

A scenic mountain landscape with a hiker in the foreground, a tent, and a person sitting on a rock. The hiker is wearing a red jacket and a large blue Thule backpack. The tent is green and set up on a grassy slope. A person is sitting on a rock in the lower right. The background features rugged mountains and a valley with a waterfall.

# Environmental Report 2014

Thule Group >>



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# Our Business

Thule Group provides products in two business segments:

**Outdoor&Bags** and **Specialty**. We are a world leader in sports and outdoor products that make it easy for people to bring along the things they care for easily, securely, and in style.

**O**ur products, which range from bike carriers and ski racks to smartphone covers and camera bags, are sold in 136 markets globally. Total net sales for Thule Group in 2014 amounted to 4.7 billion SEK. Our largest brand, Thule, is a premium brand recognized throughout the world for its safe, easy-to-use and contemporary design. Our Case Logic brand is well established in the bags for electronic devices market in many geographic regions.

The Outdoor segment is one of the fastest growing segments in retail, driven by lifestyle trends and the desire to live a healthy, balanced life, that includes outdoor activities.

## Outdoor&Bags

Outdoor&Bags is the largest business segment in Thule Group, representing 90 percent of total sales in 2014 and operating in two regions (Americas, Europe and ROW).

Our traditional core product category, Sport&Cargo Carriers, was established more than 50 years ago when we launched our first ski rack. Since then, the Thule brand has become synonymous with smart solutions that let you bring your sports gear with you on your car.

Consumers around the world are becoming more connected through mobile devices and they are increasingly working remotely. This has increased the market for smart solutions that makes it easy to protect, carry and use devices

such as laptops, tablets and smartphones. Thule Group has two strong bag-related brands that serve this purpose – Thule and Case Logic.

Since 2005, we have also been offering Recreational Vehicle products such as bike carriers, awnings and tents for the European market. And in the last few years we have entered the Active with Kids category, where we today offer the broadest product portfolio in the world for active parents who want to bring their kids with them when doing sports and other outdoor activities. Among our products are multifunctional child carriers, sport strollers and child bike seats. We also offer a number of bag solutions for sports and travel.

## Specialty

In the Specialty business segment we have Work Gear, which mainly consists of pick-up toolboxes for the U.S. market sold under the UWS brand. This segment also includes our snow chains for consumers sold under the Thule brand and snow chains for professional vehicles sold under the König brand. Specialty represented 10 percent of total sales in 2014.

## Our history

Thule Group was founded in Hillerstorp, Sweden in 1942, where we still today have our largest product development center and our global Thule Test Center. The first product aimed at the sports and cargo market was a ski-rack launched in 1962.



➤ **FAVORITE OUTDOOR ACTIVITY**

All sports, but especially tennis and other ball sports and skiing.

➤ **FAVORITE PRODUCT**

"I love many of our products, but the ones I currently use the most are the *Thule Atmos X3* smartphone cover, the *Thule Chasm* sports duffel bag and the *Thule EasyFold* bike carrier."

# Dear colleagues, business partners and customers,

**T**hule Group had an eventful year in 2014. We continued to introduce a number of exciting new products within our Active with Kids portfolio, broadened our assortment in the Sport&Travel bags segment with the launch of our Thule Technical Backpacks and the *Thule RoundTrip* bike and winter sport travel bags, and launched a number of new cases and bags for electronic devices. As always, we also continued to expand our offer in the more traditional Sport&Cargo Carrier category.

On the corporate front we have continued our strategy to focus on branded consumer goods for active people around the world and in April we therefore divested our trailer division, including our plants in Jönköping, Sweden; Wielen, Poland and Norre Aaby, Denmark. In November, we spun off our towing business area (including our plants in Staphorts and Hogeveen, the Netherlands; Reims, France and Nuneaton, UK) into a separate, stand-alone company.

That same month, Thule Group launched an Initial Public Offering (IPO) of its ordinary shares on Nasdaq Stockholm. This much more public position makes it even more important for us to communicate what we are doing in all areas of the business, including the environment, not only to consumers, suppliers and customers, but also to investors and the public at large.

So what are we doing to become a greener company? We continue to

“We are almost fanatical in our testing to ensure that our products are safe and durable, and we often test above and beyond what is required.”

improve to reach our mid-term 2016 targets to reduce electricity consumption by 5 percent, have a 95 percent recycling rate, and derive 60 percent of our electricity from renewable resources. And we continue to work on five environmental core areas: products, energy, water, waste and recycling, and responsible sourcing and logistics.

Last year I said that we would focus on further environmental improvements when it comes to designing and developing products. This is an important area since it determines the environmental impact of the product. We did just that through more in-depth Environmental Design training. We stepped up our work with Life Cycle Assessment (LCA) workshops in our efforts to minimize the environmental footprint of our products.

Our employees are discerning consumers themselves, putting high demands

“I am pleased with our overall accomplishments in the environmental area, but the better you get at something, the more you realize that there is room for improvement.”

on Thule products. We are almost fanatical in our testing to ensure that our products are safe and durable, and we often test above and beyond what is required. Many employees have a personal interest in the environment that extends naturally to the workplace, where Thule environmental ambassadors in particular are propelling the company forward in this regard. You will meet some of them, along with some of our product designers and engineers in the coming pages.

Our biggest investment decision in 2014 was to build a central distribution center in Huta, Poland, located next to our biggest assembly site in the Group. This opened in January 2015 and it will considerably reduce transportation costs and our environmental impact in the logistics area by putting products closer to the rapidly growing Eastern European market.

Another significant achievement during the year had to do with energy improvements. In 2012, only 29 percent of our electricity came from renewable resources. As our target is to raise the level of renewable resources to 60 percent by the end of 2016 this has been a major improvement area. In 2014, more than 50 percent of our electricity was being derived from renewable sources. In some parts of the world, the shift to renewable energy has incurred slightly higher costs for Thule Group, but we feel it is worth paying a little extra to achieve this very important goal.

I am pleased with our overall accomplishments in the environmental area, but the better you get at something, the more you realize that there's room for improvement. So, we will continue to be inspired by the world's most sustainable companies and benchmark against them to continue to improve our own game.

Personally, I am hoping to achieve all of our targets for 2016 a little bit earlier. And of course we won't stop there. We are a competitive bunch with a responsibility to continue Thule Group's more than 70-year-old heritage. We are well aware that our future success and very existence hinges on the ability to preserve the great outdoors.

Thank you for taking the time to read about Thule Group and our environmental efforts.

Best regards,

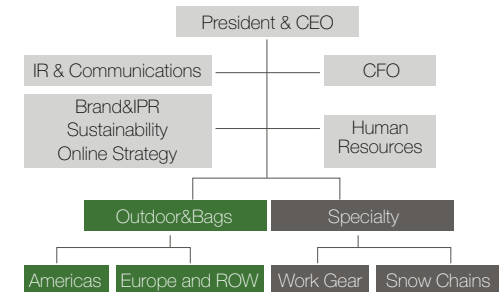


Magnus Welander  
President and CEO, Thule Group

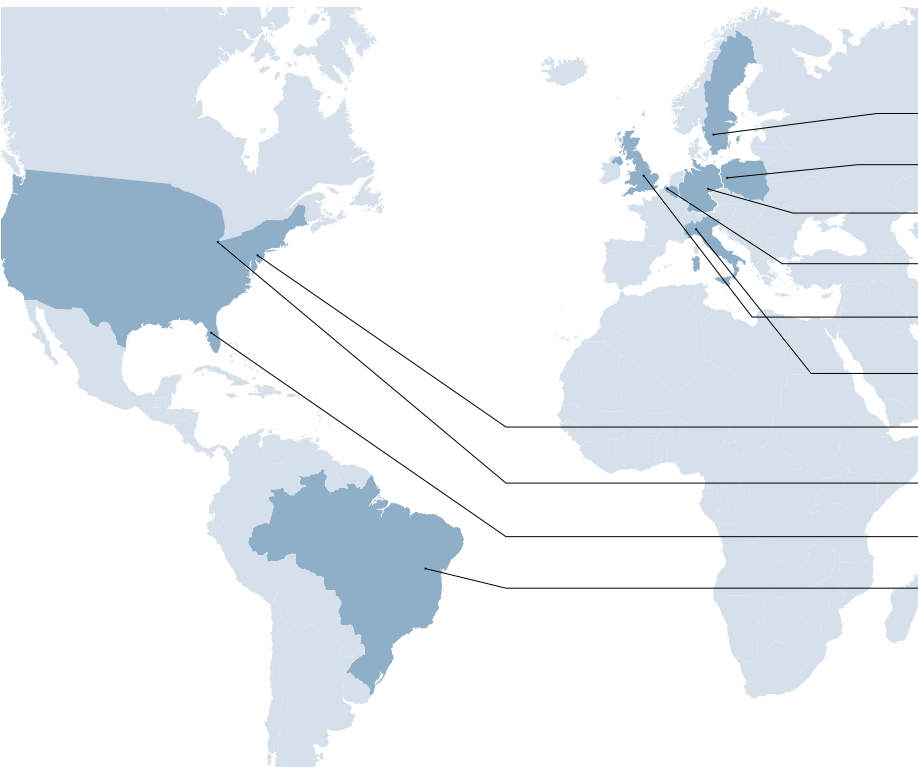
# Who we are

“Shared passion for smart solutions that enable an active life” captures the spirit of how we develop products for our consumers to enjoy active lives, how we as employees want to live our own lives, and how we want our customers to feel when they do business with us.

