

JOHN NURMINEN FOUNDATION 2012



Cover: The emblem of the John Nurminen Foundation is the old logo of the John Nurminen company, designed after the Winter War by architects Lappi-Seppälä & Martas. The idea for the logo originated in a wall cloth woven in the 1930s by John Nurminen's sister Elsa: the cloth depicted a ship together with the text 'Älä Wälit! Ann' Nurmise Wäliittää' (Don't worry! Let Nurminen take care of things!). The text of the symbol is a reminder of the forwarding company's roots in the city of Rauma; it is also a part of Finnish advertising history.

The jewel of the marine antiques collection is the s/s *Inkeri Nurminen* captain's saloon, dating from 1892. The decorative skylight brought light to the saloon, which was located in the stern of the vessel.

MAX EDIN

JOHN NURMINEN FOUNDATION ANNUAL REPORT 2012 AND REPORT ON OPERATIONS

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JOHN NURMINEN FOUNDATION

AFTER JUHA NURMINEN’S INITIATIVE, The John Nurminen Foundation was established in 1992 to safeguard the cultural heritage of Finnish seafaring and maritime history. The purpose of the Foundation is to present and introduce the remarkable cultural heritage of the Baltic Sea to experts and the general public alike.

The collection of the John Nurminen Foundation consists of maritime art, marine antiques, antique maps and objects related to seafaring. For over two decades, the Foundation has organised sea-themed exhibitions and published books on maritime history and maritime art.

In addition to preserving the cultural heritage of Finnish seafaring and maritime history, the Foundation works to protect the environment of the Baltic Sea. In 2004, with the backing of the initial capital donated by Juha Nurminen, the Foundation expanded its operations to include environmental protection. At this time, the Clean Baltic Sea environmental projects were initiated as a second branch of the Foundation’s operations. The target of the projects is to reduce eutrophication of the Baltic Sea, and minimise the risk of oil accidents in the Gulf of Finland.

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MESSAGE FROM THE CHAIRMAN OF THE BOARD



MAX EDIN

Juha Nurminen at the Clean Baltic Sea concert on February 26, 2013

THE BEST PIECE OF NEWS on the Baltic Sea in 2012 concerned the reduction in the discharges from the Phosphorit fertilizer factory in Kingisepp, Northeastern Russia. In the spring of 2012, experts of the Phosphorit fertilizer factory built a system that reined in the record-breaking discharges the world had learned about around New Year 2011–2012. Now, slightly more than a year after the leak was discovered, we can safely say the situation is in control. Cooperation between EuroChem and the Foundation has been smooth, and in the near future, we will jointly be selecting an independent expert. The Foundation's role in the events has been that of a solution accelerator and partner.

EuroChem's operations in Kingisepp and the major project completed by the Foundation in St. Petersburg in 2011 have together resulted in a reduction of close

to 60% in the phosphorus load discharged to the Gulf of Finland. Scientists say this amount is so significant that we can expect to see favourable results in the status of the Baltic Sea already in the next few years.

In Warsaw, too, solid long-term cooperation is now bearing fruit. The Foundation has not run a separate project in Warsaw. But the Letter of Intent signed in 2009, a completed preliminary study, and continuous dialogue with the city all contributed fundamentally to the fact that the Czajka wastewater treatment plant, completed in 2012, now treats waters in line with the treatment result requirements of the Baltic Marine Environment Commission HELCOM. It is essential that the example of the capital is followed also by small and middle-sized treatment plants. Treating the wastewaters of Poland alone in line with HELCOM

recommendations would cut the phosphorus load discharged to the Baltic Sea by one sixth of the target of 15,000 tonnes of phosphorus set by HELCOM. It is not an exaggeration to say that the way in which the wastewaters of Poland are treated is a matter of life and death to the Baltic Sea.

In spite of the progress we have made, there is still a lot of work to do. It is especially alarming that piles of gypsum waste originating in the fertilizer industry, similar to those found in Kingisepp, are found elsewhere too, for example on the shores of Poland and Lithuania. The time bomb is ticking. These sources must be tackled with the same speed and gusto as was done in Kingisepp. While I am writing this, we do not yet know what the role of the Foundation will be in this area, but we do not intend to sit by doing nothing. As was the case in Kingisepp, we believe that here is a great opportunity for fruitful cooperation between the Ministry of the Environment and HELCOM, for example.

We have our work cut out for years to come. As is done every year, the Foundation's Board has evaluated new projects which we could possibly join in order to improve the status of the Baltic Sea. This message can also be advanced through music and culture: at the time of writing, we have just organised the first Clean Baltic Sea concert in the Helsinki Music Centre, made possible by the fantastic pro bono donation from Valery Gergiev. Time will tell if this was a one-off success, or an all-new concept to speed up the work to preserve our sea.

In the area of maritime culture, our work was once again acknowledged in a wonderful way last year when Antto Leikola's *From the Elephant to the Nautilus* was selected as a candidate for the Finlandia Literary Prize for Non-Fiction. Next, we will continue the story of *Gustav III and the Great Sea War* with the publication

of a book on 'the 'orrible war of Åland' in the autumn of this year. In July, we will celebrate the history of the world map in many ways, including with events organised in association with the international conference on history of cartography.

Annamari Arrakoski-Engardt has been nominated chair of the Foundation's Advisory Group on maritime culture. We may expect innovations as well as inventive and versatile recycling of old content. While we safeguard maritime traditions, we also continuously seek for renewal. We already know that there are other content providers in the area of maritime culture who also are interested in diversifying their operations and the channels through which they distribute their contents.

Safeguarding the cultural traditions of seafaring, the Foundation has travelled a long journey in 20 years. What has been particularly rewarding is the tireless interest and support bestowed upon us by the Foundation's friends and partners, whether in the field of culture or the protection of the Baltic Sea. I would like to thank our many partners and supporters, without whom our work for the Baltic Sea would not be possible. I also thank the Foundation's Board and advisory groups for their energetic and inspiring cooperation. My heartfelt thanks go also to the Foundation's Secretary General, Erik Båsk, for his excellent contribution as the captain of the Foundation.

Helsinki, March 2013

Juha Nurminen

Chairman of the Board

John Nurminen Foundation

FOREWORD BY THE SECRETARY GENERAL



MAX EDIN

ONCE AGAIN, we present our financial statement, the main events of the previous year, and a description of our current activities, all brought together in one publication. Our goal, which is to report on the Foundation's operations thoroughly and transparently, received great recognition when our Annual Report for last year received an honorary mention in PwC's Transparency Award competition.

The 20th anniversary of the Foundation was celebrated cherishing the spirit of cultural traditions. We lent marine antiquities and maps to various museums and exhibitions. The Salo Art Museum hosted a more extensive art exhibition, where some

20 works by Adolf Bock were on loan from the Foundation. In October, the Foundation celebrated the publication of Anto Leikola's new book *From the Elephant to the Nautilus – Explorations into the illustration of animals* at a launch event organised at the Museum of Natural History. This became already the third of the Foundation's publications nominated for the Finlandia Literary Prize for Non-Fiction.

Although the Foundation continues to receive praise for its publications, the challenges of running a small-scale publication business have become apparent. Book sales were down on the previous year, as the new publication was the only one that sold well. Deficit for the Maritime History branch of operations amounted to €126,081. During 2012, the Foundation commissioned a preliminary study on how contents pertaining to marine culture could be introduced to new channels in new ways, alongside more traditional channels such as exhibitions and publications. This topic was of interest also to other stakeholders, and the cultural workshop organised by the Foundation was attended by a couple of dozens of representatives from various organisations, all coming together to consider the opportunities they have for cooperation. This work continues this year.

In terms of asset management, 2012 was a reasonably successful year. Results were, however, burdened by the move of the Foundation's long-term tenant. Released premises needed extensive renovation before they could be split into two spaces, used by two new tenants.

The targets of the Clean Baltic Sea projects remain the same: a 2,500-tonne reduction in the annual phosphorus load discharged to the Baltic Sea by

the year 2015, and the completion of the Tanker Safety project by the end of 2013. The phosphorus removal projects still need funding to account for the missing 440 tonnes of phosphorus. This year, if we can keep our schedules, the Foundation will complete significant investments for four projects. It is consequently of utmost importance for the continuity of our operations that we succeed in our fundraising efforts.

We have also achieved results. The PURE project, partly funded by the EU, is an inch away from completion, with only the project in Brest, Belarus, extended until June 2013. In Riga, Latvia, and Gdansk and Szczecin in Poland, for example, great results have been achieved. More information on the achievements of the PURE project is available on pages 40-41. The Tanker Safety project has also moved ahead in stride. More resources have been made available for service deployment, and we have kept our schedule. The Finnish Transport Agency is about to incorporate the ENSI service into the vessel traffic control system of the Gulf of Finland, and a number of Neste Oil tankers have already deployed the system.

The Foundation's reputation amongst key Baltic Sea stakeholders is strengthening. In addition to the success of our projects, our partnerships with EuroChem and the Warsaw water utility bore fruit. Through its own operations, which bring concrete results, the Foundation has become a sought-after speaker, commentator and background source for various experts and political decision makers. In the future, the Foundation's financial statements will also indicate how much time was spent in environmental

education and advocacy work. However, the focus of our operations is in concrete and measureable projects, both now and in the future.

Fundraising for the Clean Baltic Sea projects surpassed that of 2011, totalling at €1,294,000. Sanoma made a significant additional contribution, the results of which we will see only during 2013. As a taster of things to come, see the advertisement on the inside of the Annual Report's back cover. As the Foundation is becoming better known, we are also considering new ways of cooperation and new methods to raise funds. At the time of writing, we have just organised the Clean Baltic Sea Concert at the Helsinki Music Centre. In July 2013, we will also participate in The Tall Ships Races Helsinki 2013 event.

Without our supporters and partners, our work would not be possible. Pro bono donations are extremely important to the Foundation's work for the Baltic Sea.

I would like to thank the Foundation's supporters and partners for your most valuable input. For the work that brings results, thanks are also due to the Foundation's team of employees, who all pull together.

Following the practice of previous years, Edita Prima Oy has printed this Annual Report as a donation to the Foundation.

Helsinki, March 2013

Erik Båsk

Secretary General

John Nurminen Foundation

HIGHLIGHTS OF 2012

MARITIME HISTORY

EXHIBITIONS

In 2012, the John Nurminen Foundation participated in four exhibitions and two trade fairs.

During the summer, paintings by Adolf Bock alongside other works with a marine theme were lent to the Salo Art Museum's exhibition, *Adolf Bock and Masters of the Seascapes*. Also during the summer, the Foundation's operations were presented at the Loviisa Maritime Museum and the Rönns archipelago museum. In the autumn, sections of the Foundation's map collection were on display at the Hanasaari Swedish-Finnish Cultural Centre.

In February, the Foundation's stand at the Helsinki International Boat Show showcased the Clean Baltic Sea projects and activities related to maritime history. At the Helsinki Book Fair in October, the Foundation's stand featured navigation instruments and books and items associated with animal illustrations.

PUBLICATIONS

Anto Leikola's book, *From the Elephant to the Nautilus – Explorations into the illustration of animals* was published in early October. The book was selected as a candidate for the 2012 Finlandia Literary Prize for Non-Fiction. The book's print run was 2,020.

COLLECTIONS

In September, two maps from the Baltic Sea region were acquired for the Foundation's map collection. Maps in the collection were also framed during the year. Books on the history of seafaring and cartography were acquired for the manual library.

Three of the Foundation's maps were featured in the print fabrics of Vallila Interior, as a part of the company's 2013 collection.

CLEAN BALTIC SEA PROJECTS

PHOSPHORUS REMOVAL PROJECTS

The PURE project was finalised during 2012 with the exception of the city of Brest, which was granted a schedule extension until the end of June 2013 to complete their investments in improved phosphorus removal. The water utilities of Riga and Jurmala, which participated in the project, completed their investments boosting the efficiency of nutrient removal from wastewaters. The wastewater treatment plants of Szczecin and Lake Kohtla, also project participants, were removed from HELCOM's 'hot spot' list in 2012.

During 2012 the PRESTO project, which focuses on Belarus, drew up technical investment plans in for the purpose of improving the efficiency of nutrient removal at the water utilities of partner cities. Moreover, investment agreements were signed with the water utilities, which then began planning the investments on the local level.

A joint project was initiated with the Udarnik poultry farm in Northwestern Russia with the objective of reducing the nutrient runoff entering waterways and the Baltic Sea from the poultry farm's manure pools.

In January, the Foundation offered its support to EuroChem, the owner of the Phosphorit fertilizer factory in Kingisepp, Northwestern Russia, establishing cooperation to remove the discharges of the factory. The discharge became under control in 2012, when Phosphorit built a treatment system for the runoff waters of the factory area. In June, the Foundation and EuroChem agreed to hire an independent European expert organisation to assess the effectiveness of the Fosforit runoff water treatment system.

TANKER SAFETY PROJECT

In 2012, the lead responsibility of the project was transferred to the main project partner, the Finnish Transport Agency, who will implement the ENSI navigation service. To support this transfer, a workshop where a roadmap for the ENSI service was drawn up was organised in April.

The implementation of the ENSI service, commissioned by the Finnish Transport Agency, began in the spring of 2012, and the planning of user tests will take place in the autumn. The first route plan from a tanker to the ENSI system was sent in December. In September, the Foundation hired a project manager to oversee the implementation of the project. An implementation plan, covering the phases and support activities of ENSI implementation, was drawn up in September.

In late 2012, the Finnish Transport Agency began the specification work for the next phase of ENSI. The Finnish Transport Agency also continued to negotiate with Russian and Estonian authorities on the expansion of ENSI to cover the Gulf of Finland in its entirety.

ENVIRONMENTAL EDUCATION AND ADVOCACY

In 2012, the John Nurminen Foundation reached approximately 1,000 people in addition to the thousands of people encountered at various events organised for the general public, companies, and stakeholders. Either as an organiser or partner, the Foundation participated in more than ten major events. Representatives of the Foundation also participated in smaller seminars, and received groups of visitors at their premises.

Moreover, education and communication materials related to the various projects were published to meet the needs of the general public as well as specific groups, such as stakeholders of the wastewater treatment industry.

FUNDRAISING AND COMMUNICATIONS OF THE CLEAN BALTIC SEA PROJECTS

In 2012, approximately €1,290,000 was donated in support of the Foundation's Clean Baltic Sea projects. Of the support donated in 2012, 54% came from companies, 9% from private individuals, 36% from public stakeholders, and 1% consisted of return on capital.

Principal sponsors Fortum, Nokia and Sanoma continued to support the Clean Baltic Sea projects. According to the Letter of Intent signed with Fortum in the spring, its support will continue in 2012–2015. In the spring of 2012, Ålandsbanken granted the Clean Baltic Sea projects a Nature Bonus of €55,000.

Kuusakoski and Nordea continue as main partners. In the autumn, Sophie von Julins Stiftelse became a new main partner. Castrén & Snellman, Familjen Hartwalls Fond and NCC continue to be donors of the key supporter category. New key supporters in 2012 were Alexandria, Greta Maria Lindbloms Stiftelse, PwC, and Insamlingsstiftelse för natur och miljö.

Cooperation with Sanoma, which already spans several years, continued also in 2012. Selected Sanoma Magazine publications ran a print advertising campaign in June – August, and in July, the Nelonen TV channel ran the Foundation's TV advertisement. The advertisement agency Fiander donated the advertisements' creative design to the Foundation. Sanoma also made an additional and significant monetary donation to the Foundation's work promoting the Baltic Sea. In connection with this additional donation, Sanoma and the Foundation initiated the creative planning of a joint campaign for the Baltic Sea towards the end of 2012.

In addition to other types of cooperation, Nordea hosted The Clean Baltic Sea Club event for supporters and stakeholders in its Old Banking Hall in August. At the event, the more than one hundred guests were provided information on the Foundation's projects and current fundraising status. The keynote speaker at the event was Sauli Niinistö, President of Finland.

The Foundation's annual report for 2011 received an honorary mention in the PwC Open Report competition's category for large associations and foundations. The report received praise for its clarity, as the supporters of the Clean Baltic Sea projects and the Foundation's fundraising methods and fund expenditure, for example, were all explicitly explained.

Juha Nurminen

Chairman of the Board of Directors,
Board Member since 1992

Jouko Lönnqvist

Vice Chairman of the Board,
Board Member since 2005

Annamari Arrakoski-Engardt

Board Member since 2012

Sari Baldauf

Board Member since 2009



BOARD OF DIRECTORS OF THE JOHN NURMINEN FOUNDATION

JOHN NURMINEN FOUNDATION BOARD OF DIRECTORS AND PERSONNEL

THE BOARD is responsible for the operations of the John Nurminen Foundation. The Board approves all implemented publications, exhibitions and environmental projects as well as their objectives and schedules. Moreover, the Board regularly steers and monitors project progress and the financial status of the Foundation. In 2012, the Foundation's Chairman of the Board was Juha Nurminen, and Jouko Lönnqvist held the position of Vice Chairman. Annamari Arrakoski-Engardt, Sari Baldauf, Peter Fagnäs, Juhani Kaskeala, Sirpa Ojala, Veli Sundbäck, and Hannu Syrjänen were Board Members. The Board convened seven times during the year. At the end of 2012, Sirpa Ojala resigned from the Board.

Remuneration for the Members of the Board consisted of a €1,700 one-off fee, and meeting fees of €400. Some Board Members did not accept fees for the work in the Board.

The Foundation's chosen policies are supported by advisory teams consisting of stakeholder representatives and experts. Team members work on a pro bono basis, and do not receive any meeting fees. They support the Foundation by donating their time and providing access to their networks

of expertise. Juha Nurminen chaired the Maritime History advisory team. The team convened three times in 2012. Board member Veli Sundbäck chaired the phosphorus removal project advisory team, which convened twice in 2011. The Tanker Safety advisory team is led by Board member Juhani Kaskeala. This team convened four times in 2012.

The Foundation's operations and ten employees are led by Secretary General Erik Båsk. Tuula Putkinen is the Foundation's communications manager. Maria Grönroos is responsible for the Maritime History operational branch of the Foundation. During the first half of the year, Sofia Silvo worked as a part-time maritime history trainee. In the autumn, Harri Juntunen participated in preliminary research for cultural operations development.

