

PIPELIFE *inside*

Sustainability & CSR

March 2013

Sustainability results 2012

TEPPFA EPD Road Show

NOS: Cooling with sea water

DEB: Energy Management System

CompoSys degradable pipe

CZO: CO₂ emission certificate

ATI: First electrical car, CSR news

NLE: CSR performance ladder



Editorial

At the end of their service life, plastics are still a much too valuable resource to be simply thrown away. They can be recycled back into their original form or a new article and where this is not possible used for energy recovery as a substitute for virgin fossil fuels.

As part of TEPPFA and Vinyl+, we at Pipelife have committed ourselves to meet the challenge of sustainable development, using recycled material as being an important element of this. TEPPFA has set two main targets for its members till 2020:

- 5% reduction in energy consumption
- usage of a total of 120.000 tons of recycled material

As can be seen from the 2012 environmental results shown on the next page, we are already on the right track. Compared to 2011, on Group level we could significantly increase the share of recycled material used in our production. Some Pipelife companies are already very successful in sourcing and using recycled material, whereby other companies still need to find the right approach. One thing is important to be mentioned: despite our desire to increase the share of recycled materials, we will only use such material where applicable and certainly will not make any compromise on the quality of your products.

Target for the years to come is - by sharing best practices - to implement a successful and sustainable process of purchasing and processing recycled material in all Pipelife production companies.

Next to recycling, we also could record a positive development in other environmental categories, especially to mention that already more than 1/5 of our consumed electricity comes from renewable sources. The details you can find on the following page as well.

We would have no idea on our environmental performance without the input from every single Pipelife company. We have asked for a lot of environmental data in the past weeks, it took some effort for you to submit, so now it is really time to finally say THANK YOU for your cooperation. Your input is also key for the development of our first sustainability report.

Apart from improving our environmental performance every day, another topic where Pipelife is also fully involved in and dedicated to is the development and promotion of the Environmental Product Declarations (EPD) within TEPPFA, illustrating the environmental advantages of plastic pipe systems compared to traditional materials. 19 EPDs in the areas of Sewerage, Water Pressure, Soil&Waste and Heating&Plumbing have already been finished and will be promoted in a TEPPFA road show throughout Europe this summer. This road show is an internal training for sales personnel like sales or product managers of the TEPPFA companies. We would recommend and appreciate your participation. Check the dates on page 4. In addition, more EPDs are to be finished still this year.

And finally I would like to renew my appeal to all of you: if you have interesting news, facts, questions or comments regarding sustainability & CSR, please don't hesitate and contact me.

