

SUSTAINABILITY SUMMARY REPORT 2011



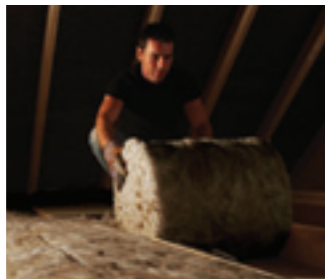
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Who we are

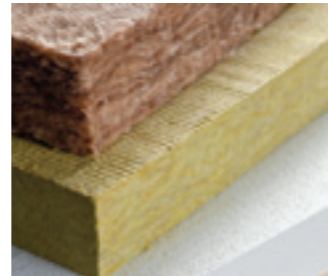
3rd

3rd largest insulation manufacturer in the world



30

30 plants worldwide



4,691

4,691 employees in 35 countries around the world



€1.2bn

Financial turnover of €1.2 billion



30+

Over 30 years of experience in the insulation industry



Manufacturing a wide range of insulation solutions including **Glass Mineral Wool, Rock Mineral Wool, EPS, XPS, XPE** and **Wood Wool**

Primary markets are **buildings, Industrial** and **OEM applications**

Part of the **family-owned Knauf Group**

CEO's message

An insecure world

The world has changed since our last Knauf Insulation Sustainability Report. The dramatic events in Japan and the Middle East have shown that a focus on generating more and more energy creates risks that people are simply no longer willing to accept. The continued monetary problems of governments in Europe and the United States are undermining our faith in the financial system and the ability of our markets to operate normally. The volatility of energy and raw material prices is becoming the norm and no longer the exception. Even the responses to these problems, such as a move towards low energy buildings, demands that we come to terms with new realities.



Tony Robson
Group CEO, Knauf Insulation

As we move forward, we are going to have to accept that a less secure world demands that we spend more time preparing for and managing change. Sustainability offers us a prism through which we can view and review our progress towards managing this change.

In these pages you will find a summary of our second Sustainability Report. This year's Report provides a view of how we, as a company, are doing to make us better able to handle volatility and change. Our engagement work and the new Sustainability Steering Committee have helped us review the most significant issues for Knauf Insulation. Through this process we have identified the key areas where we believe we should focus our efforts and have set a number of long term aims that will help guide our decision making going forward.

As the CEO of a company whose products bring so many benefits, I remain convinced that Knauf Insulation is part of the solution. It's time to save energy.

Tony Robson
Group CEO, Knauf Insulation

Our long term aims

Buildings

- ⇒ A leading advocate for a low energy and sustainable built environment
- ⇒ Zero carbon building stock (owned and operated)

Products

- ⇒ Products best in class for sustainability

Company

- ⇒ Zero carbon production
- ⇒ Zero negative impact on resource use
- ⇒ Zero waste to landfill and zero waste water discharge
- ⇒ Employer of first choice
- ⇒ Zero harm

Building for change

The modern world is defined, in part, by its addiction to fossil fuels. But we can break this addiction, starting with reducing energy use in buildings.

Reducing energy use in buildings must happen through deep renovation

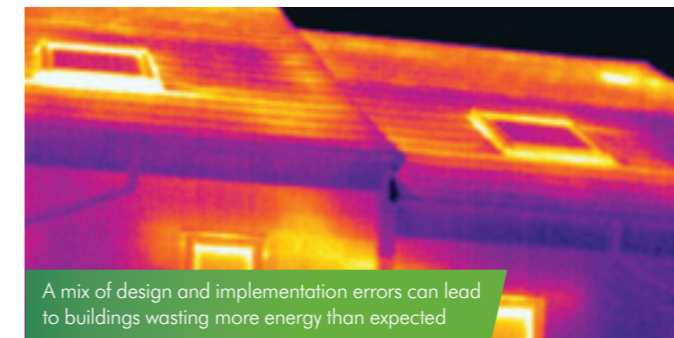
With 50% of existing buildings expected to still be standing in Europe and North America in 2050, the only way to be truly effective in making the built environment energy efficient is to renovate existing buildings. And if we are to be effective, the only way to do this is by going deep. Deep renovation means improving the energy performance of the built environment by at least 80%, through measures such as insulation. We want to see ambitious policy 'road maps' that call for deep renovation of buildings and yearly renovation rates of 3% by 2020. This has the potential to save the equivalent of 4 billion barrels of oil per year and create hundreds of thousands of new jobs in Europe alone.