In 2012, the Clean Baltic Sea projects had a staff of eight employees. Marjukka Porvari heads the phosphorus removal projects that aim at reducing phosphorus discharges to the Baltic Sea; the project managers working throughout 2012 in this operational branch were Elena Kaskelainen and Tuuli Ojala. In March, Viivi Moll began working as project manager, and in September, project manager Miina

Peter Fagnäs

Board Member since 2005

Juhani Kaskeala

Board Member since 2000

Veli Sundbäck

Board Member since 2009

Hannu Syrjänen

Board Member since 2012



JNS

BOARD OF DIRECTORS
Juha Nurminen, Chairman Jouko Lönnqvist, Vice Chairman
Annamari Arrakoski-Engardt, Sari Baldauf, Peter Fagnäs, Juhani Kaskeala, Veli Sundbäck, Hannu Syrjänen

Erik Båsk, Secretary General
Tuula Putkinen, Communications Manager

MARITIME HISTORY
Maria Grönroos, Director

MARINE ENVIRONMENT
PHOSPHORUS REMOVAL PROJECTS
Marjukka Porvari, Project Director
Elena Kaskelainen, Project Manager
Viivi Moll, Project Manager
Miina Mäki, Project Manager
TANKER SAFETY PROJECT
Pekka Laaksonen, Project Director
Mikko Klang, Project Manager
Maija Salmiovirta, Project Coordinator

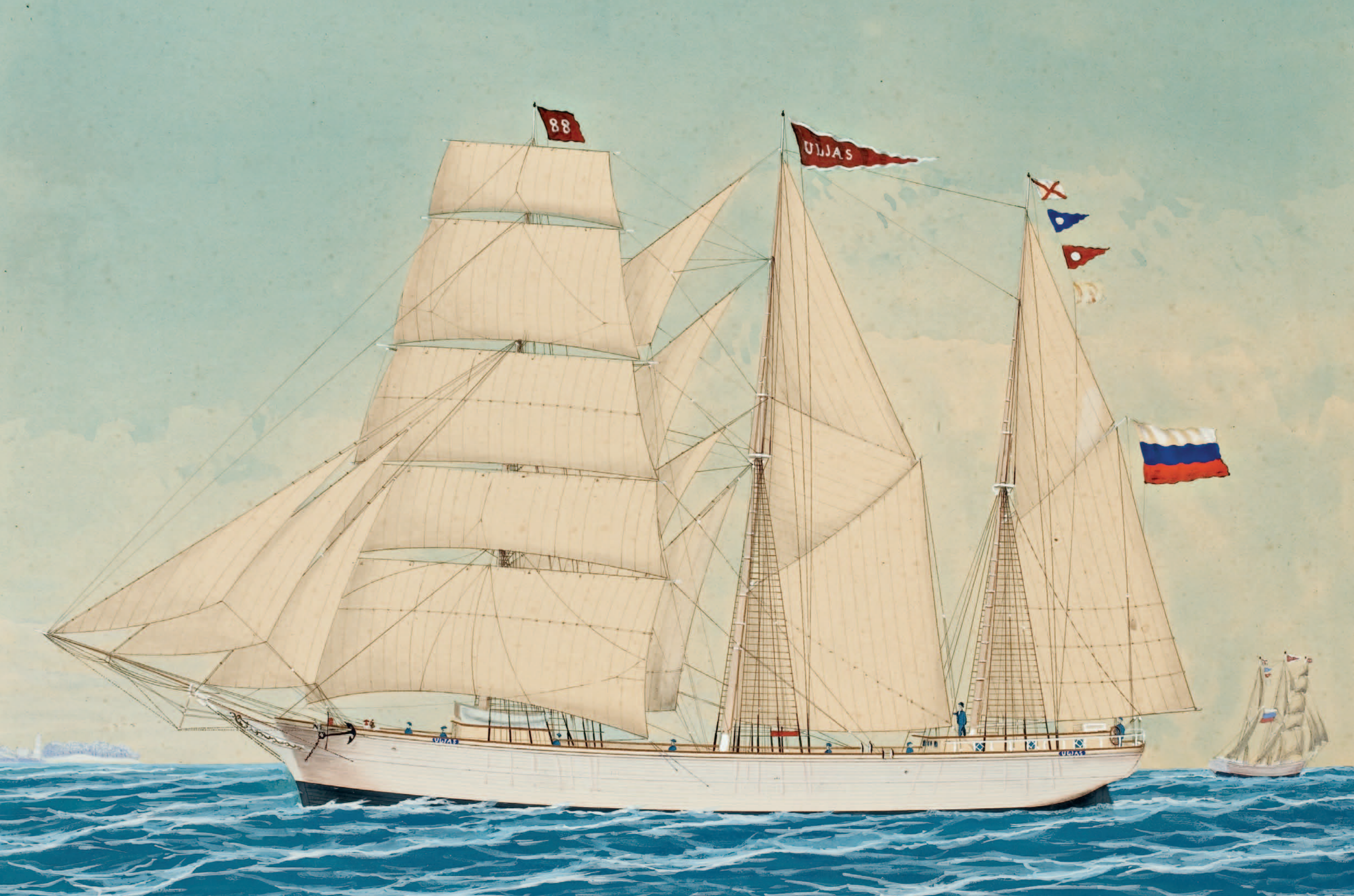
EXHIBITIONS PUBLICATIONS COLLECTIONS
ADVISORY TEAM – MARITIME HISTORY
Annamari Arrakoski-Engardt, John Nurminen Foundation (Chairman since January 2013)
Riitta Kaivosoja, Ministry of Education and Culture
Juhani Kostet, National Board of Antiquities
Markku Löytönen, University of Helsinki
Henrik Meinander, University of Helsinki
Juha Nurminen, John Nurminen Foundation
Marjo Nurminen, non-fiction author
Klaus Oesch, Futuria Oy
Esko Rahikainen, National Library of Finland

PHOSPHORUS REMOVAL PROJECTS
ADVISORY TEAM – PHOSPHORUS REMOVAL PROJECTS
Veli Sundbäck, John Nurminen Foundation, Chairman
Jaakko Henttonen, EBRD
Lea Kauppi, Finnish Environment Institute
Timo Rajakangas, Ministry for Foreign Affairs
Juhani Lönnroth
Harro Pitkänen, NIB
Liisa Rohweder, WWF
Timo Tanninen, Ministry of the Environment

TANKER SAFETY PROJECT
ADVISORY TEAM – TANKER SAFETY
Juhani Kaskeala, John Nurminen Foundation, Chairman
Thomas Erlund, Finnish Transport Agency
Risto Jääskeläinen, Finnish Border Guard
Osmo Kammonen, Neste Oil
Kari Kosonen, Finnpiilot Pilotage
Tuomas Routa, Finnish Transport Safety Agency
Juha Savisaari, Finnish Defence Forces
Pekka Valjus

Mäki returned from parental leave. Pekka Laaksonen is the director of the Tanker Safety project. Jussi Tuurnala worked as a part-time project manager up to the summer, and in September, Mikko Klang began employment as a new project manager. Maija Salmiovirta is the Tanker Safety project coordinator.

ORGANISATIONAL CHART
The effort of the Foundation's employees and Board of Directors is complemented by experts working on pro bono basis.





MARITIME HISTORY BRANCH OF OPERATIONS

COLLECTIONS, EXHIBITIONS AND PUBLICATIONS

THE CORE of the John Nurminen Foundation's cultural activities is maritime history, where focus is on the history of seafaring, exploration and cartography, and on disseminating information on these topics to the general public. The Foundation's collections of maritime art, maritime antiquities and ancient maps form the basis for these activities. The Foundation publishes books, organises exhibitions, and lends items from its collection to other exhibitions. The Foundation does not award grants, but it may, upon consideration, provide support to projects on maritime history. The maritime history operational branch is funded with income from publications and profits from the Foundation's investment activities.

Collections

The collections of maritime art, ancient maps and antiquities, collected in the course of time by John Nurminen Oy, form the basis of the Foundation's operations. The Foundation maintains and expands its collection by acquiring new items and by accepting donations. The John Nurminen Foundation's museum premises and permanent exhibition are located in Huolintatalo, Länsi-Pasila, in Helsinki, and they are open to groups and private individuals by appointment.

Previous spread: The schooner *Uljas*, built in 1891, was the first vessel built and fully owned by John Nurminen. The captain's painting by Heinrich Reimers is an excellent example of a painting of a ship where essential features are the likeness and recognisability of the ship, and the careful execution of the image. At the bottom of the painting is the text 'Ship *Uljas* Captain F.A. Snäll from Rauma, owner Herre John Nurminen, 1898'. When *Uljas* was being built, chief officer, later sea captain Adam Snäll had designed and made the sails of the ship. *Uljas* was the last great sailing vessel built in Rauma.

The colourful painting by Adolf Bock depicts life at the harbour. During 2013, the Foundation's Bock collection is on display at the Maritime Museum of Finland in Kotka and at the Tikanoja Art Museum in Vaasa.

PHOTOS: RAUNO TRÄSKELIN

Maritime art

The Foundation's collection of maritime art includes paintings, graphic prints and sculpture. Among the Finnish artists featured in the collection are Akseli Gallen-Kallela, Björn Landström, Lasse Mamlund and Henrik Tikkanen. There are several sea and ship-themed paintings by the German professor Adolf Bock, who was a major influence in Finland in the early 20th century. All in all, the maritime art collection is home to approximately 150 works of art.

Sea antiquities

The sea antiquities collection includes various pieces of seafaring machinery and equipment, and items and tools used by seafarers in the eras of sailing ships and steamships alike. The Foundation also owns a collection of ship models, ranging from Viking ships to 19th century polar vessels, which holds great value in terms of maritime history.

Antique maps

The Foundation's antique map collection contains treasures ranging from the world maps of the 15th century to 18th century nautical charts of the Baltic Sea. Today, the map collection consists of a total of one thousand maps, atlases, globes, and rare books.

Books published by the John Nurminen Foundation:

<i>From the Elephant to the Nautilus. Explorations into the illustration of animals (2012)</i>	Finnish
<i>The Circumnavigators. A History. The Pioneer Voyagers who set off around the Globe (2011)</i>	Finnish
<i>Baltiskoje More - 2000 let moreplavanija trgovli i kultury (2011)</i>	Russian
<i>Gustav III and the Great Sea War – Battles in the Gulf of Finland 1788–1790 (2010)</i>	Finnish
<i>Adolf Bock – Painter of the Sea (2010)</i>	Finnish/Swedish
<i>The Nutmeg War – The Battle for the Spice Islands of East India (2009)</i>	Finnish
<i>Light on the Sea – The Lighthouses of Finland 1753–1906 (2009)</i>	Finnish/Swedish
<i>Kuninkaansaari – Three Decades of an Island in Watercolour (2009)</i>	Finnish
<i>Transformations – The History of John Nurminen Oy 1886–2007 (2008)</i>	Finnish
<i>To the End of the Earth – Magalhães’ Fateful Journey around the World (2008)</i>	Finnish
<i>The History of Seafaring Navigating the World’s Oceans (2007)</i>	Finnish, English, Spanish, Portuguese, German, French
<i>In the Wake of Uljas – The History of the John Nurminen Trading House and Shipping Company 1886–1967 (2006)</i>	Finnish
<i>The History of the Nordic Map – From Myths to Reality (2006)</i>	Finnish, Swedish, English
<i>Sailing Alone Around the World and the Journey from Brazil to America on the Liberdade (2005)</i>	Finnish
<i>Grey ships – From the 60s to the Turn of the Millennium (2004)</i>	Finnish
<i>Masters of Maritime Art – 400 Years of Paintings of the Sea (2003)</i>	Finnish, Swedish, German
<i>The Schooner Uljas – Owners, Captains and Journeys (2003)</i>	Finnish
<i>Ultima Thule – Arctic Explorations (2001)</i>	Finnish, Swedish, English, German, Norwegian, Spanish
<i>Art and the Sea – Maritime Painters of the Baltic Sea (2000)</i>	Finnish, Swedish
<i>Album of the Gulf of Finland (1999)</i>	Finnish, Russian
<i>Mare Balticum – 2000 Years of History of the Baltic Sea (1995)</i>	Finnish, Swedish, English, German
<i>The Northeast Passage: From the Vikings to Nordenskiöld (1992)</i>	Finnish, Swedish, English

Examples include naval and city maps of the Baltic Sea and the Nordic area, and maps of the arctic. The Foundation owns Finland’s largest private collection of nautical charts.

Exhibitions

The John Nurminen Foundation has organised numerous exhibitions on the themes of seafaring, exploration, the history of cartography, and maritime art. For their part, the exhibitions have helped to raise awareness of the Foundation’s collections. In addition to connoisseurs, the exhibitions have also reached the public at large. Often, the Foundation has set up exhibitions alongside its book projects. This approach has allowed us to delve deeper into the themes of the book and the exhibition, which often emphasise different areas, but are still thematically similar. The Foundation has also participated in various other exhibitions by lending maps, paintings, and maritime antiques to them.

Publications

The John Nurminen Foundation has published a total of 21 books. The target of these publications is to provide information on topics related to maritime history. The books aim at combining the best aspects of art and non-fiction publications. The Foundation’s antique map, maritime art and maritime antiquity collections are used as resources for the books and their illustrations. The publications, aimed at the general public, are non-fiction books on seafaring, cartography, maritime art, and exploration. In addition to interesting textual contents, aimed at the general public, the publications focus on visual imagery, detail, and print quality. The books’ illustrations include unique and even previously unpublished images from the museums and archives of the world.

Elsa Nurminen, the sister of Maritime Counsellor John Nurminen, made her living weaving rugs. In the 1930s, she wove a wall cloth which had a ship and the text ‘Älä wälit, ann Nurmise wälittä’ (Don’t worry! Let Nurminen take care of things) on a black background. After the Winter War, architect Martas used the cloth’s imagery in the development of the company’s round logo, which continues to be featured in the logo of the John Nurminen Foundation. The wall cloth is on display in the John Nurminen Foundation exhibition space in Huolintatalo.

The speed of the vessel and the length of its voyage were measured with a taffrail log, also known as a patent log. The float of the log was trailed after the vessel, and its rotations in water were transferred via cable to the reader equipment attached to the rail. The brass patent log in the picture dates from the 19th century, and it is by renowned manufacturers Thomas Walker & Son.



RAJNO TRASKELIN



RAJNO TRASKELIN



VENA KOMARI

Maps of the Foundation in Vallila fabrics

In the autumn of 2012, the John Nurminen Foundation and Vallila Interior launched their cooperation involving print fabrics. The Vallila spring 2013 collection, launched in November, includes three designs that are based on the Foundation's maps. The map designs, i.e. the grey-based Pohjola, yellow-based Visby, and the lightly coloured Baltic, are available as fabrics and some of them also as pillows.

The Pohjola design is based on a map printed in 1570, depicting North Europe. In the beginning of the Renaissance, geographical knowledge of Northern Europe was still sparse, but the map nevertheless features many names for locations. As was typical of the time, the design also features ships and sea monsters, for example.

The Visby design, on the other hand, depicts Visby in 1598, seen from the sea and from the west. Its imagery has Slavic and Germanic tones, and its shapes are simpler, stronger and rounder than those in the Pohjola design.

The fresh Baltic is the lightest of the three designs. Compared to the two other designs, it is more graphic, distinct and more modern. The map it is based on is also of later date, i.e. early 18th century Netherlands. The design depicts our maze-like coastline, and reminds the seafarers of today of the complicated but fascinating art of navigation in our archipelago. The design is sold only at Stockmann department stores.

Vallila print fabrics in the captain's saloon of the steamer Inkeri Nurminen.



SALO ART MUSEUM

The Salo Art Museum's summer exhibition *Adolf Bock and Masters of the Seascape* assembled a wonderful collection of maritime paintings in an old locomotive hangar. In addition to artwork by Adolf Bock, the exhibition featured maritime art from Finland and abroad, from Ivan Aivazovsky to Oscar Kleinh. The book *Adolf Bock – Painter of the Sea*, published in 2010 by the John Nurminen Foundation, formed a backdrop to the exhibition.

The Loviisa Maritime Museum exhibition *John Nurminen Foundation – safeguarding seafaring traditions and the marine environment* featured maps, paintings, marine antiques and the underwater photography of Jukka Nurminen. At the opening ceremony of the exhibition, more than one hundred invited guests from Loviisa were eager to study the maritime objects on display.



TOM RÄIKÖ



HANASAARI SWEDISH-FINNISH CULTURAL CENTRE

The Foundation's maps in Hanasaari, 15 October. Kimmo Sasi, Member of Parliament, President of the Republic of Finland Sauli Niinistö, and Silvia, the Queen of Sweden visited the exhibition.

MARITIME HISTORY BRANCH OF OPERATIONS IN 2012

Exhibitions

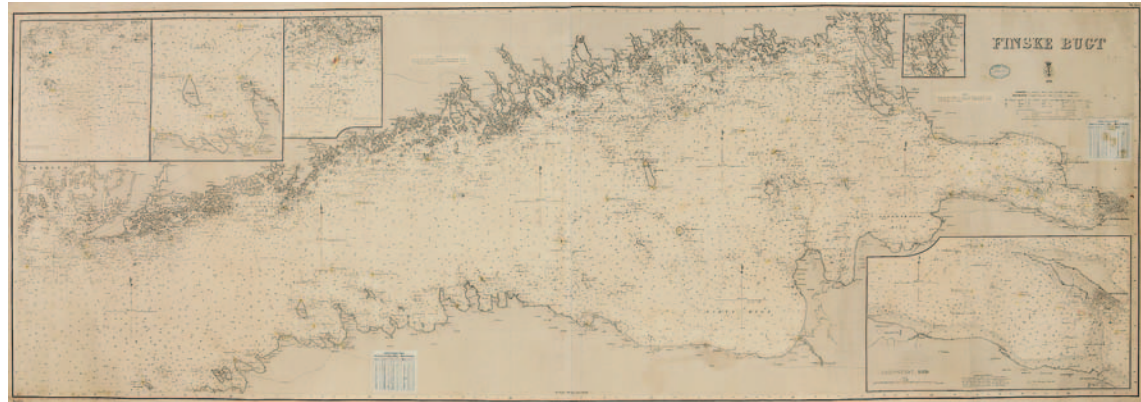
In 2012, the John Nurminen Foundation participated in four exhibitions and two trade fairs. The Foundation lent 18 paintings by Adolf Bock and three other works of art with a marine theme to the *Adolf Bock and Masters of the Seascape* exhibition, organised by the Salo Art Museum at Veturitalli from 9 June to 9 September 2012. The exhibition at Salo brought together roughly one hundred pieces of marine art dating from the 17th century onwards. The focus of the exhibition was on the maritime paintings of German-born Adolf Bock (1890–1968), although it also featured dozens of paintings from other masters of maritime art. Attendance of the popular exhibition came to approximately 6,700.

The exhibition *John Nurminen Foundation – safeguarding seafaring traditions and the marine environment*, which featured the Foundation's collections and presented its operations, was on display at the Loviisa Maritime Museum from 13 May to 2 September

2012. Exhibits included navigation instruments, maps, paintings, and underwater photography by Jukka Nurminen. Over the course of the summer, the Loviisa museum was visited by more than 2,000 guests.

