



JOHN NURMINEN FOUNDATION
LOGBOOK 2018

John Nurminen Foundation
– Baltic Sea protection and marine culture

Founded in 1992, the mission of the John Nurminen Foundation is to save the Baltic Sea and its heritage for future generations. The Foundation has been awarded for its work as a conveyor of culture and producer of marine content.

The goal of the Foundation's Clean Baltic Sea projects is to improve the condition of the Baltic Sea with concrete measures that reduce the nutrient load and environmental risks faced by the sea. Our work is guided by measurable results and impact.

www.johnnurmisenssaatio.fi



JOHN NURMINEN FOUNDATION

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JOHN NURMINEN FOUNDATION ANNUAL REPORT AND REPORT ON OPERATIONS IN 2018

Table of contents

Did you know this about us? Key figures of the Foundation and overview of the coming period	2
Enchanted by the sea: Annamari Arrakoski-Engardt, Secretary General	4
Underwater with a camera: Juha Nurminen, Chairman of the John Nurminen Foundation Board of Directors	6
Events and achievements in 2018	8
Publications for friends of the sea	10
Which sea monster are you?	16
Publications in 2019	18
Find the stories of the sea in Loki	20
Tips to save the Baltic Sea	22
The Baltic Sea is extremely vulnerable to environmental changes	24
Ongoing Clean Baltic Sea projects	26
BEST project improves the treatment of industrial wastewaters	30
SEABASED project looks for solutions to diminish the internal phosphorus load of the sea	32
Local Fishing project – From the waves to your plate	34
Towards clearer waters with gypsum	36
Fundraising enables our work	38
Financing and administration of the Foundation's operations	42
Operational risks and uncertainties	46
Financial Statement 2018	48
Organisation of the John Nurminen Foundation	62
Contact Information	64

WE SAVE the Baltic Sea and its heritage for future generations

OUR MISSION is to save the Baltic Sea and its heritage for future generations. We implement tangible Baltic Sea protection measures that bring results, and ensure that the stories of the sea are passed on to future generations. We at the Foundation share a love for the sea, and a strong belief that nothing is impossible. Our work is guided by measurable results and impact. We are independent: what benefits the Baltic Sea is the one and only consideration that steers our operations.

We have launched more than 30 Clean Baltic Sea projects, of which 21 have been finalized. The projects reduce the nutrient load and environmental risks faced by the sea. Through treating the wastewaters of St. Petersburg and reducing the discharges from the fertilizer factory by the river Luga alone, the annual eutrophication phosphorus load of the Gulf of Finland has been successfully reduced, jointly with the work of other stakeholders, by as much as 75%. The Foundation has also received awards for its work as a disseminator of information, and a producer of marine cultural content. We have published around 40 books that tell the stories of the sea; organised various exhibitions and events; and created, in cooperation with maritime museums, a veritable treasure trove of maritime culture, i.e. the Loki online service.

We want to tell the story of the sea: a sea that for us Finns is a bridge to the world. Making people aware of the story of the sea and its history is important, since it makes it easier to understand why the Baltic Sea, a sea that is one of its kind, must also be protected. It is precisely our versatility that makes our operations unique: we work for the Baltic Sea across generations.

OPERATIONS THAT BRING RESULTS

- 21/31 Clean Baltic Sea projects completed
- 1,000 tonnes/year reduction in the phosphorus load of St. Petersburg
- 75% reduction in the phosphorus load of the Gulf of Finland in co-operation with other actors
- Innovation award to the Nutribute crowdfunding platform
- ELO Foundation food culture award to the Local Fishing project
- Baltic Sea roach stock management with a catch of 650,000 kg
- 1,000 hectares of fields treated with gypsum
- 40 books published
- 4-time nominee for the Finlandia Prize for Non-Fiction
- more than 1,000 marine stories in the Loki service
- Navigation service for the prevention of oil disasters

KEY FIGURES FROM THE 2018 FINANCIAL STATEMENT

- Income from marine culture operation €359,183
Marine culture operations expenses €404,657
Deficit from marine culture operations -€45,474
- Income from Clean Baltic Sea projects €2,469,154
Clean Baltic Sea project expenses €1,302,962
- Equity €10,180,202, of which funds available for Baltic Sea protection (dedicated Clean Sea Fund) amount to €3,521,573
- Balance sheet total €10,471,616
- 13 employees, 16 people in all employed by the Foundation over the year

See financing of operations and financial statement, p. 42

The bylaws of the Foundation are available online
www.johnnurmisenraatio.fi

2019 OUTLOOK: we safeguard the heritage of the Baltic Sea, and protect its future

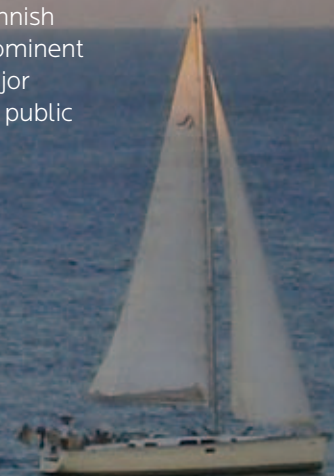
In 2019, the Foundation will continue with ongoing projects, and launch new ones to save the Baltic Sea. We are now looking for new farmers to join the River Vantaa gypsum project, and our target is to increase the gypsum-treated area from 1,080 hectares to 3,500. The SEABASED project reviews and pilots measures that tackle the internal load of the sea. In 2019, the project will test various pilot measures at carefully selected local sites in Finland, Åland, and Sweden; these may in the future help us to improve the status of closed marine areas by the coastline. The Local Fishing project is about to start its fifth year of operations, during which we prepare to finalize the project and ensure that the activities can continue on a market-driven basis. The Foundation is preparing a Local Fishing sister project for Sweden and Åland, on the presumption that funding will be received as applied for. The objective of this project is to open the market for cyprinid fish in Sweden, and to launch the fishing of cyprinid fish in the Swedish coast and in Åland.

OUR OPERATING PRINCIPLES:

- Measurable results
- Targeted operations
- Cross-border cooperation
- Independence

In 2019, together with the Finnish Museums Association, the Foundation will make preparations for setting up a social enterprise that will continue the work of the Loki project. The maritime Loki community will remain in the Foundation's care, and comprise a section of the Foundation's web pages. The Foundation will publish five maritime books of non-fiction which seek to reach an even wider reader base than the one we have now. The contents and themes of the books – sea monsters, life in the archipelago, life underwater, and the 'dangerous waters' of the Gulf of Finland – are further enriched with exhibitions and discussion events.

The Foundation is made better known through active campaigns and events for the general public. In environmental education, we are embarking on cooperation with the Finnish Nature League. The prominent partner of our 2020 major campaign will be made public at SuomiAreena, Pori, in July 2019.



Enchanted by the sea



RASMUS HARTIKAINEN

IT IS TIME to dive under the surface, to take a look at the past and consider the future, and to make an entry to the Foundation's log, i.e. the Annual Report. The Foundation is doing just great: we have managed to grow with control, and succeeded in maintaining a clear focus in our operations. We have entered into several significant, long-term partnerships which I very much appreciate, as together we can achieve so much more.

About a year ago, roughly at this time of the year, I stepped into the podcast studio to talk about the sea. During the past year, my guests have included a marine researcher, a director from the shipping industry, the founder of our Foundation, and, as my latest guest, a musician. For those of you not yet familiar with podcasts: it is like a radio show you can listen to online,

without advertisements, and without interruptions. What I have enjoyed the most is taking the duration of the podcast for my guest and myself, taking a break from the busy world, and pausing to exchange thoughts about the Baltic Sea. Sometimes the discussions take us to other worlds as well, but the love and passion we feel for the sea has always been their main theme. One thing is clear: people who spend time on the sea are very concerned about its status, more so than ever before.

For us, podcasts are a new channel. Books, on the other hand, we are very familiar with. Just recently, we celebrated our brand new 2019 publication on sea monsters at the Maritime Museum of Finland in Kotka. *'Merihirviöt'* (sea monsters) is a wonderful way to kick off a publishing year that may well be the greatest yet in the history of the Foundation. *'Merihirviöt'* is a visual experience, based on new research, and appealing to both history buffs as well as friends of the sea; it is a wonderful combination of our goals of disseminating information, and bringing the stories of the sea to life. Our new books are introduced in this annual report, and you can look forward to some truly fascinating reading experiences. Books are only one channel for disseminating information and content: this is why we take our marine message to exhibitions, events, podcasts, and also the Loki online service.

On the one hand, the sea is a mythical and capricious element; on the other, we can have a very direct relationship with it. 15 years ago our marine Foundation expanded its operations to marine protection, and since then, we have seen working for a cleaner sea as a cultural deed. Protecting the sea involves monitoring the ecological status of the sea, and understanding and protecting all maritime activity: in our case, the mission is also to save the sea.

We continue to move forward with this mandate. In the past few years, we have been able to announce

many new partnerships, and are very happy to say there are more still to come. Through our partnerships we gain more weight, leverage, and what we seek the most: impact. Our partners range from maritime museums to media houses, foundations, and corporations. One of our most recent new friends is the Finnish Nature League, which has for years already engaged in highly valuable environmental education work. Working together with them, we can join forces in coaching and inspiring schoolchildren.

As it is an election year, another target group that has special interest for us comprises decision makers and politicians. From them, we hope to see – or demand, to be more precise – responsible, long-term decisions. The fact that a lion's share of the state's waterway protection funds was promised to the gypsum treatment of fields in the Archipelago Sea area is a wonderful example of decision makers relying on the views of scientists and long-term research results in their decisions.

Even now, in April, as the sea is slowly shedding its last ice floats, and the earth is still frozen up at night time, it is easy to forget that the Baltic Sea needs our help every month, not just in the heat of July, when the blue-green algae blooms get out of control, making swimming impossible. The Baltic Sea needs our help 12 months a year, not just during our summer vacations.

We have our work cut out for us. Up until now, we have finalized more than 20 projects that help save the Baltic Sea, with 10 projects still currently ongoing. Our operations are financed by corporations and private individuals, and we have also received significant support from the Ministry of the Environment and EU financing programmes. We lead projects that treat the fields in the Vantaa River area with gypsum, pilot measures that reduce the internal load of the sea, and manage cyprinid stock in the Baltic Sea. We participate in projects such as the one led by the City of Helsinki, which seeks to improve the combined treatment of municipal and industrial wastewaters.

The sea, its wellbeing and heritage are the core of our purpose. One of our key tasks is to increase awareness of what needs to be done and what needs

to change for us to be able to save the Baltic Sea and its heritage. To make a real change in the status of the Baltic Sea, we need a critical review of the efficiency and costs of various measures. The speed of their impact is also of the essence – the Baltic Sea cannot wait.

Now, at a time when Finland is emphasizing the importance of marine protection, and enabling major undertakings in the Baltic Sea, it is time to make the correct political decisions that benefit the waterways and the Baltic Sea. We all want to swim, go boating, camping and fishing on the shores and islands of the Baltic Sea. In addition to recreational use, the Baltic Sea provides an endless variety of business opportunities. Throughout history, it has opened up amazing financial routes for us in the Finnish peninsula. In the Baltic Sea, we can try out new marine protection measures that are verified by research, and implement solutions that are relevant to all the seas of the earth.

We are fascinated by the sea and its story – we understand that it is a part of the story of man, even if it we see it only as an oxygen reserve. This year, we will also share with you the beauty of the sea that we still see through our various books and exhibitions.

To conclude, I would like to extend my heartfelt thanks to all our supporters, partners, and friends. With your help and your cooperation, we can make the impossible possible.

Let's save the Baltic Sea now, and not abandon it for future generations to sort out.

25 April 2019

*Annamari Arrakoski-Engardt, Ph.D.
Secretary General
John Nurminen Foundation*

Twitter: @AArrakoski



You can listen to Annamari's
My Baltic Sea podcasts
on the Foundation's web page
and in Spotify, iTunes
and Storytel.



JUHA NURMINEN | PORTRAIT PHOTO TUULA PUTINEN

Underwater with a camera: Juha Nurminen, Chairman of the John Nurminen Foundation Board of Directors

'My environmental awakening took place by the sea. The final shock came in the summer of 1997, when I realized that almost the entire Gulf of Finland was once again covered, from coast to coast, by a smelly and thick gruel of blue-green algae blooms. This was when I decided that the John Nurminen Foundation must launch an efficient, cross-border marine protection project that will block the full eutrophication and eventual death of our Baltic Sea.'

AS A MEMBER of a seafaring family, the sea has always been an important feature of Juha Nurminen's life. Already in 1886, Juha's grandfather's father set up the shipping company called John Nurminen Oy in Rauma. The company gave up shipping operations in the early 1960s, and Juha's professional career has revolved around forwarding and logistics. The strong umbilical cord to the sea has, however, never been cut.

Juha Nurminen became interested in the sea already as a child. Sailing, diving, and later the history of

seafaring and cartography all came naturally as hobbies for a descendant of the Nurminen shipping family. In order to safeguard our marine cultural heritage also for future generations, Nurminen ended up founding the John Nurminen Foundation in 1992.

When the John Nurminen Foundation was established, Nurminen's passion for the beloved and deep-rooted element that is the sea turned into a life-long mission. In the late 1990s Nurminen, a passionate diver and seafarer, was alerted to the eutrophication of the Baltic Sea, and its vast blue-green algae blooms. The alarming status of the sea made him take action. The idea of the Clean Baltic Sea projects was born: with the projects, the load and environmental risks faced by the sea could be reduced with measurable results. This idea was put to practice, and a major project in St. Petersburg was launched in 2005. Juha Nurminen has also continued to be active in promoting culture, leading many of the Foundation's book and exhibition projects. In 2008, he received the



TUULA PUTKINEN

State Award for Public Information for his lifetime's work.

'In the past forty years, I have witnessed the indescribable beauty of the coral gardens in tropical seas, but I have also seen with my own eyes how seas everywhere in the world have suffered from man's actions and recklessness.'

In the autumn of 2019, Juha Nurminen's story of the enchantment of the sea will be published. The book will present his magnificent underwater photography: its covers will contain pictorial treasures from below the surface and his journeys there, spanning half a lifetime. Nurminen explains that he has 'dived for nearly two thousand hours with a camera at hand', and accrued his photographic library with thousands of photos of underwater nature. *Meren lumo* (enchanted by the sea) provides readers with an opportunity to peek into the wonders of the world underwater, but, at the same time, it is a reminder of the importance and imminence of marine protection. *Meren lumo* is a declaration of love for the sea and its wondrous nature. It is also a cry for help in defense of the disappearing coral reefs and an ecosystem under threat.

”

'The marine element is so very important to us Finns: we have a gorgeous archipelago, a long shore line, and immense opportunities to enjoy it and utilize it. Also, 80% of our foreign trade is done over the sea.'

'In the same way as marine defense, marine protection is also an important patriotic task for us Finns. It is work that will improve the status of our own coastal waters and our sea.'

'Once you dive underwater, you feel this tremendous sense of liberty. The world underwater is fascinating and visually magnificent, offering so many experiences. It is a veritable heaven at the bottom of the sea, and it is a place where I want to go time and time again.'



You can listen to the entire podcast, and other My Baltic Sea podcasts, on the Foundation's web page and in Spotify, iTunes and Storytel.



ILKKA VUORINEN



TULLA RUTOMÄN



JANNE OJANPERÄ



ILKKA VUORINEN

Events and achievements in 2018

- The Foundation published its first song book, *'Hiiohoi! Lauluja mereltä* (Heave-ho! Songs from the sea) in a sold-out singalong concert.

- The Foundation's **Nutribute crowdfunding platform** won the **Ålandsbanken digital innovation award**.

- Partnering with the **Helsinki Boat Show** with the Clean Baltic Sea cafe.

- Launch of the **SEABASED project**, which tackles the internal load of the sea.

- A second **Pirkka product** launched, made from bream fished by the Local Fishing project!

