Scandinavian-Polish CHAMBER OF COMMERCE

CSR in the field of energy and environment

Nordic companies' perspective

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Nordic companies' perspective

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Carsten Nilsen
Chairman of the
Scandinavian-Polish
Chamber of Commerce

Agnieszka Kowalcze
Director of the
Scandinavian-Polish
Chamber of Commerce

It is with great pleasure that we present you with the second publication devoted to Corporate Social Responsibility (CSR), giving examples of good practice among Nordic companies operating in Poland. This time, we have focused on the area of environmental protection and energy efficiency.

Nordic companies pay particular attention to minimizing their impact on the environment. They invest in environmentally friendly technologies allowing for efficient energy and water consumption in the production processes. They have introduced waste segregation and recycling at different stages of the production cycle.

Not only do their actions comply with all applicable regulations, but they often go much further. In the framework of numerous research projects, many companies are actively seeking environmentally friendly solutions and steadily increasing the use of energy from alternative sources, which often results in the construction of a wind farm to cover a company's energy needs. Examples of such activities, as well as other interesting projects implemented by Nordic companies, have been outlined in this publication. We hope it will be inspiring for you.

We wish to express our gratitude to PwC Polska for its cooperation and factual input, to Fortum and Skanska for their special support and to all the companies affiliated and cooperating with SPCC for sharing their knowledge and good practices. We wish to thank the Honorary Patrons for recognizing our initiative.

Irena Pichola
Sustainable Business Solutions Leader, PwC

According to the results of a global survey conducted among CEOs (*PwC CEO Survey 2013*), 52% of respondents are concerned about the rising energy costs and perceives this problem as a threat to the development of their businesses. 48% of CEOs plan to boost their efforts aimed at reducing their company's impact on the environment. These results clearly indicate the direction in which businesses intend to go, namely an increased environmental efficiency.

This strong business voice supporting the idea of sustainable development in developed economies should be applauded; it also suggests that these types of activities will soon become increasingly popular also in Poland. We are pleased that the examples presented in this publication confirm the observed trend. It is worth noting that the activities in the area of environmental performance are also accompanied by other ventures: together, they contribute to a more comprehensive picture of a company and the value that it brings to society, for example by promoting a culture of ethical behaviour or non-financial reporting. The Team for Sustainable Development and Corporate Social Responsibility at PwC supports entrepreneurs in these activities, helping them to develop plans, strategies and programs aimed at environmental protection. We focus on providing consulting services that help companies improve their energy efficiency and environmental risk management.

I wish to congratulate the Scandinavian-Polish Chamber of Commerce for this inspiring initiative through which we contribute to raising the awareness of businesses and reducing their impact on the environment.

Mikael Lemström
President of Fortum Power and Heat Polska

Business and responsibility are closely linked with each other. Corporate responsibility is a long-term strategic approach based on the principles of social dialogue and seeking solutions favourable both to the company and all stakeholder and local communities. Therefore, Fortum builds its strategy on three stable pillars: economic, environmental and social responsibility. It enables conducting business that helps to meet global challenges and to achieve the sustainable development goals in the most effective way.

Being responsible does not mean to Fortum mere meeting of all formal and legal requirements of running of a company, but also and most of all voluntary and active involvement. It is not enough to generate economic profit to run a business meeting the requirements of today's market. It is also necessary to increase the investments in human resources, protection of the environment and relationships with the surrounding world. Fortum understands this structure of connected vessels and conducts advanced research and development activities aimed both at the improvement of the energy efficiency and the reduction of the environmental impact of its operations.

Fortum's goal is to generate energy that improves life for present and future generations. It is compliant with our vision of the energy system of the future – Solar Economy based on renewable, low-emission and high efficiency energy sources. Following and researching the state-of-the-art technologies as well as the implementation of innovative solutions – such as generation of district cold – enables the continuous growth and improvement of our operations.

EMBASSY OF DENMARK

Corporate Social Responsibility (CSR) is very high on the agenda in Denmark. For many years this has been prioritised by companies, pushed by government and demanded by consumers. Today Denmark is one of the leading countries when it comes to individual stakeholders subscribing to CSR policies. Companies have to fulfill basic CSR policies according 2009 accounting law, but most companies go much further than that. This willingness by companies is based on values, but also consumers demanding this.

CSR is an area on which the Danish Embassy has put much emphasis over the past couple of years. CSR covers many areas such as labour rights, pollution and anti-corruption. Which areas to focus on of course differ depending on which issues are relevant locally. In Poland the Embassy has particularly focused on promoting awareness on climate issues and green solutions. This we have done at conferences, in dialogue with partners, civil society activities and on social media.

Bicycling is often used as an example of a very visible and tangible solution to climate, air pollution, energy and health challenges – and a solution where all of us can contribute. We love to say "Just do it". To act more sustainable ourselves, "walking the talk", the Embassy has recently cut down in the number of official cars and in parallel upgraded with a cargo bike.

Biking is of course not everything. And Warsaw in 2013 offers a particular good opportunity to address sustainability in connection with the Climate Conference.

Denmark is by far not the only country pushing this agenda and we do cooperate very well with Polish counterparts and dialogue partners. CRS does not define an end objective, but is a continuing process where we need to maintain focus and push for constant improvements.

Steen Hommel
Ambassador of Denmark to Poland

FORMIN.FINLAND.FI
EMBASSY OF FINLAND
WARSAW

Many business leaders are worried that businesses will be persuaded to take social responsibilities that are typically handled by government and individuals. However, Finnish companies have largely taken the view that coherent CSR strategy based on sound ethics, transparency and core values offers clear business benefits. Moreover, CSR supports Finnish general thinking about our common responsibility, care for the less benefit and ethical behavior in all circumstances.

According to international rankings Finland is today one of the least corrupt and most competitive nations in the world. It is hardly surprising that Finland is leading global CSR comparisons as well. World class competitiveness requires world class enterprises. Such enterprises need to implement CSR thinking along their whole global supply chains. The pressure for ever increasing levels of transparency and disclosure will grow in the coming years. It means a triumph and a tyranny of transparence – a game in which Finland is positioned to be a winner.

While the global and Finnish societies demand ever increasing corporate social responsibility, the demand cannot be unilateral. Socially responsible enterprises deserve a corporate responsible society. Competitive taxation, functioning cost effective public sector, flexible labor market and high quality infrastructure are elements where policymakers can create better environment for enterprises. With common responsible work of public and private sector we can ensure economically, environmentally and socially sustainable development in the future.

Jari Vilén
Ambassador of Finland to Poland
Team Finland
Chairman

Kari Vähäkangas
Head of Finpro Poland
Team Finland
Coordinator

NORWEGIAN EMBASSY

Norway was one of the first countries in the world to draw up a comprehensive policy document on CSR in 2009. CSR is now an integral part of the cooperation between the state, employers and trade organizations. Norway is also taking an active role in international processes to further develop the global framework on corporate social responsibility.

Industry and commerce is part of the fabric of society. Just as society depends on a strong and prosperous business community to produce economic growth and welfare, businesses need healthy and well-functioning societies to thrive. CSR can create a community of interest that brings together companies, employees, the authorities and other actors.

Pursuing a long-term, credible policy on CSR can be far more beneficial to companies than cutting corners. By maintaining responsible relations with employees, consumers and the local community, respecting human rights and promoting sustainable development, companies can in fact increase their long-term competitiveness and strengthen their position.

Many major and smaller Norwegian businesses have their own, active CSR policies. CSR is important to them, not only because it is the right thing to do, but because they realize that it can be profitable. For most Norwegian companies in Poland, environmental and energy related issues, together with decent working conditions and HSE, are important priorities.

Karsten Klepsvik
Ambassador of Norway to Poland

EMBASSY OF SWEDEN

Business is the basis for growth and welfare and can be performed in a variety of ways – some are better for the society and environment, some are worse. And that certainly goes for governments as well.

The Swedish experience is that not only customers, but investors, NGOs, media and the general public increasingly expect companies to behave in a responsible way. Exploiting the environment is, for example, not only narrow minded and shortsighted. It is also simply bad business. Responsible companies improve the Swedish trademark and attractiveness – thus increasing competiveness.

The values behind the concept Corporate Social Responsibility (CSR) are not taken out of thin air. They are well thought through and documented not least by the UN Global Compact and the OECD Guidelines for Multinational Enterprises. It includes crucial issues like environmental protection and anti-corruption as well as respect for labour standards and human rights - values well established in the Swedish society.

This is one important reason why Swedish companies worldwide have been regarded as front runners in this respect. Additionally we are all part of the same society. If our environment is polluted and climate change accelerates, that is a common threat to us all. And the other way around, new clean technology creates business opportunities benefitting not only companies but adds to economic development in Europe as a whole.

The Swedish government can act as a catalyst in this, and encourages the implementation of international guidelines. But at the end of the day, CSR is and should be business owned and driven, and that is what I see among Swedish companies. They have a reputation that they are eager to protect for very good reasons. I firmly believe they will continue to be increasingly dynamic and responsible actors in the global market.

Staffan Herrström
Ambassador of Sweden to Poland

I. More with less: how to benefit from environmental performance

Authors:
Irena Pichola
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Monika Walencka
Sustainable Business Solutions, PwC

In the times of competitive economies, cost optimization has become a top priority for companies. The search for unconventional methods of cost reduction is for many of them a method of gaining a competitive advantage. Boosting the environmental performance of a company and reducing its impact on the environment is becoming increasingly popular and translates into measurable benefits. According to the results of an international study carried out by PwC - „CEO Survey 2013" - in 2014, managers plan to focus on economic and environmental objectives.[1] CFOs are looking for quantitative methods to measure the effects of their investments into sustainable development and sustainable development departments are looking for quick profits, which will allow them to finance new initiatives. It should be noted that actions aimed at environmental performance are examples of projects that clearly demonstrate the benefits of the implementation of the concept of corporate responsibility and sustainable development for companies.

Overall management of environmental impact is not only a trend, but also a practical management tool

Proactive management of environmental and social requirements yielding profits to businesses and society and broadly referred to as *sustainable development*, has become a strategic imperative for many organizations. Businesses are no longer motivated by profits, as they remain under increasing pressure from investors, customers, regulators and the public, and consequently become more and more committed to environmental protection.