During the summer of 2012, the Rönns archipelago museum exhibited the underwater photography of Jukka Nurminen coupled with information on the Foundation's Clean Baltic Sea projects. Also on display was a large copy of the 'Carta Marina' by Olaus Magnus.

Twelve of the Foundation's maps were on display from 17 September to 28 October 2012 at the Hanasaari Swedish-Finnish Cultural Centre. The theme of the exhibition was Finland's journey in the 19th century, during which the country that was an eastern province of Sweden became a part of the Russian Empire. In connection with the exhibition, a seminar was organised where Admiral Juhani Kaskeala, Member of the Board of the John Nurminen Foundation, opened the map exhibition.



HAGELSTAM AUCTIONS LTD/KATJA HOGELSTAM

The Foundation's Baltic Sea nautical chart series was complemented by two acquisitions in 2012. One of the maps is a map of the Gulf of Finland, or the 'Finske Bugt 1891'. This naval map, with a width of almost two metres, was created by the Royal Danish Naval Chart Archives. In addition to navigation data, it includes separate maps of Hanko, Tallinn (Revel), Helsinki, Vyborg and Kronstadt, and beacons marked with yellow.

During the Helsinki International Boat Show, organised from 10 to 19 February 2012, the Foundation showcased the Clean Baltic Sea projects on its stand and in its presentations. The stand also featured underwater photography by Jukka Nurminen, and a binnacle and an engine order telegraph from the Foundation's marine antiques collection.

At the Helsinki Book Fair from 25 to 28 October 2012, the John Nurminen Foundation's stand featured navigation instruments and exhibits associated with the new publication *From the Elephant to the Nautilus*. Animal topics on display included a group of turtle taxidermy, a nautilus shell, and books on gastropods and butterflies from the 18th century. Navigation instruments ranging from a cross-staff to a sextant represented objects from the history of seafaring.

During the year, the Foundation's collection in Huolintatalo was visited by numerous associations and private individuals.

The Foundation has also begun investigating the opportunities of digital cultural production. In connection with this work, the Foundation organised a 1.5-day workshop with experts from marine culture and digital communications participating.

Collections

In September, two maps from the Baltic Sea region were acquired for the Foundation's map collection. The first of them is the 'Finske Bugt' naval map of the Gulf of Finland, drawn up by the Royal Danish Nautical Chart Archive and dating to 1891/1914, while the second depicts the waters of Kalmarsund, and is drawn up by the Stockholm nautical chart offices in 1918. Items in the map collection were framed during the year, especially because of the Hanasaari map exhibition. Books on the history of seafaring and cartography were acquired for the manual library. Ambassador Réne Nyberg donated the Baltic-themed book *Tableau de la Mer Baltique* to the Foundation's collection.

Publications

The Foundation's latest publication, *From the Elephant to the Nautilus*. Explorations into the illustration of animals, was released on 16 October at a festive occasion with 200 guests, organised at the Finnish Museum of Natural History. Guest speakers at the event included Leif Schulman, Director of the Museum, Maritime Counsellor Juha Nurminen, and the book's author, Professor Emeritus Anto Leikola.



RAIMO TIESSEN

In November, the windows of the Academic Bookstore were themed after the book *From the Elephant to the Nautilus*. Windows facing Pohjois-Esplanadi featured turtle taxidermy from Malaysia, Indonesia and Brazil, and an alligator.

On 8 November, from the *Elephant to the Nautilus* was selected as one of the candidates for the 2012 Finlandia Literary Prize for Non-Fiction. In its argumentation, the selection jury for the prize praised the book as 'wonderfully visual, with the fresh and informative text of Professor Emeritus Anto Leikola bringing it all together into a fascinating history of animal illustration and exploration. The book's themes are the discovery of new species of animals, and the way in which they were described to the general public. Illustrations are chosen with expertise, and their contents and background meticulously explained in extended captions. Careful editing and an outstanding layout round off this stylish tome'. This was the third time the Foundation was nominated for the prize: *Gustav III and the Great Sea War – Battles in the Gulf of Finland 1788–1790* was nominated for the prize: *Gustav III and the Great Sea War – Battles in the Gulf of Finland 1788–1790* was nominated for the Finlandia Literary Prize for Non-Fiction in 2011, and *Light on the Sea – The Lighthouses of Finland 1753–1906* was nominated in 2009, the year of its publication.



TUULA RYTKÖNEN

At the Helsinki Book Fair of 2012, 70,000 book lovers gathered under the same roof during the four days of the exhibition. At the Foundation's stand, Anto Leikola and Juha Nurminen discussed the new book *From the Elephant to the Nautilus*. Explorations into the illustration of animals. They were interviewed by Secretary General Erik Båsk.

”

This is one of the most beautiful books of the year, and Leikola's easy-to-understand text is a joy to read.

Aamulehti, 9 November 2012

The substantial resources of the John Nurminen Foundation are used to create the most magnificent of all books published in Finland. Savon sanomat, 15 November 2012

From the Elephant to the Nautilus is beautifully illustrated and laid out; like the earlier books on the cultural history of seafaring published by the John Nurminen Foundation, it is in itself a work of art.

Apu, 45/2012

The John Nurminen Foundation publishes the most wonderful coffee table books in our country. Like *From the Elephant to the Nautilus*, however, they are always far more than just the perfect decorative element for the libraries of sophisticated homes.

Kauppalehti Optio, 2/2013



At the book release event organised at the Museum of Natural History, many wished to have a signed copy of Antto Leikola's new book, *From the Elephant to the Nautilus*. The Professor Emeritus signed his books next to one of the rarities of the museum, a skeleton of a Steller's sea cow.

The illustrations of the new book *From the Elephant to the Nautilus* have been sourced from the book treasures of the National Library of Finland, and from rarely-seen Finnish private collections. The images include rarities, the oldest of which are from 16th century books on animals.

RAUNO TRÄSKELIN



Play of colours
Jurmo, Archipelago Sea, Finland, October 2010

A distinct seasonality is a special feature of the underwater environment of the Baltic Sea. The appearance of especially shallow seabed areas changes with the alteration of growth spurts of vascular plants and filamentous algae. The first algae of the spring are usually bright-green salad-like growths which flourish even among ice floats, or filamentous brown algae at the water's edge, which thrive in ice-cold water. In summer, green algae, such as blanket weed and grass kelp, take over. Vascular plants, such as the pondweed pictured, blossom in the summer. Brown algae often return in autumn when the waters are clearer. As autumn gives way to winter, especially filamentous red algae flourish in the outer archipelago.

“The Clean Baltic Sea activities of the John Nurminen Foundation have proven to be an excellent example of how the private sector can make a major contribution to boosting the efforts to clean the Sea. The Foundation has chosen to apply business sector principles in its activities. Projects have to be cost-efficient and bring concrete results in the shortest possible time. This has been a successful approach.”

*President of the Republic of Finland Sauli Niinistö,
Patron of the Clean Baltic Sea projects*

MARINE ENVIRONMENT BRANCH OF OPERATIONS

CLEAN BALTIC SEA PROJECTS

THE CLEAN BALTIC SEA PROJECTS of the John Nurminen Foundation focus on two areas of operation:

1. phosphorus removal projects that prevent the eutrophication of the Baltic Sea
2. the Tanker Safety project which reduces the risk of oil accidents in the Gulf of Finland

The target of the John Nurminen Foundation phosphorus removal projects is to bring about visible improvement in the status of the Baltic Sea by reducing nutrient loads entering the sea, and consequently preventing eutrophication. In order to reach this goal, the Foundation's projects boost the efficiency of nutrient removal from wastewaters, and reduce nutrient loads in the entire Baltic Sea catchment area.

The target of the Tanker Safety project is to significantly reduce the risk of major oil accidents in the Gulf of Finland. To be able to reach this target, the Foundation is in the process of creating, in cooperation with key seafaring stakeholders, the new ENSI® navigation service, which will improve the preconditions of forecasting vessel traffic control.

Operating principles of the Clean Baltic Sea projects

The Clean Baltic Sea projects strive to combine the expertise and resources of both the public and private sectors in a way that best benefits the marine

environment. The projects cooperate with various stakeholders in areas such as financing, technical planning, and construction. Leading Finnish experts are consulted in the search for projects with the greatest impact on the status of the Baltic Sea.

Moreover, the Foundation is regularly in touch with all key political players with the aim of promoting the protection of the Baltic Sea. The Foundation co-operates and communicates also with other NGOs involved in the protection of the Baltic Sea.

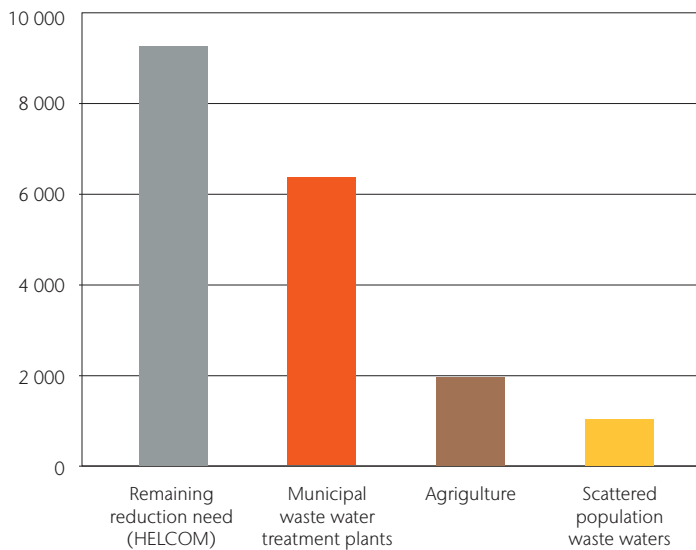
As a small and flexible third-sector player, we are able to establish and lead projects with a faster schedule than would be possible for more established structures. Through its operations, the Foundation can accelerate projects that are critical to the status of the Baltic Sea, and act as a catalyst in partnerships and cooperation projects that cross state borders and the boundaries between the private and public sectors.

The Clean Baltic Sea projects' guiding principle is to operate at such sites where the greatest results, i.e. the greatest possible positive impact on the environment, can be achieved with the least cost.

The principles of the Foundations environmental operations are:

1. Concrete actions
2. Measurable impact on the status of the Baltic Sea
3. Fast results
4. Cost-efficiency
5. Cooperation across borders

Phosphorus tonnes per year



HOW MUCH PHOSPHORUS HAS TO BE CUT BY THE YEAR 2021 – AND WHERE IS THE POTENTIAL?

Total phosphorus load to the Baltic Sea at starting point 36,310 t (average 1997–2003)

HELCOM target at starting point 15,250 (2007); of this 6,000 t has been cut by 2012

Current total phosphorus load to the Baltic Sea (2013) around 30,000 t (average 2006-2008)

Target for the year 2021:
Total phosphorus load 21,060 t

Source: HELCOM

PHOSPHORUS REMOVAL PROJECTS AGAINST EUTROPHICATION

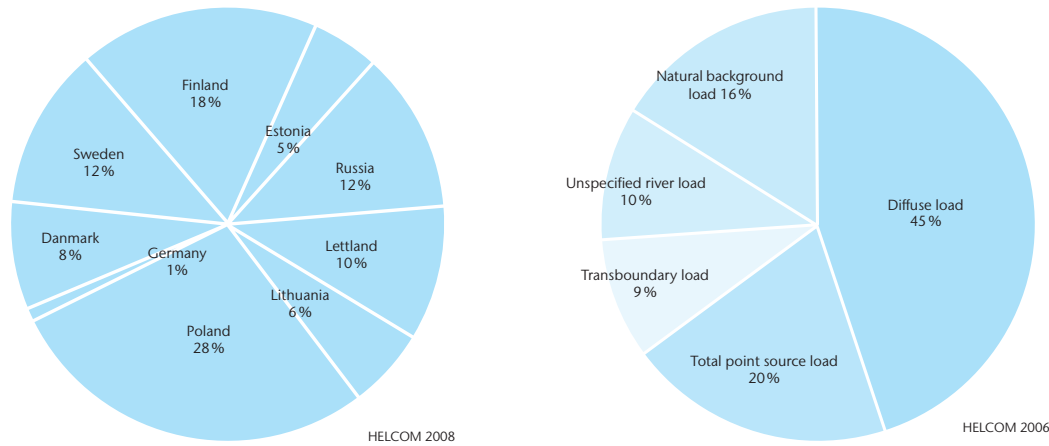
Eutrophication is the most serious environmental problem faced by the Baltic Sea. Signs of eutrophication include the blooms of blue-green algae encountered every summer. Eutrophication is caused by nutrient discharges from land use, i.e. too great loads of phosphorus and nitrogen that enter the sea. To be able to stop eutrophication and save the Baltic Sea, we need immediate and significant reductions in the nutrient loads.

The target of phosphorus removal projects is to reduce the annual phosphorus loads entering the sea by 2,500 tonnes a year by 2015 through, for example, boosting the efficiency of phosphorus removal from communal wastewaters in the entire catchment area of the Baltic Sea. In all its project sites, the Foundation aims at reaching the HELCOM nutrient load recommendations for phosphorus (maximum of 0.5 mg of phosphorus per litre in outgoing wastewaters).

Phosphorus is a key nutrient, and its amount in water regulates, for example, the appearance of blue-

green algae blooms in the Baltic Sea. With the goal of restoring a good ecological status to the Baltic Sea, HELCOM has drawn up the Baltic Sea Action Plan, signed in 2007 in Krakow by all countries surrounding the Sea, who with their signatures committed to reducing the nutrient loads. According to the Action Plan, the annual phosphorus load entering the Baltic Sea must be reduced by approximately 15,000 tonnes compared to the levels of 1997–2003. The current load is approximately 30,000 tonnes of phosphorus/year (source: HELCOM 2008).

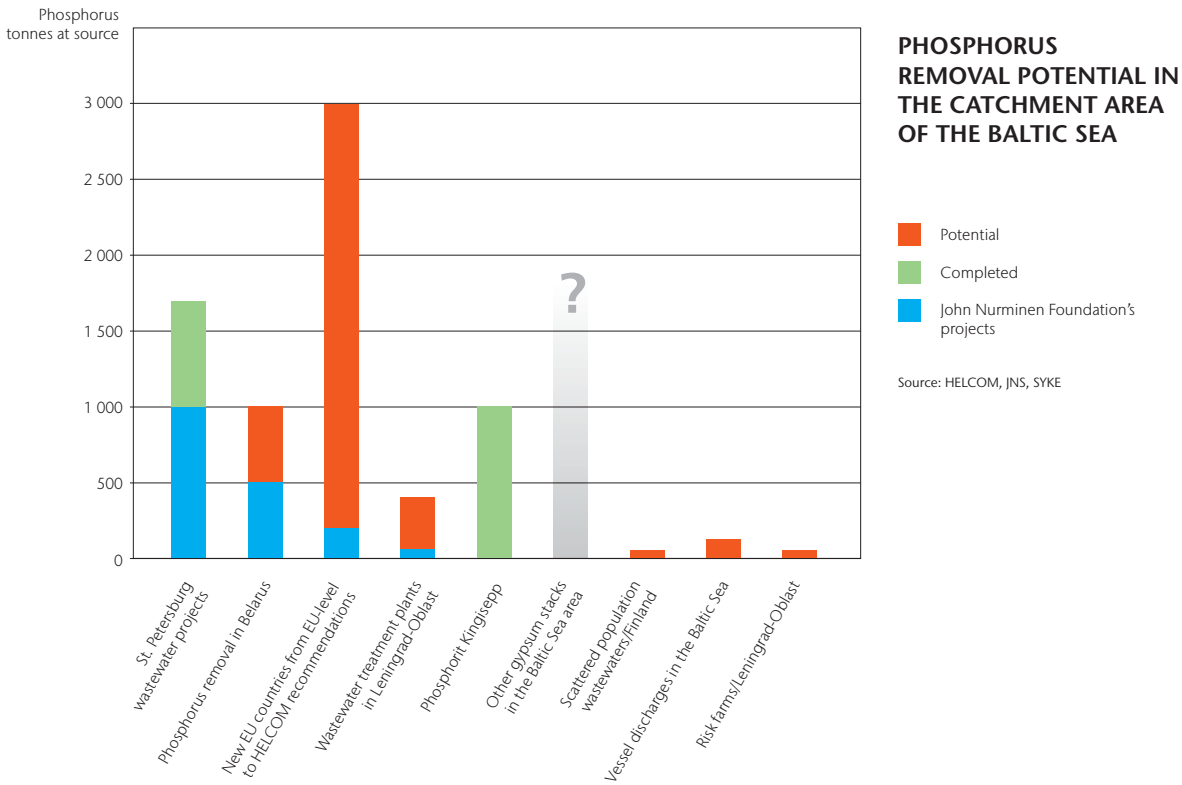
The Foundation's target of reaching a reduction of 2,500 tonnes is ambitious, as it corresponds to one sixth of HELCOM's overall reduction target. The national target specified by HELCOM's action plan for Finland, for example, is a reduction of 150 tonnes per year, while the load generated by the wastewaters of all ships sailing the Baltic Sea is approximately 120 tonnes per year for the entire Baltic Sea area.



ANNUAL PHOSPHORUS LOAD OF THE BALTIC SEA BY COUNTRY AND BY SOURCE

The annual phosphorus load entering the Baltic Sea annually consists mostly of nonpoint source load (agriculture, dispersed residential areas) and communal wastewaters. The countries where the largest discharges originate are Poland and Russia, which also have the highest populations. Loads from Belarus and Ukraine, which are not included in the graphs, are included in the external loads of the coastal countries; this load enters the Baltic Sea essentially with river runoffs from Poland, Latvia and Lithuania. Unspecified river load includes loads from Russia and Germany in cases where precise information on the source of the load is not available. Natural background load is the nutrient load created in waterways without human involvement. Compared to the long-term average, rainfall in the Baltic Sea catchment area in 2008 and particularly its northern region was exceptionally high, resulting in increased nutrient runoff in Finland, in particular.

Source: HELCOM 2006, 2008



PROJECT SITES AND THEIR SELECTION CRITERIA

Phosphorus removal project cooperation targets are selected on the basis of the project's feasibility, measurable environmental impact, and cost-efficiency. In addition to ongoing projects, the Foundation is actively searching for project targets everywhere in the Baltic Sea catchment area where nutrient loads entering the Baltic Sea could be reduced through, for example, more efficient wastewater treatment.

PHOSPHORUS REMOVAL PROJECTS

The phosphorus removal projects of the John Nurminen Foundation have been implemented at nineteen sites in five countries: Russia, Belarus, Latvia, Estonia and Poland. These projects will reduce the load entering the Baltic Sea by nearly 2,060 tonnes of phosphorus annually. Thus, 440 tonnes of phosphorus are still missing from the 2,500 tonne target.