- **My Baltic Sea: the Foundation's podcasts** feature the stories of friends of the Baltic Sea.

- The Foundation and the **Kingisepp water utility** celebrated their joint project, thanks to which algae-feeding phosphorus in the Baltic Sea will be reduced by 13 tonnes annually.

- In co-operation with **Helsinki Allas Sea Pool**, we organized a number of events related to our books and protection of the Baltic Sea.

- **Porvoon vesi** began supporting the **gypsum treatment** of fields by the River Porvoo.

- The Foundation raised more than €1 million for the **gypsum treatment of fields by the River Vantaa** – in 2018 already more than a thousand hectares of fields in the River Vantaa catchment area were treated.





• **Fishermen of the Local Fishing project** delivered a catch of approximately 200,000 kg of cyprinids to the Finns' dinner tables. At the same time, 1.6 tonnes of blue-green algae-feeding phosphorus were removed.

• The Foundation's supporters, partners, and expert guests came together for the traditional **Clean Baltic Sea Club event**. The theme was Baltic Sea and climate change.

• With the **projects** we implemented in 2018, **nutrient volumes were reduced** in the amount that, had it reached the Baltic Sea, would have led to the growth of approximately 240,000 tonnes of blue-green algae.

• **Local Fishing project** won the ELO Foundation's Flying Saucer award for food culture.

• Together with the Embassy of Sweden and the Hanaholmen Culture Centre, the Foundation organised the seminar '**The Sea in danger – do we still have time to save the Baltic Sea?**'

• The Foundation published two sailor-themed books: **Erkki Lauho's Valtameret raakapurjein** (Square sails on the ocean) and **Rauli Virtanen's Riosta Rotterdamiin** (From Rio to Rotterdam).

• **Kartan valtaa** (the power of the map) exhibition at the Päävälehti Museum featured map treasures from the John Nurminen Foundation's collections.



Conveyor of culture

The Foundation fulfils its purpose by publishing non-fiction books for the general public on seafaring, exploration, the history of cartography, and the marine environment.

Foundation's book store:
jnsshop.fi

BOOKS PUBLISHED BY THE JOHN NURMINEN FOUNDATION:

Merihirviöt – Merenneidosta mustekalaan (2019) Finnish
Riosta Rotterdamiin – Suomalaisten merimiesten satamareissuja (2018) Finnish
Valtameret raakapurjein – Merikapteenin matkar seitsemällä merellä (2018) Finnish
Hijohoi! Lauluja mereltä (2018) Finnish
Vaelluksia maisemaan – Taiteen mestarit meren äärellä (2017) Finnish
Pohjoiset purjeet – Suomalaisten purjealusten tarina (2017) Finnish
Miehet merellä – Hetkiä luotsauksen historiasta (2016) Finnish
Kampelaa ja kadonneita luumuja – Makumuistoja laivan kapyysista (2016) Finnish
Amiraali Nordenskjöldin meriseikkailut (2016) Finnish
The Mapmakers' World – A Cultural History of the European World Map (2015) Finnish, English, Swedish, German, Russian, Chinese
Suomalaiset sankaripurjehtijat – kahvelipurjeista skiffeihin (2015) Finnish
Pohjolan atlantis – Uskomattomia ideoita Itämerellä (2014) Finnish
Ranskan viimeisen kuninkaan retkikunta – La Recherche Lapissa (2014) Finnish
Pakko purjehtia (2014) Finnish
Juha Nurminen Colleccion of World maps – Map, Atlases, Books and Globes (2013) English
Luotsisaaren tarina – Merimatkoja menneeseen (2013) Finnish
Kauhia Oolannin sota – Krimin sota Suomessa 1854–1855 (2013) Finnish, Swedish
Norsusta nautilukseen – Löytöretkiä eläinkuvituksen historiaan (2012) Finnish
Seitsemän meren purjehtijat – Suurten maailmanympärimatkojen viisi vuosisataa (2011) Finnish
Kustaa III ja suuri merisota – Taistelut Suomenlahdella 1788–1790 (2010) Finnish
Adolf Bock – Merimaalari/Marinmålaren (2010) Finnish/Swedish
Muskottisota – Taistelu Itä-Intian Maustesaarista (2009) Finnish
Valo merellä/Ljuset till havs – Suomen majakat/Finlands fyrar 1753–1906 (2009) Finnish/Swedish
Kuninkaansaari – Akvarellinkeveä saaripäiväkirja kolmelta vuosikymmeneltä (2009) Finnish
Muodonmuutoksia – John Nurminen Oy:n historia vuosilta 1886–2007 (2008) Finnish
Yli maan äären – Magalhãesin kohtalokas purjehdus maailman ympäri (2008) Finnish
The History of Seafaring – Navigating the World's Oceans (2007) Finnish, English, Spanish, Portuguese, German, French
Uljaksen vanavedessä – John Nurmisen kauppahuoneen ja varustamon historiaa 1886–1967 (2006) Finnish
The History of the Nordic Map – From Myths to Reality (2006) Finnish, Swedish, English
Yksinpurjehdus maapallon ympäri sekä purjehdus Liberdadeella Brasiliasta Amerikkaan (2005) Finnish
Harmaat laivat – kuusikymmenluvulta vuosituhannen vaihteeseen (2004) Finnish
Meritaiteen mestareita – merimaalauksia 400 vuoden ajalta (2003) Finnish, Swedish, German
Kuunarilaiva Uljas – omistajat, päälliköt ja matkat (2003) Finnish
Ultima Thule – Arctic Explorations (2001) Finnish, Swedish, English, German, Norwegian, Spanish, Russian
Taide ja meri – Itämeren merimaalareita (2000) Finnish/Swedish
Suomenlahden albumi (1999) Finnish/Russian
Penang pitkillä aalloilla – Pentti Luukkosen meripäiväkirjat 1934–36 (1999) Finnish
Mare Balticum – 2000 Years of History of the Baltic Sea (1995) Finnish, Swedish, English, German, Russian (2011)
The Northeast Passage: From the Vikings to Nordenskiöld (1992) Finnish, Swedish, English

For us, book is an important and much loved channel for sharing the stories of the sea.

From within the covers of the book, we also reach out to exhibitions, events and web.

Hiiohoi! – Lauluja mereltä

'Hiiohoi! – lauluja mereltä' (Heave-ho! Songs from the sea), the first song book published by the John Nurminen Foundation, contains almost 90 songs from the sea. The book is a collection of the most beloved Finnish sea-themed songs, many international evergreens, seamen's working songs or 'shanties', and many less known songs that are still very much worth discovering.

Even though the songs in the book are mostly energetic and cheery, the downsides of life as a sailor on a sailing ship – the dangers and the shipwrecks – are not forgotten. As the language of command on Finnish ships was often Swedish, the book also features sailing-themed folk songs in Swedish. Towards the end of the book there is a collection of more devout and solemn songs, which are a perfect fit for an evening's dusk, when waves gently lap against your boat.

The book's songs have been notated by **Juha Töyrylä**. The songs are collected and edited by **Esko Rahikainen**, L. Phil., who, during his lengthy career in the National Library of Finland, has also become an expert on seafaring and sailor songs.



HIIOHOI!

LAULUJA MERELTÄ
(Heave-ho! Songs from the sea)

Selection and editing: Esko Rahikainen

Notations: Juha Töyrylä

ISBN: 978-952-9745-55-5

Size: 210 x240mm

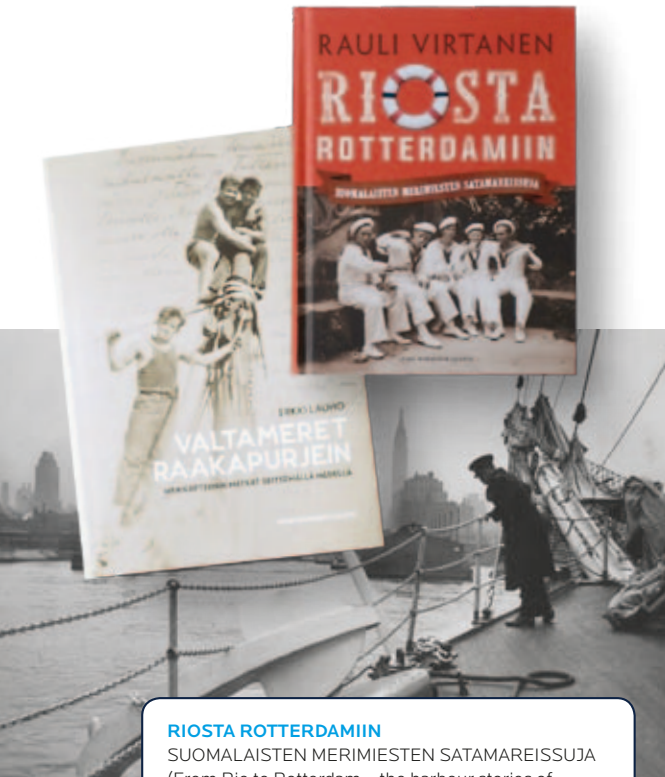
Scope: 208 pages, 86 songs

Language: Finnish



The songs in the *Hiiohoi!* book have been collected by **Esko Rahikainen**. Here Esko with his band Ajopuut, who made the audience sing in the book launch event.

Barcode Commons /
Alexander Turnbull Library, National Library
of New Zealand
KARTTINEN



RIOSTA ROTTERDAMIIN

SUOMALAISTEN MERIMIESTEN SATAMAREISSUJA
(From Rio to Rotterdam – the harbour stories of Finnish sailors)

Author: Rauli Virtanen

ISBN: 978-952-9745-57-9

Scope: 160 x 210 mm

Scope: 304 pages + appendix 16 pages, 57 images

Language: Finnish

VALTAMERET RAAKAPURJEIN

MERIKAPTEENIN MATKAT SEITSEMÄLLÄ MERELLÄ
(Square sails on the ocean – a sea captain's journeys on the seven seas)

Collected and edited: Erkki Lauho

ISBN: 978-952-9745-56-25

Scope: 170 x 245 mm

Scope: 320 pages, 185 images

Language: Finnish

Photo above: Manhattan from the deck of the *Suomen Joutsen*.

SJÖHISTORISKA INSTITUTET VID ÅBO AKADEMI, TURKU.

Riosta Rotterdamiin

– Suomalaisen merimiesten satamareissuja

Rauli Virtanen tips his hat to the seamen of the past

Journalist and non-fiction writer **Rauli Virtanen's** book *'Riosta Rotterdamiin – Suomalaisen merimiesten satamareissuja'* (From Rio to Rotterdam – The harbour stories of Finnish sailors) opens up to the reader the little-known world of sailor life in harbour towns in the 19th and 20th centuries. The book tells the stories of unbelievable lives: some find huge riches, while others' lives end with tropical disease, or bombings in an internment camp. At far-away harbours, cargos were not made up just of coal and coffee: they could consist of rectified alcohol and refugees, or containers full of banknotes and military equipment. The book also highlights the work of Finnish seamen's pastors all around the world.

Even though life on the sea in bygone times could be edgy, exciting, and even dangerous, a more multifaceted truth is revealed as the book moves forward: sailors were the predecessors of foreign correspondents like Rauli Virtanen, and pioneers who played a role in making Finland known around the world. At the same time, international cultural trends were brought back home to Finland.

Valtameret raakapurjein

– Merikapteenin matkat seitsemällä merellä

The touching story of the life of a seaman on the seven seas.

Erkki Lauho's literary debut, *'Valtameret raakapurjein – Merikapteenin matkat seitsemällä merellä'* (Square sails on the ocean – a sea captain's journeys on the seven seas) paints a unique landscape of the joys and sorrows of life as a seaman. The book is based on the legacy from the Lahti-born **Yrjö Nieminen's** time at sea: a bequeathed seaman's trunk contained not just sailing ship equipment, but also an astounding amount of letters exchanged from 1927 to 1969 between Yrjö, his mother **Wilhelmiina Nieminen**, and his wife **Marie Nieminen**. The book tells the story of a young man's journey and life on the seas of the world, depicting his growth from a sailor trainee to a sea captain in an era when sailing ships were replaced by ocean steamers. A sailor's life and profession are well presented in the letters Yrjö sent from around the world for more than 40 years.

Excerpts from the book can be found in the John Nurminen Foundation's marine online service Loki, at www.lokistories.fi, or with the hashtag #valtameretraakapurjein.

LOKI

Piece of maritime
merihistoria history



Linjedopet – a seafarer's rite of passage

♦ John Nurminen Foundation

20 March -27 linjedopet

As they cross the equator, first-timer seafarers receive a baptism. Linjedopet, in the morning we saw a shark, and after that we received the baptism. Setting up the celebration involved a lot of hustle bustle, and was all very mysterious.

The sea god Neptune and his wife led the entire ceremony. They were accompanied by severe-looking attendants who kept us first-timers in line.

First, we sat on a board, one by one, and received a spoonful of curry, mustard, and vinegar, or similar, to eat. Next, our faces and necks were tarred, and we were immersed into a tarpaulin water tank in the back. Afterwards, we all received baptism certificates with fancy signatures.

25 March -27

Today we advanced to 10 degrees S, 33 degrees W. We received a fine certificate for the equator crossing, and it did feel good to be officially acknowledged as a son of Neptune, a sailor, and a 'salt'. For several days, none of us wanted to scrub the tar off our skin.

-Yrjö

This excerpt is from the book '*Valtameret raakapurjein – Merikapteenin matkat seitsemällä merellä*' (Square sails on the ocean – a sea captain's journeys on the seven seas, p. 43-44) by Erkki Lauho, published by the John Nurminen Foundation.

Neptune and his much needed aids.

ERKKI LAUHO'S ARCHIVES

s/s *Fennia* ennia trembling in the powerful waves.

ERKKI LAUHO'S ARCHIVES

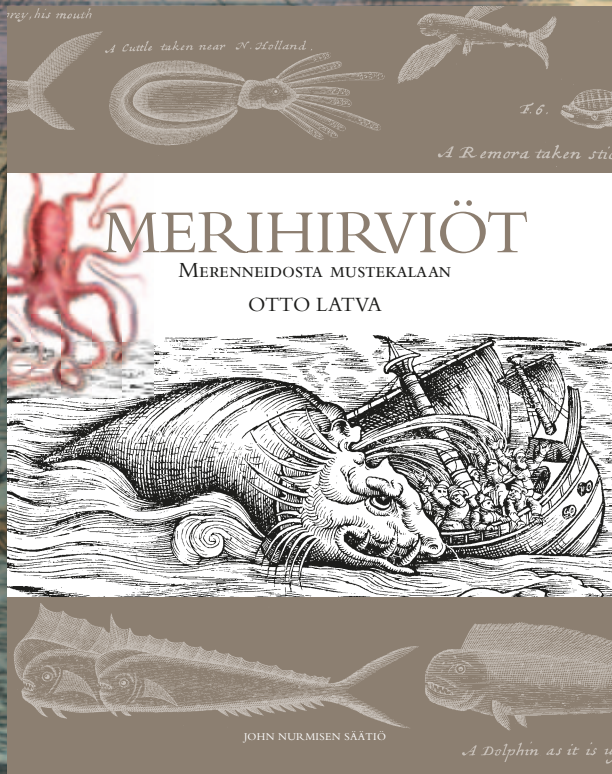
Loki

www.lokistories.fi

JOHN NURMINEN FOUNDATION

www.lokistories.fi

You can find this and many
other marine stories
from Loki!



Sea monsters – from mermaids to cephalopods

Unique book introduces new research results
from the world of sea monsters

THE JOHN NURMINEN Foundation's new book, *Merihirviöt – merenneidosta mustekalaan* (Sea monsters – from mermaids to cephalopods), introduces us to myths and facts about sea monsters and the curious creatures of the sea that indeed are stranger than fiction. The author of the book is **Otto Latva**, historian and Ph.D. from Turku, who in the course of his research has studied the history of interaction between humans and animals, and the perceptions humans hold of nature. The book focuses on the shared history of humans and aquatic animals that were interpreted as monsters, and the way in which naturalists have attributed monstrous features to sea animals.

