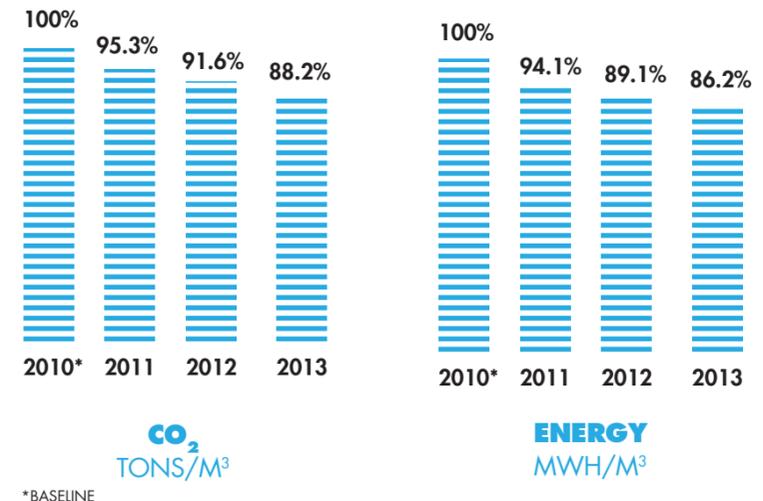


# IT'S TIME TO SAVE OUR ENERGY

We start with our biggest impact; manufacturing. We've learnt harnessing the power of all our people has proved critical in saving energy.



**KNAUF INSULATION**  
it's time to save energy



**11.8%**  
reduction in CO<sub>2</sub> (ton/m<sup>3</sup>) since our 2010 baseline, well on target to a 20% reduction of CO<sub>2</sub> by 2020

**MANUFACTURING** has, by far, the biggest impact on our energy use and throughout 2013 and 2014 our focus has been on generating greater awareness of energy efficiency in our plants. Part of this included all of the Energy Managers at Knauf Insulation attending training sessions to enable them to become energy awareness trainers at their own plants.

We are changing the mind-set of people. "From re-examining energy use at every stage of our manufacturing process to the behaviour of everyone working here, training has made a major difference as energy is an area where everybody's contribution is vital to making it a success," says Berin Onur, Group Energy Manager of Knauf Insulation.

Energy savings in our manufacturing process have been made right across the board through 'simple' measures like cleaning motors to ensure they are more efficient; reassessing room heating or cooling; improving the condition of windows or doors to improve air tightness and optimising production belts and other equipment so that they run at optimum levels among many other initiatives.

"Good energy awareness has to occur at every level and we are seeing some great results. Looking at our Rock Mineral Wool division for example at Queensferry, Surdulica and Skofja Loka, everyone contributed to a list of energy-saving ideas that are now being worked through by management," says Berin.

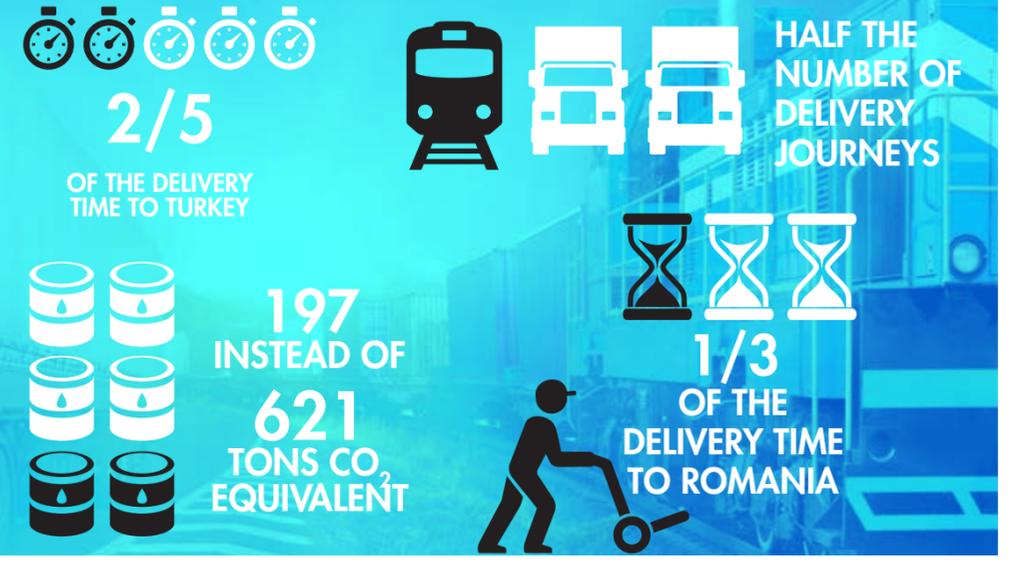
Employee transport, offices and the logistics of our products are the others issues that impact our energy use. In logistics, we're looking at savings made by switching to rail. In our offices, our Sustainable Workplace Initiative is raising awareness about efficiency in the workplace, starting with small steps like standby modes and reminders on light switches.



