day. 14 of these stations have web cameras, making it possible to see the weather conditions on the website or on a smart phone when using Landsverk's weather app. Besides this, Landsverk also has representatives informing the media during the winter months, when driving conditions are bad. This way the Faroese people can stay up

lic. On average the score for that was 5,6 out of 7.

#### New Village Road Signs

When it comes to road signs along the main road network, 35% feel the conditions are better today than they were 5 years ago. 54% feel that conditions have not changed. The yellow indication signs throughout the country are in many places old and weatherworn. Over the past few years some of these signs have been replaced with new ones. Landsverk began this work in Sandoy. In 2014, new indication signs were purchased for the whole of Suðuroy and according to plans will be set up in 2015.

#### Skilled and Friendly Employees

When asked how easy it is to get a hold of an employee at Landsverk when necessary, people give the institution an average score of 5,3. They also feel that the employees are well skilled, scoring a 5,5. When it comes to being helpful, the employees at Landsverk were given a score of 5,6.

The public opinion poll that Landsverk requested of Gallup Føroyar was conducted through telephone polling from February 10-25, 2015.

#### Statements Made by Some of the People Asked:

Landsverk is overburdened. They are not able to do their job properly.

It would great if there were more bicycle lanes.

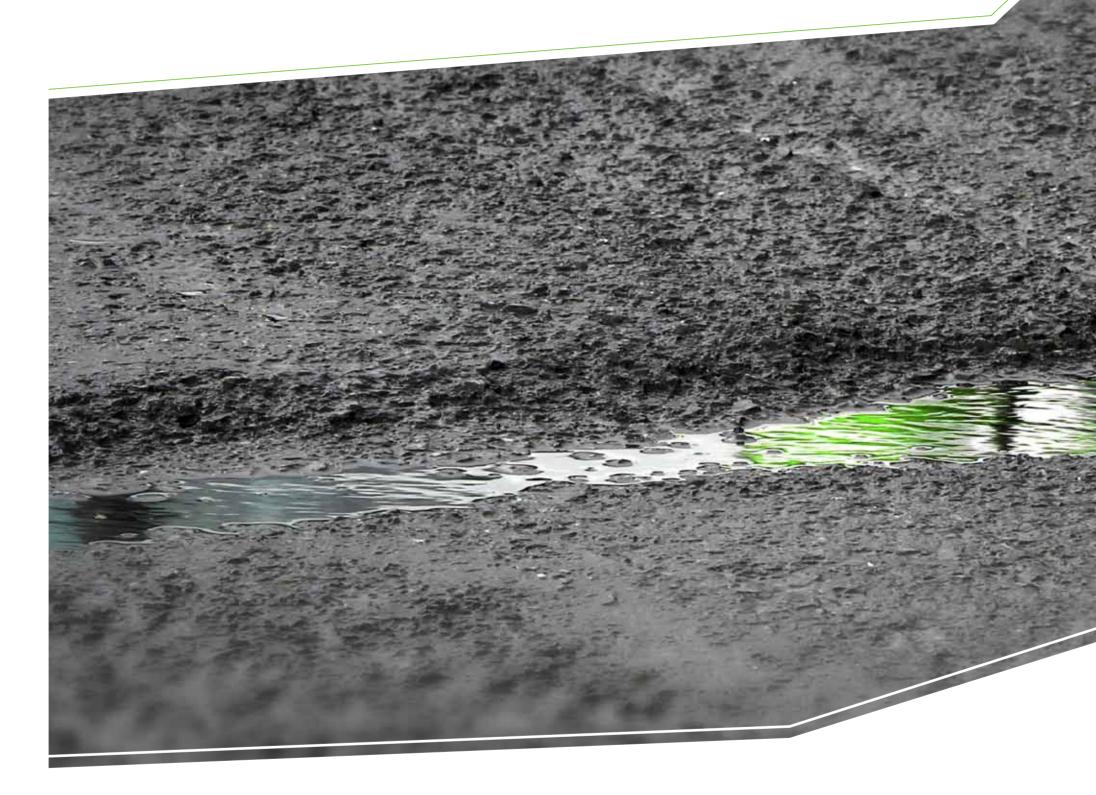
Landsverk's employees have been amazing during the snowy weather.

It would be a good idea to create fencing along the main roads so as to protect the sheep.

The roads in Suðuroy are narrow and worn.

There could be more pavement work done in Kalsov. Other than that Landsverk does a super job.

## An Increase in Traffic Means More Wear and Tear



The upward spiral in the economy these past few years has to a large extent been good for society. People have more money to spend because buying power has increased. This has affected prices, which have risen significantly over the past years.

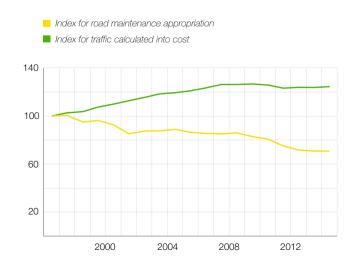
One result of the growing economy is that there are more cars on the road than ever before. In addition, vehicles today are bigger and heavier and this, coupled with the increase in traffic, has taken its toll on the road network.

A wise person once said, "There are dangers in every welfare society," and this is a suitable phrase to use in reference to the economic growth in Faroese society recently. While a growing economy is naturally something to be pleased about, it's also something to be wary of. An old Faroese saying goes "Nothing is so bad that it's not good for something". In the case of the economy, we can turn that saying around and say, "Nothing is so good that it's not bad for something".

The growth in economy from the late nineties has carried along with it a steady increase in imported vehicles. This increase is obviously reflected on the condition of the roads. In part because there are more vehicles on the road, which means more kilometres driven and more wear and tear. But this is also due to the fact that the average size and weight of vehicles has increased, meaning even more road damage.

#### Smaller Appropriation for the Extended Roads

The road length has grown somewhat since 1996 and therefore several more kilometres of road need to be maintained, meaning more money is needed for its



This chart shows that while road usage has steadily grown, the appropriation has decreased by 20%. A traffic increase of 23% has occurred during the same time period. In other words, the gap is growing larger and larger.



maintenance. There has been an increase of roughly 3% in kilometres over the past 20 years. During the same period of time the appropriation has decreased by about 20%.

If we say that Landsverk's appropriation only increases by 1,5% per year, which is lower than the cost inflation, the appropriation would be 124 million DKK instead of 43 million DKK. Hence giving the institution only a little more than a third of that which cost inflation should entitle. In the same time period the annual cost inflation has been an approximate 3%.

Overall, we can state that Landsverk's appropriation for operational expenses has neither matched demand nor has it been adjusted to follow the economic growth, which the Faroese society has experienced since the economic crisis during the early nineties.

When expected maintenance cannot be done, the consequence is a less valuable road network. If road maintenance doesn't correspond with road usage, then we end up with a huge backlog. The infrastructure that has accumulated a certain amount of backlog is more expensive to maintain and becomes more demanding year after year if nothing is done about it.

#### An Expected 100 Kilometres to be Asphalted

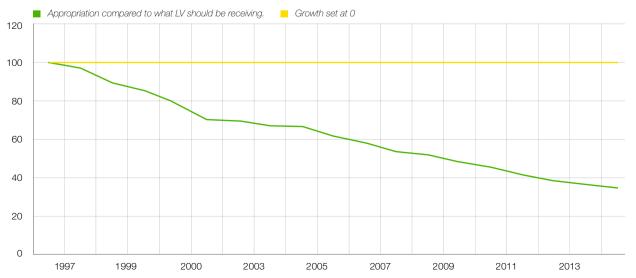
Landsverk has examined the conditions of the tunnels and bridges. Tunnel repairs will cost a respective 187 million DKK and bridgework will be 40 million DKK. Regular

upkeep is not included in this calculation. In addition to this we have the need for road reparation, where things such as asphalt, crash barriers, slopes, cross-drains and sidedrains are taken care of.