Throughout the times, immense depths, animals that were observed for the very first time, and peculiar marine phenomena have awakened fear in people, inspiring tales of horrifying monsters. People have imagined giant squids that sink ships, and diver-stalking manta rays who dwell under the waves. On the other hand, the world underwater has also been perceived as a paradise, where sea creatures, each one more spectacular than the last, live in gardens of coral. In addition to traditional stories of monsters, *Merihirviöt – merenneidosta mustekalaan* presents curiosities related to marine animals, and sheds light on folk tales of sea peoples, mermaids, and sea monks. The book also introduces us to the marine gods and spirits of antiquity.

'The key goal of the book is to explain what a sea monster means to our culture, and why we have, throughout history, seen monsters in the seas. People have always been ruthless in exploiting marine life, and have brought many species to extinction. It is therefore fully justified for us to start thinking who, or what, is the monster in the end', contemplates the author Otto Latva.

The book complements **Anto Leikola's** book *Norsusta nautilukseen* (From elephants to nautilus shells), published by the John Nurminen Foundation in 2012. The book has been edited by Juha Nurminen, Chairman of the Foundation's Board of Directors.

'The book provides a visual experience based on the latest research, and will charm both history buffs and friends of the sea', says **Annamari Arrakoski-Engardt**, Secretary General of the Foundation.

Merihirviöt – merenneidosta mustekalaan was created in cooperation with the National Library and the Maritime Museum of Finland. The book's versatile and unique images are from archives in Europe and the US, from the collections of the John Nurminen Foundation, and from the priceless book treasures of the National Library.



Otto Latva.

MERIHIRVIÖT MERENNEIDOSTA MUSTEKALAA

Author: Otto Latva
ISBN: 978-952-9745-59-3
Size: 240 x 300 mm
Scope: 232 pages, 185 images
Language: Finnish

On the left: In the cartography of the early modern era, sea monsters often had features that were similar to sea snakes. Above: A mermaid according to **Johann Zahn**.

JUHA NURMINEN'S COLLECTIONS

Which sea monster are you?

What is your home turf?

- a. I was caught in Indonesia.
- b. I am pretty well-known on the coasts of Denmark.
- c. I am of Scandinavian and slightly Germanic, fresh-water origin.
- d. The first sources to tell about me are Norwegian and Icelandic; in later times, I became well-known everywhere.

What do you look or sound like?

- a. I make mouse-like noises, and have the tail of an eel.
- b. I have the features of a giant squid, a walrus, and an angelshark.
- c. The music I play sounds wondrous. Typically, I assume a male character, but sometimes I may appear as a horse, or a treasure in the bottom of the sea!
- d. Who can say. A mirror that would be large enough to help me answer this does not exist.

What are your strengths or dominant features?

- a. Beauty may be in the eye of the beholder, but our kind has in fact been associated with the symbols of vanity.
- b. In addition to my looks, after the Reformation my Catholicism was something that drew attention, especially in these latitudes which later turned Protestant.
- c. I have been heard to play the violin, and I typically lure people into the water.
- d. My colossal size and mysticism. According to some, my spinelessness.

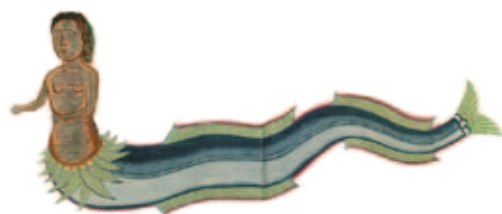
Is there anything else you would like to comment on?

- a. To me, freedom is more important than food.
- b. Calling me a figment of imagination, are you? A 'nobleman' has sworn to having seen me with his own eyes!
- c. I am not always up to mischief, even if that is what I am known for. I sometimes help the fishermen!
- d. I am a famous and misunderstood megacelebrity. There are numerous stories going around about me.

The test is based on the book '*Merihirviöt – merenneidosta mustekalaan*' (Sea monsters – from mermaids to cephalopods), written by Otto Latva and published by the John Nurminen Foundation. The book uncovers myths and tells us facts that are truly stranger than fiction about creatures you never even knew existed!

An illustration from the book *Merihirviöt – merenneidosta mustekalaan*, pages 54-55: Plate 10, The Spmaceri Whale. Robert Hamilton, *Naturalist's library. Mammalia v. 6, Whales*, Edinbourg 1843. SL/BHL.





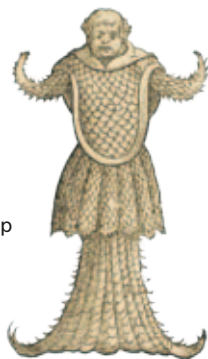
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Your most common answer is A:
you are *Renard's Mermaid*

You belong to the female sea people, i.e. the tribe of the **mermaids**. Sea people have been depicted in countless ways at different times and by different cultures. The book *Poissons, ecrevisses et crabes*, published by the apothecary **Louis Renard** in 1719, mentions that a real, live mermaid was successfully caught off the island of Buru, in what is today Indonesia. The mermaid had a tail that resembled an eel. According to Renard, the creature was kept in a water tank, where she occasionally let out mouse-like noises. A few days after being caught the mermaid died of hunger, having refused all food on offer.

Your most common
answer is B:
You are a *Sea monk*

In the 1850s, the Danish zoologist **Japetus Steenstrup** suggested that the mythical **Sea monk** was in fact a giant squid that had drifted on shore. Later, in the 20th and 21st centuries, cryptozoologists have proposed that the idea of a Sea monk was born out of walrus or angelshark sightings. These conclusions do not take into consideration the fact that in the 16th century, Europe was torn by religious wars between the Catholics and the Protestants, and a Sea monk could simply be a piece of propaganda, placed with its monk-like features on the shores of Denmark, which had just turned Protestant

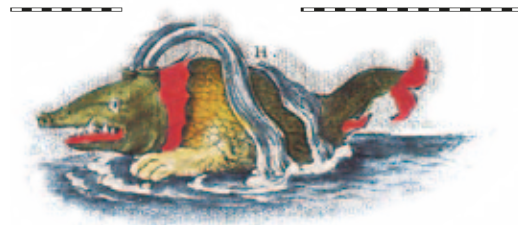


KANSALLISIRIKASTO



Your most common answer is C:
you are *Neck*

One of the best-known fresh water creatures is the Scandinavian **Neck**. The Neck is a water spirit with its roots in Germanic folklore, according to which the spirit, or Nix, lived in the rivers. Sometimes, Necks imitate treasures hidden at the bottom of the water, or pretend to be an animal, most often a beautiful horse. A man playing a violin is one of the most well-known Neck embodiments. With his music, the Neck would attract and lure people to him and make them drown. Sometimes Necks were known to be spirits who meant well, playing music for enjoyment. Sometimes a Neck could also teach people how to play the violin.



Your most common answer is D:
you are *Kraken*

A **Kraken** is one of the best-known but also most misunderstood mythical sea monsters. The current understanding is that Krakens were born out of giant squid and large cuttlefish sightings. This theory is however wrong, since a Kraken is by no means a one-dimensional creature. More than that, a Kraken is a concept that symbolises what is unknown about the sea, and, during the course of history, it has had many different meanings. The Danish bishop and historian **Erik Pontoppidan**, for example, explained that a Kraken is the largest creature living in the sea. Once it had risen close to the surface, the parts that were visible resembled small islands and banks of sand. Soon after, its extremities also became visible: some of them were like masts, rising from the sea.

JNF / JULIA NURMINEN'S COLLECTIONS

JULIA NURMINEN'S COLLECTIONS

Publications of the John Nurminen Foundation in 2019

Meren maa – Havets land (Land of the sea)

'Meren maa' is a book of images depicting the unique Turunmaa landscape, with its thousands of islands and cultural environments that are full of character. Björkö, Nötö, Holma, Berghamn, Seili, and countless other locations are the sites of the photographs and stories in the book. Excerpts from folklore selected by **Li Näse**, Sagalunds Museum director, and texts on cultural history by the researcher John Björkman from the Turku museum centre guide us through the images from the archipelago, created by **Ritva Kovalainen** and **Pekka Turunen**.

Meren Lumo – Elämää pinnan alla (Enchantment of the sea – life underwater)

'Meren lumo' is a declaration of love for the sea. The book features the unspeakably beautiful underwater

photography of **Juha Nurminen**. On the wings of the images and the stories by **Niko Kettunen**, the reader is transported on a voyage to the seas of the world. Kettunen's marvellous way of shedding light on the evolution and life of the sea, coupled with his anecdotal stories of individual inhabitants of the sea, make the book a unique reading experience.

Vaarallisilla vesillä

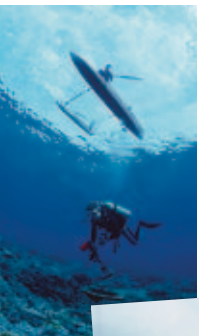
– salakuljetusta ja seprakauppaa Suomenlahdella
(On dangerous waters – smugglers and zebra traders on the Gulf of Finland)

The Gulf of Finland was an excellent route also for the purposes of the more criminal types. **Johanna Pakola's** 'Vaarallisilla vesillä' is an eloquent description of the everyday lives and inventiveness of people living at the mercy of harsh nature, be it by the sea, on the rugged outer islands, or in the busy trading centres on the mainland.

Vanadis

– Suomalainen fregatti maailmanhistorian tyrsyissä
(*Vanadis* – Finnish frigate in the storms of world history)

This book, written and illustrated by **Alpo Tuurnala**, examines Finnish seafaring on sailing ships, seen in the light of the lifespan of the frigate *Vanadis* from Pietarsaari. The book, illustrated with magnificent aquarelles, covers a period of nearly thirty years, starting from the launch of the *Vanadis* in 1874 and closing with the vessel's dramatic shipwreck on England's stormy northwestern coast in 1903. Alongside the colourful experiences of the *Vanadis*, Tuurnala describes the dramatic developments in colonial trade, world politics, and violence that shaped the final decades of the 19th century.



JUHA NURMINEN



Have you heard the story of Jussarö?

♦ *Pink Boat*

Jussarö is easily one of the most interesting and versatile sites there are, even when considering the entire archipelago of Finland. That is saying a lot, but the island really does live up to the hype.

For an outer archipelago island, it is quite lush and wooded. Yet you also get magnificent rocks, with waves crashing on them when the weather is stormy. The open sea horizon can be admired from both the abovementioned rocks, and the old mining tower on the eastern side of the island – at your own risk, to be sure. The history of the island is extremely interesting and colourful: it has been a site for gentry picnics, a mining island, and a base for the defence forces, but according to Pinky, nature is the thing that you should come to Jussarö to see, even from a bit further away. Or can you name another place where you can simultaneously admire the mining buildings taken back by nature and the long beaches of sand that is almost black, spot rare coastal plants, and swim in the bright outer archipelago waters?

In the evening, after bathing in a modern and spacious private sauna, built in the place of the one that burned down a couple of years ago, we sat on the cafe terrace and heard the stories of the sailors which, irrespective of the sailor and the port you are in, are always wild. Instead of the expected sailing stories, though, we heard the story of the Jussarö shaman, who once built his yurt on the western side of the island, near Österfladan: he built boats, and in winter he was the island's only inhabitant.

The shaman was not really very gregarious, and only a handful of the summer visitors can brag of having seen him, and even fewer of having talked with him. Nevertheless, the ones who did meet him have, without exception, described the shaman as a friendly person. Around his yurt, he had created a garden amongst the rocks: by some miracle, plants did actually thrive there. In the rocks! That is quite a shaman, we thought, and decided to follow the story of this island-dweller and his yurt the very following day.

The next morning, having gulped down our morning coffee, we headed straight to the western coast – which is actually quite long, if you are on foot! With a keen eye, we looked for signs of the shaman. We approached the secluded bay where he had lived, according to the stories. All we saw was stones, rock, trash brought in by the sea, pieces of wood and... aha! Had nature arranged the rocks in curved lines, or could this be the work of a human hand? We made guesses, thought and considered, and, in the end, were resolute in our conclusion that we may well have found the traces of the shaman's dwelling. We did not, however, see any signs of the shaman or his yurt, even if we did make quite a bit of noise as we were approaching. Perhaps he had changed the place where he lived on the island, or even moved on to another island? Who is to say. Maybe you will spot more hints next time you visit the island?



www.lokistories.fi
You can find this and many other marine stories from Loki!



MIKKO PIIRAINEN



Find the stories of the sea in Loki!

THE LOKI online service, implemented by the John Nurminen, is a maritime online service and community that is free and open for all. Loki, launched in 2016, features a map where stories shared by friends of the sea are collected, together with the most interesting content offered by museums, and tips for interesting places to visit in the Finnish coastline and archipelago.

FIND IN LOKI:

- Maritime museums and their greatest treasures
- Interesting sites and resorts
- Information about Finnish guest marinas and harbours
- Maritime films from the Yle Elävä Arkisto "Living Archive/Finnish Broadcasting Company"
- Information about lighthouses, shipwrecks, and pilot stations
- Idyllic pictures from Finna archives
- Passages from John Nurminen Foundation's books

Dive and explore the Loki map – you can also add your own sea story there!

www.lokistories.fi



The Old Gentleman – the oldest diving suit in the world

❖ Raahe Museum

The Raahe Museum, established in 1862, is Finland's oldest local museum and features various rarities, the most famous of which is probably the **Old Gentleman of Raahe** – a leather diving suit that dates from the 18th century. The suit was donated to the Raahe Museum by Captain Johan Leufstadius in the 1860s.

Attempts have been made to determine the suit's further provenance, with no success. It is believed that the suit was manufactured in Finland. Hints pointing to a Finnish origin include the upward-curving toes which resemble traditional Finnish footwear, and the hands of the suit which are like the typical mittens of a Finnish forester. There is an interesting 1727 sketch in the Admiralty archives of the National Archives of Sweden, featuring a diver wearing gear that is almost similar to the Raahe diving suit. The Admiralty diving suit was designed to be made of metal.

The diving suit of Raahe Museum is made of cowskin, with seams stitched with pitch thread and sealed with pitch. The diving suit was water-proofed with a mix of mutton tallow, tar, and pitch. The top of the suit or the hood is reinforced with strips of wood on the inside. Air was probably pumped for the diver with bellows, using wooden pipes joined together with flexible leather tubes. The top of the hood presumably featured a flap valve through which the air came in, leaving through a pipe in the back. The brave diver squeezed his way into the suit through

LOKI
Treasure of
the museum



The Old Gentleman of Raahe, the world's oldest diving suit.

RAAHE MUSEUM

an opening in the suit's belly, which was closed by encircling the lengthy leather flap around the belt, and fastening the belt around the diver's waist. With the diving suit, it was possible to inspect the condition of a ship's bottom without having to tilt the boat or dry-dock it.

The maker of the diving suit had mastered the latest achievements of diving technology, which had advanced immensely in the 18th century. The Old Gentleman of Raahe is a unique leather-made example of the transition from diving bells to proper heavy diving suits.

In 1988, a conservator at the Raahe Museum created a perfect reproduction of the Old Gentleman. An additional aim of the reproduction was to prove that the diving suit could really have been used for diving. The methods and materials used were the same as those used by the original maker in the 18th century. However, the copy, called the **Young Gentleman**, had to be made slightly taller in order to fit a modern-day person. Experiments showed that the suit was functional, with no observed limitations in regard to diving depth or duration. The longest dive carried out with the Young Gentleman lasted 40 minutes.



www.lokistories.fi
You can find this and many
other marine stories
from Loki!

TIPS TO SAVE THE BALTIC SEA

Even though protecting the Baltic Sea is a large-scale operation, private individuals, too, can make a difference for the wellbeing of the sea. Each and every one of us can help the Baltic Sea through our everyday actions, and our choices as consumers.



