



2012

Report

People - Work - Environment

Dear Readers,

The introduction to the last year's report primarily covered the need to make drinking water and food available to a vast part of the contemporary world's population. We also noted that energy poverty affects the lives of numerous populations living in regions where access to environmentally friendly and efficient energy sources is significantly limited.

Clearly, energy is part and parcel of our life. It drives our life.

As Isaac Asimov put it: "Indeed, the ability to control energy, whether it be making wood fires or building power plants, (to convert one form of energy to another, we should add) is a prerequisite for civilization".

Energy in the universe and energy around has one peculiar trait: we have access only to a tiny fraction of the total energy and only a tiny portion of that are we able to exploit. Energy plays a vital role in our everyday lives. It makes our hearts beat, helps to heat up water so that we can take a bath, prepare breakfast, safely get to work and then come back home, and finally, as the day ends, helps us read our favourite books to the light of a lamp. In other words, it helps us live.

Contemporary societies have developed a few strategies to access the energy they need, such as:

- mining of non-renewable energy resources (natural gas, crude oil, coal, uranium),
- harnessing and storage of energy from renewable sources (wind, sun, tides),
- and the most practical strategy, and one that is most effective in the long run: more efficient use and processing of energy from diverse sources.

Mining as a strategy has been used from the times of the industrial revolution in the 19th century and gives access to sizeable resources of relatively cheap energy.

However, fossil resources have always had three fundamental drawbacks: they generate pollution and have a harmful effect on the climate by emitting greenhouse gases and depleting limited energy resources.

At Polpharma, we are aware that only through reasonable application of the above strategies and tangible limitation in the use of non-renewable resources can we support long-term sustainable growth.

Over the last four years, Polpharma has recorded excellent performance in terms of energy use management. In comparison with 2009, we have recorded a 3% drop in the generation of heat from primary sources, such as coal and natural gas, and a 6.3% drop in the use of electricity.

By upgrading the existing energy infrastructure and applying contemporary network-based real-time temperature and electricity consumption systems, Polpharma significantly contributed to the development of sustainable society in 2012.

We encourage you to find out more about numerous aspects of our sustainable development described in this report. We are also looking forward to exchanging thoughts about our commitment in this respect through our dedicated e-mail address: sustainability@polpharma.com.

Tomasz Moys



Industrial Operations
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photo:
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All the photographs included in the report show the nature of Poland and have been taken by employees and cooperators of Polpharma. Cover photo: Anna Boużyk



1. Polpharma – About us

*photo:
Damian Janiszewski*

Polpharma is the leader of the Polish pharmaceutical market and the largest Polish manufacturer of drugs and active pharmaceutical ingredients (API). Development of exports, investment projects and acquisitions have helped us to create an international pharmaceutical group active in Central and Eastern Europe, the Caucasus and Central Asia. The Polpharma group is currently ranked among 30 largest generic pharmaceutical companies worldwide, with turnover in the region of USD 1bn per year. We employ over 7,000 staff in Poland and internationally. The Polpharma Group's portfolio includes 600 products.

We conduct our operations from 7 production sites. The Polpharma Group comprises Zakłady Farmaceutyczne Polpharma SA with production centres in Starogard Gdański and Duchnice, Medana Pharma SA of Sieradz, Warszawskie Zakłady Farmaceutyczne Polfa S.A in Warsaw and Sanfarm with the factory in Nowa Dęba. Members of the Group also include leading local manufacturers from Russia (Akrikhin) and Kazakhstan (Chimpharm). Trade operations on the Polish market are carried out by Polpharma Trade Office in Warsaw. Our strategic partner for R&D and out-licensing is FarmaProjects of Spain.

Polpharma's production sites meet highest international standards of Good Manufacturing Practice (GMP), as evidenced by certificates issued by the Polish Chief Pharmaceutical Inspector. Our API production installations undergo regular checks by the American Food and Drug Administration (FDA). Our company employs state-of-the-art technologies to ensure the safety of our products, employees, and the environment. Strategic items in Polpharma's business strategy are social responsibility and sustainable growth. Polpharma's motto is „People Helping People”. The company pursues its business goals caring for the environment, mitigating the environmental impact of its operations, and ensuring safety for its employees and local communities.



2. Awards and distinctions

*photo:
Dorota Woźniak*

Creating value for our employees, communities, and stakeholders combined with our commitment to safety, environmental protection and the effective use of natural resources have been appreciated and rewarded by Polish and international communities and business institutions.