PHOSPHORUS REMOVAL PROJECTS IN 2012

RUSSIA

The majority of Russian wastewater treatment plants were built in the Soviet era, and their nutrient removal technology is not up to today's standards. Phosphorus loads entering the Baltic Sea can be cut cost-efficiently and fast by improving the efficiency of existing wastewater treatment plant operations in the Leningrad and Kaliningrad regions.

The largest wastewater treatment plants of St. Petersburg: Central, Southwestern and Northern.

The cooperation project initiated in 2005 by the Foundation and the St. Petersburg water utility to improve the efficiency of phosphorus removal at St. Petersburg's three largest wastewater treatment plants was completed in the summer of 2011. After the completion of the project, the annual phosphorus load entering the Baltic Sea was reduced by more than 1,000 tonnes. During 2012, in cooperation with the St. Petersburg water utility, the Foundation continued to monitor wastewater treatment plant discharges and develop phosphorus removal.

Gatchina

Gatchina is a city with approximately 80,000 inhabitants, located southwest from St. Petersburg. The wastewaters of the city are discharged to the River Izhora, which flows to the Gulf of Finland via the River Neva.

In February 2010, the Foundation and the Gatchina water utility signed a Letter of Intent for co-operation, stating that they will work together for the improved efficiency of phosphorus removal from the city's wastewaters. The Foundation supports the technical planning and equipment investments required by

phosphorus removal, whereas construction and local planning remain the responsibility of the water utility.

In 2011, the Foundation commissioned a technical process plan and tendering documentation for improved phosphorus removal at the plant. Preparations for the investments moved forward in 2012, and the work is scheduled to be complete during 2013. An annual reduction of about 40 tonnes of phosphorus will be achieved in Gatchina.

Vyborg

The wastewaters of the roughly 70,000 inhabitants of Vyborg are discharged to the Vyborg Bay, from which they end up in Finland's eastern sea area.

In 2010, a Letter of Intent with the scope of improving the efficiency of phosphorus removal was signed with the Vyborg Water Utility, together with an agreement on conducting phosphorus removal tests at the Vyborg plant. The tests were implemented in the winter of 2010-2011 with equipment provided by the Foundation and funding from the Finnish Ministry of the Environment. The tests resulted in the observation that in order to reduce costs and increase the operational reliability of the treatment plant, biological phosphorus removal is needed in addition to chemical phosphorus removal processes. Based on the phosphorus removal tests, the Foundation commissioned a technical process plan in 2011, and drew up tendering documentation for improved phosphorus removal.

In the spring of 2012, an investment agreement was signed with the Vyborg Water Utility. The implementation of the agreement has, however, been delayed due to constant managerial changes at the plant. The target is to finalise investments during 2013. The implementation of efficient phosphorus removal in Vyborg can reduce the annual phosphorus

SCHEDULE OF PHOSPHORUS REMOVAL PROJECTS

JNF = John Nurminen Foundation; ME = Ministry of the Environment

Target	Schedule	Environmental impact	Funding
St. Petersburg	2005-2011; completed 6/2011	annual reduction of 1000 tonnes of phosphorus	Water utility 50%, JNF 50%
Gatchina	2009-2013	annual reduction of 40 tonnes of phosphorus	JNF 100%
Vyborg	2010-2013	annual reduction of 20 tonnes of phosphorus	JNF 100%
PURE project and JNF's additional support to Riga	2010-2013	annual reduction of 500 tonnes of phosphorus	EU 80%, ME 5%, JNF 15% + dosage tank to Riga (JNF 100%)
PRESTO project	2011-2014	annual reduction of 500 tonnes of phosphorus	EU 90%, ME 5%, JNF 5%
TOTAL		2060 tonnes of phosphorus	

load entering the Baltic Sea by approximately 20 tonnes, and simultaneously improve the status of Finland's eastern coastal waters and the eutrophicated Bay of Vyborg.

Udarnik

The Udarnik poultry farm is located in the village of Pobeda in the Vyborg region in Southwestern Russia. In 2011, the Foundation investigated the opportunities of reducing loads from livestock farms in the Leningrad region. Four large high-risk poultry farms, which according to the Baltic Marine Environment Protection Commission HELCOM generate the greatest nutrient load to the Baltic Sea, were selected as project targets. A joint project was initiated in 2012 with the Udarnik poultry farm, one of the identified high-risk farms, with the objective of reducing the nutrient runoff entering waterways and the Baltic Sea from the manure pools of the poultry farm.

In addition to the support from the John Nurminen Foundation, the Udarnik poultry farm

project received additional funding in the spring of 2012 from the Baltic Sea Action Plan Trust Fund, established by the states of Sweden and Finland. An investigation into improving manure treatment methods was initiated in June 2012. In the autumn of 2012, Udarnik built new manure treatment pools in the area, and began the planning of two new manure pools. The Foundation and the owners of the Udarnik poultry farm join forces in investigating the options of minimising the risk of leakages to the environment in the old and new manure treatment areas.

BELARUS

Belarus is partly located in the catchment area of the Baltic Sea. Nutrient loads from Belarus end up in the Baltic Sea primarily via three routes: the River Vistula, which runs through Poland, the River Neman, which runs through Lithuania, and the River Daugava, which runs through Latvia. The water treatment infrastructure of the country was built in the Soviet era, and in its



The ditch with phosphorus-rich water was quickly and successfully dammed up with a dam built from sand and clay. Sergei Sheibak, technical director of the Phosphorit Factory, explained that in order to find a solution, the factory's management was quick to assemble a team of experts including not only the current experts of the factory, but also Phosphorit personnel who had already retired. In only 1,5 months, this team of experts was able to develop a solution where runoff waters are treated with lime, resulting in efficient phosphorus removal. Moreover, phosphorus can be recycled back to the process, so that the valuable natural resource will not be wasted.

EUROCHEM



EUROCHEM

FROM SHOCK TO RELIEF: DISCHARGES FROM THE PHOSPHORIT FERTILIZER FACTORY TO THE RIVER LUGA IN KINGISEPP, NORTHWESTERN RUSSIA

In January 2012, news reported a new and significant nutrient load source in the Gulf of Finland, previously unknown even to researchers of the Baltic Sea. HELCOM's research discovered that from the area of the Phosphorit fertilizer factory in Kingisepp on the River Luga, 700–1,400 tonnes of phosphorus were released to the Baltic Sea annually. The John Nurminen Foundation immediately contacted EuroChem, the company that owns the factory, offering assistance and technical support in harnessing the discharge without delay. The Foundation made the very best Finnish expertise on controlling discharges from phosphorus production available to the company, and also organised a two-day technical seminar on the topic in Finland.

After receiving information of the phosphorus runoff in January 2012, EuroChem initiated its own investigations, aiming at surveying the surface water sources and runoff routes in the factory's vicinity. High concentrations of phosphorus, varying from 90 to 230 mg/l, were discovered in a ditch through which the surface waters from the areas next to the Phosphorit factory passed through the factory's lot to the River Luga. Apparently, the discharge entered the ditch from a marshland beneath the factory whose ponds, puddles and groundwater had been impacted for decades by the phosphorus-rich water seeping from gypsum piles. In March 2012, the experts of Phosphorit built a runoff water treatment system at the factory site. Since the deployment of the system, phosphorus levels in the River Luga have remained normal.

In May–June 2012, the experts of the John Nurminen Foundation made several visits to the Phosphorit factory, investigating the treatment system. In June 2012, EuroChem and the John Nurminen Foundation signed a Letter of Intent stating that the parties will jointly select an independent European expert organisation for the task of assessing and monitoring the functionality and efficiency of the current surface water collection and treatment system, the discharges from the factory area, and the phosphorus levels of the River Luga. The work of the expert organisation will commence in 2013.

Top: Phosphorus-rich waters have trickled down from the gypsum pile in the background during the course of many decades. Today, the gypsum pile is surrounded by protective embankments, so runoff from the gypsum pile will not be happening in the future. Gesturing in the middle of the picture is EuroChem's administrative director Igor Schelkunov; to his right are Marjukka Porvari (JNF), Elena Kaskelainen (JNF), and the technical director of the Phosphorit factory, Sergei Sheibak. EuroChem acquired the Phosphorit fertilizer factory in the early 2000s. 'What we are doing here is making up for past negligence. The factory's operations began in 1963, at a time when environmental practices were totally different. Discharges no longer originate in the production process', explained administrative director Schelkunov.



PRESTO – PROJECT ON REDUCTION OF EUTROPHICATION OF THE SEA TODAY

The objective of the PRESTO project is to improve the efficiency of nutrient removal in the four Belarusian cities of Baranovichi, Grodno, Molodechno and Vitebsk. The project reduces the phosphorus discharges from wastewater treatment plants to the Baltic Sea by approximately 500 tonnes annually. The John Nurminen Foundation is responsible for project investments: for each wastewater treatment plant, monetary investments amount to approximately €500,000. Alongside the four cities, investment plans for improved nutrient removal are also drawn up for the wastewater treatment plant of the city of Lida.

In addition to the investments, the project includes training modules run by Technische Universität Berlin. The purpose of the training modules is to improve the competences of Belarusian wastewater treatment experts in the field of nutrient removal. The water utilities of Kaunas, Lithuania and Daugavpils, Latvia also participate in the project. With EU support, nutrient

removal technology in the Soviet-era Daugavpils and Kaunas wastewater treatment plants has been renewed, and they now serve as good examples to other plants making project investments. Within the PRESTO scope, the Daugavpils plant also invested in improved sludge treatment. The Union of the Baltic Cities (UBC) is in charge of PRESTO project administration.

EU's Baltic Sea Region Programme approved the PRESTO project in 2011. The total budget of the project is €4.55 million, of which direct investment to nutrient removal at wastewater plants accounts for €2 million. EU funds the majority of the project, bearing 75–90% of the project partners' project costs (depending on the country where the partner operates). Moreover, the Finnish Ministry of the Environment supports the Finnish project partners UBC and the John Nurminen Foundation with a total sum of €185,000, covering the majority of the own costs of these two project participants.

current state, nutrients are not removed efficiently. According to the estimate of the Baltic Marine Environment Protection Commission HELCOM, improving the efficiency of nutrient removal from wastewaters could reduce the phosphorus load entering the Baltic Sea from Belarus by as much as 1,000 tonnes.

The John Nurminen Foundation's first project target in Belarus is the city of Brest, which participated as an investment target in the PURE project, initiated in 2009. In June 2011, the PRESTO project was initiated: the project, implemented in nine Belarusian cities, is the second project partially funded by the EU Baltic Sea Region Programme.

Brest, a participant of the PURE project, is located immediately at the border of Poland and Belarus. The city's wastewater emissions flow directly to Poland

with the river Bug, which empties into the River Vistula. The city of Brest has more than 300,000 inhabitants and a large food industry sector, from which wastewaters are also directed to the treatment plant. In connection with the PURE project, Brest invested in the improved efficiency of phosphorus removal. Thanks to the improvements, the annual phosphorus loads discharged by the treatment plant can be reduced by roughly 300 tonnes. In 2012, the EU Baltic Sea Region Programme extended the schedule at Brest so that investments can be implemented by the end of June 2013.

Participants of the PRESTO project include the cities of Baranovichi, Grodno, Molodechno and Vitebsk, where investments are made to improve the efficiency of nutrient removal at wastewater treatment

The solutions implemented in St. Petersburg are also of interest for the international community, as many other countries around the Baltic Sea face the challenge of modernising Soviet infrastructure and thereby improving the efficiency of nutrient removal. In May 2012, St. Petersburg hosted two events, organised in two consecutive weeks, where information was disseminated and experiences exchanged between water utility representatives and wastewater treatment professionals from various countries around the Baltic Sea. In the photo, partners from the PRESTO project.



plants. Moreover, Polotsk, Lida and Slonim participate in the project by training their water utilities in more efficient wastewater treatment processes. In 2012, the project produced technical investment plans for the implementation of more efficient nutrient removal. Also, investment agreements with the water utilities were signed. The water utilities began drawing up local investment plans, which are needed in order to obtain official investment permits. In addition to the investments, training sessions on the improved efficiency of nutrient removal, wastewater sludge processing, and laboratory operations were organised for the water utilities, universities, and those in charge of planning.

POLAND

As nearly half of the 90 million inhabitants of the catchment area of the Baltic Sea live in Poland, the country's role in the protection of the sea is crucial. Since 2003, the country has been running extensive

programme that aims at bringing wastewater treatment to the level required by EU directives. Within programme scope, hundreds of wastewater treatment plants have been built or modernised. The objective of the programme, however, is not in reaching the phosphorus removal targets outlined by HELCOM; instead, the renewals have been steered by EU wastewater directive requirements, which are less strict than those of HELCOM. The implementation of the HELCOM requirements in Poland would be a definite breakthrough in terms of the wellbeing of the Baltic Sea, as the annual potential for phosphorus removal in the Polish wastewater sector is enormous: even after the requirements of the EU wastewater directive have been reached, it is almost 2,500 tonnes, equalling nearly half of the phosphorus reduction potential of the wastewater sector in the entire Baltic Sea area. This corresponds to roughly a sixth of the phosphorus reduction target identified by HELCOM for the entire Baltic Sea region as the level that would result in a healthy marine environment.

“Implementing the HELCOM phosphorus removal recommendations in Poland would add almost EUR 12 million, or 32 cents per inhabitant, to annual wastewater treatment operating costs. Spearheading cities, such as Szczecin, a PURE project participant, have already reached the HELCOM target level. It is vitally important that other cities follow those leading the way, in Poland as well as in areas like those in Belarus that are located upstream large rivers that run into the Baltic Sea.”

*Marjukka Porvari,
John Nurminen Foundation*

In 2008, the John Nurminen Foundation and the city of Warsaw signed a Letter of Intent on improving the efficiency of phosphorus removal. The renovation and expansion of the city’s – and the country’s – largest wastewater treatment plant, Czajka, was completed in the summer of 2012, and the plant now treats the wastewaters of more than 1.7 million Varsovians in line with HELCOM recommendations, setting a positive example to the cities and wastewater treatment plants in Poland and the entire Baltic Sea region.

In 2009-2012, the cities of Szczecin and Gdansk, located by the Baltic Sea, were partners of the Foundation’s PURE project. In these cities, EU-directive-compliant wastewater treatment plants have already been completed. Through the more efficient use of their plants, PURE participants Szczecin and Gdansk reduced the phosphorus loads entering the Baltic Sea to the levels recommended by HELCOM. The Szczecin water utility was removed from HELCOM’s pollution hot spot list in 2012.

Elsewhere in Poland, the Foundation is waiting for the completion of the investments made by the national wastewater treatment programme in large and mid-sized cities. Only after their completion will we know whether treatment plants are able to achieve the HELCOM-recommended treatment levels, which are stricter than those set by the EU directive, or whether additional measures and support from the Foundation are needed. The importance of

HELCOM-level treatment results to the protection of the Baltic Sea is a theme that continues to underpin all cooperation with Poland.

ESTONIA

Kohtla Lake is located by the Baltic Sea at the border of Russia and Estonia. Kohtla Lake has participated in the Foundation’s PURE project by boosting the efficiency of its phosphorus removal through developing the operations of its new wastewater treatment plant. Kohtla Lake was removed from HELCOM’s pollution hot spot list in 2012.

LATVIA

Riga, the capital of Latvia, has 700,000 inhabitants. The city, which is the largest in the Baltic countries, is located on the River Daugava only 15 kilometres from the Baltic Sea, which is why it has a great impact on the nutrient loads of the Baltic Sea.

The co-operation between the John Nurminen Foundation and the water utility of Riga began in 2009, when the utility was awarded a grant for investments improving the efficiency of phosphorus removal at the wastewater treatment plant of Daugavgriva. The Riga water utility also participated in the PURE project, whose investments support the continuous maintenance of good wastewater treatment results with precise wastewater flow meters,



STEFAN WIDOMSKI

correct dosage of phosphorus precipitation chemicals, and more efficient sludge removal from the treatment processes. In addition to the PURE investments, a second phosphorus precipitation chemical dosage tank was acquired in 2012 with the direct support of the John Nurminen Foundation. The installation of the dosage tank was completed in early 2013. After these investments, the Daugavgriva treatment plant can reach the treatment levels recommended by HELCOM, and reach annual discharge reductions of more than 200 tonnes of phosphorus and 1,800 tonnes of nitrogen compared to the levels of 2008.

The city of Jurmala is located on the coast of the Baltic Sea, close to Riga. The water utility of the city has participated in the PURE project. Based on the technical surveys carried out in 2010, Jurmala will invest in the improved efficiency of biological nutrient removal in 2011–2012.

Erik Båsk, Secretary General of the John Nurminen Foundation, and Marjukka Porvari visited the Czajka wastewater treatment plant in Warsaw. Czajka’s Marcin Osinski (right) explained that the plant can now remove both nitrogen and phosphorus at the levels recommended by HELCOM. ‘Our discussions and the cooperation between the Foundation and the city of Warsaw have been fruitful. Warsaw is exemplary in the way it implements environmental responsibility in the treatment of its wastewaters’, says Marjukka Porvari. ‘The Czajka plant is certainly one of the pioneers of nutrient removal in Poland, and a good example to other Polish water utilities.’



LOTTI RILONEN

In Gdansk, major investments to wastewater treatment had been made already before the PURE project. After the Wschód wastewater treatment plant was modernised and the Zaspá plant closed down, nutrient loads to the Baltic Sea were reduced considerably. During a visit to the Wschód wastewater treatment plant, the hosts of the visit explained that because of pollution in the sea, the beaches of Gdansk had been closed down in 1978–1994. Today, the Wschód plant treats the wastewaters of approximately 500,000 inhabitants, and the plant is fully capable of reaching HELCOM's nutrient removal recommendations. The Szczecin water utility ZWiK, which is a PURE project partner, was removed from HELCOM's hot spot list in 2012. Compared to the situation earlier, when wastewaters were discharged to the sea virtually untreated, the city currently has two modern wastewater treatment plans.

PURE: CONCRETE IMPROVEMENTS IN WASTEWATER TREATMENT IN THE BALTIC SEA AREA

The closing seminar of the PURE project, initiated in 2009, was organised on 16 October 2012 in Gdansk, Poland, with roughly 150 representatives of water utilities, cities, environmental authorities and other national and international environmental stakeholders participating. The concrete results achieved by the Belarusian, Estonian, German, Latvian and Polish project partners in the protection of the Baltic Sea were showcased at the conference. Polish pioneers of wastewater treatment were also introduced at the seminar, and work continued to define future approaches and the tasks that lie ahead in the work to protect the Baltic Sea.