Walk, cycle, choose public transportation and shared rides.



Fish sustainably and alternately, going for fish that are not endangered or undersized, and eat what you fish.



Always empty the septic tank of your boat using a sewage pump at the harbour. Do not release sewage into the sea.



More tips:
www.johnnurmisenfaatia.fi



Do you know how much algae you produce to our shores? Calculate your personal Baltic Sea footprint here www.johnnurmisenfaatia.fi/itamerilaskuri



Take part in debates and make a difference. Try to encourage the people you are close to and whom you work with to take an active interest in the wellbeing of the Baltic Sea.



Take your vacation close by: flying consumes great amounts of energy and increases climate warming, leading to more storms, rainfall, and nutrient runoff also in Finland. Take a train instead of flying.



Make sure that water used in the sauna is handled appropriately, and wash rugs and do laundry so that the water used is not drained to waterways.



Sort your waste correctly and make compost: reducing waste also reduces the load on the waterways. Make sure that hazardous waste is taken to the appropriate collection points, and take old medicines back to the pharmacy. Take plastic packaging to appropriate collection points.



Consume less, repair and recycle more. Avoid single-use plastic products.



Add vegetables to your diet, alongside sustainably fished fish from the Baltic Sea, and reduce the intake of meat and dairy products.



Make sure that wastewater is appropriately handled in your home. In sparsely populated areas, technologies that promote nutrient recycling are the best solution. From the waterways' perspective, a dry toilet is a good alternative at the summer cottage.



The Baltic Sea is extremely vulnerable to environmental changes

Water in the Baltic Sea is low-saline brackish water – a unique mix of salty and fresh waters. The saline content of the water in the Baltic Sea is only about a fifth compared to the salinity of oceans (35 per mille). Moreover, the salinity of the surface waters of the Baltic Sea diminishes towards the north, and in the Bay of Bothnia and the eastern end of the Gulf of Finland the water of the Baltic Sea is actually almost fresh.

Compared to oceans, the Baltic Sea is small and shallow. The average depth of the Baltic Sea is only 54 m, whereas the average depth of the Atlantic, for example, is approximately 4 km, and even the Mediterranean is 1.5 km deep. At its deepest, the Baltic Sea reaches 459 metres. The Baltic Sea is connected to the North Sea via the narrow Danish straits, and its water turnover time is extremely slow. It has been calculated that it takes roughly 30 years for the entire water mass of the Baltic Sea to change. Because of the slow turnover of the water, environmental toxins and nutrients that cause eutrophication in the sea will stay in the Baltic Sea for a long period of time.

The water of the Baltic Sea is permanently stratified, according to salinity. The salty seawater, entering from the North Sea, is heavier, and sinks down to the seabed and deeper areas of the Baltic Sea basin. The top layer of water is low in saline content, diluted by rain and the rivers that run to the Baltic Sea. Stratification hinders water turnover between the bottom and the top layers. **The surface waters, which have a high oxygen**

content, cannot mix with the deeper layers of water, and, consequently, the abysses of the Baltic Sea experience recurrent periods of oxygen depletion. In terms of oxygen, the situation does improve from time to time with saline pulses, which occur approximately once in a decade: a pulse introduces saline water with high levels of oxygen from the North Sea to the Baltic Sea abysses, mixing with the waters near the seabed of the Baltic Sea. If the oxygen-depleted seabed is large, the oxygen-rich water flowing to the abysses is, however, not necessarily able to sufficiently improve the oxygen status of the Baltic Sea abysses.

The biome of the Baltic Sea is a peculiar mix of ocean and freshwater flora and fauna. The number of species of flora and fauna that have adapted to life in brackish water is small, but individual species can appear in abundance. Compared to oceans, the food chains of the Baltic Sea are simple. Moreover, the number of species diminishes as we move from southern Baltic Sea towards the north. The low salinity of the northern Baltic Sea, cold winters, and the sea freezing over all set challenges for species adaptation. Many species that live in the Baltic Sea push their capability to adapt to the extreme. The flora and fauna of the Baltic Sea are also very sensitive to changes in the environment.

Nutrient loads accelerate algae growth and oxygen-depletion in the seabed

Because of the activities of man, excessive amounts of nitrogen and phosphorus have ended up in the Baltic Sea

during the decades when we did not yet have efficient wastewater treatment plants and other measures for reducing discharges. The phosphorus load, accrued during many decades, ends up in the sediments of the seabed, and in oxygen-depleted conditions, it is again released and used by the algae. This phosphorus load, retained in the sea, is also called the sea's internal load. As dead algal blooms decompose in the seabed, they use up oxygen, and deteriorate the situation further. There are now more and more oxygen-depleted seabeds in the Baltic Sea, and the condition of the main basin continues to be poor. The oxygen-depleted, phosphorus-rich water mass of the abysses slows down the Baltic Sea's recovery after decades of excessive nutrient loads.

Climate change accelerates Baltic Sea eutrophication

Eutrophication is the Baltic Sea's greatest and most visible environmental problem. Even though we have managed to halve the nutrient discharges that eutrophicate the sea from the levels of the 1980s, the visible signs of eutrophication, such as the mass appearance of cyanobacteria (or blue-green algae, as it is more commonly known), cloudy waters, slimy shores, and an oxygen-depleted seabed still pester the Baltic Sea.

The effects of climate change further accelerate the eutrophication of the Baltic Sea. According to forecasts, increasing rainfall and shorter winters with only light snow will increase nutrient runoff from land to the Baltic Sea. As the climate heats up, seawater, too, will become warmer, boosting algae growth in the sea. Furthermore, increasing volumes of dead algae descending to the seabed further exacerbate oxygen depletion, and accelerate the release of phosphorus retained in the seabed.



Fish feel at home by bladderwrack

Bladderwrack is one of the Baltic Sea's key species. It is a perennial alga with an important role to play in the ecosystem of the Baltic Sea.

Bladderwrack grows in abundant belts in the coastal waters, providing spawning areas for many species of fish, and a safe haven for juvenile fish.

Bladderwrack is a so-called indicator species, which gives us information on the status of the marine environment. The abundance of nutrients in the water is favourable to the growth of both microalgae and filamentous algae on coastal rocks. Abundant filamentous algae suffocate the bladderwrack and other perennial algae of the Baltic Sea. Bladderwrack has been noticed to suffer from increasing sea temperatures.

Warmer waters may also accelerate the introduction of non-indigenous species to the Baltic Sea, while some of the northern species that have adjusted to the conditions of the Baltic Sea cannot adapt to the speedily advancing changes, leading to changes in the species richness of the Baltic Sea. Bladderwrack, a key species of the Baltic Sea, will also suffer from warmer waters.

The changes caused by eutrophication and climate change are also financial, reflected e.g. in the recreational use of the sea, the tourism industry, and fishing as a livelihood. When there are changes in the fish stocks that are important to man, the conditions for fishing also change. To curb discharges, we need concrete action, and the immediate cooperation of all countries in the Baltic Sea area.

CLEAN BALTIC SEA PROJECTS

-  COMPLETED PROJECTS
-  ON-GOING PROJECTS
-  PARTNERSHIP
-  DRAINAGE BASIN OF BALTIC SEA

IN 2005–2018, the Foundation has launched over 30 Clean Baltic Sea projects, of which 21 have been completed. In the Gulf of Finland alone, in mere 10 years we have been able to reduce the eutrophication-inducing phosphorus load by as much as 75% through highly intensive measures implemented in the eastern end of the Gulf of Finland: increasing the efficiency of wastewater treatment in St. Petersburg, and directing the wastewaters of the phosphorus factory on the River Luga to treatment. The ENSI service, which reduces the risk of oil spill accidents, was developed in the Foundation-led Tanker Safety project in 2009–2014, after which the further development of the service became the responsibility of the Finnish Transport Agency.



Ongoing Clean Baltic Sea projects

The focus of the Foundation's environmental work will in 2019 remain on the greatest environmental problem faced by the Baltic Sea, i.e. eutrophication. At the same time, we monitor other environmental issues that pertain to the Baltic Sea, such as discharges of harmful substances from the Baltic Sea area, and the opportunities the Foundation has to impact them in the future. The Foundation is an active societal stakeholder, highlighting the priorities of Baltic Sea protection in HELCOM and in other fora. Moreover, the Foundation engages in active dialogue with environmental administration.

DISCHARGES FROM AGRICULTURE

River Vantaa gypsum project

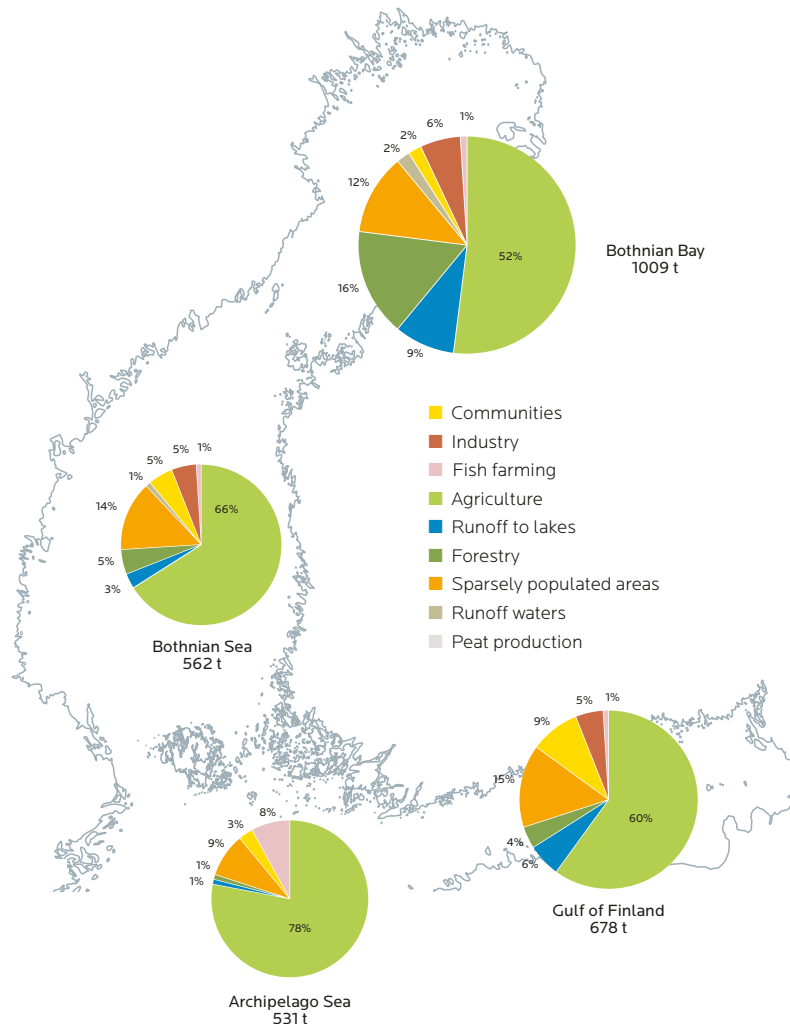
The objective of the River Vantaa gypsum project is to treat 3,500 hectares of fields with gypsum in 2018–2020. Gypsum treatment reduces erosion, and cuts eutrophication phosphorus discharges from waterways with immediate effect. The target of the project is to reduce eutrophication in the River Vantaa and the Baltic Sea, and to boost gypsum treatment uptake in the entire Baltic Sea area.

[READ MORE ON THE PROJECT FROM PAGE 36](#)

INTERNAL LOAD OF THE SEA

SEABASED project

In November 2017, the three-year **SEABASED** project received funding from the EU's Interreg Central Baltic programme, and in March 2018 the project was



WHEN we assess the measures available for reducing the nutrient load of Finland's marine areas, agriculture is key. So far, in spite of various waterway protection measures, we have not been able to cut the load from agriculture. Out of new measures available, gypsum treatment of cultivated fields is the most promising. The image shows the sources of the phosphorus load in Finland's marine areas.

SOURCE: ANTTI RÄIKE / FINNISH ENVIRONMENT INSTITUTE SYKE

launched. The project evaluates and looks for measures that can reduce the phosphorus already accrued in the sea. The project will review existing research results and the views stakeholders and the scientific community hold on the benefits, costs, risks, feasibility, and funding opportunities of measures that reduce the sea's internal load. New methods are tried out with small-scale, local pilots. The results of the project will be assembled in a report, delivered to authorities and decision-makers, on the requirements and applicability of the methods in the varying conditions of the Baltic Sea.

[READ MORE ON THE PROJECT FROM PAGE 32](#)

Local Fishing project in Finland

The John Nurminen Foundation's **Local Fishing project** recycles a significant volume of nutrients away from the sea by managing cyprinid stocks. Bream is a cyprinid that is fished in particular in the Archipelago Sea, which is the most eutrophicated of Finland's marine areas. Domestic cyprinids are an excellent source of protein, allowing you to replace meat and imported fish in a way that benefits the Baltic Sea and the climate. Fish that is fished in the project is not discarded; instead, it is used to make tasty food products. The objective is to build a permanent, stable, and market-driven production chain, including the fishermen, fish processors, and grocery and retail companies alike.

[READ MORE ON THE PROJECT FROM PAGE 35](#)

INDUSTRIAL WASTEWATERS

BEST Project

(The objective of the **BEST project** (Better Efficiency for Industrial Sewage Treatment) is to improve the efficiency of industrial wastewater treatment at municipal treatment plants by improving the cooperation and knowhow shared by industry, the treatment plants, and the authorities.

[READ MORE ON THE PROJECT FROM PAGE 30](#)



TOULIA PUTKINEN

THE FOUNDATION'S PROJECTS IN RUSSIA ARE COMPLETED

The first of the Foundation's Clean Baltic Sea projects, the main project in St. Petersburg, was completed in 2011. After that, five other projects in Russia have been implemented, with the last one, i.e. chemical phosphorus removal at the city of Kingisepp in northwestern Russia, completed in 2018. This means all of the Foundation's projects in Russia are now complete. In the photo, Foundation's Secretary General Annamari Arrakoski-Engardt and Valery Minkatch, Vice Chairman of the Leningrad Oblast Communal Committee for Economy.

FISHING PROJECT IN SWEDEN AND ÅLAND

The Foundation has applied for funding for a local fishing spin-off project, to be implemented in Sweden and Åland. The objective of the project is to open the market for cyprinids in Sweden, and to launch the fishing of cyprinid fish in the Swedish coast and in Åland.

BIOGAS PLANT IN LVIV, UKRAINE

The project will build improved phosphorus removal for the wastewaters of the biogas plant that will be completed in Lviv, Ukraine, in the near future. The city is located in the catchment area of the Baltic Sea, and the project will ensure that the phosphorus in the sludge that is used as a raw material in biogas production will not end up fuelling the eutrophication of the Baltic Sea. With efficient phosphorus removal, we can prevent an annual phosphorus discharge of 110 tonnes to the waterways.

The construction of the biogas plant has been delayed. In 2019, the Foundation will open a call for bids and conclude a consultation contract for preparing the required technical and commercial procurement documents for phosphorus removal investments.



BIOGAS PRODUCTION

Biogas has great promise, but its nutrient discharges must be monitored

In 2017, the Foundation began a prestudy on the nutrient discharge risks involving biogas production in the Baltic Sea catchment area. The risk assessment was implemented by a consortium of nine expert organisations, led by the Riga Technical University. According to the assessment, completed in 2018, the risks of biogas production involve many of the countries in the Baltic Sea area. In 2019, the Foundation seeks to find funding and partners for implementing a project that reduces the risks of biogas production.

Biogas is a welcome source of renewable energy, and biogas production creates new opportunities for recycling nutrients. In the battle against climate change, we are in urgent need of renewable energy sources, amongst them biogas, which can replace fossil sources of energy. Biogas holds immense promise, and new plants are being built at full speed across Europe.