During the last three years, Polpharma has received awards for excellence in innovation and the development of green industrial processes:

- **2012 Poland's most innovative product** – distinction awarded to a series of active ingredients from osteoporosis drugs: such as alendronate sodium, risedronate sodium, zoledronic acid, ibandronate sodium, in the ranking of the Polish Academy of Sciences' Economic Sciences Institute.
- **2012 Market Innovation Leader – Quality, Creativity, Efficiency** – awarded under the nationwide programme organised by the editorial board of "Strefa Gospodarki", a supplement of "Dziennik Gazeta Prawna" daily.
- **1st place in the 2009 ranking of 500 most innovative enterprises in Poland** – a prestigious award from the Economic Sciences Institute of the Polish Academy of Sciences. Various factors are considered for the ranking, such as e.g. product development investment projects, process innovations, and sustainable growth practices.
- **Process Excellence Award 2010** – award for "Best Green Process Improvement Project" in the international contest, organised by IQPC, a UK-based company. Polpharma was one of the finalists along with Lufthansa and British Airways, owing to the introduction of an innovative technology for bisphosphonates (elimination of orthophosphoric acid and harmful organic solvents, e.g., benzene).
- **Innovation of the Year 2009** – award in the competition organised by "Forum Biznesu" business magazine for, inter alia, the optimisation of sildenafil (Maxigra) chemical process. Halogenated solvents have been eliminated from the manufacturing process and the finished dosage form was achieved at a lower cost, benefiting patients as well as the environment.



3.

Environmental management strategy

*photo:
Natalia Kamont*

What lies at the heart of the Polpharma strategy in the field of environmental management is our mission and vision.

MISSION

To ensure balanced development of the company while keeping the stakeholders' interests, human health, and the environment in mind.

VISION

We wish to become the pharmaceutical business leader while ensuring safe and comfortable working conditions as well as environmental protection.

Sustainable development relies on quality, employees' engagement, improvement of processes, tools and procedures, knowledge and science, as well as long-term relationships with clients and suppliers. This is how Polpharma contributes to a cleaner environment, while continuously building the trust of the Employees, Clients, Partners and Local Communities involved in our operations.

As a pharmaceutical and chemical manufacturer, the company constantly improves the efficiency of its production plants. It undertakes all the necessary actions to mitigate and eliminate any adverse impact that the company's operations might have on the environment.

Process management at all stages is key to effective protection of the working and natural environment as it comprises initial planning, implementing innovative programmes and projects, and continuous monitoring of their results and effects on the environment. The company's improving performance year on year testifies to Polpharma's commitment to sustainable growth and the company's pursuit of excellence.

3.1. Policies and statements

Management systems are the pillars of Polpharma's activities in the field of sustainable growth. The company maintains the certified Integrated Environmental and OHS Management System, compliant with international standards such as ISO 14001, OHSAS 18001, PN-N-1800, and PN-EN 17025. Polpharma has implemented Occupational Health and Safety, Environmental Sustainability and Laboratory Management Policies. Our integrated management system allows us to proactively identify environmental and safety issues, as well as introduce state-of-the-art solutions in conformity with stringent regulatory requirements and best practices applied in EU countries.

Polpharma pursues the adopted Policies through numerous initiatives seeking to reduce the company's ecological footprint, to improve process efficiency and safety of chemical substances in use, as well as to reasonably manage energy, water, and waste.

Our specific priorities are manifest in our statements:

- **The Green Process** – optimised and improved efficiency of primary and ancillary processes
- **Solvent Management** – reduction in solvent consumption and application of possibly least-harmful solvents
- **Waste Management** – reduced waste generation and maximised recycling
- **Eco-transport** – promotion of public transportation, bicycles as well as safe and environment-friendly carriage of goods
- **Safe Fleet** – awareness-raising in terms of safe driving and first aid, as well as the launch of corporate standards for car fleet equipment

Based on the Environmental Sustainability Policy, the company has prepared and implemented long-term goals derived from the following values:

- **environmental care** – preservation of natural resources and the reduction of negative impacts on the environment
- **social balance** – keeping the present employees and creating new jobs with high safety standards to improve the quality of life for our Employees, their Families, and entire Communities
- **economic efficiency** – providing superb services and products at fair and reasonable prices as well as fulfilling the expectations concerning value growth for our Shareholders and other Company Stakeholders



3.2. Tasks and underlying goals

3.2.1. Environmental goals

In 2009, long-term environmental sustainability goals for the years 2010-2014 were set for the production plant in Starogard. They were prepared based on a comparative assessment carried out with in-house and third-party experts and opinion leaders.