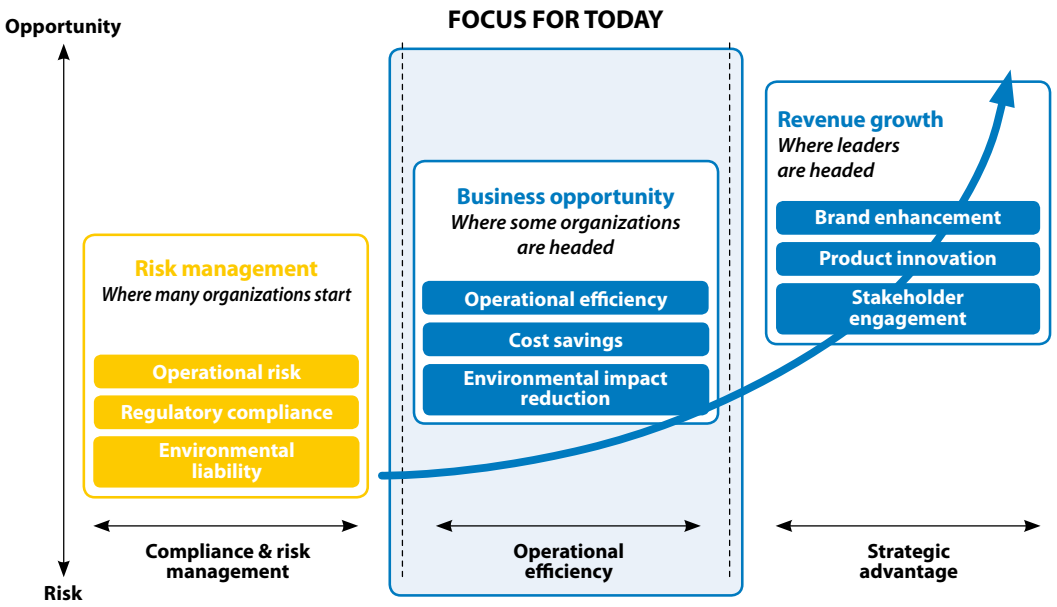
While many companies are only now starting to embark on activities in the field of responsible business and focus on risk management, leading global companies go a step further and strive for operational efficiency, which for many constitutes a great, though not yet fully appreciated business opportunity. Improving operational efficiency which in the short term contributes to reducing costs, in the long run motivates companies to undertake more strategic steps in terms of product innovation, boosting customer involvement or introducing radical changes into their brand and image.

Companies show their commitment to sustainable development in three areas: environment, society and corporate governance. The overall management of environmental impact – environmental performance - is not only a trend, but also a practical management tool. According to the results of research conducted by PwC in global companies[2], environmental performance contributes to the achievement of two objectives:

- **Cost reduction:** 8 of 10 CEOs who participated in the survey expects that precarious and unstable growth will be maintained – consequently, cost reduction is high on the list of business priorities. Global energy demand may increase by more than a third between now and 2035. Therefore, 52% of CEOs of global companies claim that they remain focused on addressing the issues of the increasing cost of energy and raw materials.

[1] http://www.environmentalleader.com/2013/07/11/eco-efficiency-strategies-cut-costs-mitigate-risk/
[2] CEO Survey 2013, PwC

Fig. 1. Sustainable development maturity curve



Source: PwC

- **Environmental impact reduction:** 48% global companies participating in the survey intend to commit more to reducing their environmental impact, while 41% plan to focus on the monitoring and reporting of sustainable growth and the efficiency of processes in this area.

These two priorities can be pursued by a company through the implementation of solutions that support the environmental performance of a business.

What is environmental performance?

The concept of environmental performance is also referred to as ecological and environmental efficiency. All these definitions represent a process that allows for the identification of opportunities to reduce costs through the use of measures, such as an increased efficiency of resource use and a greater energy efficiency of a company.

The identification of operational efficiency solutions through the lens of sustainable development and environmental performance is done in relation to six key environmental aspects:

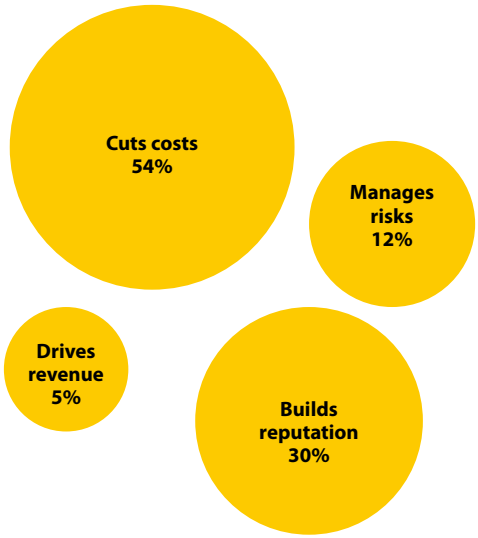
- energy
- fuels
- water
- waste
- chemicals
- wood products

Environmental performance consists in savings in relation to the above, taking into account the specificities of the sector in which a company operates.

Environmental performance is part of priority business objectives, such as reducing costs, improving reputation, managing risk and increasing revenues. By investing in environmental performance, companies endeavor to use resources in an optimum manner, thereby reducing their impact on the environment, but also to generate additional benefits in terms of an increased productivity, reduced costs and the processes of image-building, as well as the strengthening of their relationships with business partners.

Fig. 2. Top business objectives linked to eco-efficiency

Companies say eco-efficiency helps meet multiple objectives - it cuts coasts and builds te corporate reputation.



Note: Question did not allow for multiple answer. Base: 577
Source: PwC, Boosting your bottom line through eco-efficiency webcast, June 2013

Fig. 3. Operational performance solutions for environmental performance

ENERGY	FUEL	WATER	WASTE	CHEMICALS	FOREST PRODUCTS
Electricity reduction	Fuel efficiency	Water use reduction	Recycling programs	Reduction in chemical spill costs	Packaging reduction
Energy efficiency	Reduction in miles travelled	Improve leak rates	Hauling cost reductions	Insurance reduction	Paper recycling
Recycled heat	Fuel efficient truck technology	Closed-loop water use	Reduction in waste generation	Green chemicals	Packaging reuse

Source: PwC

Environmental performance as an innovative method of cost reduction

Looking for savings through the reduction of the company's operating costs is not a new concept. However, in the face of mounting environmental protection pressures from customers and investors - as exemplified by the growing interest in the management of greenhouse gas emissions - companies are now forced to regard their economic and environmental performance in a more comprehensive manner. On the other hand, new sources of financing environmental performance have become available and are an additional source of motivation. Despite the introduction of a number of energy efficiency obligations and requirements for businesses, the new EU financial perspective 2014-2020 provides a great number of opportunities to pursue such investments. In this context, companies have a chance to implement solutions aimed at reducing costs and mitigating their impact on the environment, which leads to:

- providing quality and innovative customer services,
- a greater productivity,
- reducing risks for investors and companies related to greenhouse gas emissions and water resources (operational, legal and reputational risks).

Not all investments in environmental performance are cost-intensive, requiring investment projects involving technological changes or the introduction of new systems and devices. An important role is also played by actions requiring limited investment, i.e. education of employees, customers, investors, or the implementation of procedures, management systems and the monitoring of resource consumption.

Different solutions require different levels of investment, but all generate savings that are identifiable in the short term. Decisions to invest in environmental performance, as opposed to the traditional financial analysis, are also based on qualitative information taking into account not only direct financial savings, but also such aspects as image creation and environmental impact.

Many Polish companies have also taken the necessary steps in this direction, although their awareness of the potential benefits of environmental performance for an organization remains very limited. Furthermore, Polish companies mistakenly assume that actions in this area are always capital-intensive, hence their unwillingness to embark on ventures that would require a source of financing. The costs of environmental performance depend to a large extent on the scope of the pursued projects. Activities pursued in order to changing employees' behavior and their approach to the subject are not be very cost-intensive, even though large technology investments will involve considerable expenditure. Here, companies can benefit from the sale of certificates through the implementation of energy efficiency projects and submitting tenders to the Energy Regulatory Office in order to receive the so-called "white certificates".

Achieving competitive advantage through sustainable development of a company

Achieving measurable results following the implementing of environmental performance solutions requires a comprehensive plan of action. One-off endeavors in this field provide relatively negligible effects. An appropriate integration of actions can result in additional benefits which could not be attained as a result of individual solutions. When it comes to environmental performance, the most important aspect is a comprehensive approach to the issues of environmental protection, an appropriate identification of environmental impact and careful evaluation of the potential reduction of this impact, and thus the reduction of costs.

These activities are based on a three-phase approach that consists in measuring, managing and profiting from environmental performance solutions. The process is designed so as to identify cost reduction opportunities with the highest rate of return in terms of energy and fuel consumption, waste etc. In order to benefit from environmental performance, its advantages for a company must be understood and measured and the most beneficial solutions must be implemented. Given the above, the first critical step consists in measuring environmental performance. The aim of this three-phase approach is therefore to understand the key areas of environmental performance of a company, to identify real savings and to calculate the return on these investments and to implement previously identified solutions.

Irena Pichola,
Sustainable Business Solutions Leader, PwC

Key aspects of benefitting from environmental performance:

- a correct analysis (including the identification of key environmental aspects and their costs - analysis of source financial data, state of technology, infrastructure and energy audits,
- a list of possible solutions and selection of the most appropriate solutions taking into account industry-specific needs,
- evaluation of the time of return on investment and planning of activities and solutions aimed at monitoring the achieved effects and benefits.

The analysis should provide an overall picture of the added value resulting from the implementation of environmental performance solutions. It is a manner in which to build the competitive advantage of a company. Investors require companies to notify them of measures undertaken in order to minimize their CO_2 emissions; on their part, companies are willing to show off the activities that bring measurable financial benefits. This type of information is very important from the point of view of investors, business partners and customers.

To sum up, the creation of social, environmental and corporate governance values and the sustainable development of companies becomes a "value", and may even yield "profits".

In order to achieve a long-term competitive advantage in the area of environmental impact, companies should identify their chances by focusing on three aspects:

1. The company's commitment and cooperation:
The key success factor for the effective implementation of an environmental management policy is the commitment of the owners of respective subject areas and linking of environmental issues with elements of business strategy and corporate social responsibility.

2. Improved performance and reduced environmental impact:
The identification and implementation (in cooperation with business partners) of energy efficiency and environmental protection solutions enabling the future development of the company.

3. Raising awareness and communication:
Continuous environmental education of internal (e.g. employees) and external stakeholders (e.g. customers) can result in more environmentally-friendly attitudes, which should expand the scale of actions and contribute to building a positive reputation.

These factors should be taken into account in a systematic approach to the implementation of business solutions in the field of sustainable development. In order to achieve optimum results and profits, these activities should be included in the company's business strategy. In accordance with the requirements of the new EU financial perspective 2014–2020, organizations that adopt such an approach will have a better chance of obtaining external funding.

II. Good practices of Nordic companies

Environment protection and use of sustainable energy are top priorities in European policy. It affects the operations of companies by defining both their environment as well as their business models. Minimizing the negative impacts on the environment by promoting energy efficiency and climate protection provides an array of development opportunities along with increased competitiveness. This approach is strongly implemented in particular in Nordic companies, which use environmentally friendly solutions to grow their businesses.

Among the presented Nordic business practices, projects aiming to increase energy efficiency through energy saving technologies and CO_2 reduction, stand out noticeably. Companies also seem to focus on the sustainable management of resources, including recycling processes. Nordic investors pursue a number of educational initiatives and information campaigns aimed at raising awareness among customers and local communities. Examples of these types of activities are also presented in the publication.

In each of the outlined examples, companies point to the benefits of such initiatives. The most important include:

- improving operational efficiency,
- cost savings,
- relations with stakeholders,
- image improvement,
- risk management.

This proves that it is worthwhile to analyse and efficiently manage the environmental impact of a company. Good practices organized by subject and experiences of individual companies are presented below.