In its work to protect the Baltic Sea, the John Nurminen Foundation has also encountered problems that involve biogas production. Typical examples of such problems include concentrations of large volumes of nutrients in certain areas, leading to a negative impact in the waterways. Nutrients are often amassed on certain areas regardless of biogas production, but in some cases, biogas production can make the problem worse. We must make sure that the impact production has on waterways is carefully considered already when the plants are being designed. When biogas production is appropriately carried out, a sufficient field area for spreading digestate, or other applicable solution, must be thought out beforehand. If reject waters are directed to municipal treatment plants, the plants must either have sufficient capacity for the reject waters, or they need to be pre-treated.

SEE COUNTRY REPORTS ON THE FOUNDATION'S WEBSITE



NUTRITRADE PROJECT

NutriTrade, the flagship project of the EU's Baltic Sea strategy, has developed innovative and cost-efficient measures that reduce the eutrophication of the Baltic Sea. Within the project, four new ways to reduce eutrophication were piloted: cyprinid fishing, treating cultivated fields with gypsum, nutrient cycling, and mussel farming. Information on the most successful measures was disseminated to e.g. the Baltic Sea protection commission HELCOM, and to states in the Baltic Sea area.

The project also created the first European crowdfunding platform, nutribute.org, which targets waterway protection. Through the platform, private individuals and corporations are encouraged to estimate their nutrient discharges, to reduce them, and to compensate for the remaining discharges with a donation to a waterway protection project of their choice.

The NutriTrade project achieved considerable results in waterway protection. With the project's pilot measures, the phosphorus load of the Baltic Sea by was reduced by six tonnes in the years 2015–2018, and for most of the measures, discharge reduction will continue also in the future. Moreover, measures funded via the Nutribute platform reduced the phosphorus load by 28 tonnes. A reduction of a total of 34 tonnes of phosphorus equals the annual wastewater discharges of a major city.

The NutriTrade project ended in early 2019. The project's main funder was the **EU Interreg Central Baltic programme**, and it was implemented by the John Nurminen Foundation, the University of Helsinki, the Natural Resources Institute Finland, SLU, and Anthesis Enveco.

BEST

BEST project improves the treatment of industrial wastewaters

The management of industrial wastewaters poses great challenges to local wastewater treatment plants

In residential communities, wastewaters from industry are often directed to the municipal sewer network. Sometimes, however, industrial wastewaters can harm the networks, equipment, and treatment processes, and even cause situations that are dangerous to plant employees. If the treatment plants are unable to treat such waters with sufficient efficiency, nutrients and harmful substances can escape to waterways.

Cooperation and concrete investments are key to finding a solution

In the past 10–15 years, domestic wastewater treatment has moved ahead in strides; in many places in the Baltic region, however, there are still major challenges in the joint treatment of industrial and domestic wastewaters.

The BEST project (Better Efficiency for Sewage Treatment) improves the efficiency of industrial and municipal wastewater treatment at municipal wastewater treatment plants in the Baltic area. Improvements will be achieved e.g. by developing the cooperation between industries, authorities, and water utilities, and by making concrete investments at treatment plants. The **EU's Interreg Baltic Sea Region programme** is the main funder of the project.

In 2018, the project assembled information on the current status and problems of treating industrial and

domestic wastewaters jointly, searched for examples of good practices and cooperation models, and increased stakeholder awareness by organising several events in the countries by the shores of the Baltic. Environmental investments moved forward from the design phase to bidding competitions and permit applications.

Better pre-treatment for industrial wastewaters and information exchange covering the entire Baltic Sea area

In 2019, the project will outline the most important areas of development per country, and work on recommendations and a training package for improving the treatment of industrial wastewaters. The cheese factories **E-Piim** in Estonia and **Latvijas Piens** in Latvia will make investments in wastewater pre-treatment in order to ensure that the capacity of local treatment plants is not exceeded. Moreover, **water utilities** will improve the monitoring of incoming wastewaters (Põltsamaa, Estonia), phosphorus removal (Doruchow, Poland), and sludge treatment (Leszno, Poland).

During the year, the project will organise events in St. Petersburg, Riga, and Kaliningrad, focusing on the joint treatment of industrial and domestic wastewaters in Russia, the treatment of wastewaters from the food industry, and the pre-treatment methods of industrial wastewaters. The objective of the events is information exchange, and the dissemination of good practices.



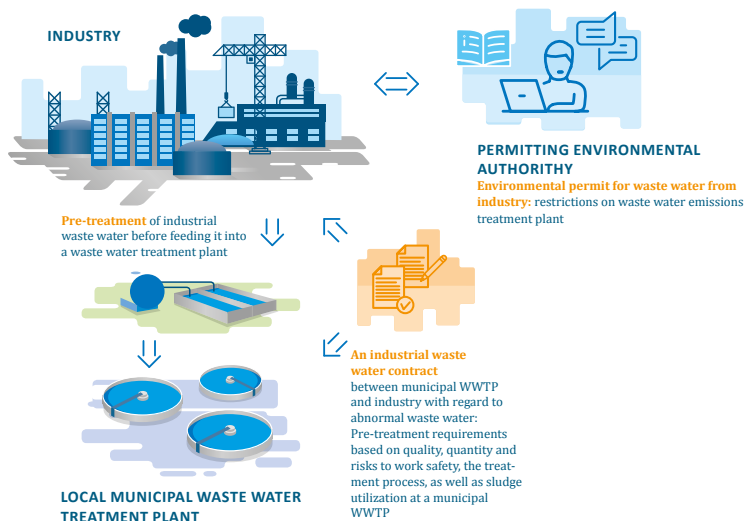


BEST seminar in St. Petersburg on March 21, 2019.

BEST PROJECT (Better Efficiency for Industrial Sewage Treatment)

- Project duration: 1 Oct 2017–30 Sept 2020
- Size of budget (total): €3.4 million
- The John Nurminen Foundation's budget for the project: €499,700
- Financing: Interreg Baltic Sea Region (75/85%)
- Project partners: Water utilities, cities, industrial plants, universities and expert organisations
- Countries involved: Finland, Poland, Estonia, Latvia, Russia, with associated organisations joining also from Sweden, Germany, and Lithuania.
- Pilot targets: Leszno and Doruchow, Poland; Jelgavas, Latvia; Põltsamaa, Estonia
- Joining from Finland are the City of Helsinki (main partner), the Helsinki Region Environmental Services Authority HSY, and the John Nurminen Foundation.

In the project, the role of the John Nurminen Foundation is to draw up new recommendations for the better treatment of industrial wastewaters in the countries of the Baltic Sea area. The Foundation will also support water utilities that make investments, and develop cooperation models. The project has been granted flagship status by the EU's Baltic Sea strategy.



SEABASED

SEABASED project looks for solutions to diminish the internal phosphorus load of the sea

FOR QUITE some time now, the John Nurminen Foundation has worked to curb the phosphorus discharges that accelerate blue-green algae growth, and the work has not been in vain. Unfortunately, thanks to the activities of man, excessive amounts of phosphorus have entered the Baltic Sea for decades, from the times before efficient wastewater treatment plants or fields being treated with gypsum. The phosphorus load, accrued during many decades and also called the sea's internal load, ends up in the sediments of the seabed; in oxygen-depleted conditions, it is again released and used by the algae. Voluminous algal blooms sink to the seabed once they die, and their decomposition uses up oxygen, weakening the oxygen status of the seabed even further. According to the latest research by the Finnish Environment Institute, the number of oxygen-depleted seabed areas in the Baltic Sea has grown, and the status of the main basin continues to be poor: combined with warm weather, this can lead to devastating summers of blue-green algae also in the coming years.

Fishing, circular economy, and spreading marl

What can we do to reduce the phosphorus load accrued in the sea? Since research results on efficient methods of removing phosphorus from the sea are scarce, the John Nurminen Foundation decided to investigate, together with its Finnish and Swedish partners, the efficiency of various methods by organising the small-scale testing of some chosen measures within the scope of its **SEABASED (Seabased Measures in Baltic Sea Nutrient Management) project**. With donations from the EU and private individuals, we gather information on the impact of various methods, their cost-efficiency, and applicability to the Baltic Sea environment.

The pilots, located in Sweden, Åland, and Finland, also promote the circular economy: the project will manage stocks of three-spined stickleback, and find out how the catch could be utilised; fields will be watered with nutrient-rich waters removed from the sea; and marl, a side product of the limestone industry, is tested for its capability to retain phosphorus permanently in the seabed. Moreover, a method for removing phosphorus and the active, oxygen-consuming surface layer of the sea's sediments will be tested.

Project results will introduce new tools for local waterway protection and the reduction of internal phosphorus loads

In addition to the concrete reductions in phosphorus achieved with the pilot measures, the project results will be compiled to guidelines, aimed at decision-makers and the authorities, on the applicability of various measures to reduce the internal phosphorus load in the varying conditions of the Baltic Sea. Also, the pilot in Åland will conceptualize a compensation system for underwater environments, in which the measures that the pilots have proven to be most applicable to local waterway protection will be included.

During the project, we will organise events and workshops to promote open discussion on the measures and their applicability amongst researchers and various societal stakeholders. The discussion and review of scientific points of view was kicked off in the autumn of 2018 with a scientific workshop organised in Turku, and in 2019, we will continue the work with a similar event in Sweden. Discussions with other stakeholder groups, both in Finland and in Sweden, are also encouraged.

THE PROJECT IN A NUTSHELL

- The SEABASED project (Seabased Measures in Baltic Sea Nutrient Management) was launched in March 2018. This Finnish-Swedish cooperation project assesses measures that seek to improve the status of marine areas by reducing their internal load.
- Measures piloted in the project include e.g. removing the sediment's active, oxygen-consuming surface layer; recycling nutrient-rich water from the proximity of the seabed for use in farming; and retaining phosphorus permanently in the seabed sediment using a natural, limestone-based substance.
- Moreover, a compensation system for underwater environments will be designed in Åland; in the future, this can be a tool for local marine protection, applicable also at other sites.
- The objective of the project is to promote an open dialogue amongst various societal stakeholders on the benefits and risks of the new measures, and their applicability for the Baltic Sea.
- The project is led by the John Nurminen Foundation, and our partners are the Centre for Economic Development, Transport and the Environment of Southwest Finland; the Government of Åland, the Åland Fishfarmers' Association; Stockholm University; and the County Administrative Board of Östergötland.
- The EU's Interreg Central Baltic programme for 2014-2020 finances the project with €2.1 million, and its total budget is approximately €2.8 million. After national match-funding, the Foundation's share of project financing is approx. €75,000.

ROSIJA BROSTRÖM



EYV CENTRE / JANA PUTTINEN



JOUKA NURMINEN



Järki Särki *Fried noodles* *4 servings*

This quickly prepared noodle dish with Järki Särki preserved fish is suitable both as a saviour in busy everyday life and for relaxed cooking on the weekend.

- 1 jar (180 g) Järki Särki with organic tomatoes and herbs
- 1 pkg (200 g) wide noodles
- 2 carrots
- 100 g shiitake mushrooms
- 4 cloves of garlic
- 2 tsp fresh ginger
- 1 bag (100 g) leafy spinach
- 3 tbsp soy sauce
- 2 tbsp sesame oil
- 1 tbsp cane sugar
- 5 radishes
- 1 tbsp sesame seeds

1. Cook the noodles as instructed on the packet. Strain the noodles.
2. Peel and slice the carrots into thin sticks. Slice the mushrooms. Peel and finely chop the cloves of garlic. Grate the required amount of fresh ginger.
3. Heat the oil in a pan and add the garlic and ginger, sauté for about one minute. Add the carrots and mushrooms and fry for a few minutes. Add the spinach and fry for a couple more minutes. Add the noodles and fish pieces. Season the noodles with the soy sauce, sesame oil and cane sugar.
4. Finally, add the sliced radishes and sesame seeds to the noodles.

Local Fishing project

From the waves to your plate

BREAM, that most underrated resource of the Baltic Sea, has found its way to many dinner plates as a result of the John Nurminen Foundation's **Local Fishing project**. Domestic cyprinids are not only delicious and good for you: fishing cyprinids also removes nutrients from the Baltic Sea, which is drowning in phosphorus. Bream and roach benefit from eutrophication, which is why fishing these species improves the structure of the fish stock, and creates more space also for predatory fish. Even harmful substances do not stand in the way of eating cyprinids, as the fish are so low in fat that no harmful substances accrue in them.

In 2018, the Local Fishing project received the **ELO Foundation's Flying Saucer food culture award** for its work in promoting the use of cyprinids for food. You can actually already find extremely tasty bream and roach products in grocery stores. **Kesko** expanded its product range with a new archipelago fish patty with spinach, and the **Järki Särki** fish conserves are already available on the shelves of more and more grocery shops. Moreover, **Särkifood Oy** has launched a new frozen minced fish product, made from domestic Baltic Sea bream.

Help the status of the Baltic Sea with your wallet

In 2018, the project fished approximately 200,000 kg of bream and roach, causing 1.6 tonnes of phosphorus to be removed from the Baltic Sea. During the entire project, roughly 4.5 tonnes of phosphorus have been removed from the Baltic Sea. The target for 2019 is to fish cyprinids in the tune of 200,000 kg. We will continue our work in commercializing the production chain, so that more and more

cyprinid products would be available on the shelves of grocery stores and on our dinner plates also in late 2019, when the project is closed. Demand and supply go hand in hand, and the power of the consumer is great. Remember to ask your local grocery store to stock sustainably fished cyprinid products, and vote with your wallet for a cleaner Baltic Sea!

Read more on the project:
www.johnnurmisensaatio.fi

LOCAL FISHING PROJECT

Recycle nutrients, bring bream to the table!

- With the fish catch, harmful nutrients are removed from the waterways, which in turn helps reduce eutrophication in the coastal waters.
- The project promotes the use of domestic, underused cyprinid fish by the food industry in Finland.

Project implementation

- Contracted fishermen are selected through an annual open call
- The production chain consists of committed partners.
- Duration approx. 5 years, operations expanded gradually from the Turku region to other parts of Finland.
- The Archipelago Sea part of the Local Fishing Project is included as a pilot in the NutriTrade project, which, in turn, is partly funded by EU's Interreg Central Baltic Programme (2015–2018).

Operational principles

- Requirements based on fish stock management ensure the ecological and social sustainability of the project.
- All operations are open and transparent.



Towards clearer waters with gypsum

IN 2018–2020, the **River Vantaa gypsum project** will treat as much as 3,500 hectares of cultivated fields in the River Vantaa catchment area with gypsum. This measure will reduce discharges of nutrients and solids to the River Vantaa and the Gulf of Finland, thus improving the ecological status and recreational value of these waterways. The project has been made possible by the **private supporters of the John Nurminen Foundation**, and key project funding from the **Ministry of the Environment**. Project partners include the **John Nurminen Foundation**, the **Water Protection association of the River Vantaa** and **Helsinki Region**, the **University of Helsinki**, and the **Finnish Environment Institute**. Gypsum treatment is carried out by local farmers.

Gypsum has been proven to be a very efficient retainer of phosphorus, and the treatment also improves soil structure. The gypsum treatment of fields has earlier been investigated in various research projects, and tested intensively in the **Lieto and Paimio gypsum pilots**, which were implemented by the **SAVE** and **NutriTrade** projects, the former financed by the **Ministry of the Environment**, and the latter by the **EU Interreg Central Baltic programme**.

Warm welcome to gypsum treatment

The River Vantaa gypsum project, launched in 2018, was off to a flying start with 23 enthusiastic farmers joining in. When the weather was fair, a total of 1,070 hectares of fields were treated with gypsum. This waterway protection measure is completely free for the farmers. The project carries all costs of transporting and spreading the gypsum and planning the work.

In 2019, gypsum treatment will continue with the goal of spreading gypsum on more than 2,000 hectares after threshings in the autumn. Farmers from all over the River Vantaa catchment area will be invited to join. In addition to spreading gypsum, the project monitors the impact the procedure has on fish stocks and the quality of runoff water.

