

Sustainability matters.

Ahlstrom's online newsletter on
corporate responsibility.

Issue 03 • Spring 10

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Photo: Mika-Pekka Markkanen

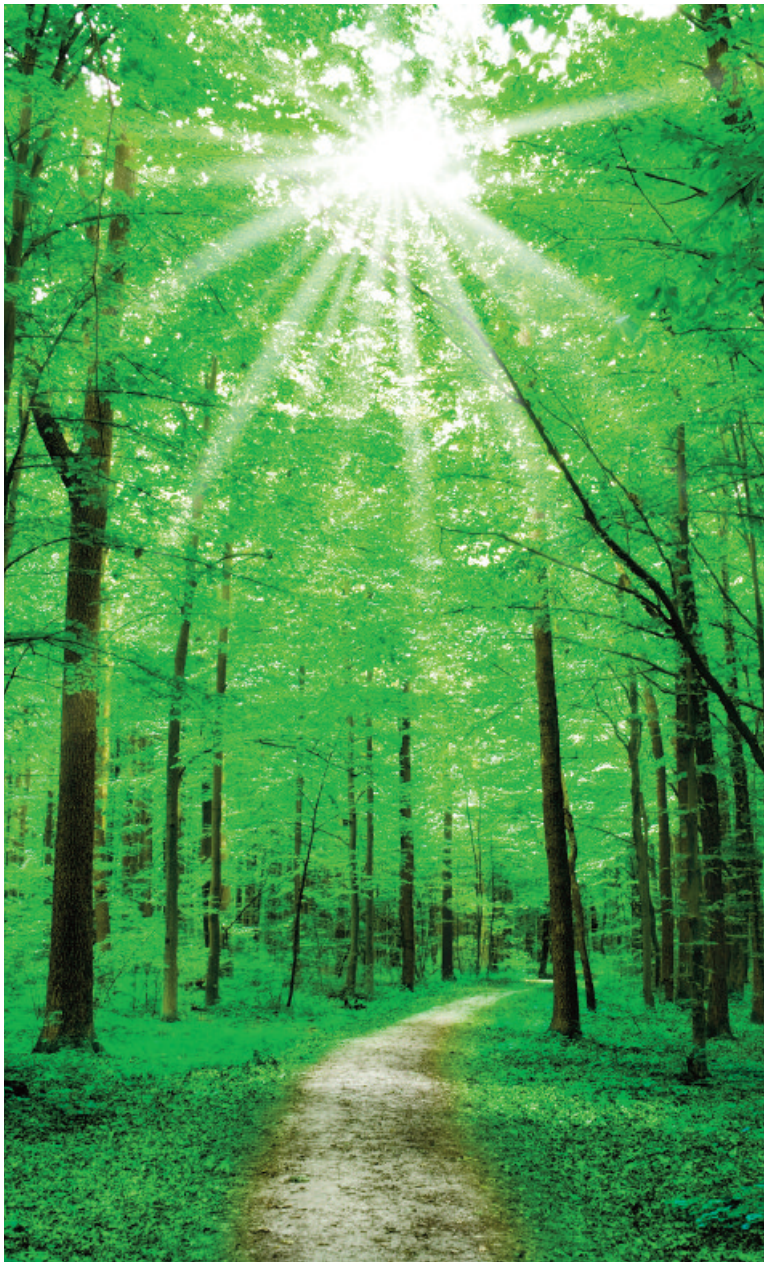


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Ahlstrom's sustainability framework – our definition of green

Welcome to the third issue of Sustainability matters.



Anna Majja Wessman
Vice President, Sustainability
Photo: Iisa Pykäri

Ahlstrom takes a three-step approach into sustainability in its value chain. The first step is the sustainable supply chain for our raw materials. Natural fibers are by far the most important raw material in Ahlstrom's products. We want to ensure that they come from sustainably managed forests. As for other raw materials, as a priority we want to make sure that our strategic suppliers are responsible

companies. The approach can then be applied and broadened to site level or even to product level for the main non-wood raw materials.

The second step is ecologically efficient manufacturing where emissions are minimized. The main principles of Ahlstrom's environmental responsibility are to achieve complete compliance with environmental and social regulations, to minimize the emissions to the air, water and soil, and to optimize the efficiency of operations thus saving raw materials and energy. A key topic today is to minimize waste and, if still created, find alternative uses for it. All this also makes economic sense.

The third step is a holistic life cycle thinking for our products. The environmental impacts are evaluated over the whole life cycle of the product. Our industry is capable of controlling the

impacts from cradle to gate, but the end of life options need to be taken into account in the product design. To have a comprehensive picture, social impacts also need to be considered.

Economic, social and environmental responsibility is taken into account in all these linked areas making it a truly holistic concept. It is like a 3-legged stool – all parts are essential and none of them can be neglected.

When meeting the criteria for minimized environmental impacts over the life cycle, we can talk about "green". When the product in addition has positive social and economic impacts, it can be called "sustainable".

For more information, please contact Anna Majja Wessman at anna.wessman@ahlstrom.com

Jan Lång talks about sustainability

We asked Jan Lång, President & CEO of Ahlstrom, to share his views on some of the most important matters related to sustainability and Ahlstrom.