The backlog here is the equivalent of 4 times Landsverk's annual appropriation (asphalting, cross-drains and sidedrains are not included). Compared to our neighbouring countries, the situation in the Faroes is significantly more serious. In Denmark the amount of backlog in comparison to the appropriation is 1.2, Norway has 2.2, Sweden 2.5 and Finland 2.6.

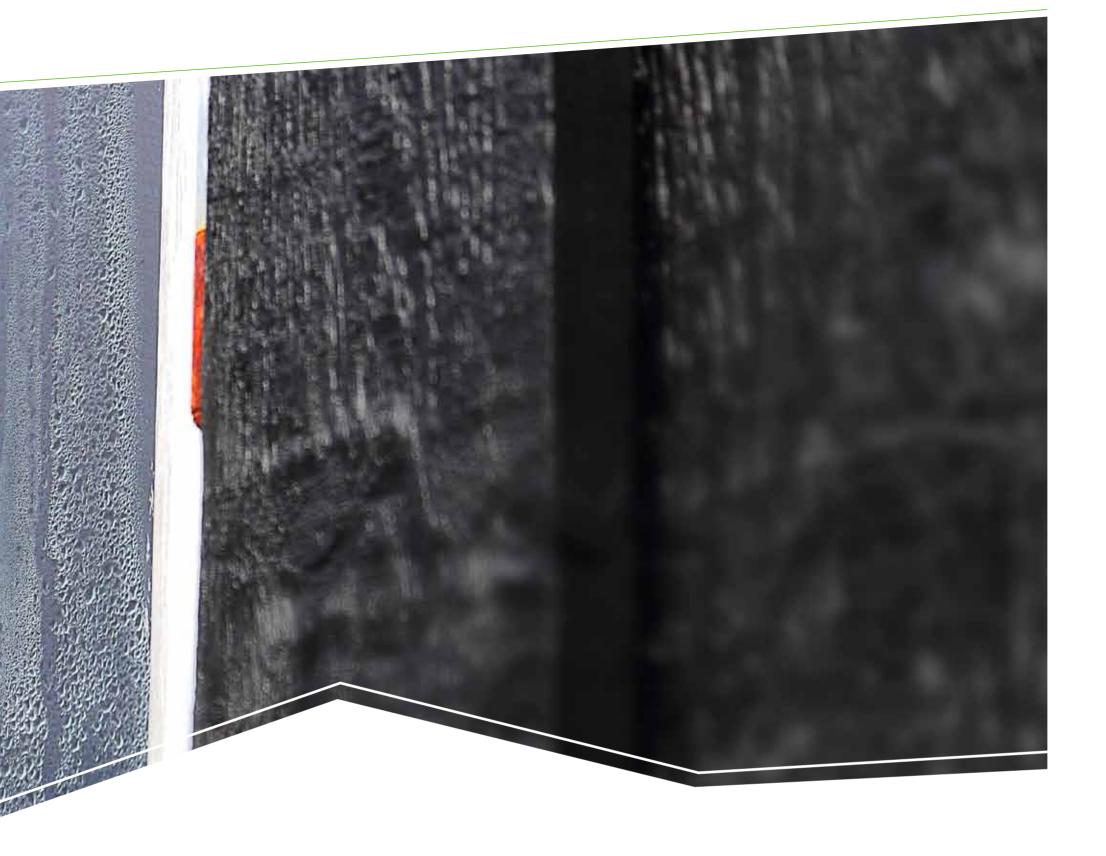
The backlog of asphalting work to be done on the Faroese road network is an estimated 100 kilometres, which will cost approximately 80-100 million DKK.

In comparison with the National budget's total operational expenditures, which since 1996 have increased by 113%, Landsverk's appropriation for operational costs has decreased by 20% during the same time period. Meanwhile, road construction has increased by 23%. In other words, the gap between funding and backlog has only gotten bigger.



If we say that Landsverk's appropriation only increases by 1,5% per year, which is lower than the cost inflation, the appropriation would be 124 million DKK instead of 43 million DKK. Hence giving the institution only a little more than a third of that which cost inflation should entitle. In the same time period the annual cost inflation has been an approximate 3%.





# Meager Funds for Building Maintenance

Currently the appropriation for the maintenance of buildings is 97 DKK per square metre. This is equivalent to approximately two thirds of what is usually appropriated for building maintenance in our neighbouring countries.

Landsverk is in charge of maintenance for most of the buildings run by the government. The backlog is huge because many of the buildings are old and in poor condition. In addition to this, several new buildings have been constructed over the past years within both the public sector and the school sector.

Naturally, new buildings also need maintenance and if this isn't done then the value decreases as time goes by. It is estimated that a suitable level of maintenance of new and well-kept buildings would have an annual cost of 150 DKK per square metre. At the moment, the appropriation for

maintenance is below two thirds of this amount. It is 97 DKK per square metre for all the buildings, where many of the buildings are old and in poor condition. For several of these buildings, regular maintenance does not do the job, as they are in need of thorough renovation.

Each year 3000-4000 square metres are added to the maintenance list, while the appropriation for maintenance remains the same or less. This is a difficult situation that is obviously not viable further down the road. The performance contract for 2015 between the Ministry of Finance and Landsverk states; "It must be guaranteed that the

annual maintenance appropriation be used in the best way possible. All the buildings must be evaluated before any work commences so that priorities are as sensible as possible. Over the course of time, the goal is to have all the buildings maintained and kept up to date."

The aim for 2015 is to have all buildings registered in relation to their need for long-term maintenance. This will depict the need for maintenance funds, so that maintenance demands and appropriation correspond with each other.