The efficiency and applicability of the method has brought many new supporters to the project. On its anniversary, **Euroclear** donated €25,000 to the River Vantaa gypsum project, and **Yara** donated the gypsum needed to treat 2,500 hectares. At the Baltic Sea



elections debate, organised by the Foundation in early 2019, politicians, too, took a favourable stand towards gypsum treatment, and we have high hopes that gypsum treatment could be included in the subsidy system for agriculture.

A cleaner Baltic Sea, one catchment area at a time

In March 2019, the Ministry of the Environment launched the **Veden vuoro programme**, which will boost the efficiency of waterway protection. The programme has reserved €25 million for innovative waterway protection methods, and a majority of this will be used to spread gypsum in Southwest Finland. This is great news for all friends of the Archipelago Sea. With thorough gypsum treatment, we can prevent a phosphorus runoff of as much as several hundreds of tonnes to the badly eutrophicated Archipelago Sea, thus helping the sea to recover.

In 2018–2019, the John Nurminen Foundation also treated fields with gypsum in the Porvoo area, when the Porvoo water utility offset its nutrient footprint by supporting gypsum treatment. Many other water utilities in Finland have offset their nutrient footprint via the **Nutribute crowdfunding platform**, developed by the Foundation. Anyone can propose new projects on this platform; the proposals' impact on nutrient discharges and related risks, if any, are then assessed by an expert panel. The projects that are approved after close scrutiny will then get a chance to launch their fundraising campaigns.

GYPSUM TREATMENT IN A NUTSHELL

- Gypsum consists of calcium sulphate dihydrate ($\text{CaSO}_4 \cdot 2 \text{H}_2\text{O}$).
- Gypsum is a soil improvement substance that improves crumb structure. This helps to curb erosion.
- Gypsum does not alter the pH of the soil.
- Thanks to gypsum, phosphorus is retained by the soil so that its runoff is halved. The phosphorus will, however, be retained in the soil in a form that plants can utilize.
- Gypsum also cuts discharges of dissolved phosphorus by roughly a quarter. This is highly important to waterways, as dissolved phosphorus is the 'fast food' of algae.
- Gypsum can retain phosphorus also when manure is being spread.
- Gypsum reduces organic carbon runoff from fields.
- With the gypsum, the soil receives sulphur, needed by cruciferous plants in particular.
- Gypsum contains sulphate, which is why it is not recommended for use in the catchment areas of lakes.
- In the seas, sulphate occurs naturally in such abundance that the sulphate brought in by rivers is not significant – concentrations in the rivers of gypsum-treated areas are also significantly lower than the sulphate concentrations of the sea.
- Current legislation does not allow using industrial side stream gypsum in organic farming.
- Gypsum is a well-researched, cheap, and guaranteed method of reducing discharges from agriculture to waterways, and its application does not disturb the basic operations of a farm.



John Nurminen Foundation partners 2018–2019

SvJ BERGSRÄDINNAN
SOPHIE VON JULINS
STIFTELSE



Interreg
Central Baltic

s a n o m a

SUPERCELL



Cubus



fortum

GEBERIT

GULDVIVA™



Greta Maria
Lindbloms Stiftelse



**WEISELL
SÄÄTIÖ**

VINCIT



Aalto-yliopiston ylioppilaskunta, Algol, Arkkitehtitoimisto Virkkunen & Co Oy, Aventure Partners Oy, Balance-Team Oy, Bisnode, BMH Technology, Boehringer Ingelheim Finland, Capacent Oy, Cederqvist & Jäntti Arkkitehdit Oy, Desico, Dictamen Oy, Eficode, Emmaus Helsinki ry, Encore Ympäristöpalvelut Oy, ESL Shipping, Evli Pankki Oyj, Evermade, Fact Law, Fat Lizard, FCG Finnish Consulting Group Oy, Flow, Freska Finland, Futurice, Golden Oriol, Gina Tricot AB, HaminaKotka Satama Oy, Helsingin seudun ympäristöpalvelut -kuntayhtymä, Helsinki Contemporary, Helsinki International Horse Show, Hotelli Rantapuisto, Howden Finland Oy, Innofactor Oyj, JoyActor, Karhuvoima, Katajanokan Rotaryklubi, KL-Lämpö, Kotkan Energia, Kotkan kaupunki, Kymen Vesi, MAKIA, Nor-Maali Oy, Orion, Osmia, Oy Sea Load Shipping SLS Ltd., PLC Uutechnic Group, Polarn O Pyret, Porvoon kaupunki, Rightware Oy, Ritvanen Partners, RoihuLaw, Roschier, RunFest, Saaren Taika, Septor, Sievo, Sinituote Oy, Skipperi, Sound of Sea, Solar Water Solutions, Stena Recycling Oy, Suomen Euromaster, Suomen Palautuspakkaus, Suomen Uusiomuovi Oy, Tallink Silja Oy, Tapaturmavakuutuskeskus TVK, Tieto, Turun seudun puhdistamo, VESI Bottle, Venevuokraamo Jahti Oy, WB-Sails, Xtra Stærk Ocean Racing Society ry.

Fundraising enables our work

THE JOHN NURMINEN FOUNDATION raises funds for Baltic Sea protection with its Clean Baltic Sea projects, for cultural projects, and the operations of the Foundation in general. In 2018, the majority of donations were made to benefit Baltic Sea protection. In addition to some significant private donations, our cultural operations were financed by product sales and licence income. See Financing the Foundation's operations in 2018, pages 42–46.

The Foundation participated in joint campaigns and networks which make the Foundation better known, and consequently also open up new partnerships. For companies, protecting the Baltic Sea and its heritage is today's way of doing environmental work and implementing corporate responsibility. By supporting the John Nurminen Foundation, companies join us in our concrete and impactful work to protect the Baltic Sea and to ensure that the stories of the sea are passed on to future generations.

Support from companies and private individuals is fundamentally important for the Foundation to be able to implement measures that bring concrete results in Baltic Sea protection, and safeguard our cultural heritage. During the summer months in particular, the Foundation focuses on campaigns and marketing communications aimed at the general public. Our marketing communications are implemented in cooperation with the marketing communications company Superson.

Find out more about the many ways in which we can cooperate on our website, and get in touch!
www.johnnurmisenraatio.fi



*We thank everyone
who has made
a donation to us,
or contributed with
pro bono work and services
– with your help, our work
will continue!*



KOTIMAAN ENERGIA



METSO

'WE want to be part of genuinely responsible activities – and a clean Baltic Sea is a vital goal for us. The foundation's work on the Baltic Sea is based on scientific studies and the results of aid projects can be measured in concrete terms. Our customers and partners play a key role in implementing sustainable business. The John Nurminen Foundation fighting for the Baltic Sea is a good example of a partner doing environmental work with strong professionalism and a full heart.'

— **Sponda Plc Sustainability Manager Pirkko Airaksinen**

'AT MAKIA, the sea and nature are part of our identity and serve as a source of inspiration when we design our collections. Consequently, supporting the important work of the John Nurminen Foundation for the Baltic Sea is particularly close to our heart.'

— **Makia Brand Manager Joni Malmi**

'THE BALTIC SEA is important for us Finns. Our cooperation with the John Nurminen Foundation is currently continuing for the third year and we could not be more satisfied with this. With a green choice product from Kotimaan Energia, the customer receives electricity produced with renewable energy from water, wind and the sun. The hydropower can be traced back all the way to the power plant to ensure that the hydropower has been produced in migratory fish-friendly power plants.'

The customers who have opted for renewable energy are doing good at the same time, as the price of the service includes an annual donation of 5 euros for the foundation's Clean Baltic Sea projects. We have received a lot of positive feedback from our customers about our green choice product and many have selected Kotimaan Energia as their electricity company due to the cooperation with the John Nurminen Foundation. The donation amount will grow nicely in 2019: Kotimaan Energia will be donating more than EUR 200,000 to the John Nurminen Foundation on behalf of its customers. Environmental values and cleaner waters for fishing and swimming are clearly close to our customers' hearts. We are extremely proud of our customers and of the excellent cooperation with the foundation.'

— **Kotimaan Energia CEO Tuomas Oksanen**

'WE HAVE BEEN SUPPORTING socially important projects for years. It is now the Baltic Sea's turn. The concrete work of the John Nurminen Foundation has produced visible results in curbing the biggest environmental problem of the Baltic Sea. We want to be involved in doing work with an impact for the Baltic Sea, and this is a natural objective for us as we have operations in all countries around the Baltic Sea.'

— **Orion Corporation CEO Timo Lappalainen**

'MINIMISING WATER USE is especially important for our customers with wells and is therefore one of the key components of our product development. In addition to sufficiency, the purity of water is a critical factor for the future of humanity and all living things. We chose to sponsor the John Nurminen Foundation because the work done by the foundation to improve the state of the Baltic Sea is also meaningful on a larger scale.'

— **Metso Head of Sustainability Kaisa Jungman**

'GEBERIT OY has organised a collection of the plastic dust caps and protective plastic of compression indicators used in the installation of piping systems. The John Nurminen Foundation is doing fruitful work for the Baltic Sea, which is why the foundation was chosen as our donation target. The more caps are returned, the more money we are donating to the foundation's Clean Baltic Sea projects. We will donate 20 euros for marine conservation for every kilogram returned.'

— **Geberit Oy Managing Director Kim Lökvist**

'THE GOAL of our 2018 campaign was to increase the utilisation rate of our digital services and encourage our customers to choose e-invoices to reduce paper consumption. The John Nurminen Foundation was a natural choice as a partner for this campaign with an environmental theme because the Baltic Sea is very visible and close to us as a large Nordic operator. The foundation's active and consistent work to promote the well-being of the Baltic Sea is inspiring and hopeful at the same time. We are very pleased to be able to support this valuable work in this manner. The best indicator of the results of the campaign is that we will be continuing the cooperation in 2019 as well.'

— **If Insurance Head of CRM Toni Svärd**



GEBERIT OY

Financing the Foundation's operations in 2018

THE INCOME FROM AND EXPENSES OF the Foundation's ordinary operations are included in the income statement, in the section Marine Culture and Clean Baltic Sea projects (see income statement, p. 48). In 2018, deficit for marine culture was -€45,474 (-€289,885 in 2017). Income surplus for the Clean Baltic Sea projects totalled at €1,166,192 (€155,449 in 2017). In the Foundation's income statement, surplus after fund transfers in 2018 was €104,507 (€670,821 in 2017).

Income from and expenses of fundraising are itemised in the income statement in their own section. The majority of donations received have been targeted. In 2018, the Foundation received donations from private individuals and corporations in the amount of €2,269,593 (€792,045 in 2017). Ferring made a donation of €250,000, of which €125,000 was for all of the Foundation's operations, and €125,000 for Marine Culture activities. The River Vantaa gypsum treatment project received donations that totalled at €765,000. Sanoma Oyj made a donation of media space with a total worth of €150,000. (The media space donation from Sanoma appears in the income statement as fundraising income and expenses, but is excluded from the charts no. 2 and 3.)

In 2018, fundraising expenses were €431,991 (€218,855 in 2017). Expenses include e.g. media space expenses, salaries, and the development expenses of fundraising campaigns and digital fundraising

platforms. After allocation to operations and expenses, the result from fundraising was -€296,986 (-€156,730 in 2017).

At the end of the 2018 accounting period, the balance sheet of the Foundation showed a balance of €10,471,616 (€9,857,756 in 2017). Equity totalled €10,180,202 (€9,603,103 in 2017).

Financing and expenses of the Foundation's Marine Culture operations

Our marine culture operations are financed with profits from book sales, merchandise sales, grants, donations, and profits from the Foundation's capital portfolio.

In 2018, income from the Foundation's book sales was €118,100 (€175,909 in 2017). The smaller volume of book sales compared to the previous year was due to the moderate prices of books published. Donations of €170,000 to marine culture (€70,000 in 2017) include the €125,000 donation made by Ferring. Juha Nurminen, Chairman of the Board, made a donation of €15,000 to Marine Culture operations. Donations to the Loki project were received in the sum of €30,000 from the Jenny and Antti Wihuri Foundation, and €25,000 from the Finnish Heritage Agency, totalling €55,000 (€40,483 in 2017).

Expenses for Marine Culture were €404,657 (€586,703 in 2017). The expenses for Marine Culture consist mostly of publishing operations, €178,769

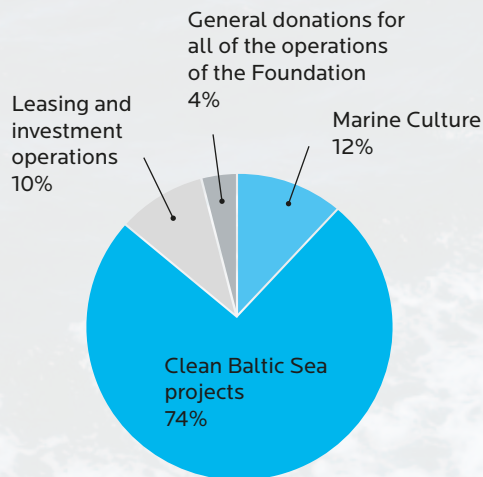


CHART NO. 1. INCOME OF THE JOHN NURMINEN FOUNDATION BY SECTOR IN 2018.

The Foundation finances its operations with donations, grants, public funding, and income from leasing and investment operations. Income is also obtained from sales of books and products, and, for example, ticket sales to events. In 2018, the majority of donations was made to Baltic Sea protection. The Foundation also received general donations for all of its operations. With general donations, the Foundation can ensure the continuity of its operations, including the creation of marine cultural content.

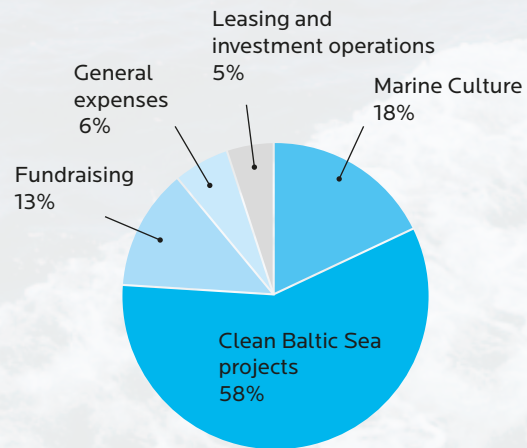


CHART NO. 2. EXPENSES OF THE ORDINARY OPERATIONS OF THE JOHN NURMINEN FOUNDATION BY SECTOR.

The image shows how expenses of the ordinary operations of the John Nurminen Foundation are divided.

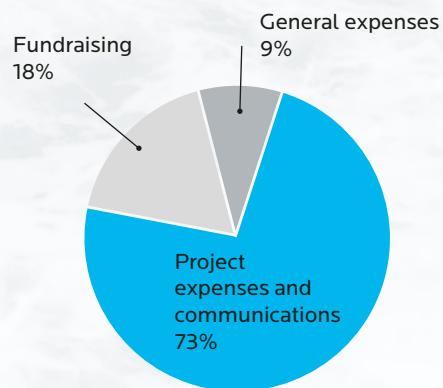


CHART NO. 3. THE EXPENSES OF THE CLEAN BALTIC SEA PROJECTS

In 2018, the majority of donations and grants received by the Foundation were intended for the Clean Baltic Sea projects. 73% of these were used for operations, while 27% were used for fundraising and administration.

(€234,266 in 2017), expenses of the Loki project €56,198 (€161,754 in 2017), and general expenses at €110,225 (€120,116 in 2017).

Publishing expenses include e.g. marketing and storage expenses, and the production costs of new books. Production expenses consist of e.g. fees for image rights, payments to authors, and printing expenses.

In the Balance Sheet, the value of the Foundation's collections was €725,007 (€658,157 in 2017).