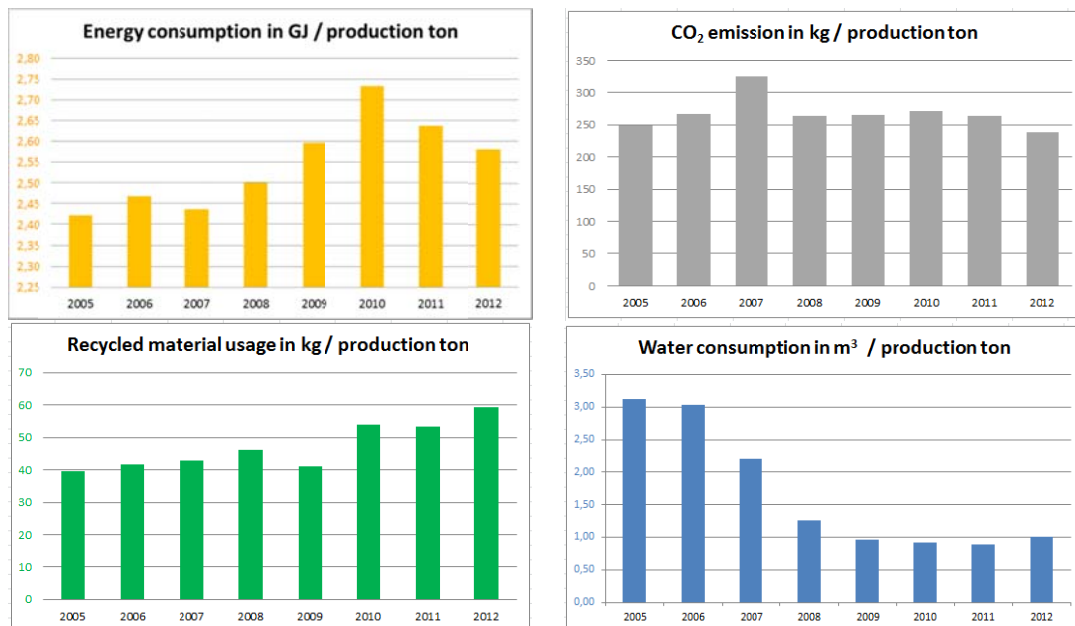
Oliver

Sustainability results 2012

As every year, in February/March it is always time to wrap-up our Group environmental performance of the previous year. And overall I can proudly announce that in most of the categories we have further improved. Only our water consumption we could not decrease, but unfortunately even increased.

Thanks to the effort of all of you, on Group level we managed to reduce our relative energy consumption by 2,2% to 2,58GJ/ton production. This saving in energy also positively influenced our carbon footprint. We could reduce our CO₂ emissions by 9,8% to 239kg/ton production. The biggest improvement we could achieve in our usage of recycled materials, where we recorded an increase of 11,3% to 59,4 kg/ton produced. In the area of water consumption we need to report an increase by 13,7%, which represents one m³ water use for every ton produced

Overall good performance



more than 20% of our Group electricity consumption comes from renewable sources

The reasons for the increased water consumption have immediately been analyzed and it turned out that this is partly caused by changes in the product mix (Polyolefins need more water than PVC), partly by one-time events, like leakage of the cooling system, and partly by limited cooling capacity of existing cooling systems, resulting in the need for an increased addition of fresh water. Measures have been taken to increase cooling capacity where needed and to avoid leakages as much as possible in the future.

Reasons for increased water consumption identified

In 2010, the Pipeline management has set environmental targets for 2015 in these 4 categories. Due to the good performance in the usage of recycled materials last year, we could already now realize our 2015 target. Nevertheless we will keep our efforts high to further increase the usage of recycled materials.

Targets 2015

	Energy use	CO ₂ emissions	Usage of recycled material	Water consumption
Target 2015 / ton production	2,2 GJ	214 kg	60kg	0,85 m ³

Pipelife Germany: Certification of Energy Management System

In the course of a certification audit, the SKZ Cert GmbH has confirmed Pipelife Germany's successful introduction of its Energy Management System according to DIN EN ISO 50001:2011.

DIN EN ISO 50001:2011

This standard specifies the requirements for establishing, implementing, maintaining and improving an energy management system, whose purpose is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy security, energy use and consumption. The standard aims to help organizations to continually reduce their energy use, and therefore their energy costs and their greenhouse gas emissions.

The standard has been released in June 2011 and from that moment it was clear to Pipelife Germany (DEB) that this standard has to be implemented.

For DEB, reduction of its environmental impact is already on the agenda for several years. But it became time for a more structured approach that enabled Pipelife Germany to coordinate record and review related activities.

Michael Bodmann,
General Manager DEB,
and **Thorsten Keitel,** Plant
Manager, proudly present
the awarded certification



Teppfa Road Show

TEPPFA ROAD SHOW dates

27.05.: Spain: Madrid (in Spanish language)

18.06.: Germany, Frankfurt for AT, DE, CH (in German language)

11.06.: Stockholm for SE, NO and FI (in English language)

dates for France, Poland and Benelux to be announced

for more information pls contact: oliver.bannert@pipelife.com

Sea water for cooling at Pipelife Norway

Protection of the environment and its natural resources has always been in focus at Pipelife in Norway. In order to limit the water consumption to the absolute minimum, already more than 25 years ago, it has been decided to cool the internal water loop by heat exchanging to sea water.

A heat exchanger is a piece of equipment built for efficient heat transfer from one medium (usually fluids) to another. The fluids shall be separated by a solid wall, so that they never mix, or they may be in direct contact. For efficiency, heat exchangers are designed to maximize the surface area of the wall between the two fluids, while minimizing resistance to fluid flow through the exchanger.