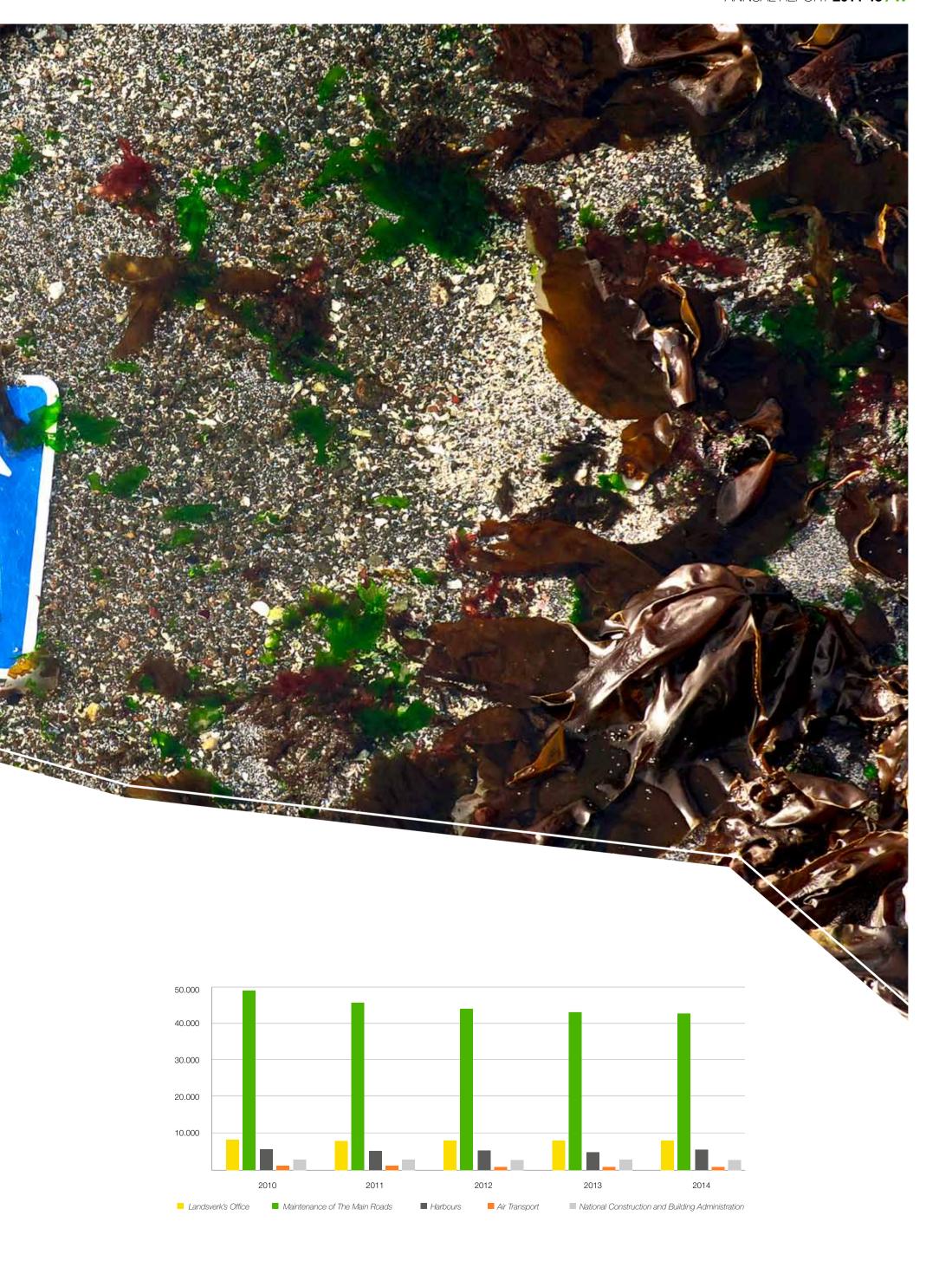
The fact that the appropriation for Landsverk's operating expenses has been cut over the past years, has had consequences for certain areas within the institution. This has especially affected maintenance of the infrastructure, where for instance the backlog of asphalting is accumulating. It costs an average of one million DKK to asphalt one kilometre of road stretch. With continuously decreasing funds, there will be even fewer kilometres asphalted each year. Meanwhile there is an increase in the total amount of

kilometres of road. Over the past 5 years the appropriation for Landsverk has constantly been cut. In 2010, the total appropriation for operating expenses was approximately 67 million DKK and in 2015 the appropriation is 7,5 million DKK less.

The chart below and the histogram on the right demonstrate the trend in the appropriation for Landsverk over the past 5 years.

#### Appropriation for Operating

Expenses Over 5 Year Period	2010	2011	2012	2013	2014	2015
Landsverk's Office	8.455	7.995	8.012	8.068	8.123	7.900
Maintenance of The Main Roads	49.111	45.810	44.115	43.345	42.557	42.820
Harbours	5.567	5346	5221	5103	5473	5250
Air Transport	1165	1043	791	856	828	830
National Construction and Building Administration	2736	2806	2870	2766	2845	2700
In Total	67034	63000	61009	60138	59826	59500

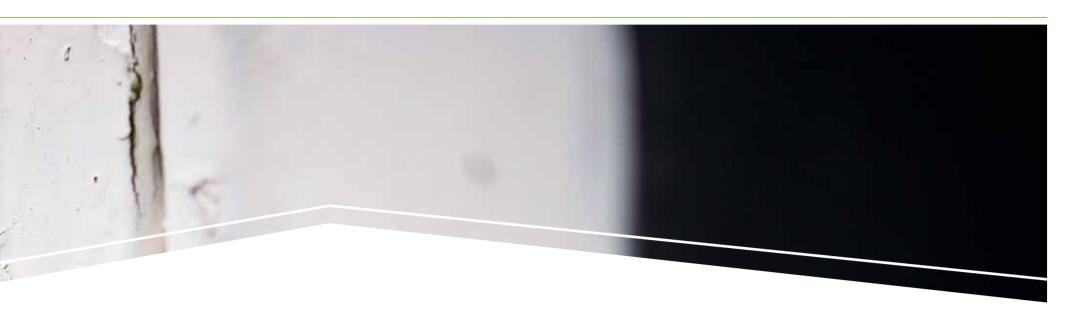




# Energy Conservation in Public Buildings

The ESCO project, with the subheading "Energy Conservation In Public Buildings", is a pilot project that will implement energy-saving methods in selected public buildings in the Faroes. In April 2015, Landsverk invited those interested to apply for pre-qualification in a call for bids on the work itself.





It has long since been clear that it isn't possible to meet our goals of public building maintenance given the current budget. The appropriation for building maintenance is 22 million DKK for 230.000 square metres of public building space. Soon it will be 260.000 square metres when the Marknagil Centre and the new H-building at the National Hospital are included. The backlog is estimated at 300 million DKK. It is therefore absolutely necessary to think in innovative and renewable terms in order to get the most out of the available budget. Today, fuel is one of the Faroe Islands' main imports, some of which is used to heat buildings and generate electricity. There is large potential for energy conservation in public buildings when certain energy-saving methods are applied. Landsverk has therefore decided to shed light on energy conservation in public buildings and has taken a closer look at how neighbouring countries and municipalities elsewhere deal with the issue.

#### ESCO Model Being Tested in the Faroes

To get some inspiration, representatives from the Construction Department at Landsverk visited the Municipality of Middelfart, Denmark in 2014. Here they got insight into how the municipality had conducted energy renovations according the ESCO model. The Municipality of Middelfart is in charge of nearly the same amount of buildings and square metres as Landsverk and has also had a large backlog of building maintenance. The municipality has led the way in Europe with revolutionary ESCO solutions and has had good results when it comes to energy conserva-

tion in buildings. Landsverk has decided to use the same ESCO consultancy as Middelfart municipality for a pilot project in the Faroes. In the spring of 2014, preparations started for a pilot project in the Faroes. The goal is to improve the total amount of operational expenditures by reducing energy consumption. The money saved through energy conservation will help finance the maintenance of the buildings, raising them to a higher standard, not just in terms of operating expenses, but also in terms of architecture and indoor climate. This will in turn benefit the well being of the employees and customers in general.

The first step was to analyze all the buildings that Landsverk administers and select some for the project. The energy consumption in the selected buildings has now been registered and an evaluation has been made as to what it will take to reduce consumption. Results show that energy consumption as a whole is very high and that a lot can be saved.

A total of nine buildings have been chosen for the energy conservation pilot project.

#### Public and Private Sector Collaboration

The ESCO project is organized as a collaboration between the public and private sector and its goal is to conserve energy, thereby decreasing oil consumption in public buildings. There are several financing methods available with respect to an ESCO project. Sometimes the private sector finances all of the work, but mainly it is a joint venture where both the public and the private sector share the financing of the project and any possible risk. With respect to Landsverk's ESCO pilot project, shared financing has been chosen.