Financing and expenses of the Clean Baltic Sea projects

The Foundation finances the Clean Baltic Sea projects with donations from private individuals and corporations, through corporate cooperation (for example sales of merchandise), and with received public funding. Donations targeting Baltic Sea protection are directed to the Clean Sea II fund. In the Foundation's capital and reserves, the Fund is dealt with as a separate dedicated fund, the capital of which can only be used for a purpose that is in line with the Fund's bylaws. The purpose of the fund is to work for a cleaner Baltic Sea, improving both the use value of the Sea and its value as a natural environment. On 31 December 2018, fund capital was €3,521,573 (€2,735,778 in 2017). During the 2018 accounting period, funds accrued in the fund (donations, grants, income from investments) surpassed the expenses of fund operations. The sum of €785,795 was transferred to the fund for future use. The share of the River Vantaa Gypsum project of the funds transferred to the Clean Sea fund was €513,256 (in 2017, a fund transfer of €63,406 was made in order to cover the deficit of the Clean Baltic Sea projects). Clean Baltic Sea project surplus for the accounting period was €1,166,192 in total (deficit of €150,358 in 2017).

Total income of the Foundation's Clean Baltic Sea projects totalled at €2,469,154 (€1,208,462 in 2017), of which donations from companies and private individuals accounted for €1,964,588 (€659,920

in 2017). In 2018, the Foundation received public funding in the amount of €504,566 (€354,362 in 2017), consisting mostly of funding allotments from the EU, and support to the River Vantaa Gypsum project, granted by the Ministry of the Environment (71,111).

Asset and capital management of the Foundation

The Foundation's assets are managed with planned profitability, allowing the Foundation to fulfil its purpose, as set out in the Foundation's bylaws. The Foundation does not engage in active trading for short-term profit in the financial markets. This is why changes in the current value of investments have been booked to the current value fund, included in capital and reserves, as stipulated in Chapter 5, Section 2 of the Accounting Act.

This means that only realised profits and losses from investment property are set out in the income statement. Unrealised changes in value are set out in the current value fund of the balance sheet.

Assets recognised at current value include the Foundation's investments in funds and shares, with the exception of shares in real estate. The Foundation's investment portfolio asset management was taken care of by eQ. The Foundation's Board of Directors monitors investment yields regularly in its meetings. In 2018, the asset manager was present at the meetings of the Foundation's Board of Directors two times, reporting on investment income and risks. The Foundation's investment operations achieved a reasonable result in spite of the challenges of the investment market in 2018. After expenses, the result of the Foundation's equity portfolio was €143,026 (€1,003,740 in 2017). In 2017, due to changes in the investment portfolio, income from investments was €1,176,596.

In 2018, the value of the Foundation's investments was €7,920,858 (€8,175,027 in 2017). The Foundation's investment assets consist of shares in Huolintatalo

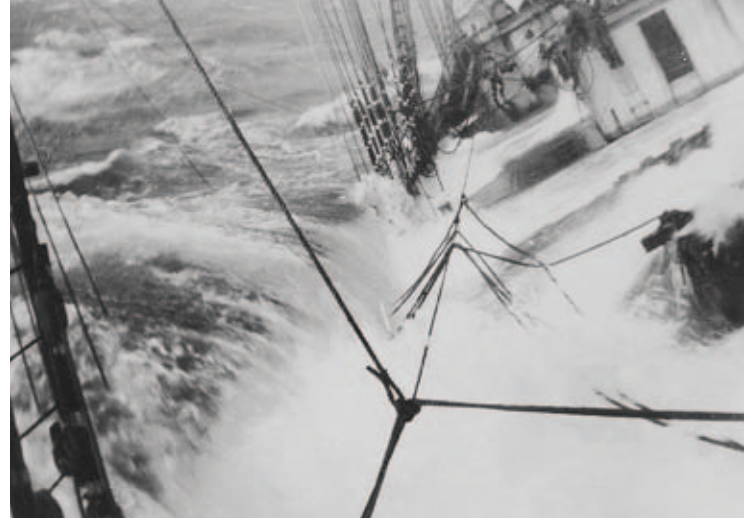
in Länsi-Pasila, and the asset portfolio in the care of the asset manager. The Foundation's investment results for 2018 are based on the carefully planned and profitable management of the asset portfolio. Trading with shares acquired with the Foundation's money has been done in order to realise the Foundation's asset management plan and to minimise losses. Since 2017, the Foundation's assets have been managed within one investment portfolio. Interest from the portfolio's realised profits is paid to the capital of the Clean Sea Fund. In 2018, the Clean Sea Fund received €51,594 of investment profit.

Facility leasing

The John Nurminen Foundation owns approximately 11 per cent of the Huolintatalo building in Länsi-Pasila (approx. 892 m²), which is also home to the Foundation's premises and collections. Facilities not used by the Foundation have been leased out. The Foundation has two-storey offices in Huolintatalo, of which the upper floor (120 m²) is owned by Juha Nurminen, and the lower floor (135.5 m²) is owned by the Foundation. All of the Foundation's premises were leased out in 2018. Rental income totalled at €160,649 (€151,078 in 2017), and the result of the Foundation's leasing operations in 2018 was €66,253 (€39,666 in 2016). All of the Foundation's premises were leased out in the beginning of the 2019 accounting period.

General expenses of the John Nurminen Foundation

General expenses of the Foundation were, in total, €142,709 (€144,823 in 2017), consisting of personnel expenses in the amount of €89,506 (€93,148 in 2017), and other expenses amounting to €53,112 (€51,675 in 2017). Fees and expenses of the Board and management, and a share of communications expenses, for example, are booked as general expenses..



Fennia in storm.

ERKKI LAUHO'S ARCHIVES.

Related parties

The Foundation has a register for related parties. The Foundation's related parties consist of the Secretary General, members of the Board of Directors, and the spouses, children, parents, and siblings of the above, as well as entities where the aforementioned persons exercise control. Related parties also include the Foundation's auditors. The Foundation has not given its related parties any monetary loans or grants. All business transactions involving related parties are conducted at current market value and in line with what is in the Foundation's interest. Related party activities have been documented in contracts. Related party transactions are presented on page 58 of the Annual Report.

The Foundation's premises are located in a space spanning two stories in Huolintatalo, Länsi-Pasila, with the upper floor rented from Juha Nurminen. The Foundation is the lessor of John Nurminen Oy, which rents one room on the first floor of Huolintatalo. The Foundation paid Juha Nurminen €26,949 in rent for the premises (€28,975 in 2017). The Foundation paid service charges in the amount of €122,950 (€119,735 in 2017) to a real estate company owned jointly with related parties; a considerable share of the Foundation's collections is on display at the shared premises of this company.

Some of the premises owned by the Foundation are in the Foundation's use, while most of them are rented out.

The Foundation's mail and delivery services, €6,829 in 2018 (€6,398 in 2017), have been outsourced to JN Uljas Oy. In addition, €2,747 has been paid out to Uljas as parking space rental fees.

Fees of management and the Board of Directors

In 2018, the Secretary General and the members of the Board of Directors of the Foundation received salaries and fees in the amount of €151,385 (€147,758 in 2017). All Board members did not accept fees for their work in the Board. The Chairman and Vice-Chairman of the Foundation's Board of Directors have compared the board membership and meeting fees of foundations, associations and companies, and come to the conclusion that the board membership fees are of average level.

Operational risks and uncertainties

The operations of the Foundation are, in the long run, dependent on a good result from investment operations. Using capital to fund basic operations should be avoided. Even though the Foundation was successful in its

fundraising in 2018, and, in light of current partnerships, the financing of the Foundation's operations for the next two years is sufficient, it is important that the Foundation aims to secure a sufficiently extensive and permanent donor base also for the longer run. The Foundation seeks to secure more general donations that would finance all the operations of the Foundation. Donations can still be targeted to

Clean Baltic Sea projects or to Marine Culture operations, and transparency will continue to be a feature of targeted donations. The Foundation focuses on measurable projects with a distinct impact, and the goal-oriented, result-seeking nature of its operations helps it stand out amongst other stakeholders. The Foundation's reputation and public image are good, but it is not that well known amongst the general public, which presents a challenge to fundraising from private individuals in particular. In order to increase awareness of the Foundation, it will continue to focus on operations that are as efficient as possible, and to communicate its activities in a highly visible manner. The Foundation explains openly and transparently how donated funds are used, using media and its own as well as its partners' channels. The hands-on nature of the Foundation is emphasised also in the future as a feature that sets the Foundation apart from other foundations, who may focus on communications or the giving out of grants.

The book business, and non-fiction books in particular, have faced a challenging market situation for quite some time. In order to ensure long-term funding for cultural operations, a steady annual yield is expected from investments, and new donors are needed. Alongside traditional publishing, new methods of content distribution are also emphasized.



JOHN NURMINEN FOUNDATION FINANCIAL STATEMENT 2018

John Nurminen Foundation Business ID 0895353-5 Helsinki

BALANCE SHEET

Ordinary operations

2018

2017

MARITIME CULTURE

Income

Book sales	118,100.39	175,909.31
Donations directed to marine culture	170,000.00	70,000.00
Grants received	55,000.00	40,483.02
Income from collections	7,696.06	3,814.79
Other income	8,386.73	6,610.95
Total income	359,183.18	296,818.07

Expenses

Personnel expenses	-183,719.25	-217,761.74
Depreciation	-5,755.42	-6,485.28
Other expenses	-192,223.35	-385,063.02
Change in stocks	-22,959.35	22,606.65
Expenses, total	-404,657.37	-586,703.39

Marine culture, total**-45 474,19****-289 885,32**

CLEAN BALTIC SEA PROJECTS

Income

Donations directed to projects	1,964,587.64	659,919.87
Grants received	504,565.98	354,362.94
Investments	0.00	194,179.19
Total income	2,469,153.62	1,208,462.00

Expenses

Personnel expenses	-465,966.53	-432,180.68
Depreciation	-1,417.25	-1,521.24
Investments	0.00	-16,530.23
Other expenses	-835,577.99	-602,780.65
Expenses, total	-1,302,961.77	-1,053,012.80

Clean Baltic Sea projects, total**1 166 191,85****155 449,20**

	2018	2017
GENERAL EXPENSES		
<i>Expenses</i>		
Personnel expenses	-89,595.68	-93,148.39
Other expenses	-53,112.13	-51,674.90
	-142,707.81	-144,823.29
General expenses, total	-142 707,81	-144 823,29
Income/deficit from ordinary operations	978 009,85	-279 259,41

FUNDRAISING

<i>Income</i>		
Donations received	2,269,593.13	792,044.87
Targeted donations	-2,134,587.64	-729,919.87
Total income	135,005.49	62,125.00
<i>Expenses</i>		
Personnel expenses	-172,134.85	-127,473.99
Other expenses	-259,856.89	-91,381.30
Expenses, total	-431,991.74	-218,855.29
Fundraising, total	-296 986,25	-156 730,29

	2018	2017
INVESTMENT AND FINANCING OPERATIONS		
Investments		
<i>Income</i>		
Dividend income	113,687.35	132,335.76
Profit from sales	38,602.71	1,044,259.88
Total income	152,290.06	1,176,595.64
<i>Expenses</i>		
Other expenses	-9,264.32	-172,856.10
Expenses, total	-9,264.32	-172,856.10
Investments, total	143 025,74	1 003 739,54
Facility leasing		
Rental income	160,648.77	151,077.79
Service charges	-89,762.92	-86,529.95
Other facility leasing expenses	-4,633.33	-24,881.93
	66,252.52	39,665.91
Facility leasing, total	66 252,52	39 665,91
 Investment and financing operations, total	 209 278,26	 1 043 405,45
Income before appropriations and taxes	890 301,86	607 415,75
Fund transfers	-785 794,53	63 406,09
Surplus (deficit) for the accounting period)	104 507,33	670 821,84

BALANCE SHEET

Assets	2018	2017
NON-CURRENT ASSETS		
Intangible assets		
Other intangible assets	0.00	4,671.34
Tangible assets		
Machinery and equipment	7,504.00	10,005.33
Other tangible assets		
Works of art	218,893.91	192,043.91
Maps, books and items	506,112.69	466,112.69
Other tangible assets, total	725,006.60	658,156.60
Tangible assets, total	732,510.60	668,161.93
Investments	7,920,858.37	8,175,026.97
NON-CURRENT ASSETS, TOTAL	8 653 368,97	8 847 860,24
CURRENT ASSETS		
Inventories		
Unfinished books	17,005.00	18,409.75
Books	125,696.97	147,251.57
	142,701.97	165,661.32
Debtors		
Short-term		
Sales receivables	132,738.92	48,436.50
Other debtors	265,521.33	55,311.92
Prepayments and accrued income	471,220.38	164,921.84
	869,480.63	268,670.26
Cash in hand and at banks	806,064.18	575,564.44
CURRENT ASSETS, TOTAL	1 818 246,78	1 009 896,02
Assets, total	10 471 615,75	9 857 756,26

BALANCE SHEET

Liabilities	2018	2017
EQUITY/CAPITAL AND RESERVES		
Basic capital	142,168.69	142,168.69
Current Value Fund	-320,857.22	-7,654.26
Clean Sea Fund II	3,521,572.59	2,735,778.06
	3,342,884.06	2,870,292.49
Retained surplus (deficit) from previous financial periods	6,732,810.78	6,061,988.94
Surplus (deficit) for the accounting period	104,507.33	670,821.84
	6,837,318.11	6,732,810.78
CAPITAL AND RESERVES, TOTAL	10 180 202,17	9 603 103,27
CREDITORS		
Short-term		
Advances received	42,750.00	25,000.00
Trade creditors	101,536.00	79,466.70
Other creditors	34,288.17	35,334.46
Accruals and deferred income	112,839.41	114,851.83
Short-term, total	291,413.58	254,652.99
CREDITORS, TOTAL	291 413,58	254 652,99
Liabilities, total	10 471 615,75	9 857 756,26

APPENDICES

ACCOUNTING PRINCIPLES

This Financial Statement has been prepared in adherence to the Government Decree for small undertakings.

PRINCIPLES OF RECOGNITION AND MEASUREMENT

Valuation of tangible assets

No depreciations have been made for the other tangible assets related to the Foundation's ordinary operations. The item other tangible assets includes works of art, maps, books, and artefacts.

Office machines and equipment are shown in the balance sheet at cost less planned depreciation. The planned depreciation method was reducing balance depreciation at 25%.

Other intangible rights are amortised on a straight-line basis over five years.

Valuation of current assets

Current assets have been valued at purchase cost or a lower probable sales price.

Recognition of investment

Investment has been recognised at current value in line with Section 5, Chapter 2a of the Accounting Act. The Foundation does not engage in active trading for short-term profit in the financial markets. This is why the change in current value has been booked to the Current Value Fund, included in capital and reserves.

Assets recognised at current value include the Foundation's investments in funds and shares, with the exception of housing company shares.

Expense allocation principles

Function-specific expenses and a share of common expenses are allocated to functions. When calculating a function's share of common expenses, the matching principle is adhered to as closely as possible.

Donations and fundraising

Received donations, wills and raised funds are mainly recognised on accrual basis when their delivery is final from the perspective of the Foundation. Assets are recognised in adherence to the prudence principle.

NOTES TO THE INCOME STATEMENT

Notes on personnel

	2018	2017
Approximate number of employees (excluding fee recipients)	13	13
Salaries	707,045.28	695,988.40
Fees	63,231.39	31,145.59
Pension expenses	127,767.79	127,594.92
Other personnel expenses	13,371.85	15,835.89
	911,416.31	870,564.80

The Foundation's business activities

	2018	2017
The Foundation's book sales are taxable business activities.		
<i>Income</i>		
Book sales	118,100.39	175,909.31
Donations received	0.00	20,000.00
Royalties	3,130.59	1,597.08
Total income	121,230.98	197,506.39
<i>Expenses</i>		
Personnel expenses	-68 173.99	-59 850.01
Book production expenses	-52,139.23	-137,178.06
Marketing and distribution expenses	-35 121.54	-60 981.57
Change in stocks	-23,334.23	23,743.19
Expenses, total	-178,768.99	-234,266.45
Result from business activities	-57 538.01	-36 760.06

Departing from previous years, the item Book production expenses does not include any expenses related to the retail sales or distribution of finished books. Comparison figures have been changed accordingly.