Energy and climate

Atrium 1 built by **Skanska**
uses **51%**
less energy in comparison with competitive buildings

CO_2 emissions were reduced **by 40%**
following the modernization of **Carlsberg** breweries in Poland

up to 25% of energy will be saved thanks to implementing CSR strategy in **Radisson Blu** hotels

65° is the water temperature used by **Fortum** to generate district cold

EUR 1.5 billion
IKEA plans to invest in renewable energy worldwide

in 2020 LEGO Group
aims to balance its energy needs with 100% renewable energy resources

2.5 million
kilometers is reduced annually in transport thanks to CUBE system introduced in **VELUX**

up to 35%
can be saved in heating costs thanks to **Ruukki® energy panel system**

Resources

Atrium 1 built by **Skanska** uses
60%
less water in comparison with competitive buildings

6000 l
of water is reduced by collecting 1 kg of used clothing thanks to **H&M** *Garment Collecting Project*

500 tons
of recyclables were delivered to the **STENA EkoStacja** during the last 10 months

30% less paper is used through double-sided printing at **TransCargo**

Education and raising awareness

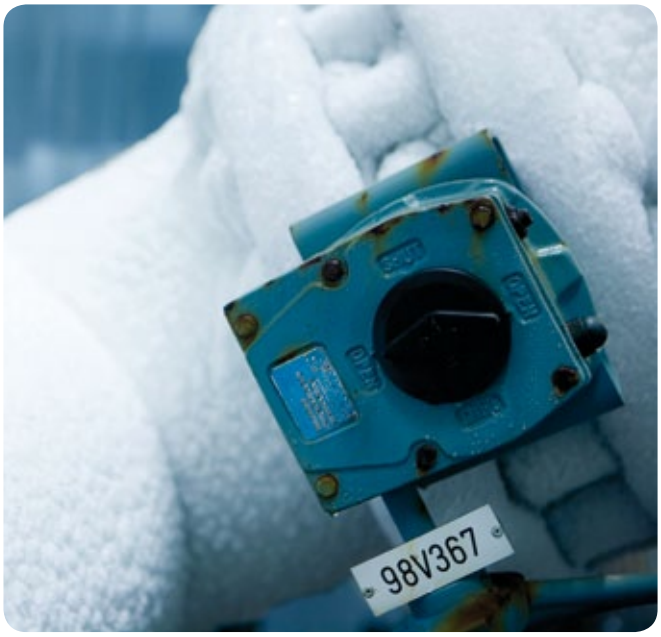
11 million of people were informed about the role of recycling and the necessity of making informed decisions when shopping during the project *Vac from the Sea* carried out by **Electrolux**

more than 2000
publications were issued about the energy efficiency and the *Sixth Fuel* campaign prepared by **ROCKWOOL**

3200 drivers
took part in the **Volvo Trucks** *The Drivers' Fuel Challenge* in 2013

600 000 trees were planted in national parks thanks to *Plant a tree with good purchase* campaign by **TetraPak**

Fortum
- Cold from Heat



Strategic approach to sustainable development

The commitment to sustainable development is the foundation of Fortum's strategy. Its integral part is balanced management of economic, environmental and social responsibility in our business operations. Fortum's values – responsibility, creativity, respect and honesty – underlie all our activities. According to the vision of the future energy system based on Solar Economy, our goal is to continuously develop our existing operations ensuring simultaneous growth in the area of carbon-free hydro and nuclear power as well as energy efficient co-generation of electricity and heat.

CSR, the purpose of which is the care for the natural environment and local communities, plays an important role in sustainable operations of Fortum. Simultaneously with the efforts aimed at the improvement of the life of present and future generations, the work on the improvement of the energy generation efficiency is under way. In the today's energy system the tri-generation gains more and more importance, in case of which next to heat and power, the third component – district cold – is present. There are different methods of tri-generation, but the main idea is to use heat (in fact its excess) to generate cold. There are two processes that can be used for this purpose: absorption or adsorption.

Absorption is a common process in the cooling industry consisting in absorption of vapours of e.g. ammonia by the volume of a fluid, e.g. water. Circulating in closed cycle ammonia is subject to phase transitions (evaporation and condensation) creating a very big refrigeration effect during evaporation. Its vapours are absorbed by water and the way solution created this way is regenerated by a stream of heat causing release of ammonia vapours, which are then condensed, thanks to which liquid ammonia can be evaporated repeatedly generating the refrigeration effect.

The principle of operation of absorption and adsorption cooling equipment is the same – the delivery of heat results in the generation of cold. The difference is that in case of absorption equipment the vapours of cooling medium are absorbed by the volume of a fluid, while in case of adsorption equipment by the surface of a solid. The concept of operation of such equipment is the same as in case of traditional refrigerators, but the effect of medium suction and compression is achieved by the use of the stream of heat. Hence, such equipment has slightly different design. There is no compressor, instead they utilise heat supplied sorption systems consisting of tanks with fluid solutions in the case of adsorption equipment, or solid beds in the case of adsorption equipment. The other components of the refrigerating circulation, i.e. the evaporator and the condenser, remain unchanged.

Effective and environmentally friendly adsorption

The adsorption plant works in the same way as traditional refrigerator, but instead of compressor, there is a solid bed for drawing in and compression of the coolant. It produces ice water, which is used in the air conditioning system to cool the air.

Thanks to the application of the adsorption process utilising solid beds, it is possible to use heat media with temperatures lower than in case of the absorption equipment. Consequently, adsorption equipment can use heat from district grids, in which the temperature of water in summer is about 65/70°C. It makes possible to install such equipment direct-

Adsorption is a less common process in the cooling industry consisting in the interaction between a solid (e.g. silica gel) and a fluid (e.g. water). The refrigeration effect is generated during the evaporation of water. The steam created this way goes to a tank called adsorber. Inside of this tank water is absorbed at the silica gel (bed) surface. Next, after the delivery of heat to the bed, e.g. from the district heating grid, steam is released. After its condensation, water can be repeatedly evaporated generating the refrigeration effect.

ly at the customer's without the necessity of building of a separate cooling grid. Such solutions improve the efficiency of the existing CHPs, especially in summertime. Water from CHPs flows through district heating pipelines to the place where the adsorption plant is installed where it is processed into ice water supplying the air conditioning equipment (fan-coils). In this process ice water gets heated and returned to the circulation of the adsorption plant where it is cooled down again. The basic difference between the adsorption and the absorption technologies consists in the fact that the adsorption plant uses a solid (silica gel) to produce cold, while the absorption technology uses a fluid (a solution of ammonia or lithium bromide). Absorption equipment requires higher parameters of heat, hence it is advisable to situate them rather at the heat sources (i.e. for example at the CHPs), which however requires the erection of cooling grids or the implementation of local tri-generation, including the generation of power, heat and cold at the consumer's site.

Contrary to traditional compressor based systems, adsorption cooling does not destroy the ozone layer of the atmosphere, as the equipment used does not use such coolants as CFC and HCFCs. Instead, it utilises water.

Research & development

In order to improve the efficiency of generation, Fortum conducts research and development aimed at ensuring benefits

Photo1. Test adsorption cold generation plant in Częstochowa

65°

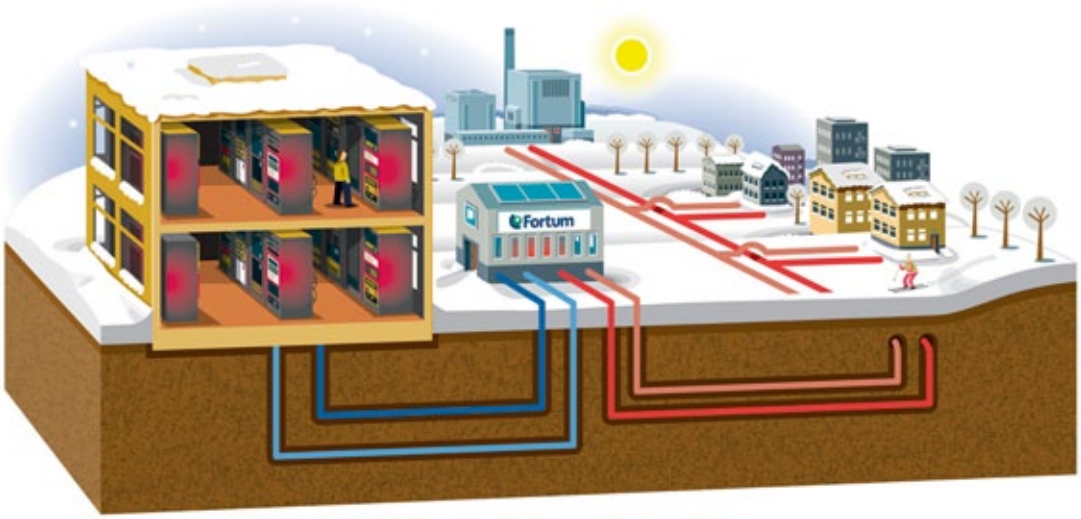
is the water temperature used to generate district cold

to the end customers. Fortum experts have developed a research programme on the adsorption based district cold generation, which is currently conducted in co-operation with the Częstochowa University of Technology and the Wrocław University of Technology. On 25 June this year, a test adsorption cold generation plant was launched at Fortum's site in Częstochowa. It is the only working plant of that type at the company's works anywhere in the world. It is a test system, which will generate cold for the site's own purposes. The observation of the operation of this plan will enable testing of the equipment efficiency in different conditions – depending on the cooling load, the temperature of district water and other parameters. It will also provide the answer to the question whether it can compete with traditional cooling equipment powered with electricity. The result of the research activity will be the conclusions concerning the possibility of broader application of this technology in future.

The generation of district cold using the adsorption method will contribute to the improvement of the efficiency of CHPs. Cold is sought especially in summer when the demand for heat is much lower than during the heating season. Therefore, cold is generated using heat (also waste heat) that comes from the generation of electricity.

In order to maintain high level of electricity generation, a CHP must also generate heat. In summer, there is usually no use for such heat, and so additional demand for heat must be found or it must be "discharged" to the atmosphere through cooling towers, as in case of condensing power plants. Traditionally heat energy is used in summer to heat utility water (the one we use at our bathrooms), but this application accounts for just 10-15% of the total heat generation. The consideration of the use of heat for generation of cold in fact means the use of waste by-product of electricity generation and direct replacement of the electricity consumption by traditional electricity powered air conditioning systems. Therefore, an adsorption system improves the efficiency of a CHP in summertime, i.e. outside the heating season.

Piotr Górnik,
Production and Distribution Director,
Fortum Power and Heat Polska



Fortum has experience in generation of district cooling in Sweden. In Stockholm, sea water is used to generate cold. At night, water is pumped to underground reservoirs carved in rock with total capacity of 50 000 m³. During the day, collected water supplies the cooling network, which in Stockholm is about 150 km long, being the longest in the world. There are also smaller cooling networks among the others in Finnish town of Espoo.

Future customers can by for example large cooling units at office buildings, data storage centres (server rooms) and shopping centres, the demand of which in this respect on average reaches several megawatts. Consequently, if we manage to procure the appropriate number of customers for cooling, it would be possible to maintain the efficiency of the heating season (85-90%) also in summer. Cold generated using the adsorption technology can be used all year round, but summer demand is much higher than in winter.

The generation of cold together with heat and power will form the next step towards the achievement of even better energy efficiency, which is consistent with crucial for Fortum idea of sustainable development. It will be achieved through better utilisation of already existing infrastructure and surplus of heat. Increasing energy efficiency will in turn contribute to the reduction of carbon dioxide emissions to the atmosphere, consequently forming a factor deciding about the purity of the environment.