## SAVING CO<sub>2</sub> IN LOGISTICS

Knauf Insulation is reducing the energy used in logistics. In the Czech Republic, we switched from road to rail and saved 424 tons of CO<sub>2</sub> equivalent in the first 15 months. The savings occurred after the plant transferred its distribution of products to Turkey and Romania from road to rail. By using the electric rail network and giant jumbo wagons that have double the capacity of road trucks, the company now needs half the number of trips for distribution, says the plant's Warehouse and Logistics Manager Jiika Rispoli. Over the 15-month period, transportation distances of 1.3 million kilometres were slashed in half and the total amount of CO<sub>2</sub> equivalent was cut from 621 tons to 197. The saved CO<sub>2</sub> of 424 tons is equal to the emissions output from an average car driving around the world a hundred times.

The benefits of importing products from Czech Republic to Turkey and Romania by rail instead of road in the first 15 months:





# Recognising Success

*It's through the hard work of plants and individuals that we make such great savings in energy. We recognise this hard work at the Annual Energy Managers Awards. Here are the winners for 2013.*



**BEST SITE**  
**ST HELENS**  
*Energy and Development Manager James Henderson discusses the importance of feedback and data analysis.*

**What factors contributed to the St Helens site award?**

**James:** Across Knauf Insulation there is a system that allows data to be easily captured and analysed. As well as displaying energy targets in real time, it gives valuable information that allows instant investigation in the event of abnormal usage and reveals the causes of high or low energy use. St Helens was one of the first to implement the system and we have developed a lot of expertise in its use.

**How will you maintain your success?**

**James:** St Helens is continually looking at ways to improve and optimise every process on site – operators are encouraged to submit improvement ideas while performance and problems are discussed in daily multi-functional shop floor meetings.

**What are your plans for the future?**

**James:** We are constantly trying to improve our processes and over the past few months several trials have taken place and initiatives implemented with encouraging results.

**What can others learn from St Helens?**

**James:** I believe we are advanced in the use of our data system. This is a key tool in driving improvement. Ideas and trials also progress very quickly here. Once an improvement is identified and is communicated properly there are few restrictions to it progressing. There is also consistent buy-in from the operators who run the process – without that the system would fail as improvements would not be sustained. The site management team has a key role in facilitating improvement; ensuring that improvement work is aligned to objectives and resources are made available.



At St Helens, left, and Surdulica, above, everyone is encouraged to generate new energy efficiency ideas



**MOST IMPROVED INDIVIDUAL PERFORMANCE**

**MILKICA BORISOV, SURDULICA**  
*The Surdulica technologist stresses that energy efficiency success depends on the universal buy-in of everyone.*

**Why did you win the best individual award?**

**Milkica:** I involved every employee in the processes of reducing energy. After receiving the award, the plant had an external audit which stated energy awareness was deeply integrated in all aspects of daily operations as a result of extensive training and a proactive approach by everyone. Everyone at Knauf Insulation Surdulica played a role in reducing energy consumption: the plant manager, the energy purchasing team, the quality control team which defines technological parameters for production, the production team which works within these parameters and promotes effective energy use, the engineering team which is responsible for the proper functioning

of equipment and project implementation, and the finance team, which gives information about the savings achieved.

**What challenges did you overcome?**

**Milkica:** Explaining to employees the importance of energy reduction and their influence on energy reduction was a challenge. However, the initiative was fully supported by the group energy manager and plant management team.

**What changes made a difference?**

**Milkica:** We started with a monthly HSE checklist, where the energy manager, HSE manager and environmental manager went around the factory together to check the condition of equipment. All corrective actions were then included in the plant integrated action list. Also every day I send a report to the management team stating the previous day's energy consumption so actions can be taken if consumption is higher than normal.

**What are your plans for the future?**

**Milkica:** I want to retrain everyone every year about the importance of energy awareness through workshops, quizzes and employee awards as well as continue decreasing plant energy consumption with the involvement of the management team and the whole plant.



**MOST IMPROVED SITE**

**ST EGIDIEN**  
*We can all influence our children's future, says technologist Frank Lindert.*

Process technologist Frank Lindert likes to use vivid imagery when describing the importance of energy efficiency. "No snowflake in an avalanche feels responsible. But we all have the possibility to create and influence our children's future. "At St Egidien the biggest energy-saving achievement was to explain – step by step – to every employee our way of thinking when it comes to saving energy from impact to solutions."



**BEST INDIVIDUAL PERFORMANCE**

**TOM MULLEN, SHELBYVILLE PLANT 3**  
*The award is a credit to the entire facility, says the Process, Quality and Energy Manager*

"Receiving the award at the energy manager's conference is credit to the united spirit we all collectively have in achieving our sustainability targets," says the plant's Tom Mullen.

"This award is also a credit to the entire Plant 3 facility and its employees who have really engaged in the process of energy conservation over the past few years.

"Again I look forward to the next conference to share best practices and meet everyday challenges together in the hope of providing good energy solutions for the plants." ■