## How we are organized



## Thule Group manufacturing and assembly plants by location and type of production:



Location	Type	Main business segment and product category
Hillerstorp (Sweden)	Assembly and component plant	Outdoor&Bags (Sport&Cargo Carriers)
Huta (Poland)	Assembly plant	Outdoor&Bags (Sport&Cargo Carriers) and Specialty (Snow chains)
Neumarkt (Germany)	Roof box manufacturing	Outdoor&Bags (Sport&Cargo Carriers)
Menen (Belgium)	Assembly and component plant	Outdoor&Bags (RV products)
Haverhill (UK)	Roof box manufacturing	Outdoor&Bags (Sport&Cargo Carriers)
Molteno (Italy)	Manufacturing and assembly	Specialty (Snow chains)
Seymore (CT, US)	Assembly plant	Outdoor&Bags (Sport&Cargo Carriers)
Chicago (ILL, US)	Roof box manufacturing	Outdoor&Bags (Sport&Cargo Carriers)
Perry (FL, US)	Assembly plant	Specialty (Work Gear)
Itupeva (Brazil)	Roof box manufacturing	Outdoor&Bags (Sport&Cargo Carriers)

# Our Environmental Ambition





At the Thule Group, we want to conduct our business with as little impact on the environment as possible and we always strive to ensure that our business strategy is environmentally responsible.

**O**ur entire existence as a company depends on our employees, customers and consumers being able to enjoy an active lifestyle in a healthy outdoor environment. This is why we work hard to reduce our impact on the environment. We are also convinced that it is the right thing to do. Thule Group is committed to developing high quality products that are built to last – something that we have been doing since the company was founded in 1942.

By focusing on continuous improvement in five environmental areas – **Product, Energy, Water, Waste and Recycling**, and **Responsible Sourcing and Logistics** – we have a structured way to drive this commitment and passion for doing business in a sustainable way. Environmental Design training, product life cycle assessments and checklists in the design and development phase of products are just some of the ways that we are spreading awareness and working to achieve our environmental targets.

## Thule Group targets

We have defined five core focus areas for environmental sustainability:

-  **Product** — with the current focus being on Life Cycle Assessments integrated in design and product development and substance compliance governance by material data and third-party testing.
-  **Energy** — with our official target by the end of 2016 to reduce electricity consumption by 5 percent and have 60 percent of our electricity from renewable sources.
-  **Water** — focusing on improvement via investments in closed loop systems and raising awareness.
-  **Waste and Recycling** — increased recycling options in factories and offices with the target to reach a recycle rate of 95 percent by the end of 2016.
-  **Responsible Sourcing and Logistics** — running Environmental Design project with suppliers.

## ISO 14001 certified

We apply high environmental standards to all of our production facilities. 70 percent of our production units are certified according to the ISO 14001 environmental management standard. Our environmental work is handled centrally through guidelines and the establishment of standards and principles. We are subject to rules and regulations relating to the protection of the environment and natural resources including, but not limited to, the management of hazardous substances and waste, air emissions and discharges of water. On a local level, each unit is responsible for implementation, follow up and the handling of day-to-day matters.



60%

60% of electricity from renewable resources by the end of 2016.

95%

95% recycling rate by the end of 2016.



Thule Group target	2012	2013	2014
Reduce electricity consumption with 5% by the end of 2016	N/A	-1.3%	-6.0%*
60% of electricity from renewable resources by the end of 2016	28.8%	26.6%	51.7%
95% recycling rate by the end of 2016	87.2%	89.3%	91.8%

\* 2014 compared with 2012.

## Community involvement

**Our environmental engagement extends beyond our own doors. We work with a number of environmental organizations and are active in the communities where we operate.**

Like our consumers, many Thule Group employees also enjoy an active, outdoor lifestyle, and the environment ranks high according to employee surveys. Thule Group engages in many environmental and outdoor initiatives, such as the American, not-for-profit Outdoor Foundation, established by the Outdoor Industry Association. The foundation's goal is to encourage young people to be active outdoors and it aims to inspire and grow future generations of outdoor enthusiasts by giving grants to campus clubs and other young people's groups to fund outdoor activities and supplies.

Thule Group also contributes to the Conservation Alliance, whose mission is to protect outdoor areas in North America. Funding goes to preserving wilderness areas, rivers and streams, and to other environmental protection activities. In 2014 Thule Group joined the European Outdoor Conservation Association (EOCA), the European counterpart to the Conservation Alliance. Through membership in EOCA we are increasing our cooperation with many other actors in the outdoor, sports and leisure industry to preserve sensitive natural areas and ecosystems.

We continue to be active in the European Outdoor Group's Sustainability Working Group, which aims to improve the ecological and environmental impact of the industry by adopting the best standards of sustainability.



# Active Employees

More than 2,200 people work at 10 production facilities and more than 35 sales locations all over the world. Many of these employees enjoy outdoor activities and are eager to participate in environmental activities.

**F**or many employees, working at Thule Group is an extension of their lifestyle. Individuals are often attracted to the company – and stay on – because they identify with the company's values and the promotion of outdoor activities. They frequently use the company's products in their leisure time.

Concern for the environment is a natural extension of this outdoor passion. Our most recent employee survey highlights a deep environmental engagement. In the survey, 81 percent of employees said they believe that environmental sustainability is important for the Thule Group's business, and 75 percent of respondents said they wanted to take a more active part in sustainability efforts.

These efforts are steadily increasing as more and more employees initiate and participate in environmental actions. environmental ambassadors (more on page 12–13) are helping to lead the way.

## Transforming the Legion Pool

In June, more than 30 Thule Group employees participated in a project to help revitalize the Legion Pool, a property managed by the Seymour Land



Thule Capstone technical backpack



Trust. This volunteer organization works to preserve watersheds, wetlands, woodlands and open spaces in the Town of Seymour, U.S. Recent storm damage and neglect left the Legion Pool headquarters, located less than a mile from Thule Group operations, in need of maintenance. Employees spent the day revitalizing the property by doing landscaping, painting, planting and weeding. One group constructed a walking path that connects the Legion Pool property to public baseball fields and trails. This impressive transformation made it possible for visitors to fully enjoy hiking the trail system and picnicking.

### **Commuting 18,000 kilometers**

Cars are by far the number one mode of transportation in the Canadian city Calgary, but there are a few Thule Group employees in Calgary who bike to work year-round regardless of the weather. These employees have ridden approximately 18,000 kilometers annually. This can be equated to saving about 2,100 liters (560 gallons) of fuel per year.

Video conferencing systems, first implemented in 2009, enable employees to communicate virtually face-to-face. This not only reduces the environmental impact from traveling, but also saves an enormous amount of time. Today, 14 Thule Group sites have one or more video conferencing rooms.

Each year environmental initiatives are nominated for the *Green Initiative of the Year Award*. The winner is selected at the annual Management Conference.

In 2014, the award went to the team behind our global environmental design efforts to limit the environmental impact of new products.

These are some of the employee initiatives underway to reduce waste, improve recycling and printing practices, and more:

- raising awareness about sorting recyclable waste and disposing in designated recycle bins
- food scrap collection for composting
- purchasing reusable mugs to eliminate the use of disposable cups
- installing low-flow regulators on faucets and toilets
- installing automatic shutoff faucets for hand washing
- changing from water machines using replaceable bottles to filtered tap water
- putting water dispensers in meeting rooms to eliminate the need for bottled water
- decreasing paper consumption by requesting invoices be sent by email and uploaded in the system instead of printing
- implementing LED lighting in office areas to reduce electricity consumption
- replacing exterior lights with LED fixtures together with optimized control systems to minimize electricity consumption.