FORTUM is a Finnish energy company – one of the largest generators and distributors of electricity in Nordic states. It is also the fourth largest generator of heat in the world. Apart from Finland, Sweden and Norway, the company's investments are also located in Baltic States, Poland and Russia. Fortum's investments combine the improvement of the energy efficiency with the reduction of the emissions of harmful substances. In Poland Fortum is one of the leaders in the CPH sector and employs nearly 700 people, mainly at its 7 sites all over the country. Belonging to the company CHP in Częstochowa is one of the most modern plants of this type in this part of Europe. Apart for generation of electricity and heat at high efficiency sources, Fortum also deals with distribution of heat. The total lengths the company's district heating grids in Poland exceeds 700 kilometres.

More information: **www.fortum.com**

Izabela Van den Bossche
Head of Communication, Fortum Power and Heat Polska

1. What does CSR mean to Fortum?

Fortum supports its sustainable approach on the following three pillars: economic, social and environmental responsibility in the company's operations. CSR perfectly fits in all these three components.

We want to be responsible in every aspect of our operations. When planning the implementation of our communication strategy, we always take into consideration CSR as one of the important factors. We carefully prepare our activities in this sphere and conduct consultations with local authorities, non-governmental organisations and local communities. Our activities always respond to real needs of the people in towns and regions where we operate.

2. Is CSR more about emotional activities or business calculations?

I think that CSR is simultaneously about business, emotions and development of conscious environmentally friendly attitudes.

Building the consumer awareness in the sphere of effective use of electricity and heat is an activity that impacts the business. Fortum is trying to build such awareness in long-term perspective of 30-40 years. We believe that today's investments in the young generation will eventually pay off and in future such young people will become our customers who select our products not only because they meet their requirements, but also because we are a responsible company driven by something more than pure desire for profit.

Obviously, CSR activities also appeal to emotions. When we consider new ideas and plans, we take into account how people perceive Fortum.

3. Are there any particular target groups, on which Fortum focuses in its social activities?

Fortum's purpose is to create energy that improves life for present and future generations. We try to focus our activities on children and the youth. We believe that we are creating conscious future heat and electricity consumers whose perception of Fortum is based not only on our business activity, but also on our social activities.

4. Does Fortum implement proprietary CSR projects or rather supports already existing ones?

Fortum's CSR activities must be consistent with our communication strategy. We are open to such proposals and ideas regardless of whether they are of internal or external origin. Fortum supports already existing initiatives, as well as conducts internally developed activities and ones developed in partnerships. The most important thing is that all our CSR activities are always conducted with huge involvement of the groups, to which they are addressed. As the example, we can mention the scholarship programme entitled "Fortum dla Śląskich Dzieci" (*Fortum for Silesian Children*), the contents and the topics of individual classes of which are regularly consulted with the participants.

5. What are the activities in favour of local communities that Fortum undertakes?

In Bytom and Zabrze we carry on with the already mentioned *Fortum for Silesian Children* scholarship programme addressed to children and young people from underprivileged communities, which is run in collaboration with the Ulica Foundation. Currently, we also conduct the Fortum Honorary Energy Donor charity campaign where the participants run with a specially developed smart-phone application. Covered kilometres are converted to energy, which in turn is recalculated to particular financial aid provided to children in need.

At secondary schools and high schools, Fortum conducts an Energy Game aimed at the development of energy related and environmental knowledge. Its objective is also to stimulate discussion and to encourage to seek solutions to various research related problems. We also organise Open Days at our CHP plants, during which visitors can see how effectively heat and electricity is co-generated and how the state-of-the-art technologies find practical applications in the energy sector.

6. CSR is also about the care for employees. How does Fortum implement the social responsibility in relation to its employees?

Social responsibility also means the responsibility for the company personnel. We believe that every employee is our ambassador in local community, and therefore, it is important to make sure that our people are satisfied and have appropriate work conditions. Responsibility is one of the main values resulting from the Fortum Code of Conduct. In this respect, safety is of core importance to us. In our company, we care for the development safety awareness among our employees, subcontractors and suppliers.

7. Are the employees aware of the activities associated with corporate social responsibility? Are they involved in them?

I am observing increasing interest and involvement of our personnel in CSR activities. This year, they are participating in the jogging campaign - *Fortum Honorary Energy Donor*. We are satisfied to see our employees encouraging their families to join the programme, which we perceive as the proof of their approval of such activities. Additionally, during the Open Days at Fortum's CHP plants, our employees assume the roles of the company tour guides and the experts answering questions from the visitors.

8. Is Fortum a member of any CSR organisations or associations?

Since 2012, Fortum has been a strategic Partner of the Responsible Business Forum, where the company promotes activities which support running business in a responsible manner. For example, we consider the impact of organisations on the environment and the societies. For a few years we have also been the member of the Scandinavian-Polish Chamber of Commerce and since last year we actively participate in meetings and conferences aimed at sharing best practices of corporate social responsibility which are organised by the Chamber.

In 2012, Fortum signed the Declaration of the Polish Business Circles for the Sustainable Development confirming the commitment of Polish entrepreneurs to the efforts aimed at the achievement of the strategic goals included in the report entitled *The 2050 Sustainable Development Vision for Polish Business.*

Skanska - Atrium 1, true definition of sustainability in class A office building

Photo 1. Skanska office in Prague

Balancing challenges and opportunities

By its nature, construction has the potential to create negative impacts on the natural environment when not actively managed. Done well it has the potential to have a significant positive impact. Therefore, Skanska sees a big opportunity in proactive environmental management.

Globally, buildings have a very negative impact on the environment. In Europe, buildings account for:

- 50% of CO_2 emissions,
- 45% energy demand,
- 40% materials consumption,
- 20% landfill waste,
- 17% potable water use.

As a real estate developer, Skanska is in the unique position where to help minimize this impact by:

- Efficiently using energy, water and other resources,
- Reducing waste, pollution and environmental degradation,
- Protecting occupant health and improving employee productivity,
- Contributing to better communities and to leave the world a better place for future generations.

Atrium 1

Atrium 1 was envisioned to be the most sustainable and energy efficient building in not only Warsaw and Poland, but all of Central Eastern Europe. The project represents the true definition of sustainability by equally representing and balancing social, economic and environmental factors into the full lifecycle of the building including design, construction, operations and future use.

As part of our CSR and Sustainability agenda, Skanska has set an overall ambitious goal of delivering net zero buildings to the market which means net zero primary energy, zero waste, zero unsustainable materials, zero hazardous materials, near zero embodied carbon and net zero water. We call this our green journey towards better buildings, communities and future generations.

Justyna Adamczyk,
Green Business Coordinator, Skanska Property Poland

Atrium 1 is located at Al. Jana Pawła II, near the ONZ roundabout, in the heart of Warsaw's business centre.

51%

less energy is used in Atrium 1 in comparison with competitive buildings

Atrium 1 will have a nearly net zero impact on the environment, promises our tenants the lowest building operating costs, while creating a superior working environment leading to improved health, productivity and well-being of its occupants.

Atrium 1 has been designed and constructed according to the requirements and guidelines of the U.S LEED rating system. LEED is a rating system created in the U.S to guide and verify that certain levels of environmental standards have been achieved. The project aims to achieve LEED Platinum which is the highest level possible of the certification system.

The façade and all installations were designed to maximize the energy efficiency of the building to reduce consumption of energy by 51% and water consumption by 60% compared to a standard building in Poland. The most significant features and strategies contributing to the building's high energy efficiency are:

- Unique geothermal heating and cooling system – in summer it is used as a source of coolness for air-conditioning in the building, in winter it is a source of heat for initial heating of ventilation air, which consume far less energy than conventionally designed heating and cooling systems;
- The façade is connected and controlled by the Building Management System (BMS) in order to decrease the collection of heat caused by solar gain and thus to decrease the building's energy need for cooling;
- Active photovoltaic panels to generate electricity directly from the sunlight in order to decrease the use of energy generated from fossil fuels that contribute to a negative impact on the environment;
- Energy-efficient lighting system using LED lighting and motion sensors to turn off unused lights;
- Daylight control system which adjusts the level of artificial lighting depending on the intensity coming from natural daylight;
- "Freecooling" system, using cool outside air to cool office areas in colder periods of the year.

All of this was achieved without losing sight on the occupants that will occupy the building. Equal measures were taken to create the highest levels of indoor environmental quality to ensure maximum occupant productivity, health and well-being.

On average, we spend approximately 90% of our time indoors. Even worse, than spending so much time indoors is that pollutant levels can be 2-5 times greater than outdoor levels, literally making us sick. Building occupants globally frequently complain about headaches, fatigue, sensory irritation of the eyes, nose, throat and skin.

To protect our future occupants, we increased ventilation greater than 30% required by Polish norms, installed CO_2 monitors to ensure proper air levels are maintained and used only no and low toxicity building materials. In addition, the building was designed in a way allowing maximum access to daylight and views outside for at least 75% of the designed area to further contribute to a superior indoor environment.

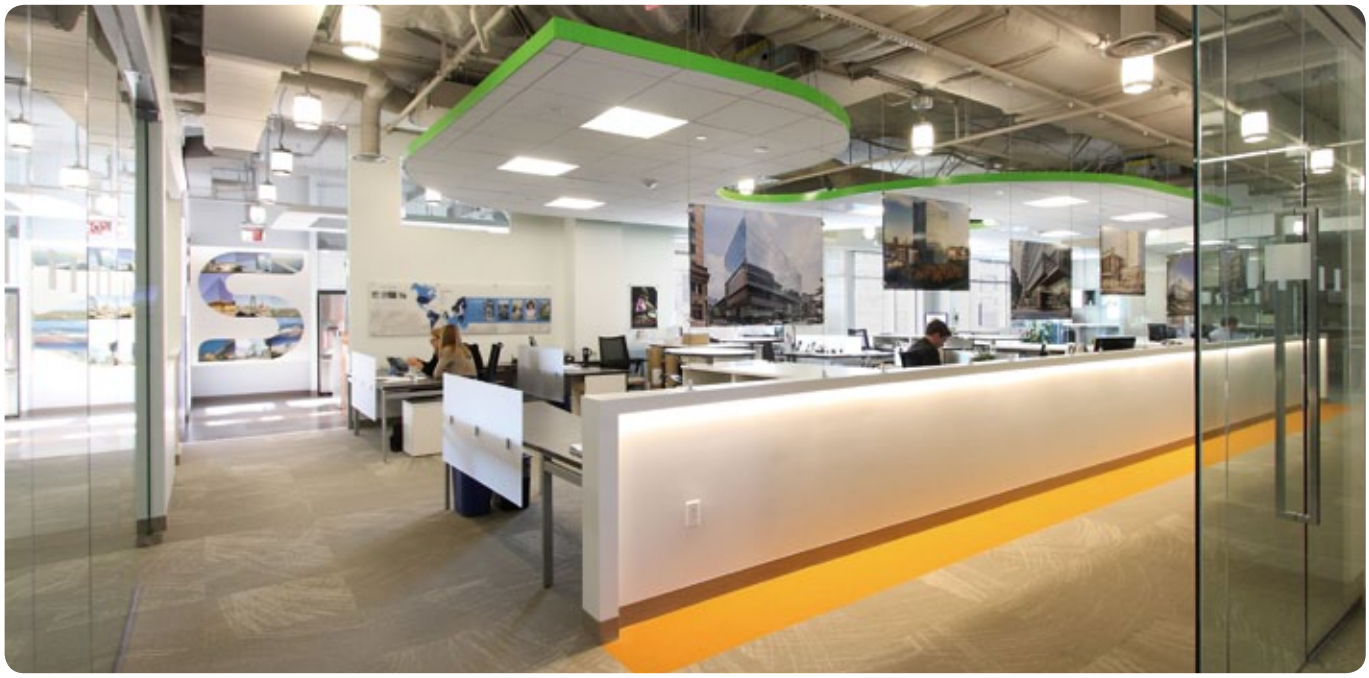


Photo 2. Skanska Washington office

Photo 3. Skanska office in Warsaw

Atrium 1 was a significant achievement in our journey to green and is representative of what our CSR policy stands for. Our commitment to corporate social responsibility (CSR) and sustainability ensures that we succeed in achieving our internal goals while achieving a greater good beyond our business efforts. We develop buildings to the highest standards of energy efficiency and occupant health, while creating an architecturally significant project that reflects our mission and vision.