Jobs created for every €1 billion:

COAL = 870 jobs



RENOVATION = 7,000 jobs



A mix of design and implementation errors can lead to buildings wasting more energy than expected

Challenges need not be barriers to reducing energy in buildings

Many challenges exist to delivering a low energy built environment. But these challenges need not be barriers. The expertise and finance models to ensure that buildings operate as intended, when it comes to energy use, exist in reality not just in theory. And we are driving efforts to promote them. We hope that with the roll-out of our new building physics research programme we will soon create the knowledge to address even more of these challenges.

We are driving change through our global advocacy programme

Through our ambitious global advocacy programme we are working to ensure that policy- and decision-makers at all levels understand the need for, and are creating, an ambitious policy framework to reduce energy use in buildings. We play a leading role in a range of advocacy organisations and plan to further increase our effort to drive forward change during 2012.



Kevin McCloud, Ed Milliband (Leader of the UK Labour Party) and John Healey MP take the Great British Refurb campaign to the Houses of Parliament in London

Products at the heart of sustainability

We know that sustainability in buildings is affected by more than just energy efficiency. It is also about the sustainability of construction products.

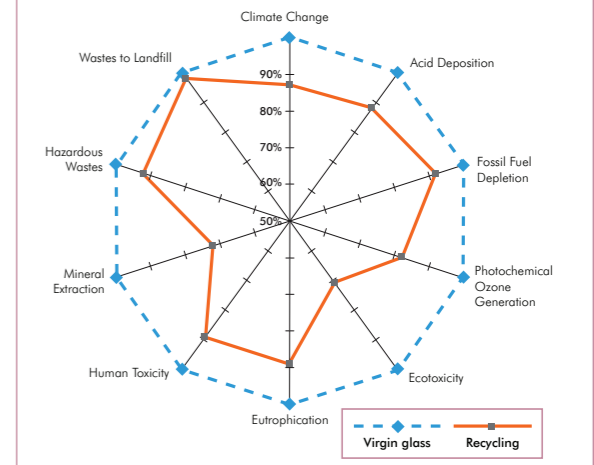
A sustainable product starts with the right kind of assessment

As green claims become increasingly 'creative' across the construction market, they must sometimes be refuted or exposed. We believe Life Cycle Assessment (LCA) is the most reliable tool available to assess the environmental performance of construction products, enabling companies to communicate credible, fact-based information about their products. That is why LCA is now a central part of our product policy.



50% We're committed to completing LCAs for 50% of our products

The benefits of using recycled glass compared to virgin raw material



Through the right assessment we can make improvements

We are using the findings from life cycle assessments to trigger or support improvements to our products. LCAs have been conducted in 80% of our plants and in 2012 we aim to have LCAs for 50% of our products. LCAs have already helped us to understand the environmental benefits of different choices to our product composition for example they have clarified the benefits of shifting to a new blowing agent for our XPS production.

Sustainability is also about ensuring our products are used as intended

We are working to ensure that our customers understand new building and renovation practices and that they are able to choose and install our products easily and correctly. This involves creating new, easy-to-use ranges with guidance to help users choose the correct insulation product. We also push for robust product standards and run training courses and workshops for contractors, specifiers and architects.



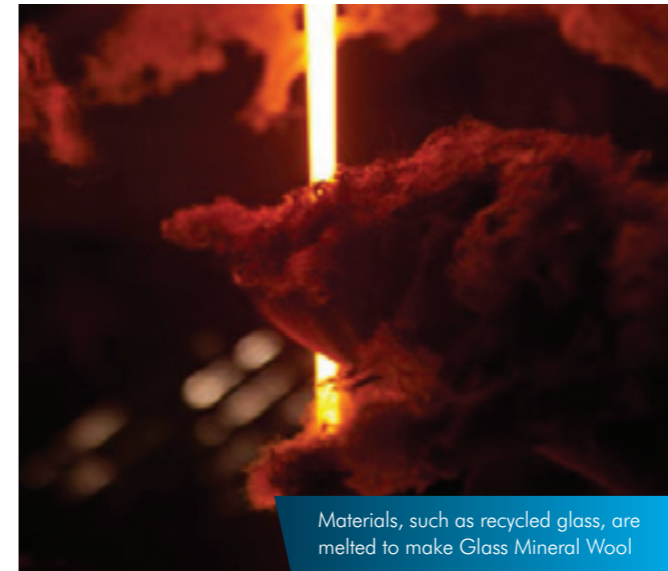
EASY to shop, EASY to handle, EASY to install – the new Knauf Insulation EASY DIY range