# The Spirit is Contagious

It may not seem like a lot – turning off lights and computers at the end of the day, putting recyclables in the right bins – but initiatives big and small, encouraged by environmental ambassadors at our sites, are helping Thule Group achieve its environmental goals.

**S**ince the voluntary environmental ambassador role was initiated in 2011, numerous activities have contributed to sustainability improvements, but perhaps the biggest change of all, has been the mindset – something that has shifted all over the world in a relatively short period of time.

“Four years ago I felt that I was one of the few people here focusing on the environment,” says environmental ambassador, Iwona Banecka, quality systems manager in Huta, Poland. “But since then there’s been a change in mentality from ‘Why are we doing this?’ to ‘Let’s do it!’ People see that we are implementing green initiatives and moving forward.”

## Inspiring each other

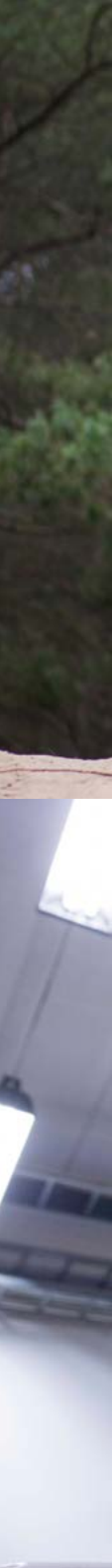
The Thule Group sites have begun sharing best practices with each other on how to save energy, use more renewable energy, improve logistics and packaging, and use Life Cycle Assessments to identify where to best reduce the impact of products. Green Action videoconference meetings are an opportunity to share ideas with environmental ambassadors worldwide.

“We get inspired by examples like our Molteno, Italy plant’s solar energy, and want to completely cover our own roof with solar panels, but then we remind ourselves that we have to do what’s realistic for this location where sunshine is less frequent,” says Lukasz Kwidzinski, environmental ambassador and process quality technician at the Hillerstorp, Sweden site, adding that there are always plenty of suggestions regarding ways to improve.

The Hillerstorp site has managed to shift entirely to renewable electricity and new LED lighting and motion sensors have helped the highly modernized, nearly 50-year-old Hillerstorp plant, reduce its electricity consumption. With the help of an air detector, Lukasz can find leakages in the plants compressed air system and have them sealed to retain energy. The environmental ambassador’s job is largely about “continuous improvement” Lukasz notes.

## Reducing waste

Inspired by Hillerstorp, the Huta site decided to increase its renewable energy – which is not an easy task in Poland. It has also improved waste handling together with its partners to improve results in this area.

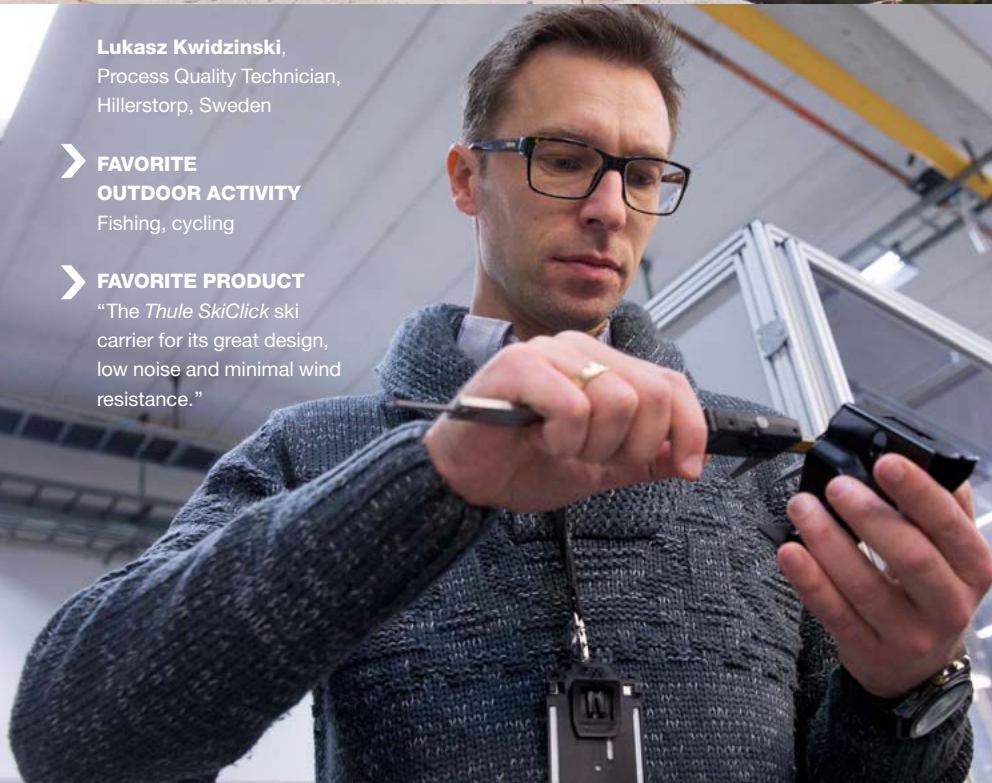




**Iwona Banecka,**  
Quality Systems  
Manager, Huta, Poland

> **FAVORITE  
OUTDOOR ACTIVITY**  
Running, skating

> **FAVORITE PRODUCT**  
“The *Thule ProRide* bike  
carrier is the best solution for  
my cycling but in the future I’ll  
be testing the *Thule RideAlong*  
child bike seat.”



**Lukasz Kwizdzinski,**  
Process Quality Technician,  
Hillerstorp, Sweden

> **FAVORITE  
OUTDOOR ACTIVITY**  
Fishing, cycling

> **FAVORITE PRODUCT**  
“The *Thule SkiClick* ski  
carrier for its great design,  
low noise and minimal wind  
resistance.”

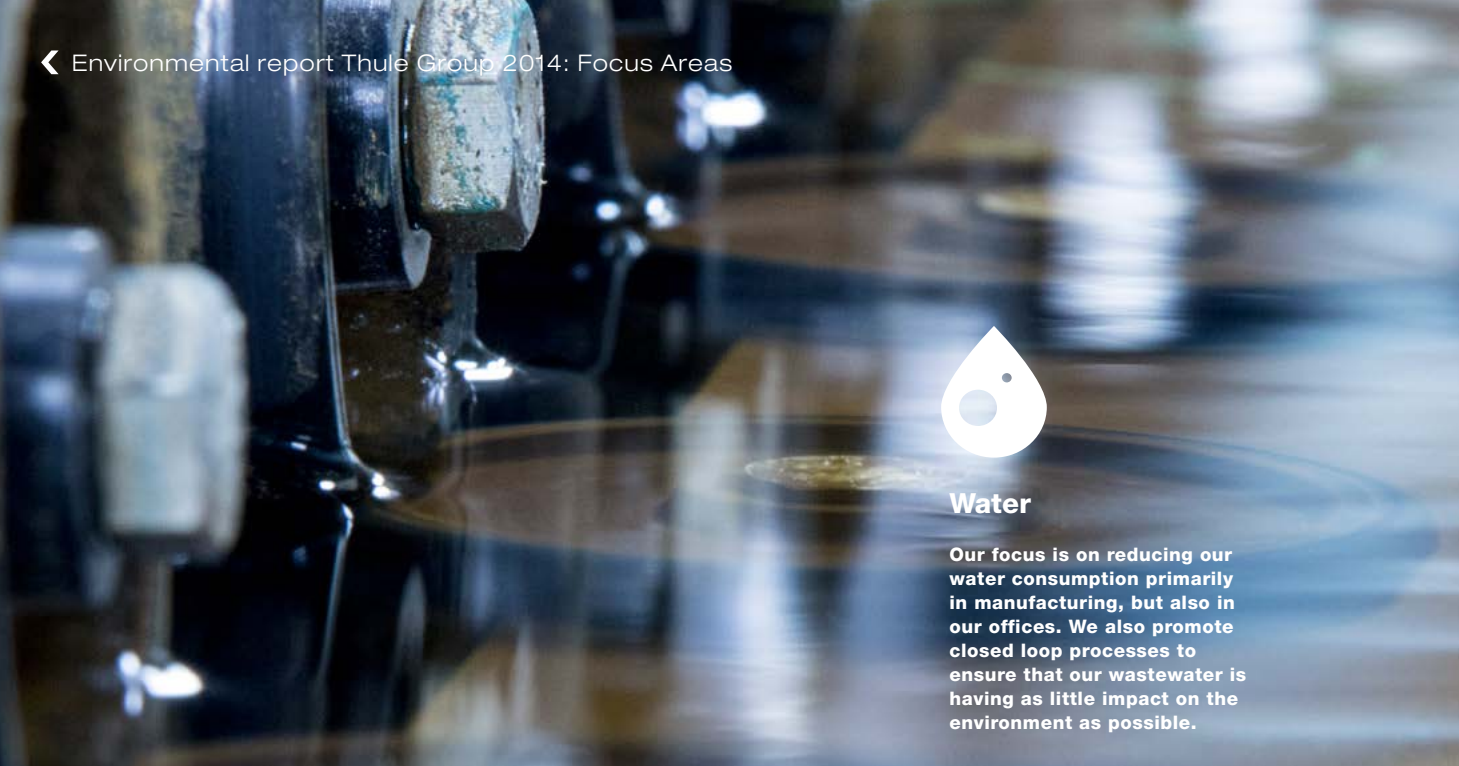
“It’s really a matter of  
practice what you preach.”