In Norway, the sea water is collected at depth of approx. 30 m. The temperature is usually 5°C - 8°C. But during August to November the temperature is rising up to 15°C. During this period it was necessary to add water from the community, to have low temperature on the inlet side of the heat exchanger. Also, when the system has been installed in the basement of the factory in 1987, the produced tonnage was considerably lower than today.

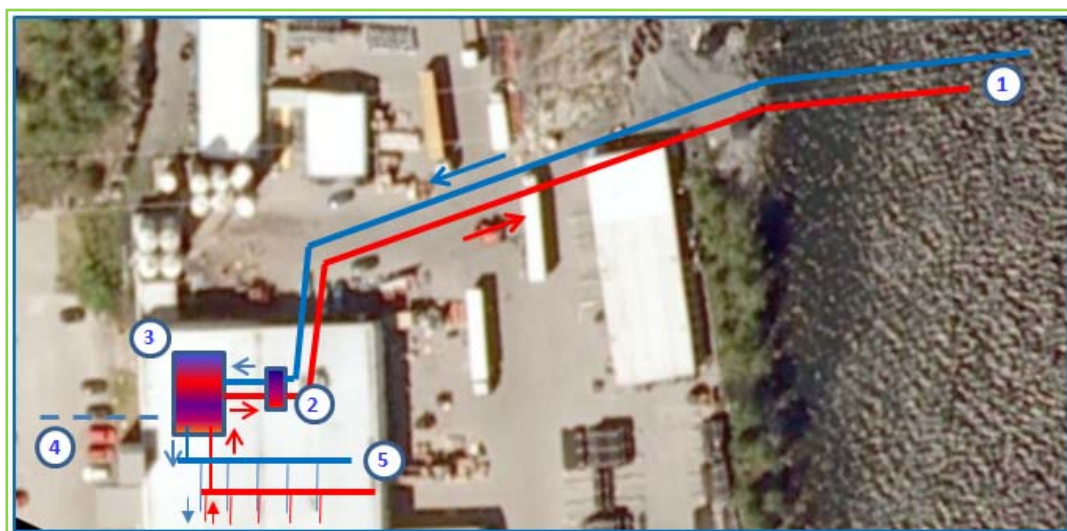
The significant increase in production volume over the past years, as well as especially also the recent installation of the Ø2500 production line, requires a much higher cooling capacity to ensure proper functionality of the production lines. This on intermediate basis has been solved by adding fresh cooling water to the system, which obviously has increased Pipelife Norway's overall water consumption.

As this was not in line with their sustainability understanding, Pipelife Norway decided to invest into a second heat exchanger. This new exchanger has been installed in late November 2012, and Pipelife Norway expect a considerably reduction in the community water consumption again.

Heat Exchanger

Need for more cooling capacity

New heat exchanger



- ❶ Seawater inlet/outlet located at different depths. Circulation direction can be changed depending on temperature profile in the sea water.
- ❷ New heat exchanger with increased capacity
- ❸ Water reservoir
- ❹ Supply from community
- ❺ Water to / from extrusion lines

Fully degradable Drainage Pipe "CompoSys"

Sustainable design is geared to the cycles of nature and aims to conserve it and its natural resources. Life cycle thinking changes from "cradle to grave" to "cradle to cradle". Products are developed and designed that at the end of their useful life they do not need to end up at landfills, but can be re-used - in whatever form. Mother Nature provides us with many examples here.