Growing sustainably

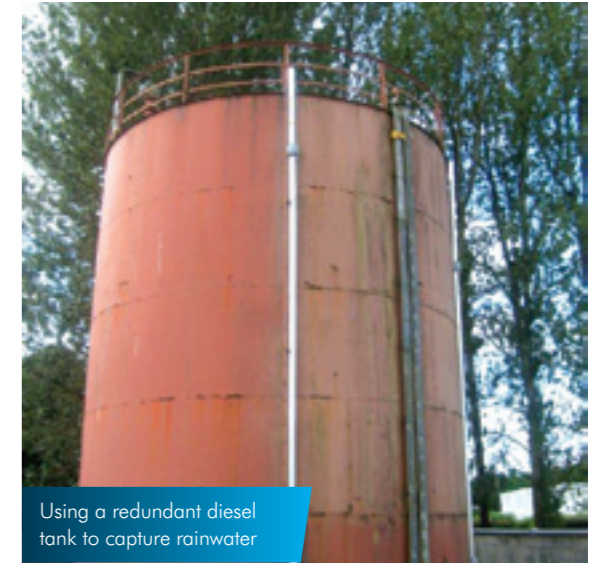
In the same way that we push for real, challenging performance in buildings and products, we are committed to making sustainability a core part of how we work. Our belief in our ability to make significant improvements comes from the fact that we are already making great strides.

We have reduced energy use and CO₂ emissions

From 2009 to 2010 our use of energy per unit of output improved by 4.8% and our direct CO₂ emissions decreased by 1.8%. We're continuing to focus on improving the energy efficiency of our production. As part of this short term focus we have begun to audit our own building stock and we have started a review of our logistics.



Materials, such as recycled glass, are melted to make Glass Mineral Wool



Using a redundant diesel tank to capture rainwater

We have become more efficient with raw materials and water

We have increased the use of recycled content in our operations. Our water intensity figures show positive eco-efficiency trends. And we are building on our existing purchasing policies and practices to enhance our approach to responsible supply chain management.

We are working towards less waste and fewer air and water emissions

For each ton of production, non hazardous waste sent to landfill fell by 23.9% since 2009, whilst hazardous waste to landfill showed a reduction of 22% overall. In 2010 our NO_x and SO_x emissions intensity increased by 2.6% and 3.6% respectively. Over the same period our water discharge decreased by 6.4% per ton of production.



We are also looking at ways to reduce packaging waste across our product range

We are improving safety management

We continued the work to improve the way that we manage safety. We have put in place robust management systems which this year received certification to the international management standard OHSAS 18001 (Health and Safety Management) for all our Europe and CIS plants by one of the leading compliance assessment organisations, Bureau Veritas. Having seen a reduction in both the severity and frequency of accidents between 2009 and 2010, we believe that our new approach is showing its merits and we intend to roll out OHSAS 18001 throughout our North American operations during 2012.

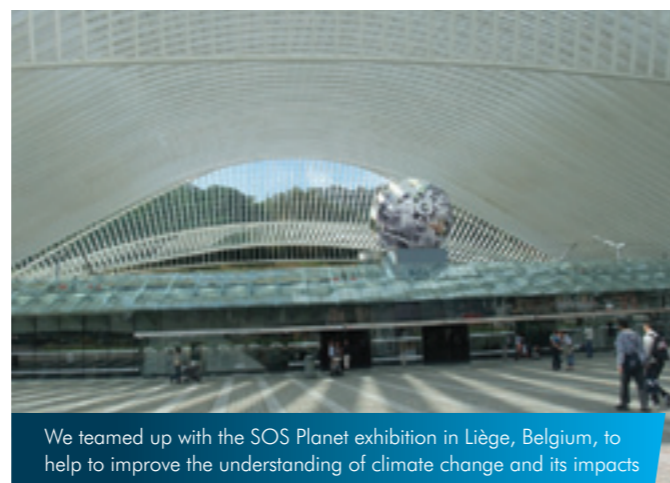


We aim to be an employer of first choice

Despite a tough economic climate in 2010 we increased the number of full-time equivalent employees. In parallel we launched our new HR strategy across the company; it will certainly help us become an 'employer of first choice'.