The goals address the following challenges: bio-diversity, energy consumption, consumption of chemicals, including volatile organic compounds, efficient packaging management, waste reduction and reasonable water consumption, all of which combined are to significantly reduce Polpharma's ecological footprint.

The presented results offer insight into whether the Company has managed to successfully fulfil the mission, meet the aspirations, and attain the goals. The table below summarises the underlying assumptions and the progress for the individual goals.

Aspect	Unit	2009 Baseline	2014 Target	Yearly Objectives/ Targets - 2011		Yearly Objectives/ Targets - 2012	
				Level achieved	Level set	Level achieved	Level set
Electric energy	MWh	37 462	33 716	36 301	37 395	35 112	36 417
Heat energy	GJ	277 324	235 725	275 000	275 960	284 834	265 210
Water	m ³	343 967	309 570	349 386	334 000	307 006	326 000
Waste	tons	776	660	558	700	626	685
Solvents	tons	1 076	968	779	1 036	840	1 010
PVC	tons	350	280	517	449	516	310

The progress achieved in 2012 allows for the following conclusions:

- **Electricity consumption** at the Starogard plant was lower than planned for that year (by 1,305 MWh). The savings correspond to an average annual electricity consumption by 72 households.
- **Heat consumption** - the 2012 performance was as planned, at a level close to the 2011 performance. The heat infrastructure was upgraded, an energy audit and potential upgrades of internal installations are scheduled for 2013.
- **Deep well water consumption** dropped by 42,380 m³ as compared with 2011. The water consumption reduction actions taken in previous years produced the expected effect.
- **Quantity of generated waste** increased by approximately 10% on the 2011 figure, which results from the varieties in the production programme and is at the expected level. Following the actions taken in the previous year, 220 tons more of packaging materials were sent for recycling in 2012.
- **Consumption of solvents** was up by 7% in 2012 - this parameter is driven by the varieties produced. Importantly, as a result of the "Green Process" implementation, the company reduced the consumption of solvents by about 230 tons over five years.
- **PVC consumption** was slightly reduced in 2012, thanks to initiatives seeking to improve efficient use of materials, and the application of more efficient packaging technologies and practices.

The plan for 2013 is to enhance the Environmental Sustainability Programme at subsequent companies which have recently joined the Polpharma Group, and to set an additional target for the reduction in vehicle fuel consumption.

3.2.2. Safety goals

To improve systemic solutions and top-level safety culture, Polpharma established goals with a view to ensuring safe working conditions, which at the same time contribute to rapid company growth under the present market circumstances. The goals are the following:

- Reduction in accident rate - continued implementation of the Stop Accidents Programme, with the "Zero accidents at work" assumption.
- Improvement of the safety education programme under the OHS Academy - extension of the training programme to cover all Polish members of the Polpharma Group.
- Education and increase in staff commitment to safety culture through the Safety Days event.
- Development and improvement of the Safe Fleet Programme.

3.3. Educational programmes and projects

Polpharma's goals for sustainable development are ambitious. Apart from engineering, process-related and technology activities aiming at the protection of the environment, Polpharma undertakes numerous educational initiatives to increase environmental awareness and promote environment-friendly attitudes among employees and the local community members.

The company has successfully developed and implemented the following programmes:

- **The Green Process Programme** – under which all aspects of operating activities, including process design, are analysed, monitored and optimised to reduce costs and mitigate environmental impacts. Details of the programme and its effects are provided in Chapter 4.1 of this report. The Company also fosters innovative ideas from employees where they contribute to the improvement in eco-efficiency of chemical processes, products, and services. To that end, the company presents the annual Green Process Award.
- **Stop Accidents Programme** – seeking to promote actions that prevent accidents at work. Details of the programme are provided in Chapter 5.2 of this report.
- **Safe Fleet Programme** – developed to improve the safety of drivers – users of company cars and other road users. An annual competition is organised under the programme, offering rewards to persons who have a long-term record of safe and collision-free usage of company cars. Results of the competition are based on bi-annual data. The first edition of the competition had its results announced in January 2013, with awards and distinction going to 14 persons. Educational actions are also undertaken under the programme, and 130 employees have already been trained on improvement of driving techniques. During the 2012 Polpharma Day, participants could try rollover simulators, attend courses to improve safe driving skills and to raise driver awareness and teach first aid skills. 25 July, the Safe Driver Day, saw an awareness campaign on the company premises to promote and encourage drivers to adopt appropriate attitudes and behave safely on the road. An item on the campaign's agenda was also the "20km/h" initiative, involving periodic speed checks on cars moving on the premises of Polpharma's site in Starogard Gdański.
- **Eco-transport Programme** – designed to promote public transportation, bicycles as well as safe and environment-friendly carriage of goods. In 2012, Polpharma launched an initiative called Everyone on the Bike, seeking to motivate employees to commute to work by bike. One of the key success factors was to enable direct access to workstations by bike, which required investments in comfortable, roofed bike parks on the company premises. The start date was the first day of spring. Each person who got to work by bike on that day received a gift. An additional