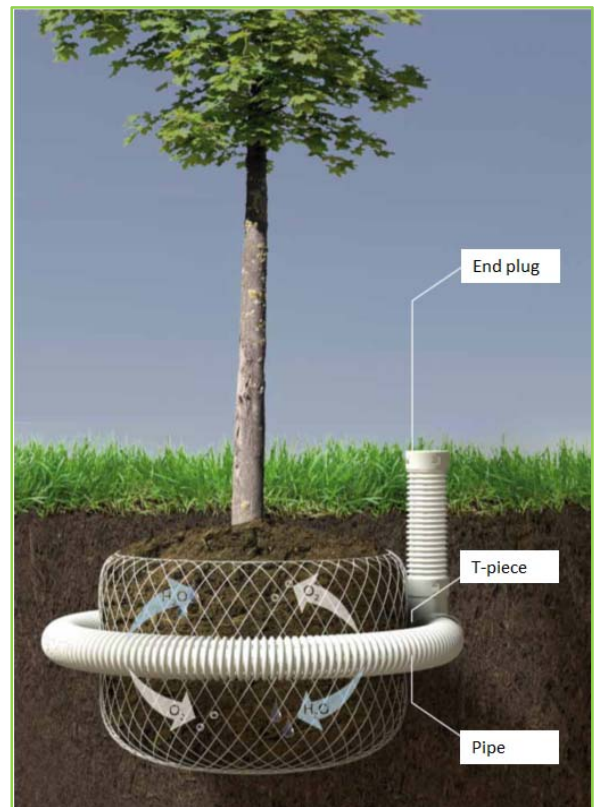


"Nature is an excellent teacher. With our new CompoSys product group we could prove that products, tree protection and sustainability can be perfectly aligned", Jürgen Staratzke, Sales Manager, DEB

Pipelife Germany (DEB) has learnt a lesson from these principles and has decided to include such aspects also in its new product developments, resulting in the introduction of the first fully degradable air venting and irrigation pipe, called CompoSys. This white pipe is made from potato starch and the plastic material Polylactide (PLA), which is based on lactic acid. Due to this material composition, the pipe and all its components fully degrade – depending on the soil conditions – in a period from 3- 5 years and serves then again as nutrient for the tree.

CompoSys is mainly used to vent newly planted trees. It ensures permanent oxygen and air supply to the tree's roots and also enables the necessary exchange of gases. The pipe is buried and wrapped around the bale of the young tree. A vertical pipe is connected by means of a T-piece. The vertical pipe is plugged to prevent intrusion of leaves or mud. In sandy conditions, the pipes are wrapped with coconut fibers to prevent it from clogging.

If required, the tree can also be watered selectively via the pipe system, directly down to the bottom of the bale. This is important, as the roots shall orient themselves downwards as early as possible and too high installed watering systems might lead to an upward orientation of the roots.



For one tree, approx. 3-5 meters of pipe are used. Summarizing, CompoSys offers the following advantages:

- tree friendliness: adapts to the roots of the tree and leads off sludge gases
- eco-friendly: 100% degradable, harmless to flora and fauna and human health
- efficient: maximum water absorption, oxygen permeability
- economical: flexible pipe, quick installation, no need to dig out the pipe

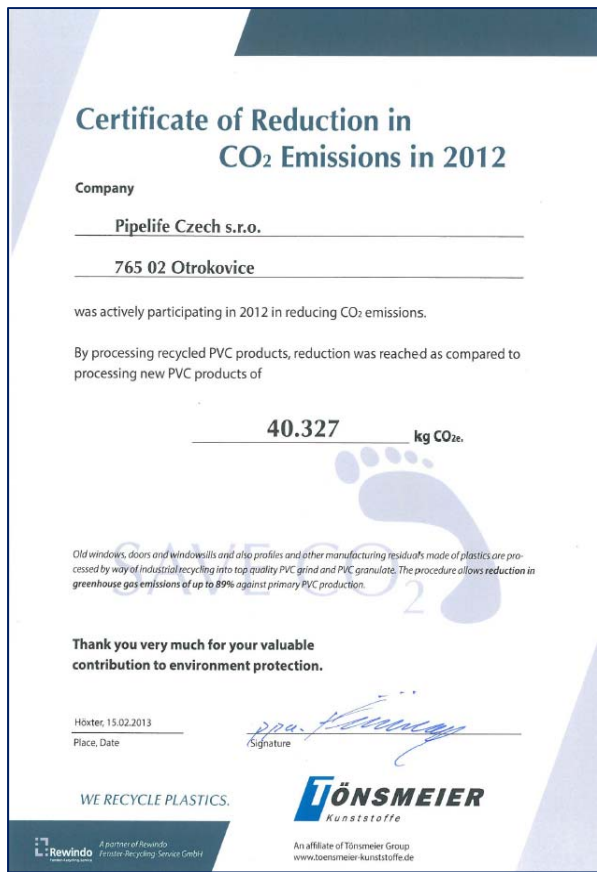
Pipelife Czech: Certificate on reduction of CO₂ emissions

Increasing the usage of recycled material is ranking high on our agenda. All Pipelife companies shall try to maximize the usage of recycled materials, not only for cost saving reasons, but also for lowering the environmental impact of our production, thus keeping the high quality of products.