The results of the PURE project have been encouraging, as participating cities have taken voluntary action to improve the status of the Baltic Sea. Cooperation and information exchange within the project have increased

the expertise of project participants. The project's most concrete contribution to the status of the Baltic Sea is generated by investments that boost the efficiency of phosphorus removal at the wastewater treatment plants of three participating water utilities. Once the investments are completed, the annual phosphorus load entering the Baltic Sea is reduced by 300 to 500 tonnes. This amount is significant, and corresponds to roughly half of Finland's annual phosphorus load to the Gulf of Finland and the Archipelago Sea.

Moreover, the project has identified good practices and solutions that improve sludge management at wastewater treatment plants. The project has published a book on best sludge management practices in several languages of the Baltic area. The project also developed a new online tool, 'PURE BenchMark', which facilitates information sharing and visualisation of data that pertains

to the wastewater treatment plants and the nutrient loads of the Baltic Sea.

Together with her team, Marjukka Porvari, director in charge of the John Nurminen Foundation's phosphorus removal projects, coordinates the project's technical investments to wastewater treatment plants. Project managers are Tuuli Ojala and Elena Kaskelainen.

The PURE project is steered by the Union of the Baltic Cities (UBC), and, in addition to the John Nurminen Foundation, project partners are the Baltic Marine Environment Protection Commission HELCOM, the water utilities of Riga, Jurmala, Brest, Szczecin and Lake Kohtla, and the cities of Gdansk and Mariehamn. HELCOM is in charge of project communications, while the John Nurminen Foundation is responsible for phosphorus removal investment and the sludge management section of the project.



PURE – PROJECT ON URBAN REDUCTION OF EUTROPHICATION

The John Nurminen Foundation is in charge of technical surveys and phosphorus removal investments related to the 11 partners of the PURE project. The project, active in Riga and Jurmala, Latvia; Brest in Belarus; Lake Kohtla in Estonia, and Gdansk and Szczecin in Poland, will reduce phosphorus loads from wastewater treatment plants by 300–500 tonnes. The John Nurminen Foundation also coordinates a PURE subproject promoting the sustainable use of sewage sludge. With the exception of the investments in Brest, the PURE project closed in December 2012. To be able to finalise the investments, Brestvodokanal, the John Nurminen Foundation, and the UBC Commission on Environment have been granted an extension to the project's schedule, which will now continue until June 2013.

The PURE project is implemented with partial funding from the EU Baltic Sea Region Programme, and its total budget is €3.2 million. In old Member States, EU funding constitutes 75% of project budget, in new Member States 85% (ERDF funding*), and in Belarus, 90% (ENPI funding**). The John Nurminen Foundation's project budget is €0.6 million. The one million euro investments steered by the Foundation are included in the project budgets of the water utilities. Finnish Government match funding, granted by the Ministry of the Environment, covers to a large extent the self-financing of the Finnish PURE project partners, the Union of the Baltic Cities (UBC) which manages the project, and HELCOM.

* ERDF = European Regional Development Fund

** ENPI = European Partnership and Neighbourhood Instrument is a financing instrument that supports external relations programmes between EU countries and non-EU countries.



LOTTA RUOKANEN

Riga is one of the PURE project partners working on improving the efficiency of phosphorus removal from their wastewaters. The Riga water utility's Daugavgrīva wastewater treatment plant processes the wastewaters of approximately 800,000 people. The treatment plant was designed already in the Soviet era, and it was deployed in the 1990s. Significant modernisation projects, aiming at improving the plant's wastewater treatment results, were implemented in 2001 and 2012. The investments of the PURE project support good treatment results with chemical precipitation of phosphorus, better process steering, and more efficient sludge removal. In addition to the PURE investments, a second phosphorus coagulation chemical dosage tank was acquired in 2012 with the direct support of the John Nurminen Foundation. Compared to the levels of 2008, the renovated Daugavgrīva treatment plant can now reach an annual load reduction of 100 tonnes of phosphorus and 1,800 tonnes of nitrogen.

Marjukka Porvari, the director in charge of the phosphorus removal projects of the John Nurminen Foundation, calls well-functioning wastewater treatment plants 'the superheroes of the Baltic Sea'. Water utilities need the political support of local decision makers. National environmental policies and licensing authorities also play a crucial role. The existing wastewater treatment infrastructure should be utilised in the best possible way, so that the wastewater treatment targets set by HELCOM are fulfilled. Investments in treatment plants are at the core of the work, but optimal results can only be reached with plant employees who are motivated and have the required knowhow. Here is one of the superheroes: Maris Zviedris, director of the Riga wastewater treatment plant.



MAX EDIN



GUNTIS KALVE

ATTENTION TO SLUDGE MANAGEMENT

The further treatment of sludge created at wastewater treatment plants is a crucial part of today's efficient and sustainable wastewater treatment. According to research, as much as a half of wastewater treatment total costs are created by sludge management. Sludge management in the Baltic Sea area faces a multitude of problems: in the worst case, the nutrients that have already been removed from the wastewater return to the waterways from inappropriately stored sludge. This is why, alongside the reduction of phosphorus loads, improved sludge treatment has been selected as a focus area of the PURE project.

In February 2012, PURE project partners were trained in available sludge management methods at an event hosted by the John Nurminen Foundation in Kirkkonummi. Often, choices equal challenges: many stakeholders take part in decisions, which are steered by various criteria, such as investments and operating costs, the results that are achievable with the method used, and the method's reliability. Krzysztof Maciejewski, Anna Rydzyńska and Mirosława Dominowska from the Szczecin, Poland, water utility. From the left, facing the back: Olena Zinchuk from the Union of Baltic Cities, Lotta Ruokanen from HELCOM, and Juhani Anhava from Pöyry.



ILKKA LÄSTUOMAKI



TANKER SAFETY PROJECT

Project and its background in brief

The target of the Tanker Safety project is to significantly decrease the likelihood of oil accidents in the Gulf of Finland, and to improve the safety of marine traffic. Even from a global perspective, the Gulf of Finland is an area with extremely busy marine traffic. More than 40,000 vessels, of which more than 7,000 are oil tankers, sail the Gulf annually. Traffic and oil transportation volumes are both growing, leading to an increased risk of a serious oil accident. Crossing traffic on the Helsinki – Tallinn route, submerged rocks, and ice conditions in the wintertime comprise additional challenges to seafaring. A major oil accident, causing an oil spill of dozens of tonnes of oil, would have a long-term and irreversibly damaging impact on the organisms and livelihoods of the sea and the seashore.

The Tanker Safety project, initiated in 2009, focuses on the prevention of major oil accidents, not on damage control. In cooperation with its project partners, the Tanker Safety project is building up the

ENSI® (Enhanced Navigation Support Information) navigation service, which delivers the route plans of vessels to marine traffic control, and facilitates the way vessels receive information in electronic format. Currently, marine traffic controllers are informed only of the destination of the vessel, not of its planned route. The project's objective is to have the ENSI service deployed in the Gulf of Finland during 2013. Later, the service can be expanded to other sea areas.

The main project partner of the John Nurminen Foundation is the Finnish Transport Agency, which will integrate ENSI in its traffic management systems. Other key partners include the Finnish Transport Safety Agency and Neste Oil. Adage, Arctic Icebreaking, Capgemini Consulting, Consilium Marine, Furuno Finland, the Finnish Meteorological Institute, F-secure, Kotka Maritime Research Centre, VTT Technical Research Centre of Finland, Aboa Mare, and Twinspark Consulting have also contributed to the project. All partners finance the costs of their project participation independently.



ENSI service is based on electronic charts. In navigation, a transition from traditional printed charts into ECDIS-based electronic charts is underway. On the left, ENSI portal on a tablet. On the right, ECDIS at the bridge.

TANKER SAFETY PROJECT IN 2012

Implementation of the ENSI service

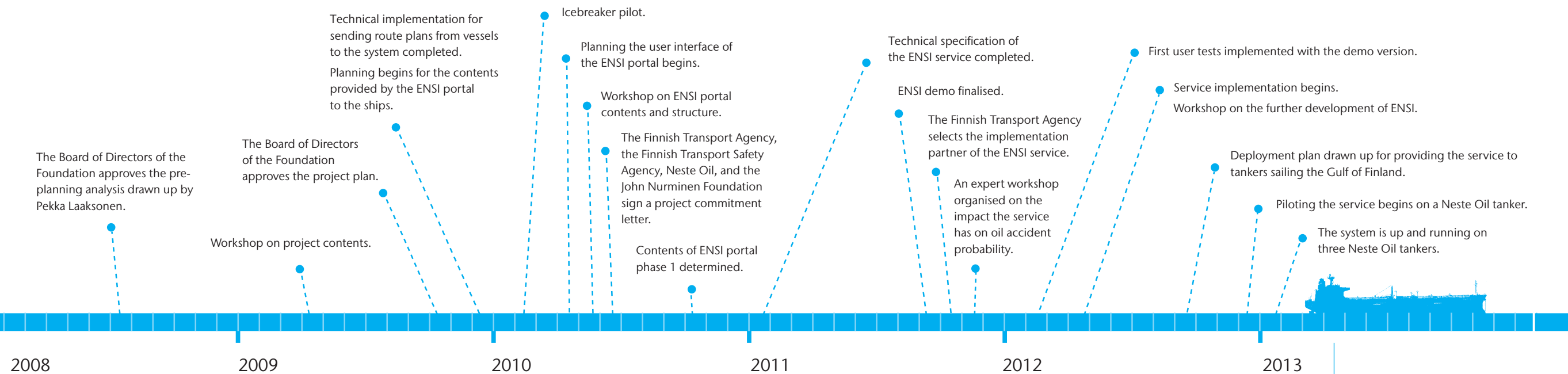
ENSI is an automated navigation service that improves the preconditions of forecasting vessel traffic control. After the completion of the product development phase, ENSI service implementation was initiated in the spring of 2012, commissioned by the Finnish Transport Agency. Work has progressed according to original schedules. The service will be connected to marine traffic control systems, transferring data between the vessels and the marine traffic control centres.

Before setting out on their voyage, vessels using the ENSI service will log in to the service in the harbour and transfer their route plans in electronic format to the system, which checks the route and returns the results of the check to the vessel. Also included in the data is an assessment of those sections of the route that may entail heightened risk. Moreover, vessels get

real-time and route-specific information on weather, ice conditions, route points recommended by ice breakers, and any warnings issued for the sea area.

Traffic operators at marine traffic control centres see the route plans sent by the vessels integrated into real-time situational awareness of the sea area. The traffic control system monitors the realisation of the route plan, and notifies traffic controllers of any departures from the planned route. If needed, the vessel traffic controller will address changes in route plans as appropriate in terms of the traffic situation in general.

In early 2012, the Finnish Transport Agency commissioned a usability test for the service using ENSI's demo version: the results of the test could partially be utilised in service implementation. In the autumn of 2012, ENSI implementation reached a phase where it was possible to start planning the first user tests. The actual tests were initiated in November. At the



end of the year, the first tanker route plan was sent to the ENSI system. As the system will be connected to the operative system during 2013, tests at the marine traffic centre were still conducted using a simulator.

In support of the ENSI system, Capgemini donated a tool that documents received feedback, and processes it in a systematic manner. The tool steers product development so that user needs are met, and problems resolved.

Other measures and further development

During 2012, two ENSI-related research efforts produced results. A specialist workshop organised by the Kotka Maritime Research Centre investigated the impact of ENSI on oil accidents in the Gulf of Finland. According to preliminary results, ENSI may reduce the risk of ships touching ground by as much as 24 per cent. A thesis work commissioned by the Finnish Transport Agency examined what information, and presented in which way, ship crews hoped to obtain from ENSI. In addition to the data included in the

first phase, information on pilotage, sea lanes, seafaring in wintertime, and reporting features were frequently requested items.

In 2012, preparations have been ongoing for transferring project responsibility from the John Nurminen Foundation to the Finnish Transport Agency. In April, in cooperation with Twinspark Consulting, the Foundation organised a two-part workshop, where a plan on the future of the project was drawn up in cooperation with project partners. The workshops collected and documented opinions on work done so far, and brainstormed developments and value-adding services that could be feature candidates for the next phase of the service. In late 2012, the Finnish Transport Agency began the specification work for the next phase of ENSI.

During the year, the Finnish Transport Agency continued to negotiate with Russian and Estonian authorities on the expansion of ENSI to cover the Gulf of Finland in its entirety. The service was also introduced at the Baltic Marine Environment Protection Commission HELCOM and at GOFREP.

Compiling the communications materials produced jointly by the Foundation and the Finnish Transport Agency was begun in the autumn.

The progress of the Tanker Safety project is supported by an advisory group, chaired by Admiral Juhani Kaskeala. This team includes representatives of the Finnish Transport Agency's waterways department, Neste Oil, the Finnish Transport Safety Agency, the Finnish Border Guard, the Finnish Navy, and Finnpiilot Pilotage. Some members of the advisory group changed during 2012.

What the Tanker Safety project means to seafaring

When the detailed route plans of vessels become available to marine traffic control centres, and the planned routes are checked again, the preconditions of forecasting vessel traffic control will be much improved. Thanks to the ENSI service, communications will become more efficient, and the risk of misunderstandings between vessels and vessel traffic operators will be reduced. The route-specific data available to vessels will help

them navigate safely. At the same time, tasks on the bridge become easier, as route-specific navigation information is available through one channel, and no time needs to be wasted looking for and filtering data.

The Tanker Safety project is an excellent example of a concrete project that benefits both the public and private sectors as well as the users of the service.

PROGRESS OF ENSI

From its very start, the Tanker Safety project has moved ahead in close cooperation with seafaring stakeholders. From 2010 to early 2012, project focus was on designing the usability of the service, and from the autumn of 2012 onwards on promoting the deployment of the service.



FINNISH TRANSPORT AGENCY



ILMAKASTUUKKO

WHAT KEEPS SHIPS AFLOAT – LUCK?

Marine traffic control in Finland is meticulous work, conducted by professionals. Approximately 100 ships visit Finland daily, every day of the year. The combined cargo of these vessels equals 7,000 train wagons, or 11,200 full-trailer truckloads of goods per day. Roughly half of our commercial marine traffic sails to the ports of the Gulf of Bothnia, while the other half uses the ports in the Gulf of Finland. Amongst the countries of the Baltic Sea, Finland is the one most dependent of marine transport: 90% of our exports and approximately 70% of our imports are transported by the sea.

Marine traffic is monitored by marine traffic centres

As a marine area, the Gulf of Finland is one of the world's busiest and most difficult to navigate. 40,000 vessels sail the Gulf of Finland alone each year, and roughly 6,500 of them are oil tankers. Both sea transportation volumes and vessel sizes are forecast to continue to grow in the coming years. Forecasting marine traffic control and the prevention of accidents are key concerns for both environmental protection and the smooth running of marine traffic. What this essentially means is that marine traffic and situational developments are addressed already before close call situations develop or risks arise.

Marine traffic is monitored at marine traffic centres, of which there are currently five in Finland. They provide vessel traffic services. The centres are located in Lappeenranta, Helsinki, Nauvo, Pori and Vaasa. All marine traffic centres operate around the clock. The purpose of marine traffic control is to increase the safety of vessel traffic, improve its efficiency, and prevent environmental damage caused by vessel traffic. The abbreviation VTS – in Finnish, alusliikennepalvelu – is used for marine vessel traffic services.

Helsinki Traffic is part of GOFREP, the mandatory Gulf of Finland reporting system, which is used by all vessels exceeding 300 net tonnes. The GOFREP system of the Gulf of Finland is monitored in cooperation with Estonia and Russia, based on a trilateral agreement.

Marine traffic centres provide navigation assistance and intervene when risks arise

Vessel traffic management is based on situational awareness comprised of sensor data. The sensors include radars, AIS (automatic ship identification system), camera and marine VHF (also known as VHF talk radio). In Finland, marine traffic management has approximately 100 radars at its disposal: they are located along the coast, and cover all commercial marine routes. There are roughly

25 AIS base stations, which receive vessel identification data. The vessels' AIS identification data is internationally agreed, including, for example, the measurements of a ship, its speed, direction, current location, destination, and time of arrival at its destination.

Assisted by the sensor network, vessel traffic is managed through the provision of various services, which cover information, traffic management, and navigation. Basic services include notifications which always contain information on other vessels in the VTS area, weather, ice conditions, water levels, pilot and ice breaker operations, conditions and usability of sea lanes and safety equipment, any risks that might be facing the vessel, and other matters that have a bearing on safe vessel traffic.

All ships of 24 metres or more in length must use Vessel Traffic Services. Traffic management services provided by the marine traffic centres are used in Helsinki, for example, where large cruise ships sail to in the summer time. The marine traffic centre manages traffic in the order the vessels come to the pilot boarding area. At the same time, cargo ships are often sailing towards Vuosaari, and ships sail to and from the line destinations of Stockholm and Tallinn. Traffic must be managed together with other seafarers, as the area can have a dozen ships moving in various directions at the same time. This is why it is extremely important that marine traffic centres have up-to-date situational awareness and the ability to forecast situations.

Navigation assistance is needed fairly rarely. This is good, as it can be quite difficult to give guidance to vessels from on land, as the ships all have different characteristics and are impacted differently by changing weather conditions. Navigation assistance can be needed by a vessel with technical problems, for example, that cannot use its own navigation equipment. In such circumstances, the marine traffic centre can issue instructions that help the ship sail back to the harbour or to a calm place where it can anchor until the problems are fixed.

In 2011, marine traffic management needed to intervene with vessel traffic approximately 5,000 times. Each dangerous situation and event that could have led to a dangerous situation where marine traffic management intervened is documented in a report. In 2011, 354 such reports were drawn up. In 22 cases we could prevent a ship from touching ground, which is one of our greatest achievements.

Marine traffic management is an integral part of safe seafaring, logistic chains, and environmental protection.

Even though it can be said that Finland is a forerunner in marine traffic management, it is also an internationally recognised fact that marine traffic management is essential to the logistics chain of transportation. It also promotes safe and efficient seafaring. Neither can we underestimate what has been achieved through the prevention of environmental accidents. Our work has been acknowledged by the Finnish Association for Nature Conservation, which, in 2011, granted its environmental award to the Finnish Transport Agency's Gulf of Finland marine traffic centre.

As we develop our operations, we also participate in a joint project together with the John Nurminen Foundation and other marine stakeholders. The ENSI service (Enhanced Navigation Support Information) created in the project complements vessel traffic management systems by making vessel route plans accessible to VTS operators. Correspondingly, vessels get the navigation information they need from the service for the routes they have submitted. The ENSI service aims at reducing the risk of oil accidents significantly, and improving the safety of marine traffic.

Thomas Erlund
Sea Captain, Head of Vessel Traffic Service
Finnish Transport Agency

(This blog is an abbreviated version of the *Centrum Balticum* Pulloposti (Message in a bottle) weekly column, published 23 November 2012.