During the year, both plants have found ways to reduce the amount of paper that goes into invoices and instruction manuals and they have started looking into how other alternatives can further eliminate consumer waste.

Thule Group sites have at least one environmental ambassador and Anders Nilvius, concept development manager, at Hillerstorp, was one of the first to make the commitment. “I think that the entire Thule Group really has taken a step forward through implementing this role,” he says, adding that his own environmental awareness has improved both at work and at home.

“It has opened my eyes,” says Anders. “I have been working with product development for 14 years and with the ambassador role I am even more conscious of quality. At home too I don’t want my family to buy poorly made toys or products with all kinds of chemicals in them. It’s really a matter of practice what you preach.”

Living and breathing their own values and promoting good practices comes with the role. “I am passionate about this outside of work too,” says Wesley Fleming, senior design engineer, Calgary, Canada. “We recycle at home, conserve energy and compost. I ride my bike to work or carpool. If we feel strongly about something we can change our ways. People at our site are composting and recycling and it’s become almost second nature now.”



### Water

Our focus is on reducing our water consumption primarily in manufacturing, but also in our offices. We also promote closed loop processes to ensure that our wastewater is having as little impact on the environment as possible.



### Responsible Sourcing and Logistics

Our efforts go backwards to our suppliers and forward to our customers. We carefully select and monitor the sourcing and logistics chain with a focus on smart and logical solutions.

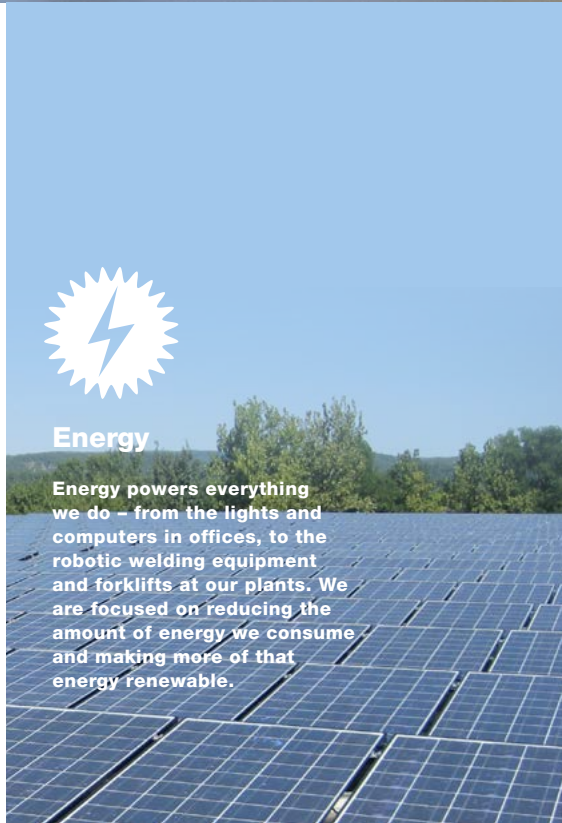
# Driving Continuous Improvement

**S**ince 2012, we have been focusing on five areas that support our environmental ambition. This makes it easier to monitor, measure, compare and follow up on our sustainability efforts. It has also increased awareness of our environmental footprint and the importance of continuous improvement. Furthermore, consumers of our products, suppliers and customers get a common understanding of how we work in the environmental area and are able to follow our progress. This is a key element when educating and sharing knowledge not only across the Thule Group, but also with our partners.



### Energy

Energy powers everything we do – from the lights and computers in offices, to the robotic welding equipment and forklifts at our plants. We are focused on reducing the amount of energy we consume and making more of that energy renewable.



### Waste and Recycling

In addition to reducing physical waste as a byproduct of manufacturing, we are recycling and improving the handling of waste in our other operations.





## Product

Thule Group is an industry leader when it comes to product design and innovation. Right from the early design stages we are exploring methods to reduce the impact our products will have on the environment by considering their entire life cycle impact. From design and materials, to manufacturing, function, repair and recycling – all of these elements come into play.





# Developing Better Products

Through Environmental Design training and life cycle assessments (LCA) we are spreading awareness about all that can be done to reduce a product's environmental impact.

**A** cornerstone in our sustainability work is the product life cycle approach. By conducting Life Cycle Assessments (LCAs) on a representative group of our products, designers and engineers can work actively with the design and the development of a product, to improve its environmental profile. The knowledge from LCAs is guiding us towards making environmentally conscious decisions in design and product development that will improve the efficiency of our products and reduce the environmental impact over their lifetime.

We are applying this LCA knowledge when selecting materials. For example, in 2014 we used recycled plastics in some of the main plastic components on the hitch mounted bike carriers Thule Apex and Thule Vertex. Selecting and implementing recycled materials reduces the environmental impact and this was confirmed by LCA calculations.

Environmental Design review meetings in our projects offer quantitative information with checkpoints to ensure that product management considers and evaluates products from an environmental perspective. In 2014, more than 50 Thule Group designers and engineers within product development participated in

Environmental Design and LCA workshops. Continuous discussions in this area are helping the teams to make product development decisions that take into consideration environmental requirements along with the economic reality and technical possibilities.

Environmental Design project reviews have addressed the following:

- raising awareness of a product's outer dimension and level of pre-assembly and carton size to understand the impact on logistics
- improving the level of aerodynamic performance on car-related products to reduce energy consumption
- evaluating the need for parts to be sent with products\*
- reducing the size of instruction manuals to save paper
- evaluating the product's environmental aspects regarding user scenarios
- formalizing tangible targets in the environmental area in order to evaluate progress and performance
- initiatives to further improve the ability to repair products

\*One example of "Evaluating the need for parts to be sent with products" was to challenge the need for double sets of attachments (fitting two types of roof bars) that are normally included with some roof-mounted products. A decision was made to include only the most common type and offer the rarely used one as an accessory. This reduces the waste generated by end users.





- emphasis on domestic manufacturing and sourcing of parts and components to minimize sea freight (transportation foot print)
- incorporating designs that allow end users to better repair or replace worn parts without having to discard major assemblies or the whole product
- increasing corrosion, UV and fatigue performance of fasteners and key components to ensure longer life
- alignment with suppliers that can support our Environmental Design philosophy by providing recycled material alternatives or more energy efficient production capabilities, such as the new Raceway molder that will be able to improve cycle time and reduce material via gas assisted molding.

#### **Substances list**

We are subject to a number of environmental rules and regulations relating to the protection of the environment and natural resources including, among others things, the management of unwanted substances in products. We are committed to manufacturing products with materials and substances that are safe for the environment.

Thule Group's Prohibited & Restricted (P&R) Substances List is continuously updated in order to improve even further. The P&R Substances List is communicated to suppliers and it includes both applicable legislation and Thule Group requirements since we aim to go above and beyond the mandated restrictions. We encourage proactive chemical management within our supply chain.

In 2014, the P&R Substances List was updated with guidelines for suppliers on eliminating and minimizing the use of unwanted substances in their materials and production processes that are likely to be included on Thule Group's lists in the future.