Tenant Design and Construction Guidelines

A tenant's design and operation of their office space significantly impacts the building's energy performance. Therefore, Skanska compiled *Tenant Design and Construction Guidelines* that explains how tenants can make the most of the building's efficiency features, through recommended "sustainability strategies", and how they can certify their spaces according to LEED CI certification. The recommended strategies include mechanical, electrical, plumbing, layout, lighting and operations measures, which can often enhance the performance of the building with minimal investment costs. By occupying Atrium 1, tenants have a solid platform with which to certify their office space to LEED CI if they wish.

Skanska plans to implement a *Green Occupant Engagement Program*, which is intended to not only inform all tenants and visitors of the building's sustainability features and their associated benefits, but to encourage occupants to engage in behavior that optimizes the building's energy systems to achieve maximum results.

The program will involve the placement of information signs around the building to inform of particular sustainability features, offering guided tours and a large screen by the main reception that displays the building's resource use in real time.

Real profits from reducing the environmental impact

Atrium 1 is a win-win for the environment and people that occupy the building. Advanced technological solutions will reduce consumption of energy by an unprecedented 51% and water consumption by 60%, contributing directly to lower services charges for tenants (approximately 20% lower service charges compared to competitive buildings).

The building will be equipped with the modern building management system (BMS) managing the optimal energy consumption within the building and connecting to tenant sub meters that accurately measure individual energy use.

Sub metering encourages tenants to be more resource efficient and make further energy savings.

However, we believe that good design and construction of the core and shell is only the start of a sustainable building.

SKANSKA PROPERTY POLAND is an innovative developer of green office buildings which create friendly environment for business growth. The company has been operating in Poland since 1997 and is part of the Skanska Group, world leader in project development and construction. The projects of Skanska Property Poland offer top-quality office space at great locations, which ensures success and satisfaction of tenants. The investments completed by the company include the first office buildings in Poland awarded the EU GreenBuilding certificate: Deloitte House and Marynarska Point in Warsaw and Grunwaldzki Center in Wrocław. All the investments of Skanska Property Poland will undergo both EU GreenBuilding and LEED certification processes confirming their compliance with the principles of sustainable development, optimal energy consumption and friendly work environment.

More information: **www.skanska.pl**

Carlsberg Polska – activities in the field of energy efficiency and climate protection

Investments in energy efficiency

For many years, Carlsberg Polska has taken advantage of the experience and practice of the international Carlsberg Group and been actively involved in energy efficiency and climate protection actions. Thus far, its investments have totalled over PLN 20 million and energy indicators of the company's breweries in Poland are among the best in Europe.

The company's environmental policy developed over a number of years is one of the major pillars of both Carlsberg Polska and the entire Carlsberg Group. Over the last decade, the company has been working intensively to ensure energy efficiency and climate protection, in terms of investments aimed at modernizing energy systems in breweries and beer production technology, as well as in the area of optimization of energy use and employees' education. Another factor reducing overall greenhouse gas emissions and energy use throughout the supply chain is cooperation with suppliers, aimed at minimizing the weight of packaging (bottles and cans), measures taken in order to promote the use of returnable bottles and recycling of non-returnable packaging.

Major activities in 2000-2012:

- Replacement of coal-fired boiler room in Okocim Brewery in 2005;
- Modernization of cooling and compressed air engine rooms in all breweries;
- Modernization of wastewater treatment technologies in Brzesk;
- Installation of a heat recovery technology in brew houses, integrated with production processes;
- Projects streamlining production, including the exchange of best practices in the field of energy management between the breweries;
- Introduction of energy-saving technology of anaerobic wastewater treatment in Bosman;
- Workers' involvement in energy efficiency projects, through team work and a system of rewarding individual ideas aimed at improving production processes;
- Green Office campaign for reducing the consumption of resources and electricity.

The company's total investments directly related to energy have exceeded PLN 20 million.

Impact of activities

Between 2002 and 2012, the output of breweries owned by Carlsberg Polska (Okocim Brewery in Brzesk, Bosman in Sierpiec, Kasztelan in Sierpiec) more than doubled, while heat energy consumption remained at the same level (i.e. the amount of beer produced using the same amount of heat was twice as much!) and electricity consumption increased only by 50% (i.e. over twice as much beer was produced with half as much energy).

40%

the amount of CO_2 emissions reduced following the modernization of Carlsberg breweries in Poland

Greenhouse gas emissions have been reduced (CO_2 emissions from the combustion of natural gas represent half the amount of emissions generated through the combustion of coal) following the replacement of coal and heavy fuel oil with natural gas - the combined effect of the modernization of breweries and fuel change have resulted in the reduction of CO_2 emissions by 40%; this result was achieved despite the fact that the production has doubled over the same period.

Key success factors

Carlsberg Polska believes that the following are key factors for a successful transition of an industry towards energy efficiency:

- Prior to the modernization conducted in the 1990s, brewing was an energy-intensive industry. Technological transformation has allowed a multiplication of production with the same or only slightly higher energy consumption;
- Investments were necessary but, in parallel, actions taken to optimize the production process, building awareness and responsibility among the employees and the management proved just as important;
- In the future, further technological innovation, advanced energy systems (cogeneration, energy recovery) and the generation of energy from renewable sources will be of major importance.

THE CARLSBERG GROUP is the fourth largest brewer in the world. According to data from 2008, it ranks first among brewery groups in terms of low consumption of water and energy.

More information: **www.carlsberg.pl**

Electrolux – *Vac from the Sea* campaign

Collection of plastic waste from the ocean and sea

The *Vac from the Sea* campaign is an international environmental project launched in June 2010 by Electrolux. The aim of the project is to draw attention to the shortage of industrial recycled plastic, while huge amounts of plastic waste are thrown into natural bodies of water.

Electrolux encountered this problem after the Green Range of vacuum cleaners made in 70% from recycled materials was launched. Difficulties in obtaining plastic needed for their production encouraged by the company to act.

11 million

people were informed about the role of recycling and the necessity of making informed decisions when shopping during the project *Vac from the Sea*

Vac from the Sea as a symbol of Electolux's vision

With the help of volunteers and environmental organizations, Electrolux organized a collection of plastic waste in the Pacific Ocean, the Indian Ocean, the Mediterranean Sea, the Baltic Sea and the North Sea. The technique of collecting plastic depended on the location and ranged from diving to fishing the plastic out of sea waves.

Electrolux designers used the collected plastic to create five unique vacuum cleaners representing different bodies of water. A year later, in cooperation with the Marine Station of the Institute of Oceanography, University of Gdansk, the sixth vacuum cleaner was made from Polish waste. These vacuum cleaners symbolize Electrolux's vision of creating devices made from 100% recycled plastic. During the project, the company worked with volunteers and experts who lived in the concerned regions or dealt with the problem of pollution of coastal waters on a daily basis. Vacuum cleaners designed in the framework of the project were presented to the public. *Vac from the Sea* blog was created and a campaign was launched on Facebook. Each person who liked Electrolux's fan page contributed to 1 EUR donation for two environmental organizations, Algalita and 5 Gyres, committed to reducing the amount of plastic thrown into seas and oceans. The *Vac from the Sea* project has received an award from the United Nations in partnership with the IPRA (International PR Association).

Real benefits – improving awareness

Through the *Vac from the Sea* campaign Electrolux aimed to raise public awareness as regards plastic waste and to draw attention to the need for an improved management of the processing of recyclables. The campaign has been hugely successful – the company managed to inform more than 11 million people of the role of recycling and the necessity of making informed decisions when shopping.

The benefits of the campaign have translated into the growing popularity and thus the sales of our Green vacuum cleaners. The green line of Electrolux vacuum cleaners is made of 70% recycled plastic. These devices provide maximum effectiveness while being quiet and easy to operate and store – thus, they have everything that one could expect from the best vacuum cleaners. What is more, they are environmentally friendly. All models from Green series can be recycled in at least 92%. Packaging is also made from recycled materials and is 100% recyclable. Even the bags made from corn starch are environmentally friendly.

ELECTROLUX is the world's largest manufacturer of household appliances and professional equipment selling over 40 million products annually in over 150 countries. Based on in-depth consumer research, Electrolux's innovations are thoughtfully designed to satisfy the real needs of consumers and professionals. Electrolux products - refrigerators, dishwashers, washing machines, vacuum cleaners and cookers - are sold under such well-known brands such as Electrolux, AEG-Electrolux, Zanussi, Eureka and Frigidaire.

More information: **www.electrolux.pl**

H&M – *Garment Collecting Project*

H&M's vision of sustainability

H&M always strives to have the best customer offer in each and every market. This also means that H&M wants to be the more sustainable alternative for the increasing group of aware fashion customers worldwide.

All H&M's work for a more sustainable fashion future is called *Conscious*. The company's vision is that all H&M's activities are conducted in an economically, socially and environmentally sustainable manner.

6000 l

of water consumption is reduced by collecting 1 kg of used clothing

Saving resources through recycling collected garments

H&M Garment Collecting Project, first introduced in H&M stores on February 21st 2013, is perfectly in line with the *Conscious* initiative.

Every year tons of textiles end up in landfill. 95% of them could be used again: re-worn, reused or recycled.

H&M's aim is to find technical solutions to reuse and recycle textiles on a larger scale. In the long term, H&M wants to create a closed loop for textile fibers, where for example, fibers recovered from one cotton T-shirt can be used to produce another cotton T-shirt.

H&M is the first clothing brand which started garment collecting on a global scale, in stores worldwide. Any piece of clothing is accepted in stores, from any brand and in any condition. In return, the customer receives a discount voucher to be used with their next purchase. The collected clothes are then handled by our logistics partner, the I:Collect company, which is reprocessing it and making it available for new use. The status of the garment determines what happens next – re-wear, reuse, recycle and energy production are possible options.

Thanks to this initiative, customers can save natural resources and contribute to reduced environmental impact by limiting textile waste.

By collecting 1kg of used clothing, one can reduce:

- 3,6 kg of CO_2 emissions,
- 6000 l of water consumption,
- 0,3 kg of the use of fertilizers,
- 0,2 kg of the use of pesticides.

Each kilo of clothes matters

Any profits generated from the Project are donated to *H&M's Conscious Foundation*. Its purpose is to find technical solutions to create a closed loop for textile fibers. It also supports projects aimed to improve the lives and conditions of people in the countries where H&M operates.

Additionally, for each 1 kg of collected clothes 0,02 EUR is donated to charity – in our country it is UNICEF Poland.

On the 22nd of July 2013, H&M expanded the project to all stores in Poland.