We are looking after relations with host communities and neighbours

In 2010 we continued our work in local projects, many of which align with the goal to improve insulation in homes and municipal buildings. Projects in 2010 included, from the US, the 'Millard Fuller Legacy Build Construction and Renovation' project for homes in Indianapolis. In Belgium, near our Visé plant, is the SOS Planet exhibition which we helped install and develop.



We teamed up with the SOS Planet exhibition in Liège, Belgium, to help to improve the understanding of climate change and its impacts

Next steps

Summary of commitments and targets

Our key commitments and progress are shown below. We have set out a number of long term aims that are aspirational in nature and which are well beyond being achievable today. However, by adopting such targets we give a clear message to ourselves and to others about the direction we want to go. In addition we have also clarified where our short term focus currently lies.

Knauf Insulation mission: 'To be the world leader in energy efficient systems for buildings'			
Area	Buildings	Products and systems	Company
Progress against activities and targets for 2011	<ul style="list-style-type: none"> Building energy use: Carry out an audit of our entire building stock with the aim of developing and implementing an energy efficiency refurbishment programme 25% 	<ul style="list-style-type: none"> Product ingredients: Continue the work to phase out phenol formaldehyde and to find alternatives to HBCD 50% LCA of our products: Undertake LCA from all our plants by the end of 2011 75% 	<ul style="list-style-type: none"> Management approach: Complete our HSE integrated management system across Europe and CIS 100% Management approach: ISO14001 in place in plants across Europe and CIS by end 2011 100% Employee welfare: New commitments on global welfare schemes in the next reporting period, 2011 75% Product ingredients: Across our product range continue to find ways to increase use of recycled materials both from post-consumer and post-industrial sources 50% Recycling in manufacturing: Report recycling rates and set targets for improvement in Europe and CIS 75% Recycling in logistics: Review of pallet take-back across Knauf Insulation in Europe and CIS 50% Energy in operations: Identify more opportunities for renewable energy sources 50% Transport: Report global transport-related energy and carbon performance in 2011 50%
Activities and targets for 2012	<ul style="list-style-type: none"> Expand our own public affairs capacity Work to improve the national capacity of our industry to be effective Continue to take a leadership role on low energy buildings Expand our building physics programme to deliver real thermal performance in buildings Finalise our buildings audit including an audit of our plants Develop sustainability guidelines for the procurement and rental of new buildings Review the results of the buildings audit and develop a programme to improve the energy performance of our building stock Roll out a green office programme across the company 	<ul style="list-style-type: none"> Continue the roll-out of LCA analysis of our products, with the goal that 50% of our products will be covered by LCAs Formalise interaction between LCA outcomes and NPAD process Roll-out full training programme of our marketing and technical staff on LCA thinking Begin customer training on LCA thinking Pilot a take-back initiative from construction sites 	<ul style="list-style-type: none"> Roll out our HSE integrated management system globally Develop employee awareness training on energy usage Survey our production plants to identify the potential for energy reduction through better insulation Continue to save energy by installing more energy efficient equipment in plants and offices (e.g. lighting) Implement a company-wide energy monitoring system Methodology and target definition to map CO₂ footprint for finished goods distribution Increase recycled content in Glass Mineral Wool: a cullet increase plan in product development and plants Increase opportunities for recycling Wood Wool Group-wide air monitoring (SO_x, NO_x, Phenol Formaldehyde) Reduce waste to landfill in all RMW plants, with a pilot waste management initiative to reduce waste to landfill to less than 0.5% Group-wide workplace health measurement to identify non-conformities and improve working conditions

Progress key: ● = Complete 75% = 75% complete 50% = 50% complete 25% = 25% complete

Getting back to us... Please do get in touch – we want to hear your comments, praise, gripes and news! Email the team at sustainability@knaufinsulation.com



Knauf Insulation Holding GmbH
Am Bahnhof 7
D-97346 Iphofen
Germany

www.knaufinsulation.com

Find out more about sustainability at
www.knaufinsulation.com/en/philosophy_environmental_management