MAK EDN

In March 2012, the John Nurminen Foundation participated in the major event organised by the Raumanmeri Rotary Club and the Baltic Sea Challenge. In their speeches, Juha Nurminen, Chairman of the Board of the John Nurminen Foundation, and Marjukka Porvari, director of the phosphorus removal project, highlighted the importance of the work done at wastewater treatment plants. It is a matter of life or death for the Baltic Sea that we are able to remove nutrients from toilet wastewaters in the entire draining basin of the Baltic Sea in line with HELCOM's wastewater recommendations. Answering host Jami Jokinen's question on what she would do with unlimited funding, Porvari remarked that: 'In addition to renovating wastewater treatment plants, I would buy away the farm fields that generate the greatest load to the Baltic Sea.'



MAJJA SALMONKITA

The Helsinki International Boat Show, the largest boating event in Northern Europe, was organised 10 to 19 February 2012 at the Helsinki Exhibition & Convention Centre. The John Nurminen Foundation exhibition stand was a donation from the Finnish Fair Corporation. At its stand, the Foundation presented its Clean Baltic Sea projects, and also participated in the featured programme presentations of the fair. On the stage, the Foundation was represented by Juhani Kaskeala, member of the Foundation's Board of Directors and chairman of the Tanker Safety project advisory team, Erik Båsk, Secretary General of the Foundation, and Pekka Laaksonen, Project Director in charge of the Tanker Safety project.

ENVIRONMENTAL EDUCATION AND ADVOCACY

The core of the Foundation's operations is in the concrete projects the Foundation implements throughout the catchment area of the Baltic Sea. Moreover, the Foundation aims at, for its part, increasing the awareness of the general public on the importance and urgency of the protection of the Baltic Sea. The Foundation is also active in bringing key questions related to the protection of the Baltic Sea to public debate.

In 2012, John Nurminen Foundation reached approximately 1,000 people at educational events organised for the youth as well as for adults; moreover, several thousands of people attended the events organised for the general public, companies, and stakeholders. During the year, the Foundation participated in 13 major events either as an organiser or as a partner. In addition to the Foundation's own stakeholder events, the Foundation's representatives attended smaller seminars and events, held lectures at universities and col-

leges, and received groups of visitors, consisting both of company representatives and the youth, at their premises. In December, the John Nurminen Foundation organised a training event for environmental journalists. The Foundation also participated in the journalist training organised in the autumn of 2012 by the Baltic Sea communicators' network.

Training and information exchange in international phosphorus removal projects

Environmental education and increasing environmental awareness are key issues also for the partly EU-funded international PURE cooperation project. In addition to concrete investments, the project produced communications materials in 2012, including, for example, the brochure *Eutrophication – our common challenge*, and the e-book *Proven standard practices and innovative new solutions of sludge handling in the Baltic*

Sea region, directed at stakeholders of the wastewater treatment industry. Moreover, in the spring and autumn of 2012, the PURE and PRESTO projects organised a training event and seminar on the nutrient load of the Baltic Sea, with focus on the wastewater industry's means and opportunities of reducing that load.

Channels of advocacy and communications

Via its own communications channels, the John Nurminen Foundation disseminates information on the status of the Baltic Sea, any current themes, and the operations of the Clean Baltic Sea projects. The web pages of the Clean Baltic Sea projects are visited by approximately 8,000 visitors each month. The John Nurminen Foundation's quarterly newsletter is mailed to 4,000 people, and there are an additional 1,000 people on the mailing list of the quarterly Clean Baltic

Sea project newsletter. The Fund Report of the Clean Sea Fund is published twice a year on the Clean Baltic Sea web site. At the end of 2012, more than 1,000 people had joined the projects' Facebook community.

The Foundation is active in maintaining relationships with political decision makers, and strives to draw attention to the importance of the protection of the Baltic Sea by highlighting themes and actions that are crucial for the reduction of eutrophication in the Sea. In 2012, particular attention was paid to the question of implementing the wastewater treatment recommendations of HELCOM, which are stricter than those of the EU wastewater directive, throughout the Baltic Sea catchment area and in new EU Member States in particular. A meeting of experts was arranged on this topic, and it was also promoted on the political level during state visits, for example, and in connection with preparing the EU strategy for the Baltic Sea region.

The John Nurminen Foundation thanks all supporters of the Clean Baltic Sea projects

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CLEAN BALTIC SEA JOHN NURMINEN FOUNDATION

FUNDRAISING AND SPONSORS OF THE CLEAN BALTIC SEA PROJECTS

THE JOHN NURMINEN FOUNDATION steers and finances concrete projects with a beginning, an end, and a measurable end result. The Clean Baltic Sea projects are funded with private donations and public funding.

The Foundation has two fund-raising objectives: phosphorus removal projects aiming at reducing the annual phosphorus load of the Baltic Sea by 2,500 tonnes of phosphorus by 2015, and the Tanker Safety project, which will result in the deployment of the ENSI service on oil tankers sailing the Gulf of Finland during 2013.

Approximately 440 tonnes of phosphorus are still missing from the phosphorus removal projects' 2,500 tonne reduction target. Funds are needed for project planning, preliminary research, equipment acquisitions, and project management. No funds are transferred directly to the wastewater treatment plants or other project partners. The Tanker Safety is in the gradual deployment phase of the ENSI system. The project is currently raising funds for deployment support operations and the terminal equipment the project will provide for vessels.

If the project's schedule is delayed, the need for funding may grow. As the projects move forward, we will have a more detailed understanding of how,

when, and at what cost our final targets can be achieved.

Funding

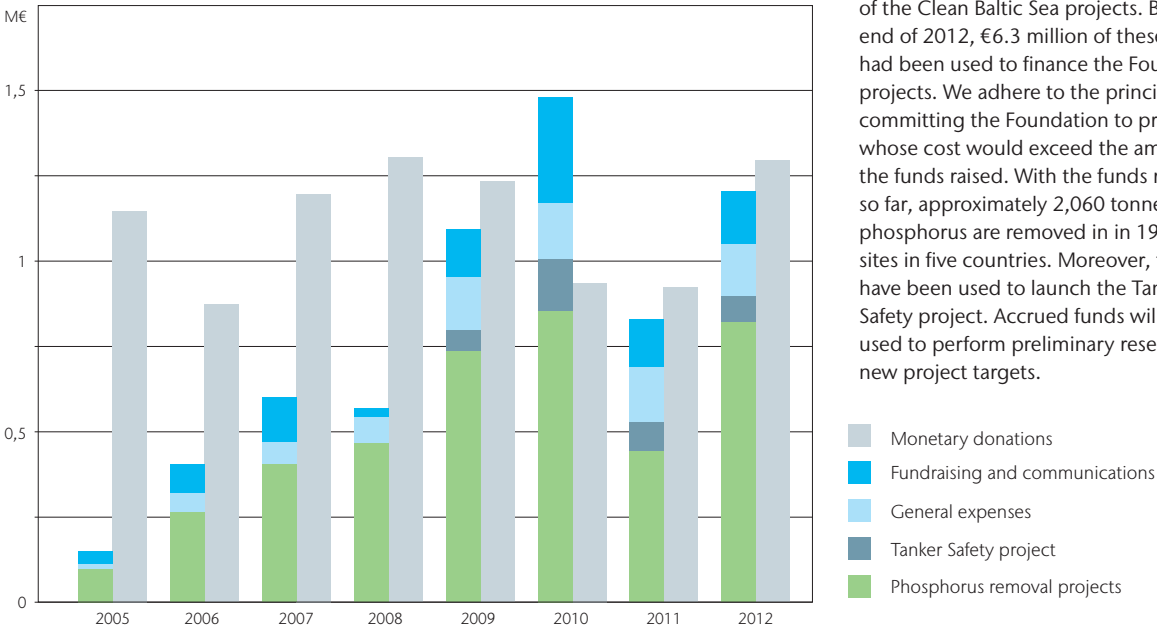
The Foundation uses three main methods to raise funds for the Clean Baltic Sea projects:

- 1) Appealing to companies and private individuals
- 2) Appealing to the public at large. With donated media space, the Foundation appeals to the public at large (summer and Christmas campaigns). The Foundation's web site has an online donation platform, which can be used for making individual donations, anniversary donations, memorial or bequest donations, or for becoming a monthly donor. From the beginning of 2013, it has also been possible to donate money to the projects with an SMS.
- 3) Applying for public project funding.

Donations are directed to the Clean Sea Fund. All projects are funded from there (see Clean Sea Fund bylaws p. 78).

Monetary support to the Foundation consists mainly of donations by companies and public stakeholders. In 2012, a total of €1,294,386.98 was donated to

CLEAN BALTIC SEA MONETARY DONATIONS AND EXPENSES BY OPERATIONAL BRANCH



The profit and loss statement of the Foundation includes only received monetary donations. In 2005–2012, the Foundation raised approximately €9 million in support of the implementation of the Clean Baltic Sea projects. By the end of 2012, €6.3 million of these funds had been used to finance the Foundation’s projects. We adhere to the principle of not committing the Foundation to projects whose cost would exceed the amount of the funds raised. With the funds raised so far, approximately 2,060 tonnes of phosphorus are removed in in 19 project sites in five countries. Moreover, funds have been used to launch the Tanker Safety project. Accrued funds will also be used to perform preliminary research for new project targets.

PUBLIC FUNDING OF THE CLEAN BALTIC SEA PROJECTS IN 2007–2015

Stakeholder	Public sector funding not included in the Foundation's profit and loss statement	Public sector funding Granted to the Foundation
EU Baltic Sea Region Programme PURE (2009-2012)	2,500,000	520,000
EU Baltic Sea Region Programme PRESTO (2011-2014)	3,700,000	700,000
Finnish Transport Agency (Tanker Safety 2011)	400,000	0
Swedish International Development Co-operation Agency (Pietari 2010–2011)	300,000	0
Ministry of the Environment (2007	0	505,000 *
Baltic Sea Action Plan Implementation Fund (NIB)	0	60,000
TOTAL	6 900 000	1,785,000

* Funding from the Ministry of the Environment includes 30,000 for PURE and 88,749 for PRESTO.

In 2007–2015, public project funding included in the Foundation’s profit and loss statement amounted to approximately €1.8 million. Public funding granted for projects coordinated partly or in full by the Foundation but not included in the Foundation’s profit and loss statement for the Clean Baltic Sea projects amounted to approximately €6.8 million.

the Foundation’s Clean Baltic Sea projects. In 2012, companies accounted for approximately 54% of the donations, and the public sector for roughly 36%. Donations by private individuals amounted to 9%, and the remaining one percentage point consisted of return on capital. Anniversary donations by private individuals amounted to almost €55,000.

Supporter categories and public funders

Companies supporting the Foundation can be divided into four categories: principal sponsors, main partners, key supporters, and other supporters. The input from the Foundation’s long-term corporate supporters has been very significant, creating continuity for the Foundation’s operations. The donor base has expanded during the years, and the support from both companies and private individuals has been crucially important for the Foundation’s operations.

The public stakeholders and supporters of the Foundation’s project include the European Union (Baltic Sea Region Programme 2007–2013), the Ministry of the Environment, and the Finnish Transport Agency.

The total budget of the EU-funded PURE and PRESTO projects is €7.2 million, of which €3.0 million consists of direct investment to the wastewater treatment plants of the Foundation’s target cities. The Finnish Ministry of the Environment supports the Finnish partners of these EU projects, helping them cover their own costs. Project financing is explained in more detail on pages 36 and 41. The Finnish Transport Agency, on the other hand, implements the Tanker Safety project in cooperation with the Foundation,

and is responsible for the implementation and costs of the ENSI service, for example.

Major donations in 2012

Principal sponsors Fortum, Nokia and Sanoma continued to support the Clean Baltic Sea projects. In line with the Letter of Intent signed in the spring by Fortum and the Foundation, Fortum continues to support the Foundation in 2012–2015.

In the spring of 2012, Ålandsbanken granted a €55,000 Nature Bonus to the Clean Baltic Sea projects. Nordea supported the Foundation not only through visibility in its own channels, but also through direct monetary donations.

Kuusakoski and Nordea continue to be main partners of the Foundation, and during the autumn, Sophie von Julins Stiftelse became a new main partner. Castrén & Snellman, Familjen Hartwalls Fond and NCC continue to be donors of the key supporter category, and during the year they were joined by Alexandria, Greta Maria Lindbloms Stiftelse, PwC Finland, and Insamlingsstiftelse för natur och miljö.

Beyond monetary donations

Various private individuals and companies contribute actively to the Foundation’s operations on a pro bono basis. The significance of this donated effort is immense. Cooperation partners make estimates on the value of the effort they have donated based, for example, on the time spent on working for the project. In some cases, it is difficult to make a precise estimate of the monetary value of the effort. For this reason, the



EDITA

EXCERPTS FROM THE 'ME AND THE BALTIC SEA' COLUMN OF ANNIKA LINNA, VICE PRESIDENT, COMMUNICATIONS, OF EDITA, A COMPANY WHO DONATES PRINTING SERVICES TO THE FOUNDATION.

'My warm relationship with the Baltic Sea evolved already in my childhood, when our summers consisted of boating and cottage holidays in the Kvarken Archipelago in the Gulf of Bothnia. The sun was always shining, and the glistening sea looked wonderful.

... After reaching adulthood and moving to Helsinki, I had access to the real Baltic Sea. My first boat trip to the Sipoo Archipelago on a sunny summer day was like a dream – I could not believe Finland could be so beautiful! At this point, I had not yet visited the Turku Archipelago or Åland, which seemed decidedly exotic for someone like me who had grown up in Ostrobothnia.

Today I am also aware of the fragility of this beauty. When going swimming last summer on Kimito Island, we had to watch out for blooms of blue-green algae. A thought pattern emerged in our discussions: we would first admire the beauty of nature, but continued with expressions of our frustration and fear of what was happening to the Baltic Sea, and what caused the detested algae blooms.

I believe that my small actions can contribute to alleviating this fear, and that I can, for my own part, take care of the Baltic Sea and ensure its preservation in all its loveliness for the enjoyment of my young daughter, too. As an employee of Edita, I participate in the cooperation between our company and the John Nurminen Foundation, and can therefore observe the impact and progress of the Foundation's work from a vantage point. For Edita, the choice to support the John Nurminen Foundation came naturally, as the Baltic Sea is the beloved sea of the home shores of every Finnish and Swedish Edita employee.



PETTER BRUNCRONA

EXCERPTS FROM 'THE BALTIC SEA AND ME' COLUMN BY PETTER BRUNCRONA, CHAIRMAN OF THE BOARD OF THE SOPHIE VON JULIN FOUNDATION, A DONOR OF THE CLEAN BALTIC SEA PROJECTS.

... 'All of us who live around the Baltic Sea are responsible for the status of the sea, as are all stakeholders, such as the marine traffic sector, who exploit the sea in their business operations. Each and every private individual can make a difference, and influence that status of the sea through their choices and by respecting nature when moving around in the archipelago. A second way to make an impact is to support – according to ability – the organisations and foundations, such as the John Nurminen Foundation or the Baltic Sea Action Group, who work for the protection of the Baltic Sea.

Support granted by the Sophie von Julin Foundation (Bergsrådninn Sophie Von Julins Stiftelse) focuses on health care and educational activities in Western Uusimaa. In addition to these focus areas, our support can be directed to a wide array of charitable causes. The Baltic Sea, for example, is such an integral part of Western Uusimaa that the Board of Directors of the Foundation was unanimous in its decision to support the Clean Baltic Sea projects of the John Nurminen Foundation.

The short-term added value generated through this support is satisfaction of the mind. In the long run, as a supporter of the Foundation, we also engage in continuous dialogue which adds to our understanding of the status of the Baltic Sea. It helps us identify new opportunities where we can be of help, and, as a result, strengthens our conviction that the status of the sea can be improved.'

UNCLE SCROOGE COIN BANK IS THE VOTERS' FAVOURITE AS NORDEA, CELEBRATING ITS 150TH ANNIVERSARY, RALLIES TO HELP SAVE THE BALTIC SEA

Nordea celebrated its 150-year history in many ways, one of which was organising a ballot to select the best coin bank of all time. Competition participants included many coin banks that were familiar to the Finns from the days of the Union Bank of Finland (SYP), Kansallis-Osake-Pankki (KOP), and Merita. At the same time, all ballot voters performed a good deed, as Nordea had committed to donating one euro per each vote, up to the collection target of €15,000, to the John Nurminen Foundation Clean Baltic Sea projects. In the end, with over 17,128 votes cast, the collection target was exceeded.

In early December, Nordea's marketing director Thomas Pimenoff handed over the donation of €15,000 on behalf of the bank to Erik Båsk, the Foundation's Secretary General. Pimenoff commented, 'The coin bank competition allowed everyone to take part in raising the funds for the donation in a fun and easy way. The theme of celebrating a 150th anniversary was beautifully attuned with the Baltic Sea, its great past, and a future which we are all accountable for. With small choices, our customers can do good deeds for the Baltic Sea every day, as donations can be made with debit card purchases via the electronic piggy bank, i.e. the ePiggy', Pimenoff concluded.

Nordea's customers can also get a MyMoney picture card with the Clean Baltic Sea logo. For each card, Nordea donates three euros to the Clean Baltic Sea projects.



TERHI LINDMAN

The Uncle Scrooge coin bank was the clear favourite with over 7,000 votes, leaving others clearly behind. Erik Båsk, the Foundation's Secretary General, received Nordea's donation from Thomas Pimenoff.

The coin bank donation brought the first year of cooperation between Nordea and the John Nurminen Foundation to a close. The cooperation was initiated in the autumn of 2012, and will carry on to 2013. In addition to the cooperation involving ePiggy services and debit cards, other forms of cooperation have taken place during the year: for example, the Foundation participated in Nordea's annual forest cruise, where cruise passengers received information on the protection of the Baltic Sea; in August, Nordea was host to the annual Club Itämeri stakeholder event.

resources donated by the Foundation's partners are not visible in the profit and loss statement, but they are highly significant when evaluating the actual volume of the Foundation's operations.

Donated effort can consist of, for example, voluntary work done by a private individual, business knowhow donated by a company, an equipment donation, or a donation of media space. The resources donated by public stakeholders can consist of direct support to the projects, or effort donated by the authorities.

The Finnish Transport Agency does not donate money to the Tanker Safety project: in connection with the project, it makes investments to the implementation of the ENSI service and its integration to traffic control systems. Significant pro bono effort has also been donated to the Tanker Safety project. In 2012, Capgemini donated a requirement management tool to ENSI service development, and Twin-spark donated an 'ENSI roadmap' for workshop planning and implementation.



The forest cruise, organised 9 to 11 June 2012 by Nordea and Metsäliitto Cooperation, was attended by approximately 2,000 guests. The cruise programme featured expert seminars on forestry, for example. Erik Båsk, Secretary General of the John Nurminen Foundation, told cruise guests of the protection of the Baltic Sea. The Foundation also presented the Clean Baltic Sea projects on its exhibition stand.