Photo: Ahlstrom Corporation

On strategy:

"Sustainability has to be a prime element in our strategy. Any critical and important matters of a business have to be embedded in the values of the company. This has to further translate into the way of working as well as the brand story of the company. The challenge for us here has been to convert that into a story."

On waste:

"Projects that have been initiated at Ahlstrom to reduce internal waste make a good example of sustainability and profit generation going hand in hand. It is very important to pay attention to any waste – whether it is material or energy or even time spent on matters that do not create value. Waste is a measure of inefficient processes."

On energy:

"Our energy efficiency has improved, and we have invested money every year to become even more efficient. I certainly hope that the trend of preferring renewable energy sources will continue – not only because we are making products for example for the windmill industry, but also from a sustainable point of view."

On water:

"Water is the future gold, and it is going to be scarce. We have done great work in the organization during the last few years to improve the process of managing water from an environmental perspective. On the other hand, we need to recognize that in this industry you cannot run without large quantities of water. So we need to keep water as a high priority in the company and manage it in a responsible manner. Water is going to be very, very high on the agenda."

On values:

"It is the consumer who drives the behavior of corporations and society at large. We have seen a clear change in the attitudes of people towards sustainability and environmental issues in the last five years. I am also confident that the next generation will have a completely different view of the world and very high expectations for behavior of companies as well as what type of products they will buy. I think that will drive the change."

Ahlstrom sign in to the UN Global Compact

The United Nations Global Compact is a policy platform and framework for companies that are committed to sustainable development and responsible business practices. It is a set of ten principles in the area of human rights, labor standards, protection of the environment, and the prevention of corruption.

Ahlstrom is now one of the 5,300 companies – only 19 of which are based in Finland – that have signed in and made a commitment to advance the principles of the Global Compact.

The commitment implies to our customers that Ahlstrom is alert to environmental and social issues and is taking active steps to incorporate them into strategy and risk management.

The companies involved should support and respect the protection of internationally proclaimed human rights as well as uphold the freedom of association and the effective recognition of the right to collective bargaining. They are also committed to eliminate all forms of forced and compulsory labor, including child labor.

Supporting a precautionary approach to environmental challenges and undertaking initiatives to promote greater environmental responsibility are also expected from the companies that have signed in, as well as working against corruption in all its forms.

By supporting the initiative, Ahlstrom commits to voluntarily advance sustainability with its stakeholders. We want to send a strong signal along the value chain to advance the principles everywhere in the world.



For more information, please go to www.unglobalcompact.org or contact Anna Maija Wessman at anna.wessman@ahlstrom.com



Photo: Anna Maija Wessman

Case study:



Photo: Shutterstock

Greener laminated products for the food packaging industry

The successful lamination of parchment paper with metalized opaque biodegradable PLA (Polylactic Acid) offers a well performing and biodegradable material for wrapping butter, fat and margarine. The PLA acts as a barrier to air, gas, humidity and light while the parchment paper offers a perfect natural barrier to grease and is perfectly safe for food contact. Printable, the new structure gives to our genuine vegetable parchment an improved flexibility and excellent tear resistance. This new laminated product, developed by our West Carrollton plant in the USA, is an interesting ecological alternative for PET/greaseproof paper/aluminum foil laminates. It is also suitable for baking trays.

For more information, please contact Philippe Daillencq at philippe.daillencq@ahlstrom.com

Photo: SP Minerals



Photo: Iisa Pykäri

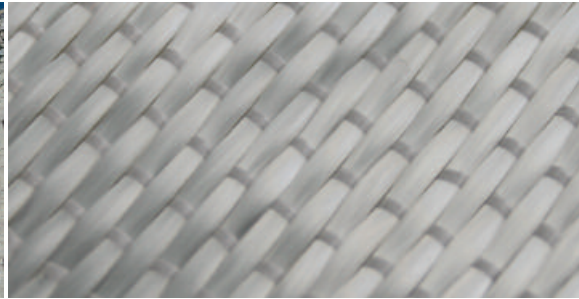


Photo: Ahlstrom Corporation



Photo: Heidi Fagerholm's family album

Specialty glassfiber reinforcements in the Ahlstrom sustainability framework

Ahlstrom's specialty glassfiber reinforcements are used mainly in windmill blades, marine applications and transportation vehicles. We produce glassfibers in Karhula, Finland. In manufacturing, we focus on the reduction of energy consumption. In accordance with tight environmental legislation, the emissions are minimized.

Responsibly sourced

The main raw materials for the principal components in glass are derived from Finnish sand (silica quartz), English china clay and limestone from Gotland, Sweden. We have been assured by the suppliers' responsibility credentials.

Sand, kaolin and limestone with some additional minerals are melted at extremely high temperature to form continuous glassfiber filaments, which are made into rovings. They are then sent to Mikkeli, Finland where the product is converted into the specialty reinforcements of various designs.

More ecological transportation end uses

Recently, the diameter of a wind turbine rotor as well as its height and installed capacity have grown remarkably.