#### Work Begins at the Start of 2016

In April 2015, Landsverk invited those interested to apply for pre-qualification in a call for bids on the pilot project's work. There has been significant interest in the project. Licitation will take place October 20, 2015. When the contract is signed, hopefully at the end of 2015, the work itself will begin and according to plan will be finished at the end of 2017. In order to ensure that the planned energy conservation actually takes place, the ESCO contractor is responsible for energy operations for a designated period of time. After this, decisions will be made as to whether or not a new call for bids will take place.

#### Facts

ESCO is an acronym for Energy Service Company, which originated in the United States during the oil crisis in the beginning of the seventies. Oil prices, which had then been significantly lower than the prices of thermal insulation, had suddenly risen drastically. The corporation made efforts to try to prevent the quickly accumulating oil expenses. By using the corporation's methods, ESCO contractually ensures that energy consumption is decreased by a certain percentage over a definite period of time.



# The Hospital Building – Pushing the Envelope and Bringing People Together

The new hospital building is on its way to the National Hospital. The so-called H-building is part of the appropriation for the total renovation and extension of the National Hospital. It's an innovative building, which will centralize many different medical units and will modernize procedures at the National Hospital, which in turn will benefit the patients, the patients' families and support network and the hospital staff.

On February 23, 2015, the great expansion work officially began when Karsten Hansen, the Minister of Health, turned the sod for this project. The new H-building, which will be built just below the National Hospital, is part of a long-term plan for renovation and expansion of the hospital. The total appropriation for the National Hospital is 490 million DKK, from which 348 million DKK will go to the H-building. This is a huge project in Faroese terms.

The building will be beautifully located next to the present building, with the front facing toward the ocean and the beach Sandágerð. It will also be a visible part of Torshavn's cityscape.

#### Objectives and Values

When it comes to objectives and values with regards to the hospital's expansion, the fundamental idea from the very beginning has been one of a holistic approach, where the aim is to create a hospital building with aesthetic, innovative and humanitarian qualities. A building that is more pleasant for patients and more practical for staff.

The plan is to give patients and staff the best possible framework for safe, effective and modern medical care and to create an environment that unites patients and staff instead of dividing them.

#### Design That Heals and Inspires

The design for the H-building is centered on the aforementioned objectives and values.

Research shows that the design of a building in which patients stay, has an effect on how quickly they recover. Lighting, a friendly environment, art and a good view, all promote healing and decreases the use of medication. The design chosen for the H-building will help to give a sense of security and help create a homely environment for patients and their families and support network as well as for the

#### One Hospital – One Entrance

The new hospital building will accommodate many different units, such as a medical inpatient ward, a maternity ward

Single rooms are a big breakthrough because they add to patient security.

Naina Túgvustein,
 Managing Director of the Faroese National Hospital

and post-natal unit, a psychiatric unit, a physical rehabilitation unit and the hospital kitchen. It will cover an area of 11.000 square feet and consist of four floors.

When the building is complete a revolutionary change will take place in that the entire hospital will be physically connected, where patients in all various units - surgical, medical and psychiatric - will be located in the same building with a shared entrance, recreational rooms and living rooms.

The purpose of the shared entrance and shared dining room is not only to eliminate physical barriers but to also lessen the stigmatization and prejudice that often surrounds psychiatric patients.

In terms of physical environment, facilities for these patients in the Faroes have for quite some time been out of date when compared to modern-day demands and needs. Modernization has therefore been necessary. The psychiatric inpatient unit will be organized into several smaller units, which can be merged together or separated according to need.



The new building encourages the de-stigmatization of psychiatric patients and the modern-day facilities help to improve patient treatment and care.

-Tormóður Stórá, Director of the National Hospital's psychiatric unit







What's so special about this project is the innovation and creative thinking involved, where design, art and indoor architecture work together to encourage a sense of well-being and also a change of attitude, while also helping to promote quicker recovery time.

- Ewald Kjølbro, Managing Director of Landsverk









#### A More Flexible Workplace With Sensible Functions

The various activities in the building demand a certain physical framework, one that is functional. Several inpatient wards with their corresponding specialized care will all be on one floor. This will make it easier to work interactively in medical terms and also make it easier to arrange dinner and evening refreshments on weekends. In addition to this, the new design will shorten walking distances for staff and make navigation and accessibility easier. In order to make the workplace function as sensibly as possible, transportation throughout the hospital has also been re-thought. Hospital bed storage will be located in the "bed tower", which is next to an automated laundry department. The "bed tower" will store clean beds and also be a depot for used beds. This will be more hygienic and also make clean beds available whenever necessary. This system will also save a lot of floor space.

Furthermore, the H-building will also be an environmentally friendly building, which will be heated through a system that uses excess heat from the main hospital building coupled with a water source heating system.

Based on the latest technology within logistics and energy conservation, the new H-building will have significantly better operating costs.

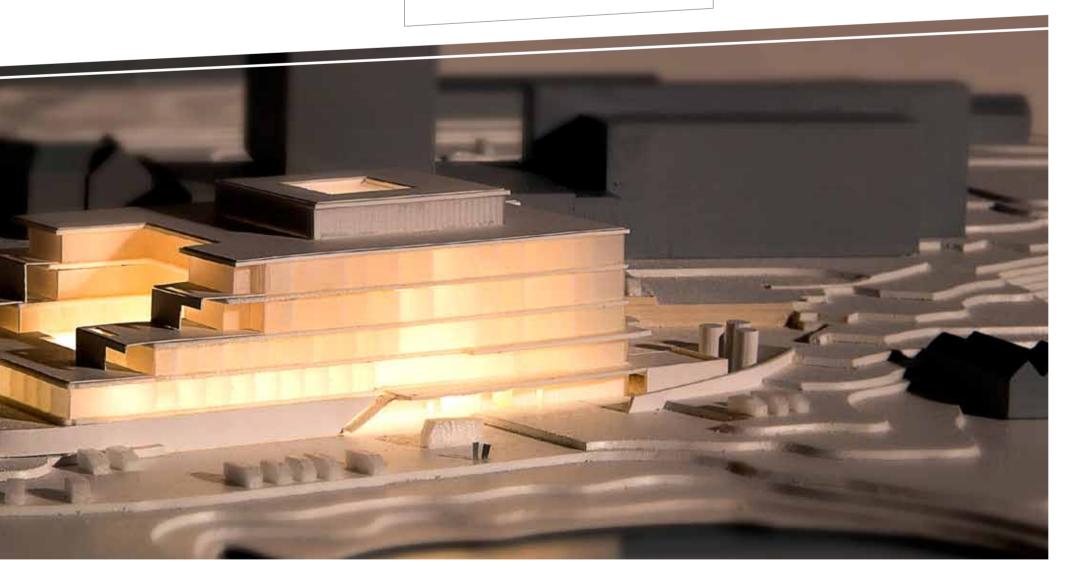
- Jóan Símun Saltá, Service Department Manager at the National Hospital



#### Follow the Project's Progress

The sod has been turned. Project development is underway and will be finished in the spring of 2016, when the work will be ready for construction bidding. The construction work itself is estimated to begin in the summer of 2016. The plan is to celebrate the renovation and expansion of the National Hospital on its 95th birthday, which is February 23, 2019.

Those interested can follow along with the project's progress by visiting Landsverk's website - www.landsverk.fo - or by visiting the H-building display which is located in the hospital's vestibule. The display shows what the building will look like and describes the fundamental values the project builds on.