Different methods are used to verify compliance, depending on the type of product and material. Examples are material and substance specifications received from suppliers, International Material Data System (IMDS), and chemical analysis conducted by third-party laboratories.

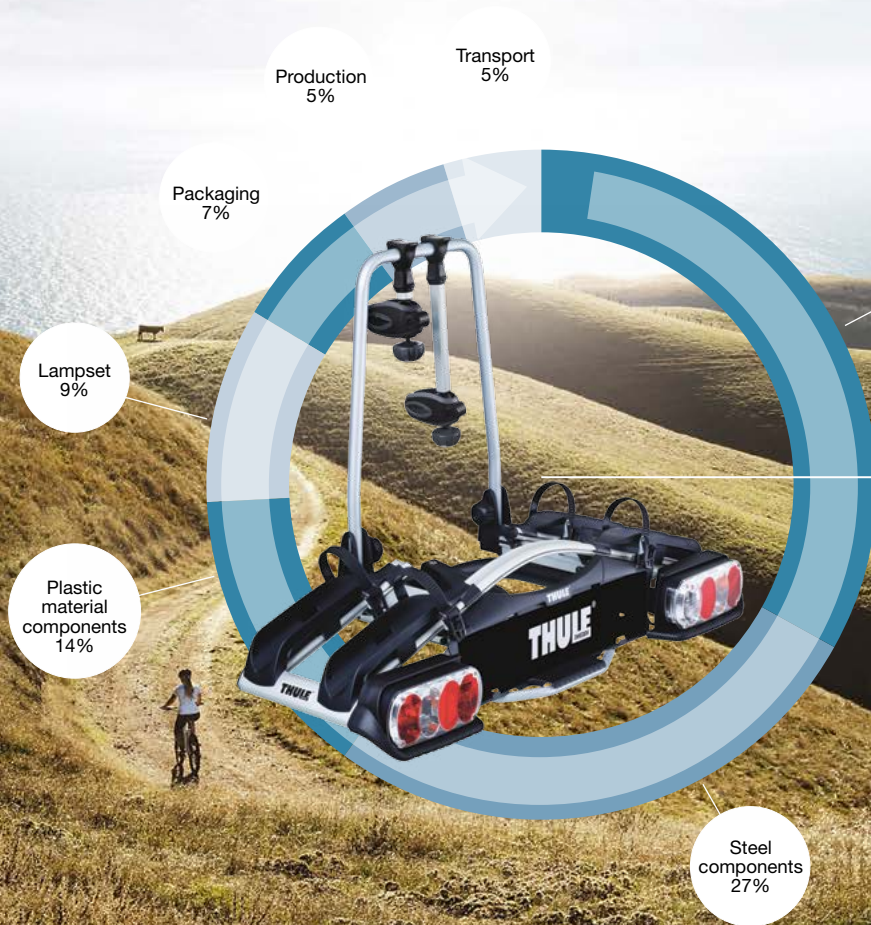
### LCA Cradle to Gate climate impact Thule EuroWay G2

Life cycle assessments (LCAs) are used to calculate and quantify the environmental impact of a product over its life cycle. We have studied a number of Thule products in order to quantify their climate impact. The LCA study on a *Thule EuroWay G2* bike carrier is explained below.

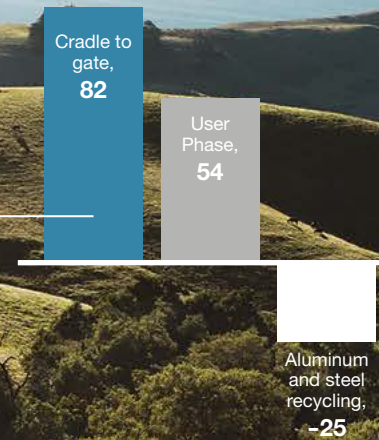
The first step is to assess the climate impact caused from cradle to gate, that is up until we sell the product. This includes all impact caused by extraction of raw

materials and their processing up to a final component. Impact caused by final assembly, packaging material and transport is also assessed. In the illustration below the magnitude and relative relations between different components and activities are shown. The impact of the lampset, which is sourced as a sub-assembly, is mainly caused by plastics in different sub-components.

### LCA Cradle to Gate Thule EuroWay G2



### LCA Cradle to Grave Thule EuroWay G2, kg CO<sub>2</sub>





**T**he impact of materials and their processing into final components is significant on Thule Group products. This information is important for designers in order to select materials and processes for future designs that minimize the environmental impact. However, the LCA analysis and design choices are more complex since the *Thule EuroWay G2*, when in use, is attached to a car and will contribute to fuel consumption. One consequence of this is that weight saving materials may be justified even if they have a higher initial impact (cradle to gate).

In this case we assumed the use phase of the *Thule EuroWay G2* to be as follows: The owner will use the product during five years and he will assumably drive 15,000 kilometers with the bike carrier attached during this period. The weight of the product with two bicycles attached is approximately 60 kilograms.

A modern diesel car today consumes approximately 0.5 liters per 10 kilometers of driving. This is equivalent to emissions of 1.3 kilograms of CO<sub>2</sub>. The additional climate impact caused by increased fuel consumption, due to additional weight, while using the *Thule EuroWay G2* during 15,000 kilometers is calculated to 54 kilograms of CO<sub>2</sub>.

To assess the entire life cycle the end-of-life phase must be regarded as well. Considering the main markets where the *Thule EuroWay G2* is sold, it is reasonable that the product will eventually be shredded together with other goods in order to recover and recycle metals.

The credit for recycling in LCA studies is given as the avoided impact (by not having to produce new material) deducted by the impact for the actual recycling process. Hence, the credit will depend on the purity of the recycling process and quality of the recycled material. A realistic and moderate credit for recycling aluminum and steel from a bike carrier like the *Thule EuroWay G2* is shown in the illustration to the left together with Cradle to Gate and the climate impact of a five-year use phase.

# Crafted to Perfection

For more than 70 years, Thule Group has been making products that are well designed, functional, built to last and safe. Environmental considerations have increasingly become a natural part of the design process, helping to eliminate unwanted substances, improve energy efficiency and make products as sustainable as possible.

**W**hether it's a bike rack, roof box, child stroller or camera bag, Thule products are designed to fit a purpose, be functional, inspirational and genuine. They are designed to be contemporary rather than trendy, says Henrik Eriksson, design director in Hillerstorp, Sweden.

"Our products should last a long time. A 17-year-old ski carrier could still be relevant," says Henrik, adding: "We think a lot about quality and practical aspects. For example, we use black and gray plastics in our car-related products because they don't fade over time and will match when it's time for a new car too."

In Thule designs, function always comes before form and there is no excess ornamentation. "Each part should have a purpose and not be there just to look nice," says Jan Adler, product designer. With Thule products, people see what they're paying for, he adds, referring to Thule Group products as "honest."

"There is no planned obsolescence within this company. I often see 10-year-old Thule products being sold second-hand on the Internet," says the East German-born Jan who comes from a place where products were made to last due to limited resources. He believes in a similar mindset, when it comes

to the environment. Jan points out that traditional Swedish design values of minimalism, durability and safety also contribute to making Thule products more sustainable.

## **Environmental Design training**

The design team takes every aspect of the environmental life cycle into consideration when designing products, such as weight, energy consumption, unwanted substances, service life, structure, recycling and more.

Such aspects are covered in the Thule Group's Environmental Design training, which began in 2011 and was ramped up in 2014 to increase environmental awareness among employees. "We started in design and product development, where the Environmental Design training can make the biggest impact on the carbon footprint," says Anders Nilvius, concept development manager at Hillerstorp.