encouragement is a bonus scheme for regular bike commuters. From July 2012, each recorded bike entry at the company gate is rewarded with PLN 1, and the accumulated sum can be redeemed for prizes in the MyBenefit Cafeteria System. A bike competition was also held. The person with the greatest number of bike entries by the end of June 2012 won a bike. Educational initiatives for employees and local communities focusing on safe bike driving were also organised. Cash from used toners was spent on a traffic course and a bike obstacle course, used during the Open Day, the Polpharma Day and the Sustainable Transport Week. Polpharma intends to continue with the promotion of eco-transport as a way to commute to work. In 2013, it intends to launch the "Green Ticket" project, which envisages the promotion of commuting by public transportation rather than by car.

Next to annual programmes, Polpharma also organises multiple initiatives to promote the environment-friendly lifestyle. In April 2012, the company organised the Green Week, each day of which was devoted to a different subject, ranging from waste sorting, through to water and energy saving and handling hazardous substances around us.

The Earth Day receives company-wide coverage through the Polpharma Open Days, an event during which visitors can exchange waste paper for a tree seedling or take a look at facilities which reduce adverse impacts on the environment. The Company organises various volunteer campaigns for employees on the Clean Up the World Days as well as „Green lessons“ for school goers. On a daily basis, Polpharma encourages its employees to conserve energy and water, use double-sided printing and sort waste. At the entrance to Polpharma, there is a CD shredder and containers for used batteries, light bulbs, and expired medicines.

The growth of the Polpharma Group and its international expansion opened up opportunities to develop environment-friendly solutions. Instead of frequent business travels, our employees use tele and video conferencing facilities, and the transportation needs relating to document delivery are reduced through the use of electronic systems for data transmission and invoice circulation.



*photo:
Wojciech Dulski*

4. Environmental efficiency

4.1. Green Process Programme

Continuous development of processes, and reducing their consumption of materials, contributes to a cleaner natural environment and more sustainable use of limited resources. Therefore, green processes and initiatives have become part and parcel of everyday work at Polpharma.

In 2008, the company launched the Green Chemistry Programme in the area of chemosynthesis. Polpharma was the first Polish pharmaceutical company to publicly announce the principles of its green corporate policy. In subsequent years, the programme covered the remaining sectors of our industrial operations, including the R&D, and was renamed the Green Process. Currently, environmental process planning has become the foundation of operational improvement programmes, as evidenced by the award of the British IQPC for "Best Green Process Improvement Project" presented to Polpharma in 2010.

The Company's staff have become deeply aware of how to work safely and care for the environment. Each operational aspect is designed with due consideration to its potential impact on the working and natural environment. Employees from all areas and tiers of the organisational structure implement initiatives supporting the reduction in environmental pollution and in the use of energy, water or paper.

The following information summarises the results of those initiatives which have been successfully completed, and of those still in progress.

FINE CHEMICALS OPERATIONS

In the area of chemosynthesis, a significant progress in terms of more sustainable operations was recorded in 2012.

Noteworthy initiatives launched in 2012 include the following:

- **Tadalafil** – multiple regeneration of ethanol was employed, thus leading to a 70% reduction in the consumption of the solvent. This improved the material efficiency index (PMI).
- **Rosuvastatin calcium** – the quantity of ethyl acetate used in the synthesis was reduced, improving the COD (Chemical Oxygen Demand), and shortened the process; also here, the material efficiency index (PMI) improved.
- **Dabigatran etoxilate** – methylene chloride was replaced in the production process by a more environmentally friendly tetrahydrofuran, thus eliminating a chlorine derivative solvent emissions.