Use of recycled material is of high importance

Currently, recycling of PVC is more common than of Polyolefins and availability has a higher chance. Although, PVC recycled material can come from various sources, like old windows, doors

and windowsills, as well as from profiles and other manufacturing residuals made of plastics, it is still very challenging to obtain the needed quantities in the required quality form the market.



That by using recycled material we can effectively reduce our Carbon Footprint has now been made official: mid of February 2013, Pipelife Czech (CZO) has been awarded a “Certificate of Reduction in CO₂ emissions” for the year 2012. This certificate has been issued by Tönsmeier Kunststoffe, the supplier of recycled PVC material for Pipelife Czech.

Reduction of Carbon Footprint

To put the saving into a more understandable perspective: the CO₂ savings achieved at CZO equal a ride of 244.000km with an standard personnel car. (source: www.oeamtc.at).

“By using recycled materials we can cover two important issues at once: economic benefits through cost saving and environmental protection through reduction of our CO₂ emissions. In the coming years we will continue to increase the share of recycled materials to further maximize these two effects” states Slavo Susor, GM Pipelife Czech.

The Czech example shall motivate all of us to increase the share of recycled materials. And looking to the environmental key figures shown on page 3, we are definitely on the right track. But the good result shall not lead us to sit back and relax, despite the fact that our 2015 target is already achieved. We will continue to increase our share of recycled materials.

First electrical car at Pipelife R&D / technical department

Environmental protection in all areas

When it comes to the protection of our environment, not only in our production facilities we are intensively working on limiting our impacts as much as possible, but throughout all departments and organizations we show the willingness to reduce negative consequences of our work. This is not only valid for everything that happens within the Pipelife premises, but such attitude also accompanies us outside the working areas.

One of our former R&D colleagues, now technical manager Region West/Nordic, Nikos Leon-taridis, has made a clear statement. For the sake of the environment, he decided to select an electrical car as his individual means of transport.

Next to the conventional engine his car can also drive on electric power, supplied from an integrated 16 kWh lithium-ion battery. On battery, the car can drive up to 80km without using any fuel. Loading the battery is very simple: it is automatically charged when driving on fuel power, but can alternatively also be charged via cable, plugged to an electricity source. The benefits of such a car are easy to be explained:

- about one-fifth of the fuel costs of a conventional petrol-driven car: 1,27 / 100km
- only 27 g/km CO₂ emissions when battery driven (compared to 150 – 200 g/km on an avg. passenger car)

Nikos proudly charges his car



“Due to the fact that most of my working time is outside Netherlands, 80% of the usage of my company car is to go to the airport (30km from my home) several times per month, to go to NLE Enkhuizen (50km) and to go to the center of Alkmaar which is the nearest city to my house (2km). The rest 20% of my car usage is by moving into the Netherlands (mostly within a range of 50-100km). Considering that at all the above mentioned points I have the possibility to load my batteries (this is actually the case for me), an electric car with battery range of 60-80km is the perfect transportation vehicle. It only costs 1,5 cent per kilometer (1€ per 60km) instead of 13-15 cents per kilometer that a normal car costs (7,5liters per 100km).

The company also enjoys some benefits (depending on the country, there are different regulations and subsidies for the usage of electric cars as company cars). At the end of the day, I feel myself very proud that with a small compromise in my moving attitude, I pollute the environment due to my everyday life, almost 10 times less than other car users. Yet, I enjoy the new technology related to the remarkable torque that an electric motor can give, which is a small taste of the future for the formula 1 (F1) cars...” , comments Nikos with a smile.

CSR performance ladder in the Netherlands

Looking at the development of CSR and sustainability in the Netherlands, some big certification institutes set up a CSR performance ladder. This is a CSR standard on which companies can be certified to a certain level. For this standard a choice is made of indicators and strict certification criteria are set. By setting up such a standard the CSR certification becomes stricter and better comparison can be made between different companies who are certified.

The **CSR Management System certificate** is an objective evidence of the extent to which the company or organization has a management system in place for sustainability and Corporate Social Responsibility practices, in which stakeholder requirements and expectations are managed based on results.