Weight, for example, can have a big impact on a product's environmental footprint. A lighter and more streamlined roof box or rack affects a car's aerodynamics and reduces fuel consumption. By selecting lighter materials and

**Left to right:**

**Anders Nilvius,**  
Concept Development  
Manager, Hillerstorp, Sweden

> **FAVORITE  
OUTDOOR ACTIVITY**  
Kayaking, running

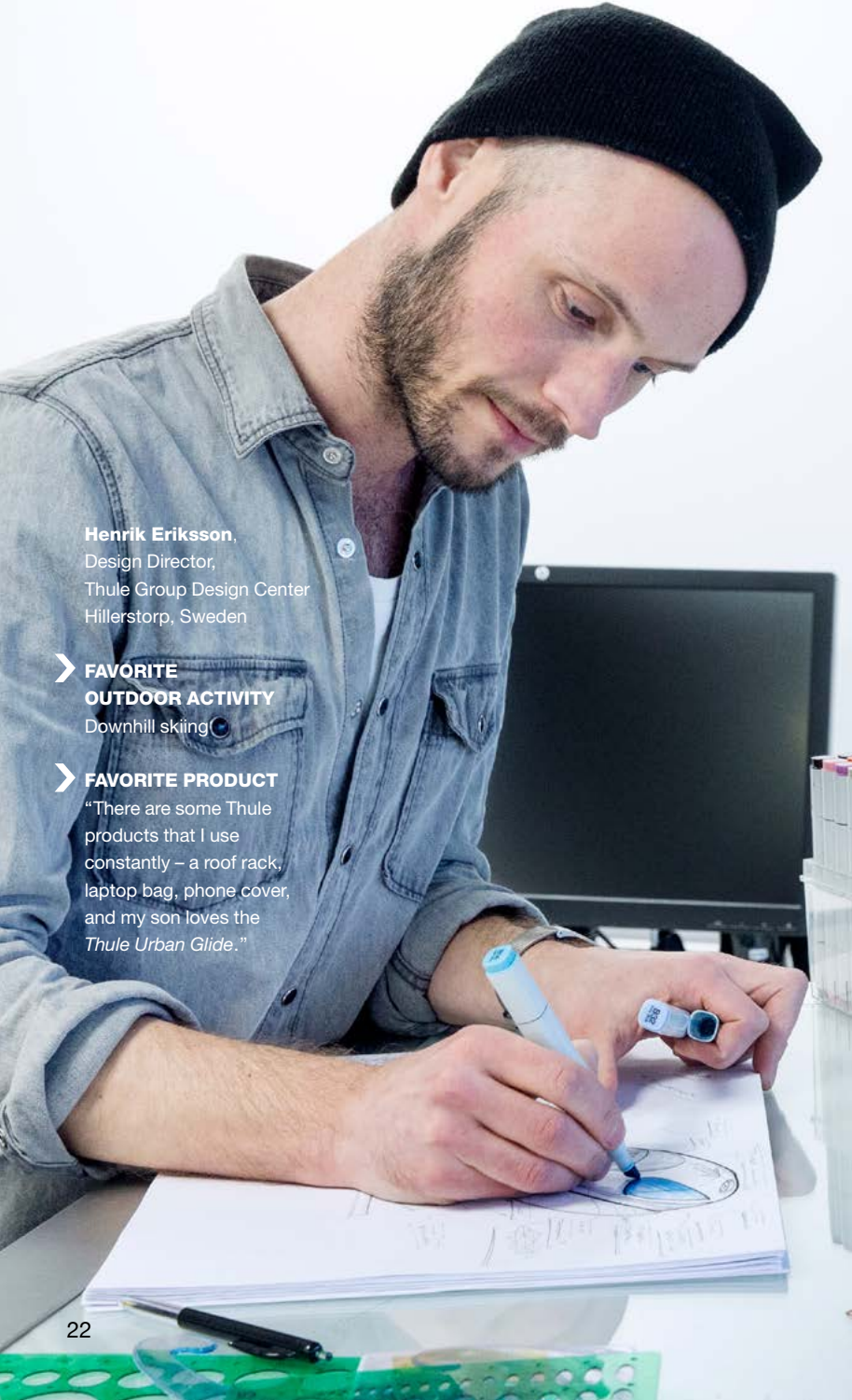
> **FAVORITE PRODUCT**  
The *Thule ProRide* roof  
mounted bike carrier:  
“It is one of our biggest  
selling products with good  
ergonomics and it is  
easy to use.”

**Jan Adler,**  
Product Designer,  
Thule Group Design Center  
Hillerstorp, Sweden

> **FAVORITE  
OUTDOOR ACTIVITY**  
Kayaking, cycling

> **FAVORITE PRODUCT**  
“A new great eco-friendlier  
and practical towbar mounted  
cargo carrier which we are  
working on at the moment  
and plan to bring to the  
market next year.”





**Henrik Eriksson,**  
Design Director,  
Thule Group Design Center  
Hillerstorp, Sweden

➤ **FAVORITE  
OUTDOOR ACTIVITY**  
Downhill skiing

➤ **FAVORITE PRODUCT**  
“There are some Thule products that I use constantly – a roof rack, laptop bag, phone cover, and my son loves the *Thule Urban Glide*.”

more minimalistic design, the weight can be reduced. But it's a balancing act for the design team. “We want to make things as light as possible and still maintain the highest level of quality and safety,” says Henrik.

In the Environmental Design program participants take apart existing products to see what could be done better in terms of logistics, materials, packaging and more. “This widens our horizons. Environmental thinking has become standard procedure when designing products,” says Jan.

“It's not about greenwashing or having the greenest product,” Anders adds. “It's about making everything more sustainable by seeing things from a different angle and adapting in our daily work.”

#### **Cradle to grave**

Recent Life Cycle Assessments (LCAs) have provided fresh insights into how design impacts the total carbon footprint of various Thule products. The designers and engineers have become more aware of, for example, how different coating processes affect energy consumption or how using bolts instead of rivets can increase a product's serviceability and therefore its lifetime.

There were many other discoveries as well: “A lot of us thought that transportation was high in terms of environmental impact, but it is fairly low in the scheme of things compared to raw materials,” says Wesley Fleming, senior design engineer, in Calgary, Canada. “Knowing this has made us look even more at sustainable materials and materials that can be recycled. It's the same as food; you want to know where it comes from.”

“A lot of us thought that transportation was high in terms of environmental impact, but it is fairly low in the scheme of things compared to raw materials.”

His team, which works with children’s products, often goes a step beyond the regulations restricting PVC on strictly visible or touchable parts. Working through a checklist they have identified and removed PVC even further. This effort cost the company more money, but as Wesley puts it: “It feels good to do the right thing.” In most instances however, environmental design efforts result in cost savings.

### **Rigorous testing**

Checkpoints and reporting throughout the product development phase help steer designs in the right direction. Before hitting the market all Thule products undergo rigorous safety and durability testing. This is simulated in harsh environments where every joint or part of a product is tested for corrosion and other stresses.

“Sleeping Policeman” is one of the multiple tests that take place in Thule Group’s R&D labs. This particular test stimulates what happens when driving over a road bump with a towbar mounted bike carrier. In the “Driving” test products enter the world of extreme driving to make sure that the product, load, and car, remain unaffected even in extreme duress. In the “Durability” test the lifetime usage of a product is recreated by putting it through extreme stress and vibrations.

These are just a few of the trials applied to Thule products, with the company going above and beyond safety regulations. “Our multifunctional child carriers (which you can bike, run and ski with) are tested more than 10 times over what is required by standards,” says Wesley. “It’s in our own best interest as a company to test our products and optimize our designs in terms of safety and longevity.”



**Wesley Fleming,**  
Senior Design Engineer,  
Active with Kids Category  
Calgary, Canada

➤ **FAVORITE  
OUTDOOR ACTIVITY**  
Cycling, hockey

➤ **FAVORITE PRODUCT**  
The *Thule Chariot Chinook*  
multifunctional child carrier:  
“I love the versatility of it  
for our little one. It keeps  
her warm and comfortable  
during bike rides or walks to  
the store.”



*Thule Paramount daypack*



*Thule Capstone technical backpack,  
Thule Atmos X3 smartphone case*





# More Focus on Reduced Energy Consumption

During 2014 we made investments to reduce our dependence on fossil fuels by using more renewable energy. We are well on our way to achieving our renewable resources target.

In order to further improve and strengthen our energy efforts, we set a target for at least 60 percent of our total Thule Group electricity to come from renewable resources by the end of 2016. And by the end of 2014 we reached 51.7 percent which is a significant increase. In recent years we have installed solar panels on the rooftops of the manufacturing and office facilities in both Seymour, US. (318-kilowatt solar system with 1,876 solar panels) and Molteno, Italy (200-kilowatt solar system with 952 solar panels).

One key success factor for reducing electricity consumption is the ability to gather more detailed information about electricity consuming equipment. Often, there is only a single electricity meter to monitor power consumption at a site, with no possibility to collect detailed information regarding the consumption of a single machine or area. However, at our roof box production site in Neumarkt, Germany, new meters were installed for more detailed monitoring. These measure consumption of the most relevant machines, for example thermoformers (ovens), compressors, robots and drilling machines.