# A Miscalculation Delays Construction at Marknagil

Massive and complicated building projects rarely run according to plan. This has also been the case with the School Centre at Marknagil, where specific problems have delayed construction. A miscalculation, established in December 2014, resulted in the need for part of the project to be recalculated. This has obviously slowed things down somewhat, but efforts are being made to make up for lost time.



In February 2010, Landsverk signed a general advisory agreement with the architectural firm BIG in connection with project development of the new Marknagil School Centre. When drawings were complete, construction bidding took place. During the call for bids, it was made clear that the lowest offers were 155,5 million DKK above the cost estimation made by the advisory group BIG.

The project could therefore not be carried out within the fixed budget, according to the construction law from May 2008. Consequently, Landsverk asked the advisory group to make a new estimation, cutting costs where necessary, so that the project could be carried out with the fixed budget.

In January 2013, Landsverk sent a recommendation to the Ministry of Culture, where they explained the situation and pointed to which cost cuts could be made without affecting the construction plans and the vision behind the project. In the recommendation, Landsverk suggested an appropriation increase of 64 million DKK so that the project could be executed. On February 28, the Faroese Parliament agreed to change the construction law and to appropriate the aforementioned amount to the project.

Following this, Landsverk and BIG signed an agreement on project redevelopment, where the approved changes were included as an addition to the legal contract from 2010.

#### A Turning Point in Faroese Construction History

In December 2013, Landsverk informed the general advisory group that it estimated the project's drawings to be incomplete. In a meeting that month between both parties, steps were taken to see how project plans could be corrected and quality controlled. In April 2014, project development was both completed and quality controlled in a joint effort between BIG and Cowi, which is Landsverk's building advisor.

The general advisory group, BIG, has, since a flaw was discovered in 2015, worked on correcting things and has made new calculations, which Cowi has estimated to be satisfactory. The construction flaw involved a few stair walls that weren't strong enough.

Together with its building advisor, Cowi, Landsverk has made a new work schedule, which shows how the work can be organized so that the school can be taken into use in 2016 as planned.

There is no doubt that the Marknagil School Centre is not only a turning point in Faroese construction history, but also in school history. The centre will accommodate the Senior Secondary School, the Business College and the Technical School, all of which have had, for quite some time, crammed and outdated facilities. The school will have up to six floors.

#### FACTS

PROPRIETOR: Ministry of Culture

CONTRACTOR: Landsverk

GENERAL ADVISORY GROUP: BIG (Bjarke Ingels Group)

THE SCHOOL CENTRE: Approximately 19.500 square metres in size and will accommodate 1300 students. Although the centre will be divided into three separate school units (Senior Secondary School, Business College and Technical School), everything will function under the same roof with shared management and many shared facilities. The building is designed to encourage teaching that is creative and innovative as well as technically and academically groundbreaking. In order to meet future standards, the building will be constructed with flexible solutions and multiple functionality, as well, parts of the school will be open to the students 24 hours a day.

SCHEDULE: The school will be ready for use in 2016

BUDGET: It will cost a total of 515 million DKK including 60 million DKK in furnishing, equipment, etc.



# The Viðareiði Route in Full Speed

Work on the route to Viðareiði is going very well. Presently, nearly 80% of the tunnel has been bored and there will be a hole through both sides already in July 2015. In addition to this, work is well under way on the tunnel entrance road in Miðdalur where the mouth of the tunnel will be on the Viðareiði side.

Work is going very well with regards to the new route to Viðareiði. Presently, nearly 80% of the tunnel has been bored and there will be a hole through both sides already in July 2015. In addition to this, work is well underway with the tunnel entrance road at Miðdalur, where the mouth of the tunnel will be on the Viðareiði side.

The new route to Viðareiði is nearly complete and as we speak there are less than 400 of the 1895 metres left to bore until a hole is all the way through. According to plans, this will happen in July 2015. Each week we get 70.75 metres closer to Viðareiði.

The tunnel is worked on 20 hours a day in three different shifts, including rest periods. In addition to tunnel boring, a tunnel entrance road is also being constructed at Miðdalur, which is south of the village Viðareiði. A tunnel entrance road is also being constructed on the Hvannasund side. This work started in September 2014.

When the work began, there was trouble with loose debris where the tunnel's starting point was planned. A decision was therefore made to move the mouth of the tunnel 30 metres closer to Hvannasund and to shorten the entrance road slightly. This worked out successfully. The challenge has been the loose debris in many parts of the mountain. But despite this, things have gone very well.

The first blast was made on December 2, 2014 and will consequently only take 7-8 months to bore all the way through to the other side.

#### The Nineteenth Tunnel In The Faroes The total budget for the tunnel and its entrance roads in

The total budget for the tunnel and its entrance roads is 162 million DKK. According to schedule, the tunnel will be ready for use sometime during the first quarter of 2017.

In a description of the tunnel project, it is stated that the goal is to secure an appropriate route to Viŏareiŏi. On the current route there are problems with rockslides and landslides in addition to the fact that some parts of the road only have one lane. The project entails an approximately 1.895 metre-long tunnel from Hvannasund to Miŏdalur. On the Hvannasund side a road will be built to the mouth of the tunnel just as a new road will be built from Miŏdalur to Viŏareiŏi. The new road stretch, including the tunnel, will be about 5.5 kilometres long.

The Viðareiði tunnel is the nineteenth in the row of tunnels built in the Faroes. The first tunnel, the Hvalba tunnel, was built over half a century ago. When including the undersea tunnel to Klaksvík, nine of the tunnels in the Faroes are located in the northern islands.





### Various Projects Over the Past Few Years

As in previous years, there has been a lot of activity throughout the country in connection with Landsverk's building projects. Below is an outline of projects that are either completed, underway or are on the drawing board and will commence in the near future.

#### Buildings:

- The School Centre at Marknagil new construction (mentioned elsewhere in this report)
- The H-building at the National Hospital new construction/expansion and renovation (mentioned elsewhere in this report)
- Centre in Eysturoy for children and youth with multiple disabilities - new construction
- Community housing residency in Tórshavn for people with a mental health disorder – new construction
- Sheltered housing in Runavík new construction • Sheltered housing in Klaksvík – new construction
- Klaksvík Hospital repairs and renovation
- Technical School in Klaksvík renovation and expansion
- Senior Secondary School in Kambsdalur renovation and expansion
- Activity and Respite Centre in Sandoy new construction
- Pharmaceutical Department renovation

- Kringvarp Føroya (Faroese National Radio) renovation and expansion
- ESCO project Energy Conservation Pilot Project (mentioned elsewhere in this report)

#### Road and Tunnel Projects:

- New route to Viðareiði tunnel and road construction
- Tjørnunes by Skálafjørður widening of the road
- Entrance road to Tórshavn new bridge over Klingruve-
- Signabø road widening of the road
- Crossroads in Sørvágur traffic safety measures

#### Harbours:

Ferry berth at Krambatangi – lengthening the landing quay for Smyril

#### Smaller Projects:

Every year Landsverk carries out smaller projects that aim to increase road traffic safety. For instance, setting up streetlights, doing smaller reconstruction jobs on the roads, road surface marking, making better traffic signs, implementing electronic speed detectors, setting up safety equipment in tunnels, repairing crash barriers, clearing the roadsides of objects, securing areas located by the roadside, etc. This past year several of these kinds of smaller projects have been carried out.