Investment and financing operations

The asset manager of the John Nurminen Foundation was changed during the 2017 accounting period. In connection with the change, both of the investment portfolios were liquidated in their entirety, and the Current Value fund of the previous accounting period was monetized. As a result of the change, profits from investment activities were exceptionally high in 2017.

Investments

	2018	2017
<i>Income</i>		
Dividend income	113,687.35	132,335.76
Profit from sales	38,602.71	1,044,259.88
Total income	152,290.06	1,176,595.64
<i>Expenses</i>		
Transaction and management fees	0.00	-40,216.78
Sales loss	-9,264.32	-132,639.32
Expenses, total	-9,264.32	-172,856.10

Facility leasing	2018	2017
Rental income	160,648.77	151,077.79
Service charges	-89,762.92	-86,529.95
Other facility leasing expenses	-4,633.33	-24,881.93
Facility leasing, total	66,252.52	39,665.91
Investment and financing operations, total	209 278,26	1 043 405,45

Clean Baltic Sea Projects	2018	2017
<i>Income</i>		
Donations received	1,964,587.64	659,919.87
Grants received	504,565.98	354,362.94
Investments	0.00	194,179.19
Total	2,469,153.62	1,208,462.00
Investment portfolio interest to the Fund	51,594.42	0.00
<i>Expenses</i>		
Personnel expenses	-638,101.38	-559,654.67
Depreciation	-1,417.25	-1,521.24
Equipment purchases	-329,607.79	-98,737.22
Consultancy fees	-69,866.66	-108,323.12
Marketing expenses	-218,141.08	-65,905.07
Travel and meeting expenses	-54,598.97	-55,162.47
Investments	0.00	-16,530.23
Other expenses	-423,220.38	-366,034.07
Expenses, total	-1,734,953.51	-1,271,868.09
Clean Baltic Sea, total	785 794,53	-63 406,09
Fund transfer	-785,794.53	63,406.09
Clean Baltic Sea, total	0,00	0,00

The fund transfer of €734,200.11 includes €513,255.74 of funds donated to the Vantaa River gypsum treatment project. Funds donated to gypsum treatment will be used during 2019..

Clean Baltic Sea project expenses itemised by function	2018	2017
Project expenses and communications	-1,165,486.89	-799,630.52
General expenses	-137,474.88	-253,382.28
Fundraising	-431,991.74	-218,855.29
Expenses, total	-1,734,953.51	-1,271,868.09

NOTES TO THE BALANCE SHEET

Intangible assets	2018	2017
Other intangible assets		
Apartment renovation expenses		
Purchase cost 1 January	4,671.34	9,342.70
Depreciation for the accounting period	-4,671.34	-4,671.36
Book value 31 December	0.00	4,671.34
Tangible assets	2018	2017
Machinery and equipment		
Office machinery and equipment		
Purchase cost 1 January	10,005.33	13,340.49
Depreciation for the accounting period	-2,501.33	-3,335.16
Book value 31 December	7,504.00	10,005.33
Machinery and equipment, total	7,504.00	10,005.33
Other tangible assets	2018	2017
Works of art		
Purchase cost 1 January	192,043.91	192,043.91
Additions	26,850.00	0.00
Book value 31 December	218,893.91	192,043.91
Maps		
Purchase cost 1 January	247,210.07	247,210.07
Additions	40,000.00	0.00
Book value 31 December	287 210.07	247,210.07
Books		
Purchase cost 1 January	52,768.34	52,768.34
Book value 31 December	52,768.34	52 768.34
Artefacts		
Purchase cost 1 January	166,134.28	166,134.28
Book value 31 December	166,134.28	166 134.28
Other tangible assets, total	725,006.60	658,156.60
Tangible assets, total	732,510.60	668,161.93

Investments	2018	2017
Listed shares and other financing instruments		
Purchase cost 31 December	7,309,237.74	7,250,203.38
Book value 31 December	6,988,380.52	7,242,549.12
Market value 31 December	6,988,380.52	7,242,549.12
Difference	-320,857.22	-7,654.26
Other shares and similar rights of ownership		
Kiinteistö Oy Pasilankatu 2, 11.67 per cent of shares		
Book value 1 January	932,477.85	932,477.85
Book value 31 December	932,477.85	932,477.85
Equity/Capital and reserves	2018	2017
Basic capital	142,168.69	142,168.69
Current Value Fund 1 January	-7,654.26	777,669.31
Change in Current Value Fund	-313,202.96	-785,323.57
Current Value Fund 31 December	-320,857.22	-7,654.26
Other dedicated funds		
Clean Sea II Fund		
capital 1 January	2,735,778.06	2,886,136.37
donations received	1,964,587.64	659,919.87
grants received	504,565.98	354,362.94
Change in investments' Current Value Fund	0.00	-86,952.22
Realised profit from investment	0.00	194,179.19
Investment portfolio interest to the Fund	51,594.42	0.00
used in line with the bylaws to promote a clean sea	-1,734,953.51	-1,271,868.09
capital 31 December	3,521,572.59	2,735,778.06
Retained surplus (deficit) from previous financial periods		
Earnings from previous accounting periods, 1 January	6,732,810.78	6,061,988.94
Earnings from previous accounting periods, 31 December	6,732,810.78	6,061,988.94
Surplus (deficit) for the accounting period	104,507.33	670,821.84
Capital and reserves, total	10,180,202.17	9,603,103.27

The Foundation has one fund, the Clean Sea II Fund, that is restricted for a specific purpose.

The purpose of the Fund is to work for a clean Baltic Sea, improving both the use value of the Sea and its value as a natural environment.

In 2017, after a Board decision and in connection with the asset manager change, the Foundation's investment portfolios were combined to one discretionary.

RELATED PARTIES

The Foundation's related parties consist of member of the Board of Directors; the Foundation's management and certified accountant; their spouses, children, parents and siblings, and also entities where the aforementioned persons exercise control. Related parties also include the Foundation's auditors.

All essential and exceptional related party events have been reported under Related Party Transactions. Purchases of products sold by the Foundation for normal private use, such as books, for example, have not been included in related party transactions.

The Foundation has not given its related parties any monetary loans or grants. No guarantees or warranties have been given on behalf of the related parties.

All business transactions involving related parties are conducted at current market value and in line with the Foundation's interest.

Accounting period 2018	Salaries and fees	Purchased goods and services	Sold goods and services
Members of the Board of Directors and the Foundation's management	151,384.52	224,474.85	29,977.68
Auditor	0.00	11,389.40	0.00

Tilikaudella 2017	Salaries and fees	Purchased goods and services	Sold goods and services
Members of the Board of Directors and the Foundation's management	149,758.33	167,473.28	10,962.30
Auditor	0.00	15,264.40	0.00

Related party transactions based on agreement, by type	2018	2017
--	------	------

Purchased goods and services		
Rents for facilities	29,695.82	28,975.38
Service charges for premises	122,950.13	119,735.18
Purchased services	71,828.90	18,762.72
Total	224,474.85	167,473.28

Business transactions: sales to related parties		
Rents for facilities	9,643.68	9,556.48
Sales from the collections	4,800.00	162.01
Book sales to companies of related parties	534.00	1,243.81
Monetary donations from related parties	15,000.00	0.00
Total	29,977.68	10,962.30

Contingent liabilities	2018	2017
------------------------	------	------

Leasing and rental liabilities excluded from the balance sheet		
Payable in the next financial period	21,283.59	17,816.28
Payable later	38,298.44	46,738.08
Total	59,582.03	64,554.36

Signatures of the Annual Report and Financial Statements

Helsinki, 26 February 2018

Juha Nurminen
Chairman of the Board of Directors

Juho Lipsanen

Per-Edvin Persson

Kaisa Olkkonen

Hannu Syrjänen

Markku Ollikainen

Marja-Leena Rinkineva

Eeva Ahdekivi

Annamari Arrakoski-Engardt
Secretary General of the Foundation

A report of the audit has been submitted today.

Helsinki, 26th February 2018

Oy Tuokko Ltd
Firm of Authorised Public Accountants

Terhi Latvala
Authorised Public Accountant



AUDITOR'S REPORT (Translation of the Finnish Original)

To the Board of Directors of John Nurminen foundation

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements John Nurminen foundation (business identity code 0895353-5) for the year ended 31 December, 2018. The financial statements comprise the balance sheet, income statement and notes.

In our opinion, the financial statements that show a surplus of 104,507,33 euro, give a true and fair view of the foundation's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the Auditor's Responsibilities for the Audit of Financial Statements section of our report. We are independent of the foundation in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Board of Directors for the Financial Statements

The Board of Directors is responsible for the preparation of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors is also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the foundation's ability to continue as going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the foundation or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of Financial Statements

Our objectives are to obtain reasonable assurance on whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the foundation's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and

1 (2)

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- related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the foundation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the foundation to cease to continue as a going concern
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Other Reporting Requirements

Other Information

The Board of Directors is responsible for the other information. The other information comprises information included in the report of the Board of Directors. Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the information included in the report of the Board of Directors and, in doing so, consider whether the information included in the report of the Board of Directors is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. Our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed on the report of the Board of Directors, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Other statements based on law

It is our responsibility to issue a statement on matters required in the Foundations Act chapter 4 section 2 subsection 2, based on our audit.

The Board of Directors is responsible for information included in the financial statements and the report of the Board of Directors and for that the fees and compensation paid to the members of the organs of the foundation are within a normal range.

Our statement is that the foundation's financial statements and report of the Board of Directors include the information that is material to the evaluation of compliance to the provisions in the bylaws regarding the purpose and forms of activity of the foundation. Fees and compensation paid by the foundation to the organs of the foundation can be considered to be within a normal range.

Helsinki, February 26th, 2019

Oy Tuokko Ltd
Audit firm

Terhi Latvala
KHT

2 (2)
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ORGANISATION OF THE JOHN NURMINEN FOUNDATION 2019

BOARD OF DIRECTORS

Eeva Ahdekivi, Jukka Anteroine, Juho Lipsanen,
Juha Nurminen (Chair), Kaisa Olkkonen, Markku Ollikainen, Per-Edvin Persson,
Marja-Leena Rinkineva, Hannu Syrjänen (Vice Chair)

MANAGEMENT

Annamari Arrakoski-Engardt, Secretary General

COMMUNICATIONS

Tuula Putkinen,
Communications Director
Kirsi Kurki-Miettinen,
Communications Officer
Oona Lavonsalo,
Communications Officer

FUNDRAISING

Erkki Salo,
Fundraising Director
Ari Rytönen,
Corporate Fundraising
Heidi Sairanen,
Fundraising Coordinator

ADMINISTRATION

Annamari Arrakoski-Engardt,
Director (pro tem)
Anni Kujala,
Project Coordinator

MERIKULTTUURI

Annamari Arrakoski-Engardt, Director (pro tem)
Maria Erkheikki, Manager,
Publications and Collections
Lauri Kaira, Collections Specialist
Anne Mäkijärvi, Project Manager

PUHDAS ITÄMERI -HANKKEET

Marjukka Porvari, Project Director
Jenni Blomqvist, Project Coordinator
Peteris Gailitis, Project Manager,
BEST Project (Poland and Latvia)
Elena Kaskelainen, Project Manager
Miina Mäki, Project Manager
Anna Saarentaus, Project Manager
Maija Salmiovirta, Project Manager



THE FOUNDATION'S OPERATIONS are led by the Secretary General, and the Board of Directors is the body responsible for these operations. The Board of Directors accepts the objectives and budgets of the projects. Moreover, the Board regularly monitors the implementation of the strategy, the financial status of the Foundation, and project progress.

Changes in the Foundation's Board of Directors in 2019

In early 2019, **Jukka Anteroine**n, Dr. Mil. Sc, Commodore, was appointed as a new member to the Board of Directors of the John Nurminen Foundation. From April 2019 onwards, Jukka Anteroine will take over the post of Commander of the Coastal Fleet. At the end of 2018, John Nurminen Foundation Members of the Board **Veli Sundbäck** and **Pertti Torstila** left the Foundation. Veli Sundbäck served as a board member of the Foundation from 2009 onwards, and Pertti Torstila from 2014.

Juha Nurminen, Chairman of the Board, thanked both leaving members for their valuable work for the Foundation: 'Veli Sundbäck has played a significant role in building up the Clean Baltic Sea projects, and was also actively involved in operative field work. Sundbäck's input was decisive in, for example, the negotiations that led to reducing discharges from a fertilizer factory to the Gulf of Finland. Pertti Torstila brought his solid expertise in foreign policy and diplomacy to the Foundation's operations. His keen observations and

recommendations on societal impact were of great benefit to the Foundation.'

Advisory teams in support of societal networking

The Foundation's operations are supported by advisory teams and steering groups consisting of key stakeholder representatives and experts. Team members work on a pro bono basis, and do not receive any meeting fees.

In 2019, the **Loki steering group** comprised the following experts: **Annamari Arrakoski-Engardt** (chair), **Hanne Kettunen**, **Vesa Hongisto** (Finnish Heritage Agency), **Juho Lipsanen** (John Nurminen Foundation Board), **Kimmo Levä** (Finnish Museums Association), professor **Markku Löytönen** (University of Helsinki), **Hanno Nevanlinna** (Futurice Oy), **Juha Nurminen** (John Nurminen Foundation), **Per-Edvin Persson** (John Nurminen Foundation), **Antti Rantanen** (Avanto Ventures), and **Samppa Vilkkuna** (Superson).

The **Clean Baltic Sea advisory team** will select a new chairperson to replace Veli Sundbäck in 2019. In addition to the chair, the team consisted of **Ilkka Herlin** (BSAG), **Lea Kauppi** (Finnish Environment Institute), **Esa Nikunen** (City of Helsinki), **Markku Ollikainen** (University of Helsinki), **Kaisa Olkkonen** (John Nurminen Foundation Board), **Liisa Rohweder** (WWF), **Helena Tuuri** (Ministry of Foreign Affairs), representatives from NEFCO, Helcom, and the Ministry of the Environment, and **Annamari Arrakoski-Engardt**, Secretary General (John Nurminen Foundation). **Annamari Arrakoski-Engardt** (JNS).

CONTACT INFORMATION



JÄNNE OJANPEÄ

Foundation's team in 2019
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Tuula Putkinen,
Anni Kujala,
Erkki Salo,
Anne Mäkijärvi,
Anna Saarentaus,
Ari Rytönen,
Annamari Arrakoski-Engardt,
Secretary General,
Marjukka Porvari,
Miina Mäki,
Oona Lavonsalo,
Kirsi Kurki-Miettinen,
Elena Kaskelainen,
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HELP US TO SAVE THE BALTIC SEA AND ITS VIBRANT CULTURE!

Donate and contribute to our concrete projects
to save the Baltic Sea, and to our work ensuring that
the stories of the sea are passed on
to the future generations.

You can make a donation online or to our bank account:

Recipient: John Nurmisen Säätiö (John Nurminen Foundation)

IBAN Number: FI06 1214 3000 1122 96

SWIFT: NDEAFIHH

Thank you for your help!

More information: **www.johnnurmisenensaatio.fi**

COLLECTION PERMIT/NATIONAL POLICE BOARD
Permit given to: John Nurminen Foundation
Permit number and date of issue:
RA/2016/682 and 31.10.2016
Time and geographical area: 1.1.2017 – 31.12.2021,
whole Finland excluding Åland

An aerial photograph of a coastline. The top half of the image shows the dark, textured surface of the sea with white foam from breaking waves. The bottom half shows a wide, light-colored sandy beach. The horizon line is slightly curved, separating the water from the land.

John Nurminen Foundation

We save the Baltic Sea and its heritage for future generations.

www.johnnurmisensaatio.fi