The installation of these additional electricity meters allow us to better track the electricity consumption on the machines that represent approximately 70 percent of all electricity used at the Neumarkt site. This provides us with valu-

able information and makes it possible to collect and monitor information in a more detailed way in order to identify further improvements. Other sites around the world are following this example by installing additional meters.

## **New air compressors**

The ability to collect energy consumption details related to specific machinery makes it possible to compare old machines with new and more energy efficient alternatives. One example is the air compressor. Several sites have installed new air compressors and at the Neumarkt site the new equipment, with smart control systems and new valves in the main line to prevent leaking, resulted in energy savings of approximately 20 percent compared to the old equipment. Continuously measuring air leakages in the compressed air system is also important for saving energy.

By replacing inefficient lighting with new systems we have managed to use significantly less energy – up to 80 percent less energy for some lighting systems. The new Distribution Center in Huta, Poland, was built during 2014 and we have invested in LED lightning for the 10,000-square-meter building. This has resulted in significant energy savings compared to other lighting systems. Besides utilizing new technology we are installing motion sensor light switches



### Simulations reduce consumption

Products must be subject to endurance testing under realistic circumstances in order to meet high customer expectations and quality standards. For the Sport&Cargo carrier segment this can be done either by attaching the product to a car and driving under real conditions or in the laboratory using simulation programs. The advantage with simulated testing in a laboratory is that identical testing cycles can be repeated over and over again.

Each year Thule Group simulates driving with various products more than 5.6 million kilometers. The climate impact caused by

this laboratory testing is just a fraction of the comparable impact from testing on a car.

Laboratory testing used about 287,000 kWh of electricity in 2014. At the Thule Test Center in Hillerstorp, Sweden, electricity is supplied from renewable sources with a climate impact of less than 10g/kWh for the whole life cycle of the electricity production. In total, less than three kilograms of CO<sub>2</sub> is emitted causing climate impact. A modern diesel car consumes about 0.5 liters fuel per 10 kilometers driving. Combustion of one liter of diesel emits about 2.7 kilograms of CO<sub>2</sub>. Test-driving 5.6 million kilometers by car with Thule components would therefore emit more than 750 tons of CO<sub>2</sub>.

Click on image to watch the film.



to save energy when electricity is not needed and educating people to turn off lights, fans and machines when not in use.

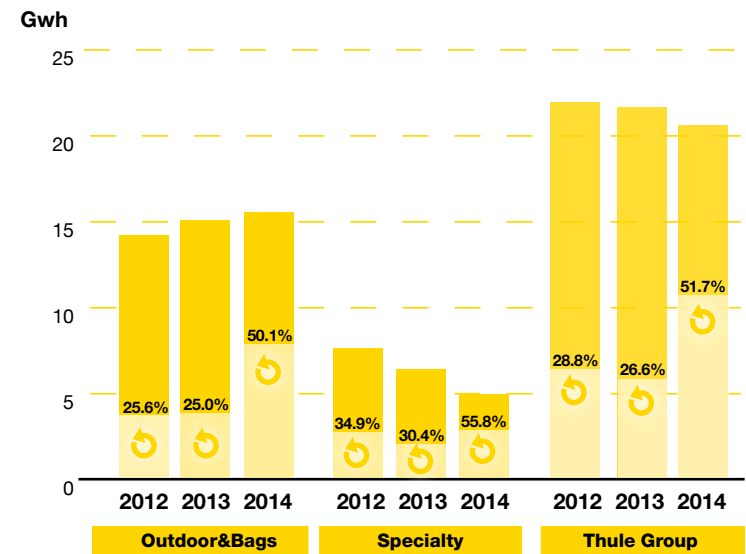
We are also working with these and other initiatives to help reduce heating loads in cold weather:

- sealing loading bay doors
- lowering temperatures in certain areas or during specific times when heating isn't required
- installing more efficient thermostats for better temperature control
- using doors and curtains to prevent heating leakages
- reusing heat from production processes generating heat.

By installing air circulation systems in our plants we have been able to reduce the heating during winter months and reduce the need for air conditioning in the summertime.

An additional target in the energy area is to reduce total electricity consumption by 5 percent (as compared to the 2012 level) by the end of 2016. Since 2012 we have increased production in Outdoor&Bags, resulting in higher energy consumption, but at the same time, energy consumption was lower at our snow chain production facility in Molteno. This was mainly due to lower production as a result of the mild winter, which reduced demand for snow chains.

### Energy consumption and percentage of renewable energy



# Saving Water

Over the years we have managed to reduce our water consumption in the manufacturing processes and have also worked on many smaller changes that add up to big savings.

**I**n many parts of the world, the lack of fresh water is one of the biggest environmental concerns today. At Thule Group we try to avoid water-intensive manufacturing processes, but if they are necessary, we reduce our consumption through closed loop processes and water treatment systems.

Most of our sites are situated in areas where there is no shortage of water, but little rainfall in the Itupeva region in Brazil where we have our South American production site, resulted in water restrictions in 2014. We have a closed loop cooling system for production at this site and water saving activities have been implemented for consumption related to sanitary water.

Since 2012, our water consumption has been decreasing significantly due to investments and technological improvements. One example is the earlier investment in a new paint line at the plant in Huta, Poland, where we began to change procedures and test new chemicals. This resulted in a 39 percent reduction in water consumption in 2013 compared to the same period in 2012. In addition to much lower water consumption this also led to a reduction in chemicals.

In 2014 our total water consumption decreased by 51.8 percent compared with 2012. One of the main reasons was lower production at our snow chain production facility in Molteno, Italy, where water is used in the galvanization process. However, earlier improvements to the galvanization process, which reduced the water flow, have also contributed to the water savings.

We have also taken smaller, but important steps by, for example, optimizing manufacturing processes and continuing employee education regarding water conservation.

Reducing the water used for landscaping at our design and development center in Longmont, U.S., saved about 400,000 liters of water. This was achieved not only by minimizing the time the sprinkler system is in operation, but also through an agreement with an environmentally-conscious landscaping firm to monitor the sprinkler systems on company grounds.



From 2012 to 2014, Thule Group water consumption decreased by 51.8 percent.



Thule Capstone technical backpack

# Recycling Rewarded

All kinds of creative recycling initiatives gained momentum in 2014 thanks in large part to the efforts of motivated employees.

**W**ith increased production quantities comes an increase in waste. We therefore focus on removing waste creating processes to limit overall waste as much as possible while at the same time focusing on increasing the recycling rate of existing waste. In 2014 we improved our recycling rate of waste to 91.8 percent and are rapidly approaching our 2016 recycling target of 95 percent. Recycling initiatives in our sites around the world demonstrate what can be achieved.

At our production site in Perry, Florida, for example, there were several recycling initiatives underway in 2014 to increase the recycling rate. These include the following:

- recycling plastic shrink wrap and plastic wrap from aluminum coils
- recycling remnants from welding rods
- adding recycling bins throughout the plant for clear plastic, aluminum cans, plastic bottles, cardboard, rivet mandrels, and welding rods
- recycling aluminum and steel
- eliminating plastic coming from supplier
- finding a source to recycle used oil
- adding more recycling points throughout the plant.