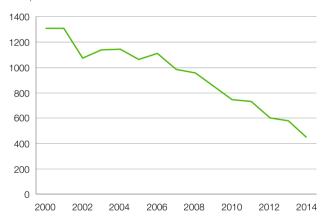
# Still No Zero in Sight



In order to improve road traffic safety, many of the measures in the Road Safety Plan for 2007-2015, have been carried out over the past few years. Despite these efforts, the latest statistics indicate that the number of road traffic fatalities in the Faroes is significantly higher than that of our neighbouring countries. We are therefore a long way away from the so-called "zero philosophy", the notion that no one should die or be seriously injured in traffic.

From the mid nineties up to 2007, traffic on the main road in the Faroes increased significantly. These past few years we've experienced practically no increase in road traffic. Although traffic has risen, it has not lead to more road traffic accidents. Quite the contrary, the number of reported accidents has altogether decreased.

Reported road traffic accidents from 2001-2014



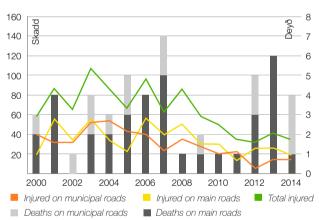
The police register all reported road traffic accidents. Some are minor accidents, which are only registered in regular daily police reports, while other accidents are more serious and involve injuries or fatalities. For the more serious accidents, a full police report is made. In this type of report an account of the details of the accident is made as well as possible causes of the accident. Because the police are not notified about every accident that occurs, it is probably more indicative to look at the number of more serious accidents, which are always reported to the police.

The graph of registered road traffic accidents with injuries shows that here the number is not decreasing but has been rather stable for some years. The number of accidents on the main roads and the number of accidents on municipal roads is pretty much the same.

#### Fewer Road Traffic Accidents but More Deaths

The number of people injured in an accident has not risen these past years. The registration of road traffic accidents makes it impossible to distinguish between serious injuries and mild injuries. However, the number of deaths has risen significantly.

Injured and Dead In Road Traffic Accidents



If we compare the number of road traffic deaths in the Faroes to the number of deaths in our neighbouring countries, we see that the Faroes have a much higher statistic. Obviously, when the numbers are as small as they are in the Faroes, the curve in the graph is quite large. However, if the numbers are "evened out" by looking at an average number over the past 5 or 10 years, the Faroes still have a much higher number of deaths in road traffic accidents than the countries we wish to compare ourselves to do.

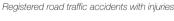
Deaths per 100.000 residents compared to other Scandinavian countries

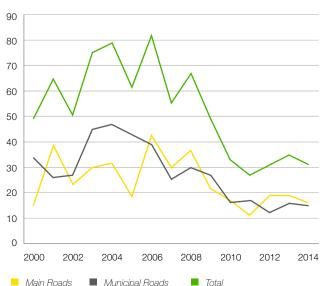
It is difficult to explain why the death rate in road traffic is so high in the Faroes compared to neighbouring countries. There could be several reasons for this. However, we know for certain that it has something to do with the interaction between the driver, the road and the vehicle. This is why it is imperative that something is done within all these areas. This is also mentioned in the Road Traffic Safety Plan for 2007-2015, where various campaigns have been created to improve road traffic safety in the Faroes. These are campaigns within the following areas: legislation and punishment, supervision, road environment, information and education and knowledge and research. The Road Traffic Safety Plan expires in 2015. Several of its initiatives have been carried out, but the number of road traffic deaths tells us that we still have a long way to go in order to fulfill our "zero philosophy", the ideal of there being no deaths or serious injuries in road traffic. We therefore want to update the Road Traffic Safety Plan, where the goal is to work on how we can achieve our "zero philosophy" and which measures are most important to take.

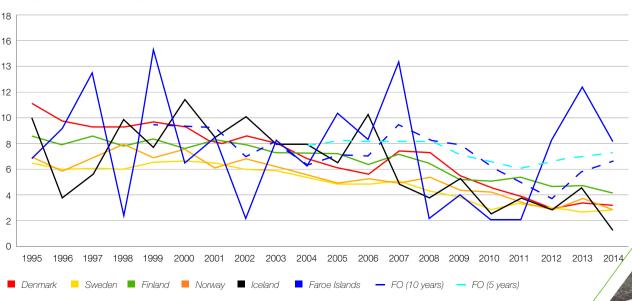
#### Landsverk Creates a Safer Road Environment

Road traffic safety is a combination of several factors. It is rarely one single factor that is the cause of an accident or injury. Landsverk works first and foremost on road environment, but also cooperates with all the other aspects within road traffic safety.

In recent years, the appropriation for road traffic safety measures has been approximately 7 million DKK. With this appropriation, Landsverk tries to achieve maximum road traffic safety for the money. Safety measures are implemented in order to make the existing road network safer. These are both measures that decrease the risk of accidents and make consequences of an accident less severe. Here we can mention measures such as setting









# Winter Maintenance More Effective Than Ever

An account of operating activities over the past few years shows that Landsverk's winter maintenance has become significantly more effective than in previous years. The main reason for better functionality is not due to more funding, but rather to the technological advances on the many weather stations across the country and larger operating units. These make weather reports extremely accurate and therefore make it easier to manage winter maintenance.

Landsverk's winter maintenance has gone through major rationalizations over the past few years. The most recent numbers for 2013-2014 showed that the cost of winter maintenance in these years had only risen by 5%, when compared to 2009, despite an 80% increase in salt usage for roads and a 50% increase in fuel consumption. This of course indicates that there was notably more snow ploughing and salting in 2013 – 2014 than in 2009.

Landsverk has therefore managed to keep expenses down despite the society's significant cost inflation.

In addition to this, the roads in general were better kept during the winter of 2013-2014 compared to 2009, and as a society we got more for our money because the roads were safer to drive on.

In 2009, Landsverk used 1.088 tons of salt on the road network. In 2013, the amount was 1.847 tons and in 2014 a total of 1.622 tons were used.

With regards to fuel consumption during winter maintenance, machines and other vehicles used 87.000 litres of fuel in 2009. In 2013, the fuel consumption had risen to 111.000 litres and in 2014 it was 67.000 litres.

#### Technological Breakthrough

The conclusion is quite simple. Landsverk's winter maintenance has never been as effective as it is today. This is thanks to the technological breakthroughs with the many weather stations and to consistently better administration of winter maintenance.

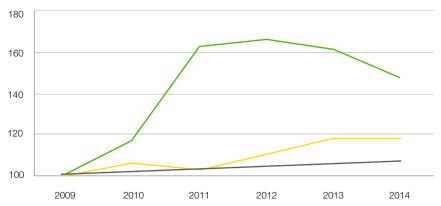
Before the weather stations came, just reporting slippery roads made up 40% of winter maintenance cost. This was because the reports came from reliable people throughout the country, who would leave by car early in the morning to test weather conditions.

It is worth noticing that an increase in effectiveness has taken place despite the fact that the machine and vehicle stockpile is relatively old and worn out and needs to be replaced.

With no increase in appropriations over the past years, it will be impossible to replace old machines as quickly as hoped.

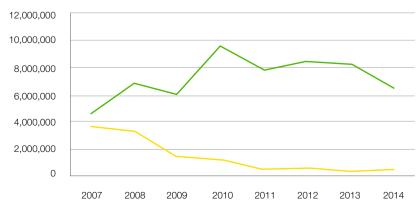
Particular attention should be paid to the fact that cost cuts in winter maintenance have been so large and so comprehensive over the past years that it will no longer be possible to keep up with cost inflation solely through cost cuts. The appropriation must therefore be increased if the standard of winter maintenance is to be kept.