Benefits from recycled clothes

H&M's stakeholders are very curious about H&M's *Garment Collecting Project*. The company receives a lot of questions about it, both in stores and via social media. The Project was promoted on various occasions such as shopping events, workshops for customers or showroom events for stylists and celebrities. The participants were given the possibility to bring their unwanted clothes to give them new life. The response was always positive, with a lot of people willing to find out more about our cause. It is a strong proof that stakeholders are more and more engaged in environmental issues and what H&M, as a market leader, does to secure the needs of future generations. The customers vote with their feet or in this case, more precisely – with the amount of unwanted garments they leave in stores. Over 38 tons of clothes have been collected just in our Polish stores which tells us that we took the right decision when we implemented the *H&M Garment Collecting Project*.

H&M's business concept is to offer fashion and quality at the best price. Founded in 1947, the company has grown into one of the world's leading fashion companies. H&M is guided by strong values, and sustainability is a key factor in its operations. Over 104 000 employees form a design-driven, creative and responsible global fashion company with a passion for fashion and an ambition to always exceed customer expectations.

More information: **www.hm.com**

IKEA wind farms

Investing in energy independence

IKEA aims to produce as much renewable energy as it consumes, in accordance with its *People & Planet Positive* sustainability strategy announced in 2012. This includes producing enough renewable energy to cover the needs of stores and other buildings belonging to the IKEA Group.

IKEA Retail Sp. z o.o. (owner of IKEA stores in Poland) currently owns three wind farms in Poland, all located in the Podkarpackie province.

EUR 1.5 billion

the amount which IKEA plans to invest in renewable energy worldwide

Wind farms and solar power towards IKEA sustainability

In 2013, the third newest IKEA wind farm in Poland was officially opened. It is the next important step towards sustainability for IKEA. By investing in renewable energy, the retailer can contribute to reducing CO_2 emissions from energy production. Another IKEA goal is the consistent reduction of the company's impact on the environment and better care the planet, so everyone can live a better everyday life.

Sustainability is an integral part of IKEA worldwide. One of the company's initiatives is sourcing renewable energy in order to reduce CO_2 emissions from buildings belonging to the IKEA Group. Apart from wind farms, IKEA has also been investing in solar panels in Poland. These panels are used to heat water in IKEA stores in Gdańsk, Kraków and Łódź. In addition, the store in Łódź, the new store in Wrocław and the distribution centre in Jarosty use ground heat exchangers in combination with heat pumps in order to heat or cool the buildings as necessary. According to its *People & Planet Positive* strategy, IKEA plans to invest EUR 1.5 billion in renewable energy worldwide.

Apart from investing in renewable energy, IKEA undertakes a wide range of activities aimed at reducing energy usage, both in the company's own buildings and in the houses of its customers, promoting energy-efficient products and solutions. This is helping everyone live more sustainably and simultaneously save on electricity. IKEA is in the process of exchanging all of the lighting in its buildings over to more environmentally friendly solutions, mostly LED diodes, and by 2016 it plans to have swapped all the bulbs and lamps which are sold over to LED. Aditionally, all household appliances offered by IKEA have an energy rating of class A or higher.

Benefits from investing in renewable energy

The 26-MW farm in Rymanów consists of 13 wind turbines and has the capacity to produce up to 61 GWh of energy annually. The other two farms, located near the towns of Bukowsko and Łęki Dukielskie, have the combined capacity of 28 MW and consist of a total of 14 wind turbines. All three wind farms together have a combined capacity of 54 MW and have the capacity to generate up to 135 GWh of energy annually. This is almost a third of all the energy requirements of the companies of the IKEA Group (including the industrial group) in Poland and 7% of the energy usage of the whole IKEA Group worldwide in fiscal year 2012.

IKEA is a home furnishing expert and innovator whose goal is to create a better everyday life for many people. IKEA is a reliable, financially stable and constantly developing company. The name IKEA is an acronym – an abbreviation made up of the first letters of the first name, surname and the names of the farm and parish from which the founder of IKEA comes from (Ingvar Kamprad Elmtaryd Agunnaryd). IKEA in Poland has eight stores, which in fiscal year 2012 were visited by over 19 million customers. Through its company Inter IKEA Centre Polska it has built and manages seven shopping centres and retail parks in Poland. The group has a Regional Distribution Centre in Jarosty near Piotrków Trybunalski, which serves IKEA stores in Poland, the Czech Republic, Slovakia, Romania, Bulgaria and Hungary. The Purchasing Office cooperates with furniture and home decorations producers in Central Europe and supplies these items to IKEA stores all over the world.

More information: **www.ikea.com /przyszlosc**

The LEGO Group - investment in wind energy as a way of balancing energy needs

Planet Promise – leave a positive impact in the world

Providing playful learning to children globally is what the LEGO Group aspires to do every day. The company believes that by inspiring and developing children's curiosity, creativity and imagination, a better value is created for both children and for society.

LEGO has defined four key promises as part of its company values and continues to innovate ways to advance actions on them. One of them is the *Planet Promise*, which is how the company aspires to leave a positive impact in the world. We have a responsibility to minimize the impact on the environment through operations and the products we manufacture. LEGO believes that there is an opportunity to make a difference by engaging with children on sustainability and responsibility issues, as they will be the builders of tomorrow. This approach has lead LEGO to take action on its energy supply and invest in wind power in order to balance our energy needs with 100% renewable energy in 2020.

Borkum Riffgrund 1 wind farm project

Starting in 2012 and over the next four years the LEGO Group's parent company KIRKBI A/S will invest approx. DKK 3bn (EUR 400m) in the construction of a new offshore wind farm off the German coast. KIRKBI A/S will own one third of the wind farm's production of electric power – equivalent to the output of more than 25 wind turbines – when the facility is completed in 2015.

The 77-turbine wind farm will be built as a joint venture by three Danish companies: DONG Energy, the Oticon Foundation via William Demant Invest, and KIRKBI A/S. It will be the biggest investment private Danish companies have ever made in a wind-energy project.

The company's goal is to generate enough renewable energy capacity to meet 100% of its energy needs by 2020. By investing in the wind-turbine project off the coast of Germany, the LEGO Group will be able to meet its target because the wind farm is expected to produce more electricity than the company's total electricity consumption up to and including 2020.

This massive investment in wind energy is not a one off event – it is an integral part of our overall ambition of making a positive impact on the world. We are on a journey, a never ending journey – but the investment in renewable energy is a huge step in the right direction, says Jørgen Vig Knudstorp, CEO of the LEGO Group.

2020

is the year when LEGO Group aims to balance its energy needs with 100% renewable energy resources

In addition to its investment in renewable energy, the LEGO Group is also investing resources in improving its energy efficiency in production by 2,5% per annum. In 2010 it succeeded in reducing – by 17% – the consumption of gas used for heating its premises at its Czech factory by reprogramming the thermostats. The reduction was achieved in spite of the fact that the factory during the period was expanded by the addition of an extra production hall and a doubling of office capacity.

There are other fields, too, in which the LEGO Group works toward making a positive impact on the environment. An objective is to continue to produce safe toys without product recalls, and by 2015 the company aims globally to be one of the 10 best employers in the world in terms of the best and most safe working environment. In addition, it is actively engaged in charity activities throughout the world through the LEGO Foundation.

THE LEGO GROUP was founded in 1932 by Ole Kirk Kristiansen. The company has passed from father to son and is now owned by Kjeld Kirk Kristiansen, a grandchild of the founder. It has come a long way over the past almost 80 years - from a small carpenter's workshop to a modern, global enterprise that is now, in terms of sales, the world's third-largest manufacturer of toys.

More information: **www.lego.com**

Radisson Blu – the three pillars of Responsible Business

CSR strategy in Radisson Blu

In the framework of the corporate social responsibility strategy of the Rezidor chain, economic, social, ethical and environmental aspects are taken into account on a daily basis by all Radisson Blu hotels in Poland, including Radisson Blu Hotel Kraków and hotels in Warsaw, Gdańsk, Szczecin and Wrocław.

The new CSR strategy, adopted for this purpose, has been built on three pillars, namely:

- *Think Planet* – reducing negative impact on the environment. This segment of activities is aimed at maximizing environmental protection. According to its guidelines, all hotels will have obtained certificates of sustainability by 2015, energy consumption will be reduced by 25% in 2012-2016 and the amount of waste, garbage and carbon dioxide produced will be kept to a minimum.
- *Think People* – taking responsibility for the health and safety of employees and guests. The objective of this segment is to care for the welfare and safety of employees, guests, visitors and those living in the neighbourhood of Radisson hotels in 70 countries in which the company operates. It also encompasses the aim of maintaining the level of employee satisfaction above 86% and increasing the number of hotels offering fair trade products to 50% by 2016.
- *Think Together* – respecting social and ethical issues in business and society. This means openness to local problems and supporting activities for local populations. In all of the chain's hotels, September is the *Responsible Business Month*, when actions in the field of CSR are intensified.

The background of all activities implemented within the CSR strategy is the awareness of the specific environment and social setting in which the company operates, and of its different problems. At the same time, guests and corporate partners tend to take CSR into account more and more often. This largely affects their efforts in this regard.

Benefits of implementing sustainable solutions

Constructing a CSR strategy on these three important pillars has made it possible for Radisson Blu to build its transparent image as a socially responsible company, involved in local issues and striving to minimize its impact on the environment. By doing so, Radisson meets the expectations of its guests and partners. Consequently, the brand is more frequently chosen by those looking for accommodation, a venue for a meeting or a conference and as a service provider. Commitment to CSR attracts the attention of media - Forbes magazine announced that Radisson Blu Hotel Kraków was the winner of the first edition of the *Leaders of Sustainable Development* competition.

up to 25%

of energy will be saved thanks to implementing CSR strategy

The use and the gradual extension of *Think Planet* solutions (such as: building management systems (BMS), use of energy saving bulbs, faucet aerators and water flow reducers, motion detectors in backrooms, dusk sensors outside the building, shutting out the floors or zones that are not used by guests, card power switches in rooms, minimizing the amount of waste generated in kitchens) contribute to real long-term electricity and water savings.

Six **RADISSON BLU** hotels operate in Poland - in Kraków, Wrocław, Szczecin, Gdańsk and two in Warsaw. There are more than 270 Radisson Blu hotels in over 70 countries around the world, and more are under construction. It is the world's fastest growing hotel chain. The size of the group does not prevent individual hotels from identifying with local communities and getting involved in local issues. Just the opposite: it has incited Radisson Blu hotels to become a conscious part of the communities in which they operate.

More information: **www.radissonblu.com**

Rockwool - *The Sixth Fuel* communication campaign

Energy savings as the sixth energy source

The Sixth Fuel campaign is a communication campaign aiming to increase awareness and understanding of energy efficiency in buildings. Apart from the five widely recognized energy sources (gas, oil, coal, renewables, nuclear), we point out the sixth one – energy savings, as an easily available, cost effective and eco-friendly alternative. The aim of the campaign is to understand energy efficiency and show the potential of energy saving in buildings (due to heating loss).

The campaign focuses on public opinion (via reports and PR activities), by targeting key decision makers (via seminars/conferences) and future experts responsible for the building sector (via educational cooperation with high schools and universities).

The campaign started in 2007. Its main goal was to raise awareness, that buildings account for a large portion of the energy consumed and that the building sector should play a key role in shaping energy policy. Reports prepared during the campaign, show that people think that the main energy consumption stems from electricity (light), while facts show that more than 70% of energy is consumed by heating. As most new buildings in Poland are single family houses, the campaign focuses on them, trying to show the connection between energy efficiency of building and costs of exploitations, as those arguments are more relevant to investors and can convince them to introduce changes, before the construction process starts. One of main targets is to create an understanding of energy consumption in buildings and its causes (heating loss due to poor insulated buildings, low energy efficient windows/doors and bad ventilation among other things).