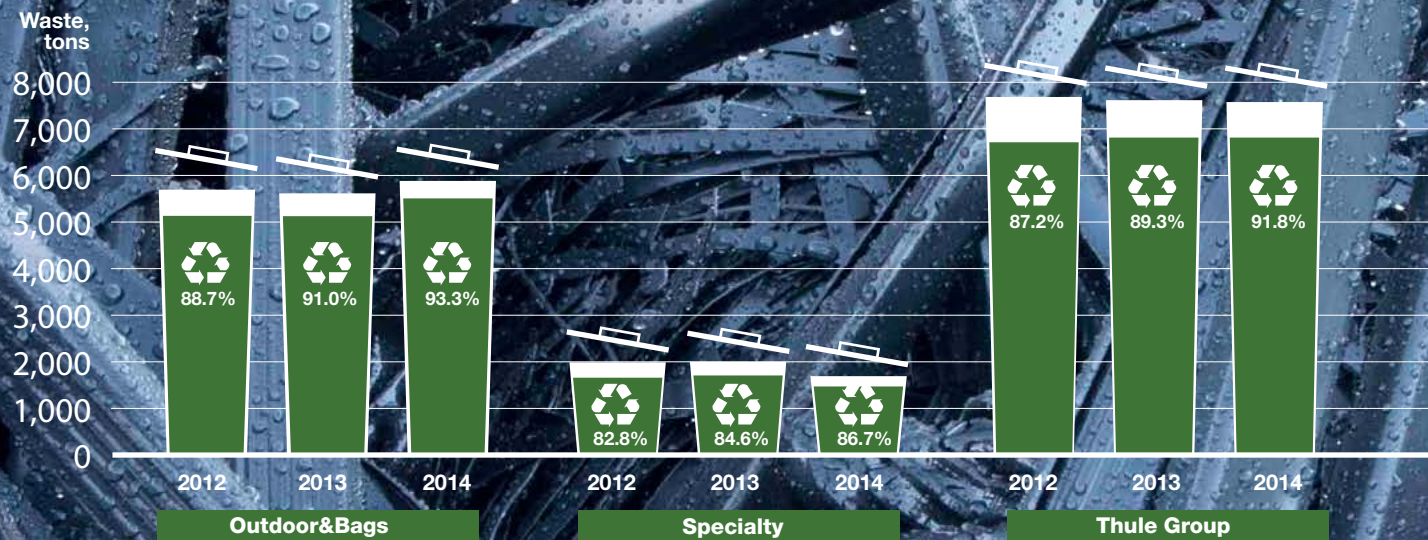
Some of the money saved by recycling was used to reward recycling efforts. For example, employees who named all 50 recycling points at the facility received a free lunch. Gift cards are also awarded to workers who engage in recycling initiatives above their normal duties.

Thule Group production sites are also working closely with recycling partners to secure efficient recycling. At all of our roof box manufacturing sites, waste from the production of roof boxes is re-grinded and sent back to suppliers to be reused. This material is then included in the suppliers' production of new raw material for Thule roof boxes.

Recycling efforts extend from the cradle to the grave and our products can be disassembled and separated for recycling. One of the key areas in our training regarding environmental design is to ensure that the recycling perspective is considered when we design and develop new products.



**We are approaching our 2016 recycling target of 95 percent.**



# Working with Suppliers for Improvements

Our environmental efforts extend to our suppliers. Working together we were both able to reduce energy consumption and waste.

**L**ife Cycle Assessments show that the production phase of our products represents a significant share of the products' total environmental impact. This applies also for products that we source from suppliers, such as our bags for electronic devices. The Environmental Design project, initiated with our bag suppliers, is helping them to implement environmental improvements and gain financial savings.

In 2014 we saw several of our suppliers adopt the best practices that we presented to them in 2013. These included:

- purchasing an automated cutting machine that has reduced the number of people needed to complete cutting and reduced the amount of waste generated during cutting
- replacing motors on sewing machines with energy efficient motors resulting in energy savings
- changing water taps in factory cooling system resulting in a reduction in water consumption.

## Logistics

By manufacturing goods as close to our consumer markets as possible, especially larger and heavier products, we are able to reduce the environmental impact from transportation. Our roof boxes, for example, are produced in Europe, North America and South America, minimizing the transportation distances.

In 2014 direct shipments from our factories to larger customers increased from our factory in Huta, Poland. Previously all goods were transported to an external warehouse but since the change was implemented in 2010, large shipments go directly from the factory to the customer.

Sea and road are our most common modes of transportation but we aim to increasingly replace road transportation with rail. One example of this is at our Hillerstorp, Sweden site where we transported the equivalent of 237 trucks via rail in 2014. Air transport is used to a very limited degree. Nonetheless, we strive to reduce air shipments since it has a high environmental impact compared to other modes of transportation.

## Environmental savings

A new Distribution Center (DC) was built in Huta, Poland during 2014 that will serve large European distributors and retailers in Eastern Europe. The DC is located next door to Thule Group's largest assembly site.

The new DC, which became operational in January 2015, will primarily reduce Thule Group's impact from transportation with approximately 450 full truckloads fewer in 2015 compared to 2014. Additionally during the procurement work of setting the new transportation solution, more focus than ever was put on evaluating the freight forwarders from a safety and environmental point of view, with focus on: emissions to air, efficient use of fuel and emissions of environmentally harmful substances.

Another project that was launched in 2014 was a pilot test designed to reduce Thule Group's environmental impact from transportation even further. This will be conducted in the UK, where German-manufactured roof boxes will undergo final assembly at our UK roof box plant instead of in Germany. By transporting components instead of assembled products, we will transport less air. The roof boxes will be assembled to order, which will reduce inventories and waste, but the big environmental savings will come from reducing transportation between the sites.



## Green Actions impact the bottom line

Environmental activities are interwoven into the daily operations at Thule Group where efforts such as reducing energy or improving recycling also make good business sense.

Over the years, Jeroen Bronnenberg and others within operations, have been stepping up the pace to reduce unwanted materials in packaging, cut down on gas, water and electricity utilization, and take other actions to increase sustainability. “Environmental improvements and cost saving programs easily go hand in hand,” says the Director Operations Sport&Cargo, adding that this approach has had a very positive impact on operations.

One example is the increased focus on green initiatives at the Huta, Poland site, which gained momentum with ISO 14001 implementation in 2011. “This really shed light on what could be achieved in terms of sustainability,” says Jeroen. The investment in a new painting line also paid off environmentally and financially by reducing energy and water consumption, while at the same time substantially increasing capacity. That same year, the Huta plant started to eliminate the use of Styrofoam packaging, replacing it with carton inserts. Impact on the environment was the impetus for this action that also led to cost savings. Another big success at this time was reducing transportation by 25 percent for the *Thule EuroWay* and *Thule EuroClassic* bike carriers due to smarter palletization. These projects



*Thule EuroWay G2 bike carrier*



**Jeroen Bronnenberg,**  
 Director Operations  
 Sport&Cargo, Huta Poland

➤ **FAVORITE  
 OUTDOOR ACTIVITY**

Running in the forest and  
 horseback riding

➤ **FAVORITE PRODUCT**

“My *Thule Crossover*  
 backpack is my dearest  
 friend. It goes everywhere  
 I go when I travel. We have  
 two children and our *Thule*  
*Motion* roof box is helpful  
 for camping trips and  
 riding competitions.”

were the result of good cooperation between Operations, Purchasing, Supply Chain and Product Management.

In 2014, the main environmental focus was on increasing awareness among employees, sharing best practices between sites, recycling more, and reducing energy and paper consumption. Reductions in paper consumption were achieved simply by reducing the size of the paper used for product instructions and by cutting down on the number of invoices printed. “We managed to reduce our paper consumption by 70 percent,” says Jeroen. “We are aiming to archive all invoices electronically in the future.”

Additionally, an initiative to use Forest Stewardship Council® (FSC) certified paper in packaging began in 2014 and will be implemented in 2015. FSC certification is an international standard that promotes the practice of sustainable forestry worldwide.

An improvement plan to measure and eliminate leakages in the facilities was also set in action during 2014 for further energy and cost savings. The Huta plant achieved a recycling rate of over 90 percent thanks to good cooperation

with a recycling partner that improved waste handling, resulting in better operational organization and improved financial results.

A new ISO 14001 compliant distribution center was opened in January 2015, next to the Huta assembly facility. The 10,000-square-meter center contains LED lights and sensors that will reduce electricity consumption by 50 percent compared to traditional lighting.

While cost savings are an obvious goal, Jeroen points out that management will deliberately accept a cost increase when it comes to sustainable investments. “We do this if it helps us to meet our environmental targets, which we take very seriously,” he says. “For example, in 2015 we will pay a higher price for energy in Huta to get more renewable energy.”

An increased environmental awareness among employees is one of the biggest achievements in recent years, says Jeroen. “We are really making people aware of their water and electricity usage, recycling habits and so on, just as you would do at home. It’s common sense.”

A hiker with a large red and grey backpack is climbing a rocky mountain trail. The hiker is wearing a blue shirt, brown pants, and hiking boots. The background shows a steep, rocky mountain slope with some green vegetation and a clear blue sky with a few clouds.

# We welcome your input!

Our focus areas, environmental targets and the established life cycle approach are, together with our engagement and commitment, driving the efforts to conduct our business with as little impact on the environment as possible. We are continuously striving to improve and develop further. If you have any comments or feedback on our environmental work, please write to us at: [greenideas@thule.com](mailto:greenideas@thule.com)

*Thule Capstone*  
technical backpack

**This Environmental Report has been approved by Thule Group Management. It has not, however, been subjected to external assurance.**

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