#### Cost Inflation, 2009 = 100



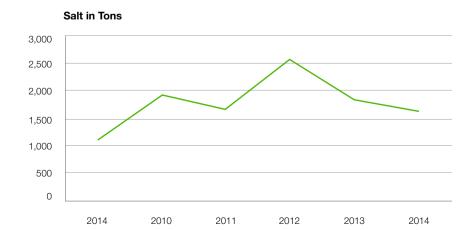
Since 2009, the price of salt has risen by 18% and the price of fuel has risen by 48%. During this same period wages have increased by 8%.

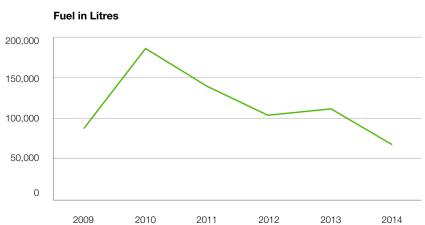
#### Winter Maintenance



Before the weather stations were purchased and set up, reporting slippery roads made up 40% of winter maintenance costs. Now this expense only makes up 5% of costs. This is precisely one of the main reasons why it has been possible to manage winter maintenance less expensively.







The use of salt (see graph to the left) has increased over the past few years while fuel consumption (see above graph) has decreased.



The two heavy snowfalls in January and February of 2015 hampered road traffic for about four days. Especially on the Vestmanna road, Sandavágur pass and the roads to some of the smaller villages. There were also other days this past winter with fairly heavy snowfall.

Heavy snowfall is not an unfamiliar phenomenon in the Faroes. Nevertheless, it is always a challenge to clear the roads so that they are usable when such weather comes about.

This was also the case January 15th-17th and on the 1st and 2nd of February when Mother Nature decided to seriously put Landsverk's winter maintenance to the test. There were also other days where snow and ice hampered road traffic somewhat.

The days with heavy snowfall hit hardest in Vágar, Streymoy, Eysturoy and the Northern islands, while little to no snow was in Sandoy and the Southern island.

As usual, the biggest challenges are on the road stretches that are located further up a mountainside. Especially along the Sandavágur pass, the Vestmanna road, Oyggjarvegur, Gjógv road, both sides of the Norðskála Tunnel, Oyndarfjørður road, Gøtueiði as well as on some other particular road stretches. It is especially when cars get stuck in the snow and have to be towed that setbacks in winter maintenance occur. According to Árni

Jacobsen, area director for the Northern area, it would be great if drivers were more helpful and ready to lend a hand. Otherwise it takes an unnecessary amount of time for Landsverk to free the vehicles from the snow.

#### Technical Difficulties Cause Delay

It also delayed snow ploughing somewhat when some of the machines stopped working due to technical difficulties and had to go to the repair shop.

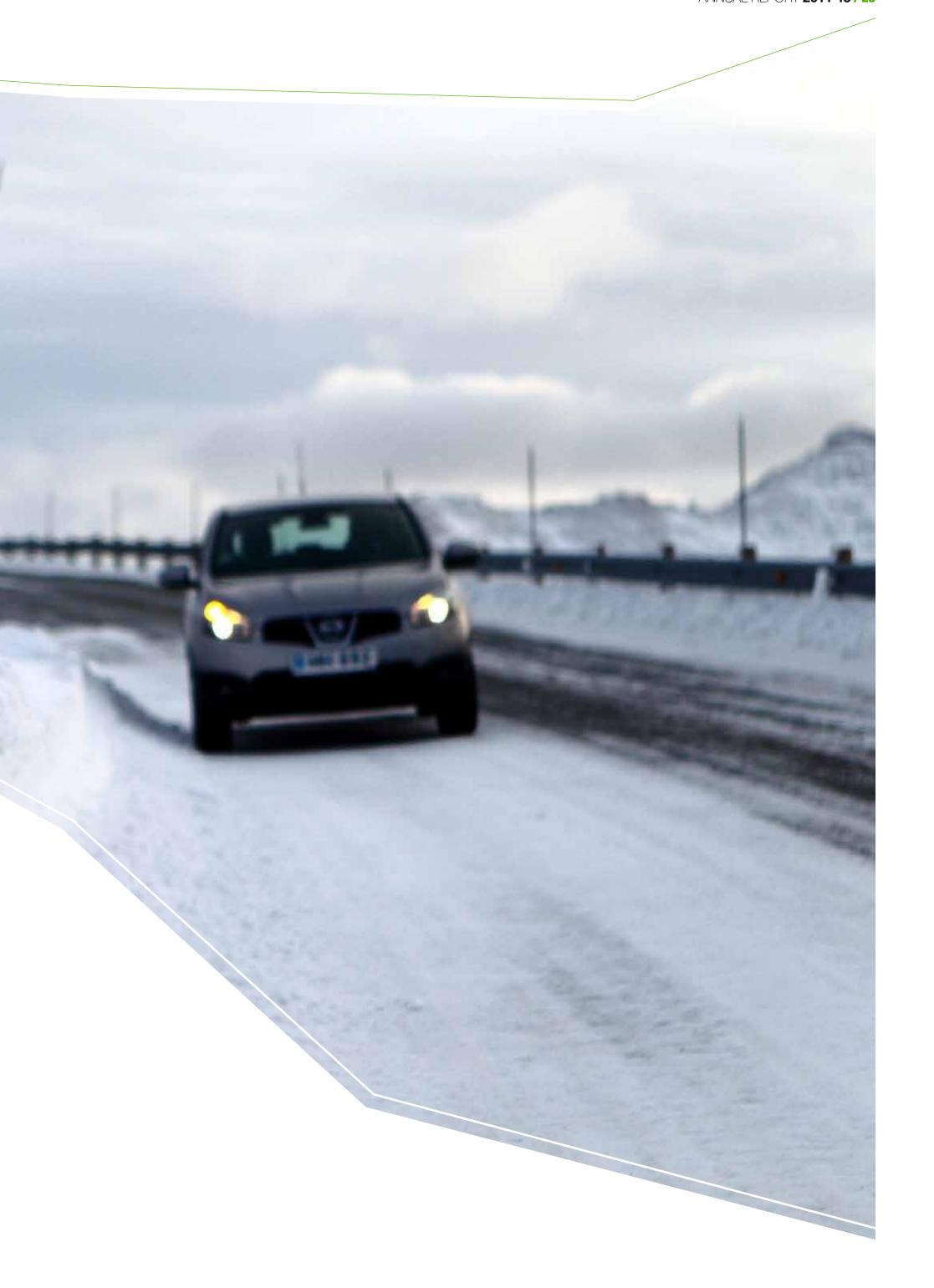
It was therefore necessary to reorganize the work and to prioritize as best as possible given the circumstances. This resulted in a delay in snow removal for some of the villages.

The technical difficulties, together with the massive amount of snow, made it necessary to close some parts of the road network from time to time. For example, the Sandavágur pass, Vestmanna road and Oyndarfjørður road. It was also sometimes necessary to advise people against using the main roads because of bad weather conditions

We have of course learned a lot this past winter, which was one with unusual amounts of snow. For example, we have learned to be better prepared for column driving, which we had to use in several instances on the Sandavágur pass, Vestmanna road, between Kollafjørður and Hósvík and west of the Norðskáli tunnel, says Árni Jacobsen, area director, who is also the famous voice behind the National Radio's news programs, where he gives us reports when driving conditions are bad.

Several of Landsverk's machines are fairly old and this also made it more difficult to plough through the roads, as some of these machines stalled.