By showing economic benefits of energy efficiency to potential investors, the campaign has arguments to support new, more strict building regulations in the area of energy efficiency. As the campaign continues, the second part is focused on education. Here, besides the public opinion, the key target group are students and pupils. The goal is to prepare them for market needs and educate them on ongoing trends and regulations in the construction sector.

Increasing awareness and decreasing the energy demand

During five years the campaign was able to increase the awareness regarding energy efficiency of buildings in all target groups. Investors and homeowners started to look into energy performance of buildings during the designing process, which allowed to reduce energy consumption and costs with just small adjustments. Also, despite no changes in building regulations during that period, the average energy demand (for energy used) for single family house holds was decreased by 10-12%. It also affected the building market – increasing the demand for technologies that reduce energy and heating loss (insulation, windows, doors). The thickness of insulation for external walls increased from average 10 cm to 12 cm during 4 years.

more than 2000

publications were issued about the campaign as well as energy efficiency and energy savings

The first stage of the campaign resulted in more than 2000 publications (both press and internet) about the campaign as well as energy efficiency and energy savings. Single family houses have been seen as potential targets for emission reduction by governmental agencies (*National Fund for Environmental Protection and Water Management*), and funding for energy efficient buildings has been established.

Research confirmed that awareness regarding energy efficiency and its causes is spreading. During research in 2013 respondents indicated that heating is responsible for 20% of energy consumption (in previous researches most respondents indicated heating as source of energy consumption on levels lower than 20%). Awareness however, is still too low.

Additionally, the campaign was awarded with the Green Apple Award, which recognises and promotes environmental best practices around the World.

ROCKWOOL POLSKA Sp. z o.o., part of the ROCKWOOL Group - the world leader producer of stone wool – is supplier of products, systems and solutions for improving energy efficiency, acoustic and fire safety in buildings. ROCKWOOL manufactures a variety of products made of stone wool used for thermal, acoustic and fire safe insulation in residential and nonresidential buildings and technical installations. All products of ROCKWOOL stone wool are excellent thermal insulation and improve their acoustics, while non-combustible, increase the fire resistance of buildings.

More information: **ww.rockwool.pl**

Ruukki - energy-efficient steel solutions for better living, working and moving

Innovative solutions

Energy efficiency is an integrated part of products and innovations in Ruukki. The company is developing concepts for low and zero energy office building structures and building technology. Products and components save energy or utilize renewable energy. For the construction industry, Ruukki offers advanced steel-based solutions that increase a lifetime efficiency of industrial, commercial, agricultural or office buildings, these are:

- *Ruukki® energy panel system* - air-tight building envelope consisting of energy panels, a complete set of accessories as well as an integrated window system. Ruukki® energy panel system allows saving up to 35% in heating costs comparing to traditional structures. Reduced energy consumption means also lower CO_2 emissions. The system is provided with air-tightness guarantee ensuring that the required air leakage rate is achieved or a customer gets his money back. Additionally, special energy simulations provide an overall view of a building's total energy consumption and help in optimising the building's energy efficiency and identifying the most critical factors affecting it. Energy panels are installed by Ruukki's certified partners.
- *Ruukki Liberta™ solar system* - solar facade developed by Ruukki is a fully integrated photovoltaic system converting sun rays into energy. This system consists of solar modules with a PV laminate, which can be easily combined together. Invisible cabling and slim 8-mm seams create a fully-glazed façade that gives a building a modern architectural look. Ruukki Liberta™ solar is an excellent way to use building surface for energy production, especially in a compact city space with little ground space available. The most important aspect of a solar facade is its ecological sustainability.
- *Ruukki® solar panel* - another example of Ruukki's response to the growing interest in renewable energy is a solar panel constituting an add-on system fixed onto Ruukki energy panel system to convert sunlight into electricity in a cost efficient way. Ruukki® solar panel is a complete installation package, including all needed components from the solar modules to the inverter, containing a set of 14 solar modules made of profiled steel sheets with integrated PV-laminates. Modules are installed directly onto Ruukki sandwich panel facings with self-drilling screws.

up to 35%

can be saved in heating costs thanks to Ruukki® energy panel system

Strenghtening the international position through energy efficiency

Ruukki sees the energy efficiency as a business opportunity to strengthen the market position in the Nordic and Baltic countries, Russia, Central and Eastern Europe and elsewhere in Europe. The company optimizes both short- and long-term building investments by ensuring that everything we offer aims at energy efficiency. Ruukki is involved during the entire lifecycle of the building from the construction and design phase until reusing or recycling the steel material.

Energy and cost savings

Ruukki solutions provide measurable energy and cost savings by decreasing the amount of traditional energy needed to heat or cool the buildings. The use of advanced energy-efficient technologies helps to obtain LEED and BREEAM credits and thus increases the property value. Focus on energy efficiency allows developers, investors and property owners to meet or even exceed the increasingly stricter energy requirements and regulations. Promoting sustainable construction and offer solutions helps Ruukki to minimise environmental footprint.

RUUKKI specialises in steel and steel construction. We provide customers with energy-efficient steel solutions for better living, working and moving. We have around 9 000 employees and an extensive distribution and dealer network across some 30 countries including the Nordic countries, Russia and elsewhere in Europe and the emerging markets, such as India, China and South America. Net sales in 2012 totaled €2.8 billion. The company's share is quoted on NASDAQ OMX Helsinki (Rautaruukki Oyj: RTRKS).

More information: **www.ruukki.pl**

Stena Recycling – STENA EkoStacja, the first recycling station for Warsaw residents

The role of innovative recycling

Stena Recycling is a leading recycling company offering total waste management and recycling solutions as well as environmental services for industry and business. As an expert in the area of environment and waste management the company recognizes its role in environmental education: to fulfill the vision to change the way people live and work in Poland through innovative recycling.

500 tons

of recyclables were delivered to the EkoStacja during the last 10 months

The idea behind EkoStacja

Each Varsovian produces, on average, 320 kg of waste per year, of which at least 80% can be recycled! With increasing environmental awareness more and more people are looking for opportunities to sort and dispose waste for recycling. Lack of proper infrastructure does not encourage inhabitants in these endeavors. This is the reason why Stena decided to set up STENA EkoStacja – the first recycling station in Warsaw. Stena Recyclings investment enables residents of Warsaw and neighbouring areas to recycle or properly utilize over 40 types of waste. All raw materials (PET bottles, cans, waste paper), electronic waste (RTV and white goods, telephones, fluorescent lamps, computers) and large-sized waste (furniture, scrap metal, tires) as well as hazardous waste (toners, batteries, accumulators, aerosols) can be delivered to the facility free of charge and will be recycled or processed in compliance with applicable standards and principles. Unwanted clothes handed over by people are passed on to the Polish Red Cross.

The investment in infrastructure is complemented by an education program. In a specially designed showroom located at STENA EkoStacja, the concept of recycling is being explained through specific examples. In cooperation with IKEA, simple ideas for environmental-friendly solutions at home are presented as well. The idea is to inspire everyone to develop a more sustainable lifestyle through better management of resources e.g. by correct waste segregation or use of recycled materials or energy saving LED light bulbs. To encourage kids to recycle Stena developed a web based application: a Recycle Drop Game that they can play online as well as during their visits in Stena's recycling station.

STENA EkoStacja has been created by using the best Scandinavian experience in organizing and maintaining waste collection points. It is a simple solution which to a great extent will affect society. The station is under the patronage of Staffan Herrström, the Ambassador of Sweden.

Benefits from introduced solutions and growing awareness

Varsovians show that they can and want to care for the environment. In November 2013 the twenty 20 000 visit was recorded at STENA EkoStacja since it was first opened in June a year ago. Dynamic increase in the number of visits is observed every month. The record was broken in August when an average of 70 visitors per day visited the EkoStacja! During the last 10 months Stena has collected over 500 tons of recyclables that were delivered to the EkoStacja.

STENA RECYCLING, which operates within Stena Recycling International, is a part of the Stena Metall Group, a leading company offering total waste management and recycling solutions as well as environmental services. Stena collects and processes all types of waste: paper, plastics, ferrous and non-ferrous scrap and hazardous waste. It is Europe's leading recycler of electronics. Stena Recycling has been operating in Poland since 2001 and now has 21 local offices in the country. Each year it recycles seven hundred thousand tons of waste generated in industries. In 2012 Stena Recycling established the first recycling station in Warsaw – STENA EkoStacja, which was awarded in the Report of Responsible Business in Poland.

More information: **www.stenarecycling.pl, www.stenaekostacja.pl**

Tetra Pak - forestry and FSC®

Cooperation between Tetra Pak, FSC® and WWF

Tetra Pak®, as a manufacturer of packaging solutions for liquid food, which are primarily based on wood fibres, has chosen the FSC® certificate (*Forest Stewardship Council*, a global, not-for-profit organization dedicated to the promotion of responsible forest management worldwide). The FSC® certificate guarantees that paper used by Tetra Pak comes from certified and responsibly managed forests.

By participating in WWF's *Climate Savers* project, Tetra Pak set a goal to reduce carbon emissions by 10% in 2010, compared to year 2005, despite increased production. Through energy efficiency and increased use of renewable energy resources, Tetra Pak reduced carbon emissions by 12,9% in the years 2005-2010, hence exceeding the target. During the same period, the company's production grew by over 23%. The next step is to maintain the emission in 2020 on the same levels as in 2010 while production increases with 5% annually.

Campaign *Plant a tree with good purchase*

In 2006, in order to prove its commitment to protecting the environment, Tetra Pak® initiated a tree-planting action in Polish national parks. The next step was the involvement of Internet users in the process. The mechanism was simple: on the portal *Plant a tree with good purchase* anyone could plant a virtual tree and watch it grow. For every virtual tree created Tetra Pak committed to plant a real one. Consequently, nearly 600 000 trees have been planted in the Wielkopolski, Kampinoski, Bieszczadzki, Ojcowski National Park and in the Stołowe Mountains National Park.

Importantly, trees were planted according to the principles of sustainable development, taking into account the current needs of local ecosystems, where it was necessary and in accordance with the plans of the Polish National Parks.

Each edition of the *Plant a tree...* action is accompanied with a competition aimed at school children and Internet users, allowing them to understand complex environmental issues in a fun and accessible manner.

In June 2013, Tetra Pak in cooperation with the FSC® Poland and the WWF Poland Foundation launched a contest *Gadgets for the Planet* for those interested in ecology and design. The aim of the contest was promoting the FSC® and extending the knowledge on forest protection through right consumer choices. Contestants were to design a fashionable eco-gadget that could be used to promote the idea of FSC among eco-conscious Internet users.

600 000

trees were planted in national parks thanks to *Plant a tree with good purchase* campaign

The new edition of *Plant a tree...* project is not just a competition, but first and foremost a source of knowledge about the concepts and principles of FSC, responsible forest management and tips and recommendation on how each of us can protect what is most precious in nature through making the right choices.

Results of the campaign

Since when the Internet users were involved in the tree planting action (March 2010), approximately 150 000 virtual trees have been put in place. The page has been visited by 1.5 million individuals, which accounts for over 4 million visits. The daily record of 76 940 visits is truly impressive for a CSR campaign. An average time spent on the site is 3.5 minutes; six sub-pages per visit are accessed on average. The campaign had 14 000 fans on Facebook.