CSR Management System certificate




The **CSR Performance Ladder, Management Systems Requirements and Certification Standard for CSR** satisfies the need to make sustainable development concrete, objective and demonstrably on the basis of social engagement. The CSR Performance ladder consists of 5 levels, each with different requirements to be met. The single levels provide a snapshot of the sustainable development of the company.

CSR Performance ladder

Companies and organizations from every sector can have their management system certified to comply with the CSR Performance Ladder Certification Standard. The company itself indicates on which level it initiates the CSR audit.

A CSR management system certificate is issued for every level of the Performance Ladder, depending of the results of the certification audit.

5 certification levels

	CSR certificate per level	Validity	Follow-up audit	Reassessment after:
Specific level				
	Specific Level 5 Certificate Based on BATNEEC principle	3 years	Once annually	3 years
	Specific Level 4 Certificate Based on chain responsibility	3 years	Once annually	3 years
General attainable level 3 achieved for business sector				
	General Level 3 Certificate Complies with general attainable level requirements	3 years	Once annually	3 years
	Entry Level 2 Certificate Continuous improvement process has been initiated	1 year	-	-
	Entry Level 1 Certificate Continued improvements/baseline measurement has been carried out	1 year	-	-
The organisation indicates the level on which the audit is carried out. Entry Levels 1 and 2 entail the commitment that Level 3 will be pursued.				

Overview of CSR Performance Ladder certification standard for CSR.

For more information, pls contact Mr. Ruud de Boer at Pipeline Netherlands

News from ATI

27-27-27 Pipelife around the world



Update on "Pipelife around the world" project

After successfully initiating all the 2012 country projects, also for 2013 very interesting projects have been selected together with the Red Cross:

January 2013, Ukraine: Establishment of Red Cross First Aid Training Centre

Traffic safety in Ukraine is one of the lowest throughout Europe. The death ratio for 100 accidents in Ukraine is 15-17, that is 7-8 times higher than in Austria, Germany or Sweden, and 3-4 times higher than in Hungary, Denmark, Finland or France. According to the Ministry of Internal Affairs of Ukraine in 2011 4,875 traffic accident victims died and 39,000 were injured, while the WHO reports that the death rate of accidents and heart attacks in Ukraine is several times higher than those in the EU and the USA.

The aim of the Red Cross Society of Ukraine is to better prepare people for provision of emergency first aid in order to decrease the death and disability rates among victims of disasters and accidents. It is planned to establish a Red Cross First Aid Training Centre in Kyiv which will provide advanced trainings for all Red Cross first aid instructors in Ukraine to further improve their qualifications and to empower them to reach more people

February 2013, France: Support of Espace Bébé-Maman of Puteaux

Nowadays, more and more mothers in precarious situations are facing difficulties in raising their young children. They turn to the French Red Cross to help them to find answers to their problems. The Espace Bébé-Maman located in Puteaux, a city near Paris, is primarily a place of welcome, listening and caring. It has become a refuge for mothers and their babies (0-18 months) who gather two or three afternoons a week.

These Espace Bébé-Maman is designed to meet the nutritional needs of babies and provide childcare to families in precarious situations. As a friendly meeting place, the Espace Bébé-Maman also allows mothers to share and renew socialites. French Red Cross's volunteers - mostly women, including some youth and young retirees - give them plenty of time to rebuild and support them **in their efforts to be self-sufficient families.**

March 2013, Slovakia: Accessible First Aid education for little children

First aid and health prevention promotion is one of the core activities of the Slovak Red Cross. The emphasis is put not only on targeting adult population, but focusing also on how to introduce first aid topic to children, starting already in kindergarten.

The Slovak Red Cross has been cooperating with primary and secondary schools for decades, for about 15 years successfully reaching also the kindergarten. The schools and kindergarten in Slovakia often lack financial resources to enable them to organize trainings for their employees and teachers. When possible, the Slovak Red Cross is offering free first aid trainings for teachers, at the same time getting them acquainted with first aid projects specifically tailored for children of tender age (Little Eve and Children, Little Eve got ill), thus giving them possibility to insert them to their curricula.

More detailed information on all projects can be found on the pipelife.com webpage.