Despite the fact that Landsverk's appropriation is tight and does not give room for the purchase of new machines, the plan is to replace the oldest machines as soon as possible.





## When a Snowstorm Hits the Country

Most of us are familiar with the voice of Árni Jacobsen, area director at Landsverk, who clearly and diligently notifies us in the National Radio's news programs whenever driving conditions are poor due to bad weather. This was also the case for three days in mid January 2015, when a snowstorm ravaged across the country.

Storms are not uncommon along these parts of the Atlantic. Neither are snowstorms. Despite the bad weather forecast for Thursday January 15, 2015, the day started off as any ordinary day when Árni Jacobsen came to work in Lambareiði, which is Landsverk's head office for the Northern areas.

In the computer journal that Árni often updates when challenges arise, he writes this about that particular day:

It starts off as an ordinary day with good driving conditions. However, there is a lot of wind – up to 41 m/s of northwesterly wind at Gjáarskarð, while several other weather stations indicate 30-35 m/s. It is slippery and slushy in places across the country, driving conditions to Gjógv are poor and at 6:50 am drift snow is reported along the Vestmanna road. As time passes, there are several more snow showers and driving conditions altogether worsen. At 7:50 am, driving to Gjógv is made impossible and there have also been reports of drift snow on the Vestmanna road, Oyggjarvegur and the Oyndarfjørður

road. Winds are still strong, even more snow has fallen since earlier this morning and driving conditions are getting worse by the minute.

In Suðuroy and Sandoy there is no snow on the main roads, but in the northern parts of the country driving conditions have become very bad by 9:00 am. Two road traffic accidents have taken place. The one accident happened on Gøtueiði and the other in Millum Fjarða. Fortunately no one was injured. Meanwhile, several vehicles are stuck on the Sandavágur pass and down towards the village of Sandavágur. Heavy snow showers and hail continue throughout the day and stormy weather prevails across the country.

The latest report at 9:50 am states that driving conditions west of the Skálafjørður tunnel are terrible and it is advised not to drive on the Sandavágur pass.

It is impossible to drive on the Oyndarfjørður road, the Gjógv road and on Oyggjarvegur. Two busses from Bygdaleiðir (bus service between villages) are stuck in the snow. One is stuck on the Sandavágur pass and

the other, west of the Norðskáli tunnel. At 10:00 am Bygdaleiðir cancels all bus routes.

At noon, reports state that driving conditions are very bad both east and west of the Norðskáli tunnel and people are still advised not to drive along the Sandavágur pass.

#### The Situation Worsens

"And so one thing happens after another on this Thursday in mid January, and the situation is only getting worse," Árni Jacobsen writes in his journal.

Since bus routes between villages have been cancelled, Strandfaraskip Landsins (The National Faroese Transport Company) decides to sail the ferry, Ternan, between Tórshavn and Toftir. The ferry makes two trips and this was a route many people chose to take.

At 12:50 pm a motorist calls to report that his car is stuck in the snow and he's afraid that a snowplough, in these snowy conditions, might hit him.



At this point several vehicles are stuck in Gøtudalur and in Kambsdalur and many of the drivers have left their vehicles. And so the police need to be notified so that the owners of the vehicles can be found. There are also many cars stuck on the road above Kvívík and the people in the vehicles are of course hoping that a snowplough will soon arrive and free them.

At 1:00 pm it is no longer possible to drive on the Vestmanna road or the Elduvík road and the weather has only gotten worse. Many cars have now been waiting for a long time in the Norðskáli tunnel.

The fire departments in both Sundalagið and Skálafjørður have now gone underway to stop drivers at the roundabout above Norðskáli and at the station in Skálafjørður. This is because the snowploughs need to be able to clear away the snow on both sides of the Norðskáli tunnel, free cars that are stuck in the snow and also see to it that the vehicles, which have been waiting in the tunnel for two hours, can get out. At 2:00 pm, the police once again notify people to remain in their vehicles until machines from Landsverk can come and help.

The village community centre in Kvívík, Glæman, opens up for those who have been stuck between Leynar and Kvívík.

#### Ploughing Stops

At around 8:00 pm ploughing stops in the northern parts of the country, but it isn't until midnight that the last of the stuck drivers make their way down into the village of Sandavágur. At that point some of them had been stuck for 11 hours.

"This was a very long day for everybody on Landsverk's winter maintenance team. And it has to be said that they have certainly done a good job despite driving conditions being terrible the entire day," says the area director.

As for the events of January 16, Árni Jacobsen writes, "Today is just as busy as yesterday. There is a lot of

snow in both the northern and western parts of the country."

Already at 4:30 am, a person on duty at Atlantic Airways calls and asks how driving conditions are between Tórshavn and the airport, because the first flight leaves at 7:00 am. The answer is simple. It's hopeless to try and get to the airport since driving conditions are so awful. In the special news program at 6:00 am, it is reported that driving conditions are especially bad. The police notify people to stay at home until they are further notified and to otherwise stay updated through Landsverk's website. This morning's weather forecast from DMI (Danish Meteorological Institute) is anything but pleasant. A storm with snow or sleet is forecasted for the rest of the day with freezing temperatures. The weather stations show a wind speed from 25 m/s up to 30 m/s. At 7:00 am, the passenger ferry, Teistin, is on its way across Skopunarfjørður. But the roads have not been ploughed from Tórshavn to Gamlarætt, so the passengers cannot travel any

At 9:00 am it is still not possible to drive between Tórshavn and Klaksvík and between Tórshavn and Vágar. In many places only one lane has been ploughed, so vehicles can still not travel on the main roads. Driving from Klaksvík to Fuglafjørður is now possible and further on to Toftir, Æðuvík and Rituvík as well, but not north towards Skálafjørður.

By noon there is a lane ploughed on the Sandavágur pass and the plan is to implement column driving. Landsverk gets some help from the local fire department and some villages are still not accessible. For example, Elduvík, Funningur, Gjógv, Bøur, Gásadalur and Vestmanna. However it is now ploughed and possible to drive on either side of the Norðskáli tunnel.

A few hours later, column driving is organized on the Sandavágur pass and between Kollafjørður and Hósvík. This works well and many cars are able to pass through.

At around 4:00 pm, driving along the main road arteries has been made possible, but there are still several others roads that are closed.

On Saturday morning, January 17, people are able to drive between most villages. However, there are still problems on the Vestmanna road, where column driving is implemented at around 6:30 am by the local fire department.

The Telephone Rings Non-Stop
After these difficult days in mid January, Árni Jacobsen states, "There has been an extreme amount of telephone calls and emails with various questions about driving conditions these past few days. Generally speaking, communication has gone very well and

we were also able to inform people about road condi-

tions through the media.

The phone line was constantly busy for these few days, with a total of 305 incoming calls, 48 incoming text messages, 305 outcoming calls and 61 outcoming text messages. In addition to this, the area director answered many emails from residents.

Árni Jacobsen says that in most cases people listened to notifications, for example, when advised not to drive or when roads were closed. This of course makes coordination for Landsverk's winter maintenance much easier. There also has to be close coordination between Landsverk and the police department in a situation like this, and in this case it was exemplary.

"Despite the extreme weather these past few days, where many roads had to be closed, things played out very well and nobody was injured during the snow clearing. Snowplough drivers, mechanics and other employees at Landsverk should be applauded for a job well done, because the conditions for ploughing and helping people were extremely difficult," says Árni Jacobsen in conclusion.

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