TULLA POUTINEN

An advertising campaign was run in selected Sanoma Magazines publications in the summer of 2012. The creative work of the advertisements was donated by the Fiander advertising agency. Edita supported the Foundation by donating the printing work of the printed Clean Baltic Sea project materials.

Fundraising and communications costs

The Foundation's Clean Baltic Sea project was sparked by an individual project in St. Petersburg in 2005, but has since expanded significantly. In 2012, the Foundation's Clean Baltic Sea projects were implemented in six countries, through various kinds of projects and expert consultancy undertakings.

With expanding operations, the costs of fundraising and communications are also higher than they were during the early years. In 2012, fundraising and communications costs totalled at approximately €155,000, which is an average level of such expenses.

The Foundation does not have full-time fundraising staff, nor has it outsourced its fundraising to an external company.

Corporate co-operation and marketing communications

The John Nurminen Foundation provides companies with the opportunity of promoting the protection of the Baltic Sea; this can then be incorporated into the company's environmental operations and corporate responsibility. Companies can support the Clean Baltic Sea projects with monetary donations, or by offering their specific business skills to the projects' use.

The Foundation's main partners receive the right to use the Foundation's logo and materials describing the Clean Baltic Sea projects in their internal and customer communications, for example. Details of the cooperation are agreed separately with each company.

Use of the Foundation's logo in third-party product marketing is handled case-by-case.

SUSTAINABLE DEVELOPMENT AT FORTUM

LONG-TERM INVESTMENTS

According to Heli Antila, Chief Technology Officer at Fortum, the energy system of the future, i.e. the solar economy, is based on CO₂-free electricity production and energy efficiency. Fortum's view is that we will move to the solar economy gradually, as technology and society evolve. Fortum has various solutions that are in line with sustainable development and advance progress in this direction. Antila emphasises that energy production must be observed from a perspective that spans decades.

Resource-efficient energy solutions and the minimisation carbon dioxide emissions

Moving over to the solar economy will take place in phases and in parallel with production capacity renewal and the building of new capacity. In addition to hydropower and nuclear power, other high-efficiency technologies such as gas fuels, biofuels and waste in electricity and heat cogeneration play an important role as Fortum develops its energy production. The energy system of the future comprises industrial scale units while increasingly utilising distributed small-scale production.

Already today, Fortum's customer offering includes rooftop-installed solar panels with surplus energy bought back by Fortum; new heating and cooling solutions; and energy consumption management products. Fortum's R&D seeks for solutions that enable energy to be produced as resource-efficiently as possible. Energy must be produced with carbon dioxide emissions that are as low as possible – or, in the best case, without any emissions at all.

What is resource efficiency? Antila sums it up: someone's waste can be someone's fuel. For example, multi-disciplinary algae research discovered the solution to the problem of algae farms generating too much oxygen. On the side of energy technology, this was seen as an opportunity to utilise the oxygen by burning it in power plants. Antila points out that in order to be able to



FORTUM

The objective of Fortum's operations is to create energy that facilitates the lives of both current and future generations. Fortum's business consists of the production, sales and distribution of electricity and heat, and expert consultancy services for the energy industry.

Fortum's operations focus on the Nordic countries, Russia, Poland, and the Baltic States. In the future, growth opportunities are also provided by Europe's unifying and Asia's fast-growing energy markets. In 2012, Fortum's turnover was EUR 6.2 billion, and comparable operating profit EUR 1.7 billion. The Group has approximately 10,400 employees.

Fortum has been a supporter of the John Nurminen Foundation's Clean Baltic Sea projects continuously since 2006.

use resources more efficiently, we need to network also with parties with whom we might initially have nothing in common.

Intelligent electricity meters promote sustainable development

Heli Antila shares an anecdote from the 1990s, the time when the deregulation of the energy markets began.

A device that was able to measure electricity consumption in real time was built at the Tampere University of Technology. First, the device was tested at Antila's home. It soon became obvious that real time measurement data awakens people's interest in energy consumption. With the help of the device, a local bakery was able to reduce its electricity bill. The researchers, too, were rewarded with marzipan cakes...

Two decades later, intelligent electricity meters are becoming a household feature. Antila believes that if information on electricity consumption is made available to consumers, they will become more interested in electricity consumption management, and on how they can impact the size of their electricity bill. Pay-per-use invoices are already common when paying for food, fuel or telephony services, but they are still a novelty in electricity.

The development of additional electricity services has introduced features that have a direct impact on the size of the invoice. Since last year, for example, Fortum has offered the 'Fortum Fiksu' (Fortum smart) service, a modern night-time electricity service that chooses the cheapest hour available for heating up the boiler

Solar economy and resource-efficiency at the summer cottage

The CTO tests the vision of a solar economy at a summer cottage in Upinniemi, Kirkkonummi. The small island owned by a family has a cottage with no running water or electricity. Rainwater is used for washing up, and only drinking water is brought to the island from the continent. The refrigerator, lights and television all get

energy from solar panels, so the only things that still need gas are the oven and the stove. 'It is amazing how long you can manage with 10 litres of drinking water', says Antila. The 'solar fridge' can be kept cool all through the summer, whereas the gas fridge had to be switched off when leaving the cabin.

According to Antila, there are various reasons for doing things efficiently. For some, the motivation is thrift; for others, it is nature conservation. In both cases, aiming for efficiency seems to lead to things being done in a way that is more rational.

Links to the protection of the Baltic Sea

'At Fortum, we understand the importance of clean waterways. Investing in the protection of the Baltic Sea equals investing in the living environment of the current and future generations. We also believe that wave energy will be one of the energy production methods of the solar economy', Heli Antila concludes, summarising her thoughts on Baltic Sea cooperation.

Antila monitors the status of the Baltic Sea also at her own summer cottage. During the dozen or so summers spent at the cottage, blue-green algae has appeared perhaps during five summers, but not to the extent that it would have been a nuisance. Waves to the beach come from the open sea of Porkkalanselkä, but the boat shore on the eastern side is calmer, with occasional blue-green algae blooms. Bladder wrack, however, has not disappeared from the waters of the shore, and this is something Antila checks every summer.

Heli Antila became the Chief Technical officer of Fortum, responsible for R&D, in June 2012. Earlier, Antila has worked as a researcher in the Technical University of Tampere, and as an energy consultant at Pöyry.

Heli Antila was interviewed in March 2013 by Tuula Putkinen.



THE CLEAN BALTIC SEA CLUB AT THE OLD BANKING HALL

On 30 August, the third The Clean Baltic Sea Club (Club Itämeri) event was organised at Nordea's Old Banking Hall. The Clean Baltic Sea Club is the John Nurminen Foundation's annual stakeholder group event for the Foundation's supporters and partners. The event was hosted by Ari Kaperi, Executive Vice President in charge of Nordea's operations in Finland. The keynote speaker at this year's event was Sauli Niinistö, President of Finland.

Nordea's predecessor, the Union Bank of Finland, moved its head offices to these premises in 1898. Today, the space is called the Old Banking Hall. The premises are home to a significant collection of the treasures of Finnish painting.



In his speech, Ari Kaperi welcomed the guests to the Old Banking Hall, and explained the history Nordea shares with the Baltic Sea.



Speakers of the event, Bruce J. Oreck (to the left), Ambassador of the United States and Sauli Niinistö (right), President of Finland, talking with Juha Nurminen.



Discussions led by Juhani Kaskeala dealt with the future of electronic navigation and the ENSI service, created by the Tanker Safety project, as an example of this development. Participating in the discussion were Hannu Peiponen, Technical Director of Furuno Finland, Tiina Tuurnala, Director of Traffic Management at the Finnish Transport Agency, and tanker captain Stig Sundberg from Neste Shipping.



PHOTO: MAX EDIN

The keynote speaker of the event, Sauli Niinistö, President of Finland, commented the status of the Baltic Sea as follows: 'This is not only a disgrace for us, but also in total contrast to the image we want to portray of ourselves to the world. We claim that we represent a Northern Europe that is well-off and technologically advanced. At the same time, we have not been able to protect the Mare Nostrum. We cannot even hide behind ignorance, as the results of thorough scientific research have been available for a long time.'



Leszek Drogosz, the director in charge of the Warsaw infrastructure project, thanked the John Nurminen Foundation for their constructive cooperation. Drogosz does not believe that new breakthroughs can be achieved in the protection of the Baltic Sea without in-depth understanding of the sea's problems. Today it is understood in Warsaw, too, why the EU wastewater directive that allows for 1.0 mg/l of phosphorus in outgoing wastewater is too lax – and why the Czajka wastewater treatment plant in Warsaw must also strive to reach the HELCOM-recommended 0.5 milligrams.

2012 FINANCIAL STATEMENT OF THE JOHN NURMINEN FOUNDATION

John Nurminen Foundation Business ID 0895353-5 Helsinki

THE OPERATIONAL BRANCHES of the John Nurminen Foundation have been presented as separate entities in the profit and loss statement. The maritime history operational branch is funded with income from publications and profits from the Foundation's investment activities.

The general expenses of the Foundation amounted to a total of €135,152 (€187,079). Of these, personnel expenses accounted for €69,497 (€88,271), and other expenses for €65,655 (€98,808). Other expenses include the fees of the Board of Directors, meeting expenses, expenses related to financial administration and accounting (excluding accounting for the Clean Baltic Sea projects), data communications, mailroom, office and telephone expenses, and the expenses of marketing and communications.

The Clean Baltic Sea projects operate as a self-sufficient fund. Because the Clean Baltic Sea projects are financed with donations, this fund is handled separately in the Foundation's accounts. Donations are directed to the Clean Sea Fund, which is used to finance all of the Clean Baltic Sea projects. This arrangement guarantees that donations are not used to finance any other activities of the John Nurminen Foundation. In 2012, the Clean Sea Funds I and II were combined into the Clean Sea Fund II. The difference in the two funds' bylaws was in their period of validity.

Donations to the Fund in 2012 amounted to approximately €1.3 million, while project expenses totalled at roughly €1.2 million.

CONSULTANCY FEES OF THE CLEAN BALTIC SEA PROJECTS

The target of the Foundation's phosphorus removal projects is to reduce the annual phosphorus loads entering the sea by 2,500 tonnes a year by 2015 through, for example, boosting the efficiency of phosphorus removal from communal wastewaters in the entire catchment area of the Baltic Sea. The Foundation leads several investment projects simultaneously, and is responsible for their financing agreements, technical planning, and equipment procurement.

Wastewater treatment plant investment is always based on detailed technical plans, which define the chemical and biological treatment processes required by wastewater treatment that matches HELCOM's recommendations (a maximum of 0.5 mg phosphorus per litre in wastewater leaving the plant), and the related mechanic, electronic and automatic equipment. Technical surveys are drawn up by engineering offices specialising in wastewater treatment, selected through competitive bidding. In the financial statement, the expenses of technical planning are included as consultancy fees, which in 2012 amounted to €347,193 (€192,950).

FACILITY LEASING

The John Nurminen Foundation owns roughly 10% of Huolintatalo in Länsi-Pasila. The building also houses the Foundation's collections and offices. Facilities not used by the Foundation have been leased out. Earlier, the Foundation's 400 m2 facilities in the second floor of Huolintatalo, Länsi-Pasila, were leased to Nurminen Logistics Oyj. Nurminen Logistics has terminated the rental agreement, which ended in May 2012. To make the premises easier to rent out, they were renovated and converted to two separate spaces. Because of renovation costs (€108,225), leasing operations showed a loss of €46,252.

INVESTMENTS

In 2011, the Foundation requested tenders for the asset management of its investments, and selected Taaleritehdas as the new asset manager. In terms of investments, the year was satisfactory, with a 7.1% yield for the portfolio. In adherence to Section 5, Chapter 2a of the Accounting Act, the Foundation has, for the first time, recognised investment at current value in its financial statements for 2012. Thanks to the new practice, the income statement will now show realised profits and losses.

PROFIT AND LOSS STATEMENT

Ordinary operations	2012	2011
MARITIME HISTORY		
Exhibitions		
Expenses		
Personnel expenses	-16,890.38	-5,719.02
Other expenses	-22,518.31	-11,069.69
Expenses, total	-39,408.69	-16,788.71
Exhibitions, total	-39,408.69	-16,788.71
Publications		
Income		
Book sales	123,183.02	161,106.57
Other	732.03	4,196.31
Total income	123,915.05	165,302.88
Expenses		
Personnel expenses	-47,951.77	-37,658.60
Other expenses	-93,630.69	-140,252.70
Change in stocks	-59,917.22	-58,035.81
Expenses, total	-201,499.68	-235,947.11
Publications, total	-77,584.63	-70,644.23
Collections		
Expenses		
Personnel expenses	-2,956.89	-13,140.21
Other expenses	-6,131.28	-13,384.54
Expenses, total	-9,088.17	-26,524.75
Collections, total	-9,088.17	-26,524.75
Maritime history, total	-126,081.49	-113,957.69

	2012	2011
CLEAN SEA FUNDS		
<i>Income</i>		
Donations received	815,594.68	768,389.81
Grants received	463,497.46	125,394.46
Investments	15,294.84	28,069.27
Total income	1,294,386.98	921,853.54
<i>Expenses</i>		
Personnel expenses	-426,305.31	-327,578.36
Depreciation	-30,233.63	-30,233.64
Other expenses	-747,740.82	-472,383.23
Expenses, total	-1,204,279.76	-830,195.23
Fund transfers	-90,107.22	-91,658.31
Clean Sea funds, total	0.00	0.00
GENERAL EXPENSES		
<i>Income</i>		
Other income	1,512.63	8,339.97
<i>Expenses</i>		
Personnel expenses	-69,497.22	-88,271.52
Depreciation	-1,038.12	-1,214.04
Other expenses	-64,617.54	-97,593.85
	-135,152.88	-187,079.41
General expenses, total	-133,640.25	-178,739.44
Trading deficit from ordinary operations	-259,721.74	-292,697.13
INVESTMENT AND FINANCING OPERATIONS		
Facility leasing		
Rental income	157,768.93	159,747.05
Service charges	-95,795.64	-83,286.32
Other income from facility leasing	-108,225.48	-900.00
	-46,252.19	75,560.73
Facility leasing, total	-46,252.19	75,560.73
Other investment and financing operations		
<i>Income</i>		
Interest income	2,068.45	8,952.02
Dividend income	110,726.41	130,505.59
Profit from sales	179,828.88	569,964.44
Other income from investment	18,177.47	9,326.87
Total income	310,801.21	718,748.92
<i>Expenses</i>		
Other expenses	-558,274.98	-720,113.83
Expenses, total	-558,274.98	-720,113.83
Depreciation and reversed depreciation	0.00	155,835.39
Investment and financing operations, total	-247,473.77	154,470.48
Deficit (surplus) for the period	-553,447.70	-62,665.92

BALANCE SHEET

Assets	2012	2011
NON-CURRENT ASSETS		
Tangible assets		
Machinery and equipment	3,114.20	33,875.93
Other tangible assets		
Works of art	204,674.03	204,674.03
Maps, books and items	434,147.38	434,147.38
Other tangible assets, total	638,821.41	638,821.41
Tangible assets, total	641,935.61	672,697.34
Investments	7,195,169.74	5,733,404.25
NON-CURRENT ASSETS, TOTAL	7,837,105.35	6,406,101.59
CURRENT ASSETS		
Stocks		
Unfinished books	20,720.94	14,803.40
Books	72,370.11	138,204.87
	93,091.05	153,008.27
Debtors		
Short-term		
Trade debtors	95,313.25	42,489.72
Other debtors	14,696.55	246,100.46
Prepayments and accrued income	460,620.84	112,707.73
	570,630.64	401,297.91
Cash in hand and at banks	228,048.95	1,707,671.94
CURRENT ASSETS, TOTAL	891,770.64	2,261,978.12
Assets, total	8,728,875.99	8,668,079.71

BALANCE SHEET

Liabilities	2012	2011
EQUITY /CAPITAL AND RESERVES		
Basic capital	142,168.69	142,168.69
Current Value Fund	256,221.39	-274,670.47
Clean Sea Fund I	0.00	1,683,179.97
Clean Sea Fund II	2,591,698.70	818,411.51
	2,990,088.78	2,369,089.70
Retained earnings (loss)	5,980,418.90	6,043,084.82
Surplus (deficit) for the accounting period	-553,447.70	-62,665.92
	5,426,971.20	5,980,418.90
CAPITAL AND RESERVES, TOTAL	8,417,059.98	8,349,508.60
CREDITORS		
Short-term		
Trade creditors	204,838.34	151,027.10
Other creditors	24,455.88	47,465.84
Accruals and deferred income	82,521.79	120,078.17
Short-term, total	311,816.01	318,571.11
CREDITORS, TOTAL	311,816.01	318,571.11
Liabilities, total	8,728,875.99	8,668,079.71

NOTES TO ACCOUNTING PRINCIPLES

PRINCIPLES OF RECOGNITION AND MEASUREMENT

Recognition of fixed assets

No depreciation was taken for the fixed assets of the Foundation’s ordinary operations. The fixed assets consist of 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%.

Wastewater treatment plant equipment for temporary use in connection with the Clean Baltic Sea project has been amortised on a straight-line basis over three years.

Intangible rights and other long-term expenses are amortised on a straight-line basis over five years.

Purchases of assets with an economic lifetime of less than three years and minor purchases are posted in their entirety as expenses of the financial period.

Recognition of investment

In its financial statement of 2012, the Foundation has for the first time recognised investment at current value, in line with Section 5, Chapter 2a of the Accounting Act. The Foundation does not engage in active trading in the financial markets with the goal of achieving short-term profits. This is why the change in current value has been booked to the Current Value Fund, included in capital and reserves.

The balance sheet presented here for comparison has been adjusted to correspond to the new accounting practice. The income statement presented for comparison has not been adjusted.

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

Recognition of current assets

Current assets are posted at purchase cost or a lower repurchase price, or at the expected sales price.

Books published by the Foundation are recognised at purchase cost or lower repurchase price, or at the expected sales price.

During the financial period, an exceptional value adjustment of €43,497.71 was made for the Foundation’s current asset books. The value adjustment is based on book-specific market values and an estimate of sales during the coming years.

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.

Recognition of pensions

Pension security for the Foundation’s employees is handled by an external pension insurance company. Pension insurance payments and expenses during the financial period are based on actuarial calculations. Pension expenses are posted as expenses during the year of accrual.

Other restricted reserves

During the accounting period, the Clean Baltic Sea 1 and Clean Baltic Sea 2 funds were combined into one restricted reserve dubbed the Clean Baltic Sea Fund.