TETRA PAK is the world's leading food processing and packaging solutions company. Working closely with customers and suppliers, the company provides safe, innovative and environmentally sound products that each day meet the needs of hundreds of millions of people in more than 170 countries around the world. With more than 23 000 employees based in over 85 countries, Tetra Pak believes in responsible industry leadership and a sustainable approach to business. The company's motto, "PROTECTS WHAT'S GOOD™", reflects its vision to make food safe and available everywhere.

More information: **www.tetrapak.com**

TransCargo – measures to reduce the impact on the environment and CO_2 emissions

Plan to reduce CO_2 emissions and *Plan to reduce the impact on the environment*

TransCargo is a responsible member of the community. As a reliable logistics operator, but also an ethical and environmentally-friendly business partner, the company has developed a *Plan to reduce CO_2 emissions* for its leading carriers and a *Plan to reduce the impact on the environment*. The company has applied the principle of small steps in the development of these plans: through raising environmental awareness among its employees, TransCargo also contributes to a change of attitudes in local communities. These plans form a comprehensive approach, allowing the company to become involved in a number of measures, such as:

- *Electronic waste* project, which is a monthly collection of used fluorescent lamps, batteries and electrical and electronic equipment from the households of the company's employees (in 2014, the project shall also involve the collection of waste from members of the local community). In addition, the company also conducts training on environmental awareness (selective waste collection, sustainable printing, reducing energy and water consumption).
- Inspections of subcontractors - new carriers are obliged to fill in a form relating to a variety of issues, including the sustainability of the rolling stock and the company itself. Major contractors are audited once every 12 months in order to monitor progress and introduce possible remedial actions. The aim of these audits is not only to identify non-compliance, but also to encourage and promote pro-environmental actions. A contractor who is assessed as potentially highly damaging to the environment and to the health or safety of its employees cannot become the company's subcontractor.
- Involvement of the leading carriers in the plan to reduce CO_2 emissions and the joint definition of objectives for the years to come in order to reduce carbon emissions.

30%

less paper is used through double-sided printing at TransCargo

Real benefits of the actions taken

TransCargo is perceived as a company that cares about the environment. Following the implementation of the plan to reduce CO_2 emissions, leading carriers have been using less fuel and reduced their direct costs. The tangible benefits of the introduced plan include reduced consumption of paper and energy, as well as the space for documentation archiving. Statistical data indicates that the company has reduced its paper consumption by 30% through double-sided printing, which has also contributed to reducing the cost of office supplies. The policy pursued by the company has also resulted in raising the environmental awareness of its employees who, in addition to environmentally sustainable work practices, have introduced new, eco-conscious habits into their private life.

TRANSCARGO is a Danish logistics provider operating in the sector of road transport. It has been present on the Polish market since 1997 and employs more than 100 forwarding specialists. The company specializes in transport between Scandinavia and Poland (groupage cargo, part loads, full loads, refrigerated cargo). TransCargo's fleet includes 400 vehicles and dozens of selected subcontractors.

More information: **www.transcargo.pl**

Velux – new pallet-free handling system CUBE

Eco-friendly, efficient and effective

For many years, VELUX has pursued a policy of protecting the environment and investing in environmental solutions. Responsibility for the environment is firmly anchored in VELUX's values and its ambition of being a model company. The CUBE System is one of the attempts at increasing production efficiency and reducing CO_2 emissions in the VELUX Group, as well as a manner in which to ensure the best use of resources in terms of energy consumption and use of raw materials.

CUBE is an eco-friendly, pallet-free packaging and transportation system by VELUX. It is based on a simple idea of changing the way how windows are packed. Instead of stacking windows on pallets, they are glued with a special water-based agent and wrapped together in units of 7 or 14. A stack of windows takes the shape of a stable cube, hence its name.

Multidimensional benefits thanks to CUBE

The main measure of advantages of the environmentally friendly CUBE packaging system is the reduction of CO_2 emissions during transportation, fuel savings and reduction in the number of transports. Storage area savings in VELUX plants and vehicles transporting windows are also taken into account, just as the amount of wood needed for the production of wooden pallets and reduced resources required to manage them.

The CUBE system allows more windows to be carried in one transport unit than it would be possible if wooden pallets were used. This translates into fuel savings and thus the reduction of CO_2 emissions. It has significant consequences for the environment, as in the space of one year, the total number of kilometres travelled is reduced by about 2.5 million. The equivalent of 800 000 litres of oil are saved in the process of transporting finished products to customers and returning the pallets back to the factory. This means reducing CO_2 emissions by 2 000 tonnes per year in Europe alone.

2.5 million

kilometres reduced annually in transport thanks to CUBE system

In addition, the risk of damaging finished products is reduced, as they do not need to be manually packed. Health and safety issues have been addressed, because fewer live skids are needed to handle the cubes.

THE VELUX GROUP, which has manufacturing companies in 11 countries and sales companies in just under 40, represents one of the strongest brands in the global building materials sector and its products are sold in most parts of the world. VELUX manufactures a wide range of roof windows and skylights, along with solutions for flat roofs. In Poland, three factories and a trading company employ a total of over 1 520 people.

More information: **www.velux.pl**

Volvo Trucks – *The Drivers' Fuel Challenge*

Commitment to environmental protection

Volvo Trucks attaches great importance to the issue of fuel economy as a manner in which to significant savings can be made for both customers and the environment. This is why Volvo Trucks is continuously developing new products and services aimed at fuel savings. Under the slogan *Every drop counts*, the company keeps looking for new ways in which to make its vehicles more economical and friendly to the environment. The commitment to environmental protection is not limited to trucks. The manufacturing process is an equally important aspect of running a sustainable business. The companys' ultimate goal is to ensure that the entire production process, from factories to dealers, is sustainable. Volvo Trucks is the first company to have built a factory that is neutral in terms of CO_2 emissions and its paint workshop in Umeå boasts the lowest level of solvent emissions into the atmosphere. The company is also working on ways in which to reduce CO_2 emissions of its dealers. Over the next few years, Volvo Trucks aims to take these actions to a global level and to ensure maximum sustainability of the production process.

The Drivers' Fuel Challenge – encouraging drivers to drive economically

Regardless of the level of technological advancement of a vehicle, the driver has a major impact on fuel consumption - only the driver is able to make the best use of the vehicle's capacities and of every drop of fuel. Given that nothing motivates one more to achieve good results than a competition, since 2011 Volvo Trucks has been running a contest: *the Drivers' Fuel Challenge*. Its first edition was international. Over the two consecutive years, it was pursued in the Central and Eastern European market of Volvo Trucks. The competition is open to all professional drivers, regardless of their age and the tape of vehicle that they drive on a daily basis.

3200

drivers took part in the Volvo Trucks *Drivers' Fuel Challenge* in 2013

The objective of the competition is to highlight the role of the driver in the fuel efficiency of road transport. The challenge consists of driving in the most economical manner and the winner is the driver with the lowest fuel consumption over a specific distance and period of time. The lowest average fuel consumption is rewarded with a Volvo V40.

The enormous interest generated by Volvo Trucks' initiative is best reflected in the number of participants. This year, 3 200 drivers from the entire CEE Market, including 764 Polish drivers, participated in the contest. It has transpired that Poles set new trends also in this domain. In 2012, the winner of the competition in the CEE market was Paweł Ozimek from EPO-Trans S.A., with fuel consumption level of 22.2l/100 km. This year's Polish champion of economical driving, Stanisław Mierzejewski, ranked third in the CEE finals.

VOLVO TRUCKS is part of the Volvo Group, one of the world's leading manufacturers of trucks, buses, construction equipment, as well as marine and stationary power systems. The Volvo Group also provides comprehensive financing and servicing solutions. Volvo's core values are quality, safety and respect for the environment.

More information: **www.volvotrucks.com**

III. Information about the partners of the project

The Scandinavian-Polish Chamber of Commerce (SPCC) is one of the biggest bilateral chambers in Poland. Currently, it has close to 350 members. SPCC is an association established by and for business people having links to Scandinavia or interest in this region. The main office is located in Warsaw, and regional representatives are active in Poznań, Tricity, Kraków, Szczecin and Wrocław. SPCC offers its members a wide range of activities, such as networking business mixers, seminars, thematic branch committees, conferences and breakfast meetings with renowned personalities from the world of politics and economy. Membership in SPCC offers not only networking opportunities with an elite group of high-performing managers of Nordic companies, but is also a way of finding inspiration for everyone who would like to expand their own business. In 2014, SPCC celebrates its 10 year anniversary.

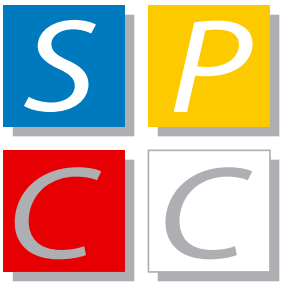
PwC is a leading global organization providing professional consulting services based on the knowledge of over 169 000 employees in 158 countries. We build relationships with customers by providing a full range of fiscal and legal consultancy, business consultancy and audit services. PwC employs both sector teams and teams specializing in particular types of services. The final composition of the team of experts involved in the development of tailor-made solutions for a company depends on the client's individual needs. Interdisciplinary teams set up in this manner approach each issue thoroughly and comprehensively.

Consultancy in the field of sustainable development and corporate responsibility is an important element of PwC's range of services. It is provided by the network of 1 000 Polish and foreign experts who have over 20 years' experience in this domain.

Innovation is another important area in which PwC supports its clients. Our company has participated in a great number of projects aimed at creating product and service development strategies. Regardless of the sector and scope of the service provided, we are always pleased to see the success of solutions that we have work out together with our clients.

Fortum is a Finnish energy company – one of the largest generators and distributors of electricity in Nordic states. It is also the fourth largest generator of heat in the world. Apart from Finland, Sweden and Norway, the company's investments are also located in Baltic States, Poland and Russia. Fortum's investments combine the improvement of the energy efficiency with the reduction of the emissions of harmful substances. In Poland Fortum is one of the leaders in the CPH sector and employs nearly 700 people, mainly at its 7 sites all over the country. Belonging to the company CHP in Częstochowa is one of the most modern plants of this type in this part of Europe. Apart for generation of electricity and heat at high efficiency sources, Fortum also deals with distribution of heat. The total lengths the company's district heating grids in Poland exceeds 700 kilometres.

Skanska Property Poland is an innovative developer of green office buildings which create friendly environment for business growth. The company has been operating in Poland since 1997 and is part of the Skanska Group, world leader in project development and construction. The projects of Skanska Property Poland offer top-quality office space at great locations, which ensures success and satisfaction of tenants. The investments completed by the company include the first office buildings in Poland awarded the EU GreenBuilding certificate: Deloitte House and Marynarska Point in Warsaw and Grunwaldzki Center in Wrocław. All the investments of Skanska Property Poland will undergo both EU GreenBuilding and LEED certification processes confirming their compliance with the principles of sustainable development, optimal energy consumption and friendly work environment.



SPCC PATRONS:

ARPI Group Outsourcing Solutions

DNB

Danske Bank

descom

ELTEL networks

ERICSSON

GREENCARRIER

Handelsbanken

Nordea

onninen

OpusCapita

Radisson BLU CENTRUM HOTEL, WARSAW

SEB

VOLVO Volvo Trucks