"Ahlstrom is responding to the requirements for stronger materials by designing glassfiber reinforcements with higher stiffness and tensile strength as well as better fatigue properties", says **Heidi Fagerholm**, responsible for innovations in the Glass and Industrial Nonwovens business area at Ahlstrom.

The expected lifetime of a windmill park is 25-40 years. Disposal of the blade composites after their useful life is to grind them and reuse e.g. as raw material for cement.

Fagerholm continues about the merits of the lightweight structures with glassfiber reinforcements in applications such as trucks and trailers. Compared to competing materials they enable a reduction in CO₂ emissions as a result of a lower fuel demand.

"The lowest demand for fuel and thus greenhouse gas emissions are however in sail boats," concludes Fagerholm, an avid sailor herself. Marine applications are an important end use segment for Ahlstrom's glassfiber reinforcements.

For more information, please contact Heidi Fagerholm at heidi.fagerholm@ahlstrom.com

Case study:

Redefining nonwoven fabrics

Ahlstrom has worked with an innovative Finnish design company Globe Hope, to use leftover nonwoven fabrics to make handy shopping bags. The material for the bags - process waste and second quality material - is collected from our Finnish sites in Tampere and Karhula. These promotional materials were handed out to customers at Heimtextil, and another design was used for Ahlstrom's Annual General Meeting.

Globe Hope uses recycled materials, turning them into uniquely designed clothes and accessories. All Globe Hope production vows to uphold sustainable development, and a part of Globe Hope's mission is to offer people an ecological and sustainable choice.

As Globe Hope is one example of ingenuity we believe that, by using creativity, there are many more ways to utilize nonwoven waste materials for various similar ecological products in all parts of the world.



Photo: Iisa Pykäri



Photo: Mika-Pekka Markkanen

Sources:
<http://www.waterfootprint.org/downloads/WaterFootprintManual2009.pdf>
<http://www.wbcscd.org>

For more information, please contact J. Michael Joyce at michael.joyce@ahlstrom.com

From water intake to water impact – water footprints defined

Water is the most important element for human life. In recent times of growing water scarcity, awareness of water use and the impact of it have grown.

What is a water footprint?

When discussing footprints, it is always a question of impacts. A water footprint is an indicator for the impact of both direct and indirect water use calculated over the various steps of the production chain. When and where the water is used matters.

Water footprints are divided into green, blue and grey water footprints according to the Water Footprint Network, a non-profit foundation promoting the transition towards sustainable, fair and efficient use of fresh water resources. A green water footprint refers to the rainwater in the forest land or the water from irrigation of crops, while a grey water footprint is an indicator of pollution. A blue water footprint is defined as the volume of surface and groundwater consumed as a result of manufacturing a product. It is water that nobody else can use again.

Looking at water usage in a new way

Generally, the green water footprint for forest products is large as a consequence of the laws of nature, as trees need water to grow. Our processes also need large amounts of water for web forming, steam and cooling applications. This is why Ahlstrom recognizes water as a key strategic issue.

When assessing the impact of water use at Ahlstrom facilities, we learn to look at our water use in a new way. The impact of our water use is only a fraction of the water intake per ton produced.

Our grey water footprint approaches zero as the discharges are cleaned to a level such that they have no significant environmental impact. This has been achieved through the tremendous progress Ahlstrom made with waste water treatment years ago.

Where does it matter the most?

To put our calculated operational blue water footprint results in perspective with regard to available water resources, we find that our operations in Scandinavia, North and South America and Russia are in areas with abundant water resources, while in central Europe the resources are sufficient. Our South Korean site is located in an area with stressed water resources.

Ahlstrom uses the Global Water Tool, developed by the World Business Council for Sustainable Development (WBCSD), to proactively assess and manage its water resource risks. The tool is based on statistics by the Food and Agriculture Organization of the United Nations.

In all its operations, Ahlstrom is committed to using fresh water in a way which is economically, socially and environmentally sustainable.

Case study:

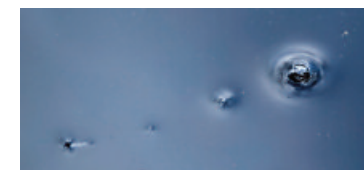


Photo: Mika-Pekka Markkanen

Ahlstrom Korea saves water

Korea is an area that is identified as stressed in terms of water resources and availability. Hence, it makes sense that Ahlstrom's plant in Korea is a great place to push water saving initiatives.

Ahlstrom's Korean facility manufactures filter papers for a wide variety of applications. In 2007, water drawn from wells, an adjacent river and from the local town water translated to 14.3 m³ per ton of product produced.

Working through the site's engineering group and the operational excellence aPlus teams, a number of water saving opportunities were identified. The recycle efficiency from the wastewater treatment plant back into the process was increased from 83% to 90%. Also, the high-pressure showers serving the paper machines were transitioned from fresh water to recycled white water from the paper machines using tight mesh filter membranes.

The results of these efforts have been dramatic. The site has cut the raw water usage by 43%. The water per ton of product produced has dropped to 8.9 m³ per ton, an improvement of 38%. However, operating efficiencies are not the only gain. By taking these steps, Ahlstrom's plant in Korea has done its part to preserve a limited local resource – water.