NOTES TO THE INCOME STATEMENT

Notes on personnel	2012	2011
Average number of personnel	11	9
Salaries and fees	475,300.40	396,890.06
Pension expenses	74,736.88	60,744.97
Other personnel expenses	13,564.29	14,732.68
	563,601.57	472,367.71
Investment and financing operations	2012	2011
Income		
Interest income	2,068.45	8,952.02
Dividend income	110,726.41	130,505.59
Profit from sales	179,828.88	569,964.44
Other income	18,177.47	9,326.87
Total income	310,801.21	718,748.92
Expenses		
Transaction and management fees	-44,616.20	-38,299.12
Sales loss	-513,658.78	-681,814.71
Expenses, total	-558,274.98	-720,113.83
Depreciation adjustment	0.00	155,835.39
Investment and financing operations, total	-247,473.77	154,470.48
Clean Baltic Sea Projects	2012	2011
Income		
Donations received	815,594.68	768,389.81
Grants received	463,497.46	125,394.46
Investments	15,294.84	28,069.27
Total income	1,294,386.98	921,853.54
Expenses		
Personnel expenses	-426,305.31	-327,578.36
Depreciation	-30,233.63	-30,233.64
Equipment purchases	-98,820.00	-4,086.00
Consultancy fees	-347,192.76	-192,950.14
Marketing expenses	-50,485.52	-24,069.08
Travel and meeting expenses	-97,355.48	-100,943.01
Other expenses	-164,386.19	-150,335.00
Deferrals for projects that are not completed	10,499.13	0.00
Expenses, total	-1,204,279.76	-830,195.23
Clean Baltic Sea, total	90,107.22	91,658.31
Fund transfers	-90,107.22	-91,658.31
Clean Baltic Sea, total	0.00	0.00

Clean Baltic Sea project expenses itemised by function	2012	2011
Eutrophication projects	-820,620.83	-444,634.11
Tanker Safety	-78,352.62	-85,702.80
General expenses	-150,547.08	-160,919.14
Fundraising and communications	-154,759.23	-138,939.18
Expenses, total	-1,204,279.76	-830,195.23

NOTES TO THE BALANCE SHEET

Tangible assets	2012	2011
Machinery and equipment		
Office machinery and equipment		
Purchase cost 1 January	3,642.30	4,856.34
Additions	510.02	0.00
Depreciation for the accounting period	-1,038.12	-1,214.04
Book value 31 December	3,114.20	3,642.30
Wastewater treatment equipment		
Purchase cost 1 January	30,233.63	60,467.27
Depreciation for the accounting period	-30,233.63	-30,233.64
Book value 31 December	0.00	30,233.63
Machinery and equipment, total	3,114.20	33,875.93
Other tangible assets	2012	2011
Works of art		
Purchase cost 1 January	204,674.03	190,674.03
Additions	0.00	14,000.00
Book value 31 December	204,674.03	204,674.03
Maps		
Purchase cost 1 January	239,474.88	239,474.88
Book value 31 December	239,474.88	239,474.88
Books		
Purchase cost 1 January	22,768.34	22,768.34
Book value 31 December	22,768.34	22,768.34
Artefacts		
Purchase cost 1 January	171,904.16	171,904.16
Book value 31 December	171,904.16	171,904.16
Other tangible assets, total	638,821.41	638,821.41
Tangible assets, total	641,935.61	672,697.34

Investments

2012

2011

Listed shares and other financing instruments

Purchase cost 1 December	5,977,539.34	5,046,665.71
Book value 31 December	6,233,760.73	4,659,677.08
Market value 31 December	6,233,760.73	4,771,995.24
Difference	256,221.39	-274,670.47

Other shares and similar rights of ownership

Kiinteistö Oy Pasilankatu 2, 11.67 per cent of shares		
Book value 31 January	961,409.01	961,409.01
Book value 31 December	961,409.01	961,409.01

Equity / Capital and Reserves

2012

2011

Basic capital	142,168.69	142,168.69
Current Value fund 1 January	-274,670.47	0.00
Change in Current Value fund	530,891.86	-274,670.47
Current Value fund 1 December	256,221.39	-274,670.47
Other restricted reserves		
Clean Sea Fund I		
Combined with the Clean Sea II Fund in 2012		
capital 31 January	1,683,179.97	1,737,771.38
used according to fund rules to promote a clean sea	-1,683,179.97	-54,591.41
capital 31 December	0.00	1,683,179.97
Clean Baltic Sea Fund		
capital 31 January	818,411.51	672,161.79
Transfer from the Clean Baltic Sea I Fund	1,683,179.97	0.00
donations received	815,594.68	768,389.81
grants received	463,497.46	125,394.46
income from funds	15,294.84	28,069.27
used according to fund rules to promote a clean sea	-1,204,279.76	-775,603.82
capital 31 December	2,591,698.70	818,411.51
Retained surplus (deficit) from previous financial periods		
Earnings from previous accounting periods 1 January	5,980,418.90	5,656,096.19
Investment acknowledged at current value	0.00	386,988.63
Earnings from previous accounting periods 31 December	5,980,418.90	6,043,084.82
Surplus (deficit) for the accounting period	-553,447.70	-62,665.92
Capital and reserves, total	8,417,059.98	8,349,508.60

The Foundation has one fund, the Clean Baltic Sea Fund, which is restricted for a specific purpose. Monies in the fund are used according to fund rules.

The monies of the Clean Baltic Sea Fund have been invested in fixed-income funds.

INSIDERS

The Foundation's insiders include Board members, their spouses and underage children, and stakeholder companies.

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

Insider transactions

2012

2011

Purchases

Rents for facilities	25,681.94	30,091.38
Other	18,625.15	39,425.74
	44,307.09	69,517.12

Sales

Rents for facilities	125,732.60	188,834.96
Other	7,628.09	18,911.30
	133,360.69	207,746.26

Contingent liabilities

2012

2011

Leasing and rental liabilities excluded from the balance sheet		
Payable in the next financial period	13,945.93	25,475.79
Payable later	0.00	11,682.54
Total	13,945.93	37,158.33

In EU co-financed PURE project, the Foundation is committed to financing equipment purchases that are made for Brest wastewater treatment plant in foreign currency. The committed sum is EUR 115,000. After realization of the investments, the Lead Partner of the project PURE will reimburse the Foundation's actualized commitment directly to John Nurminen Foundation from the EU financing assigned to Brestvodokanal.

Signatures of the Annual Report and Financial Statements
Helsinki, 31 January 2013

Juha Nurminen
Chairman of the Board of Directors

Jouko Lönnqvist

Peter Fageräs

Juhani Kaskeala

Hannu Syrjänen

Veli Sundbäck

Sirpa Ojala

Sari Baldauf

Annamari Arrakoski-Engardt

Erik Båsk
Secretary General of the Foundation

A report of the audit has been submitted today.
Helsinki, 11 February 2012

PricewaterhouseCoopers Oy
Authorised Public Accountant Firm

Johanna Perälä
Authorised Public Accountant

Samuli Perälä
Authorised Public Accountant



Auditor’s Report (Translation)

To the Board of Directors of John Nurminen Foundation

We have audited the accounting records, the financial statements, the report of the Board of Directors, and the administration of John Nurminen Foundation for the year 1.1. – 31.12.2012. The financial statements comprise the balance sheet, the income statement and notes to the financial statements.

Responsibility of the Board of Directors

The Board of Directors is responsible for the preparation of financial statements and report of the Board of Directors that give a true and fair view in accordance with the laws and regulations governing the preparation of the financial statements and the report of the Board of Directors in Finland. The Board of Directors is responsible for the appropriate arrangement of the control of the foundation’s accounts and finances, and shall see to it that the accounts of the foundation are in compliance with the law and that its financial affairs have been arranged in a reliable manner.

Auditor’s Responsibility

Our responsibility is to express an opinion on the financial statements and on the report of the Board of Directors as well as on matters required by the Foundations Act based on our audit. The Auditing Act requires that we comply with the requirements of professional ethics. We conducted our audit in accordance with good auditing practice in Finland. Good auditing practice requires that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and the report of the Board of Directors are free from material misstatement, and whether the members of the Board of Directors are guilty of an act or negligence which may result in liability in damages towards the foundation or have violated the Foundations Act or the rules of the foundation.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements and the report of the Board of Directors. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the foundation’s preparation of financial statements and report of the Board of Directors that give a true and fair view 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. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements and the report of the Board of Directors.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion on the Financial Statements and on the Report of the Board of Directors

In our opinion, the financial statements and the report of the Board of Directors give a true and fair view of the financial performance and financial position of the foundation in accordance with the laws and regulations governing the preparation of the financial statements and the report of the Board of Directors in Finland. The information in the report of the Board of Directors is consistent with the information in the financial statements.

Other Statements Based on Law

The assets of the foundation are appropriately invested and the compensation paid to the organs of the foundation is reasonable. The foundation’s financial statements and report of the Board of Directors give a true and fair view of the operations of the foundation.

Helsinki 11 February 2013

PricewaterhouseCoopers Oy
Authorised Public Accountants

Johanna Perälä
Authorised Public Accountant

Samuli Perälä
Authorised Public Accountant

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Phone +358 9 22 800, Fax +358 9 2280 1880, www.pwc.com/fi
Reg. Domicile Helsinki, Business ID 0486406-8

CLARIFICATION TO THE CLAUSE ‘PURPOSE OF THE FOUNDATION’ AS PROVIDED BY THE BOARD OF DIRECTORS OF THE JOHN NURMINEN FOUNDATION

The clarification explains why the protection of the marine environment is a natural part of the cultural tradition of Finnish seafaring and maritime history. Excerpt from an appendix to the minutes of the Board of Directors:

Operational bylaws of the John Nurminen Foundation
The operations of the John Nurminen Foundation are based on the Foundations Act, the last approved bylaws of the John Nurminen Foundation (National Board of Patents and Registration of Finland, 14 August 2007), generally accepted good practices for foundations, and other rules and decisions separately approved by the Board of Directors.

All operations of the Foundation are based on its purpose (section 2): ‘The purpose of the Foundation is to preserve and safeguard the history and cultural traditions of international trade and related service industries in Finland, and to sustain the interest of the general public in these topics.’ The Foundation implements its purpose in various ways, which include, for example, providing financial support to operations that are in line with its purpose, and through other means mentioned in its bylaws (section 3).

In the view of the Board of Directors, ‘international trade and related service industries’ applies to exchange of information, communications, exchange of items and cultural exchange, and the related logistics services, support activities and operating environments. The specific purpose of the Foundation is to safeguard and preserve the history and Finnish cultural traditions related to the abovementioned areas, which refer to, amongst others, seafaring and the protection of the marine environment in a way that allows it to be freely and traditionally utilised, also preserving its usable condition, by all citizens and stakeholders, including those who engage in the service industries. The Foundation’s specific purpose is to protect the Finnish marine environment.

The bylaws of the John Nurminen Foundation are available at the Foundation’s website, www.johnnurmisensaatio.fi
The complete bylaws of the Fund are available in the donation section of the Clean Baltic Sea project website at http://lahjoitapuhdasitameri.fi/rahaston_tiedot.

EXCERPT FROM THE BYLAWS OF THE CLEAN SEA FUND 2

Section 1 Name of the fund

The name of the Fund is ‘Puhdas meri 2’, in Swedish, ‘Fonden för ett Rent Hav 2’, in English, ‘Clean Sea Fund 2’, and in Russian, ‘фонд ”Чистое море” 2’.

Section 2 Purpose of the Fund

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 The target is to reduce the nutrient loads of the Baltic sea and, in particular, the Gulf of Finland, or to promote solutions to other environmental problems faced by the Baltic Sea, increasing awareness of its environmental status.

Section 3 Implementing the purpose of the Fund

In line with its purpose, the Fund promotes, develops, finances and implements projects that have a significant, positive impact on the status of the Baltic Sea or increase awareness of the Sea’s environmental status. The Fund also supports or participates in similar projects run by other stakeholders. Emphasis is on operations that have the fastest and most cost-efficientxx positive impact on the use value of the Baltic Sea as well as its value as a natural environment. The John Nurminen Foundation can accept donations and bequests to the Fund if they meet the Fund’s set criteria.

Section 4 Decision-making and monitoring

The John Nurminen Foundation Board of Directors defines the Foundation’s projects and activities, and sets their schedules and targets. The Board of Directors of the John Nurminen Foundation monitors the implementation of projects and activities closely, taking into consideration the Fund’s purpose as laid out in these bylaws. The Board of Directors of the John Nurminen Foundation or a party authorised by the Board makes more detailed decisions on how funds directed to the Fund are used in accordance with these bylaws.

CONTACT INFORMATION

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+358 (0)40 825 8071

Tuula Putkinen
Communications Manager
+358 (0) 400 907 809



Operational staff of the Foundation
On the back, from the left: Mikko Klang, Pekka Laaksonen, Viivi Moll, Miina Mäki, Elena Kaskelainen, Tuuli Ojala, Tuula Putkinen and Maria Grönroos.
Front row: Maija Salmiovirta, Erik Båsk and Marjukka Porvari.

MARITIME HISTORY

Maria Grönroos
Publications and exhibitions
+358 (0)50 545 0481

CLEAN BALTIC SEA

Marjukka Porvari Director, Phosphorus removal projects +358 (0)41 549 1535	Tuuli Ojala Project Manager, EU project PURE +358 (0)44 203 2214
Miina Mäki Project Manager, marine biologist +358 (0)50 576 3298 (On parental leave)	Pekka Laaksonen Director, Tanker Safety +358 (0)400 530 422
Elena Kaskelainen Project Manager +358 (0)40 801 7057	Mikko Klang Project Manager, Tanker Safety +358 (0)400 638 499
Viivi Moll Project Manager, EU project PRESTO +358 (0)40 021 8307	Maija Salmiovirta Project Co-ordinator, Tanker Safety +358 (0)44 203 2213

ECOLOGICAL FOOTPRINT OF THE JOHN NURMINEN FOUNDATION ANNUAL REPORT

In the creation of the John Nurminen Foundation Annual Report, environmental issues have been considered as extensively as possible. During different work phases, the selection of materials and production methods was done based on suitability and environmental impact. Nevertheless, the publication has left its mark on the environment: energy and raw materials have been consumed, and waste and emissions have been created.

PURPOSE: Annual Report intended for long-term storage

SCOPE: 80 pages plus cover
 SIZE: 210 x 278 mm
 PRINT RUN: 1,600 copies in Finnish + 400 copies in English

PAPERS: PEFC-certified Galerie Art Silk 150 g/m² (pages) and 300 g/m² (cover), carrying the swan label, were selected as the papers used in the Annual Report. The wood fibre comes from responsibly managed forests. No chlorine gas was used in bleaching the pulp. The paper mill is ISO14001-, EMAS- and FSC-certified. A 'Paper Profile' environmental impact declaration is available for the paper used.

CHEMICALS: Only swan-labelled chemicals have been used in paper manufacture, preparation of the print surface, printing, and binding. The Annual Report is printed with vegetable oil-based inks.

PRINTING COMPANY: The Annual Report is printed by Edita Prima Oy in Helsinki. The company uses green electricity, and has been awarded the ISO 14001 certificate. Moreover, the company has the right to use the Nordic Ecolabel and paper origin certification (including FSC). The print compensates its carbon dioxide emissions by financing UN-monitored renewable energy projects in developing countries.

USE OF THE ANNUAL REPORT is easy and does not generate a significant load to the environment. No additional equipment or energy is required by reading. You can browse through the Annual Report several times, and taking it from one place to another is simple.

FOR EACH COPY OF THE ANNUAL REPORT, WE USED:

WOOD: 0.7 dm³
 WATER: 6.0 litres
 ENERGY: 1.3 kWh

PRODUCING A COPY OF THE ANNUAL REPORT GENERATED:

WASTE: 600 g, of which 580 g is recyclable waste (545 g paper, 32 g aluminium, 3 g cardboard), 8 g is burnable waste, 5 g is hazardous waste, and 4 g is landfill waste (from paper manufacturing).
 DISCHARGES TO WATER: 12 g (from paper manufacturing)

CARBON FOOTPRINT OF THE ANNUAL REPORT

760 g of carbon dioxide emitted to the air, of which printing accounts for approximately 190 g, and paper manufacture, including transport, for approximately 235 g. The remainder of the emission is generated from transportation to customers. Emission amounts are estimates. The carbon footprint of the Annual Report corresponds to driving a car for 4 km.

The ecological footprint of this Annual Report is greatly impacted by what happens to it after reading, as is the case with all publications. Dear reader – when you no longer need this publication, please recycle it. Wood fibres can be recycled approximately six times.

This ecological footprint analysis was created by Mika Ruuskanen, who heads the Nordic Morning environmental programme.

FOR FURTHER INFORMATION, PLEASE CONTACT
 mika.ruuskanen@nordicmorning.fi

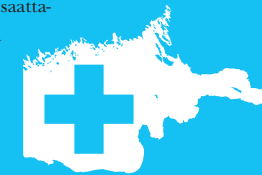


Enemmän tekoja,
 vähemmän

P:tä

FOSFORI [LAT. PHOSPHORUS, KEM. TUNNUS P] on alkuaine, jonka päästöjen vähentäminen vaikuttaa tällä hetkellä kaikkein tehokkaimmin Itämeren tilaan. Siksi Sanoma ja John Nurmisen Säätiö tekevät yhteistyötä fosforipäästöjen pienentämiseksi. Jo nyt Pietarin kolmen suuren jätevedenpuhdistamon uusiminen sekä säätiön yhteistyötahon EuroChemin toimet Kingiseppin kipsivuoren päästöjen patoamiseksi ovat vähentäneet Suomenlahtea rehevöittävää fosforikuormitusta pysyvästi lähes 60 prosentilla. Vähennys on niin merkittävä, että sen vaikutus voidaan nähdä lähivuosina meren tilassa. Vaikka olemme tehneet jo paljon, emme ole vielä tavoitteessamme. Siksi olemme Pietarin lisäksi aloittaneet toimet 16 muun Itämerta kuormittavan kaupungin fosforipäästöjen saamiseksi kuriin. Kaikkien muiden Puhdas Itämeri -hankkeiden tavoin myös nämä on suunnattu sinne, missä eurolla saadaan eniten aikaan. Hankkeiden loppuun saattamiseksi tarvitsemme jatkossakin tukea tahoilta, jotka haluavat olla parantamassa yhteisen Itämeremme tilaa.

Jos haluat myös itse olla mukana, voit tehdä lahjoituksen osoitteessa lahjoitapuhdasitameri.fi



PUHDAS ITÄMERI JOHN NURMISEN SÄÄTIÖ

The first print ad of the joint advertising campaign by Sanoma and John Nurminen Foundation was published in Helsingin Sanomat in January 2013. The creative concept is designed by advertising agency Dynamo.