Other processes are also being optimised with the purpose of reducing or eliminating less biodegradable reagents and improving organic solvents recovery.

The status of Green Process initiatives for fine chemicals operations by the end of 2012 is as follows:

- Initiatives started: 42
- Initiatives successfully completed: 28
- Initiatives suspended/postponed: 8
- Initiatives ongoing: 6

PHARMACEUTICAL OPERATIONS

Within pharmaceutical operations, the Green Process Programme resulted in a significant reduction in the environmental impact of finished dosage form production.

- Initiatives started: 15
- Initiatives finished: 5
- Initiatives suspended/postponed: 1
- Initiatives ongoing: 9

Other areas:

- Initiatives started: 8
- Initiatives finished: 8

The primary goal for the area continues to be a reduction in the use of organic solvents in production, research and quality control processes.

The goal is pursued through the following initiatives, which are long-term in nature and important items of the continuous improvement strategy for each process:

- Optimisation of the formulation processes by increasing the number of batches produced on a smaller, laboratory scale, which helps to reduce the quantity of materials in a more comprehensive pilot batch production.
- Elimination of organic solvents in pre-formulation and formulation steps in the development of new medicinal products.
- Elimination of PVC from packaging.

4.2. Substance management and material efficiency

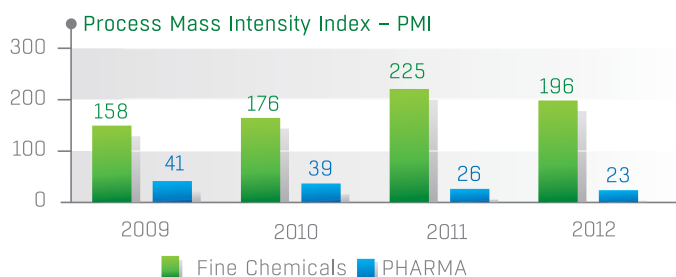
SUBSTANCE MANAGEMENT

EU and national regulatory standards require the entire industry to use chemicals in a more informed and responsible way, to search for innovative and more environment-friendly technologies, and to gradually eliminate or replace chemicals posing the greatest risks.

As a manufacturer, importer and user of chemicals, Polpharma manages them responsibly in compliance with the effective regulations. Promoting the awareness of the properties of chemical substances used as well as continuous improvement of manufacturing processes in terms of efficient use of materials allows the Company to refine its operations and ensure better protection of employees, local communities and the environment.

MATERIAL EFFICIENCY

As part of the Green Process Programme, Polpharma introduced in 2009 an index to measure the efficiency of its fine chemicals and pharmaceutical operations. The measure is called the material efficiency index (PMI) and has been set up by the American Chemical Society. The index allows to measure the relationship between the materials used to produce a given quantity of the final product. Maximised use of the materials reduces pollutant emissions to each element of the environment.



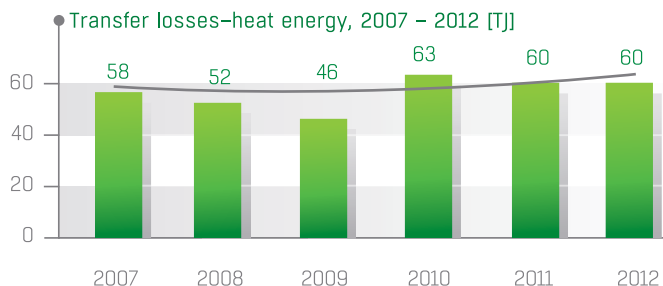
Material efficiency of Polpharma's pharmaceutical operations improves year on year, and the performance in this respect is satisfactory. In turn, the PMI index for our fine chemicals production depends on the produced varieties of active ingredients. Monitoring of the index allows Polpharma to take actions to improve a given process' material efficiency. Some technologies, for example, require increased use of regenerated solvents or reduced water consumption. The analysis carried out by Polpharma in this respect enables continuous process improvement, which should result in increased efficiency of individual types of manufacturing operations in the coming years.

4.3. Energy management

HEAT

Polpharma annually purchases approximately 300 TJ of heat as steam and hot water from EC Starogard Sp. z o.o. CHP. The cogeneration plant operates modern fluidized-bed boilers, which enable the use of lower-quality coal while keeping flue gas emissions low.

The Company consistently pursues initiatives to save heat. To that end, Polpharma proceeded to overhauling and renovating buildings to improve thermal insulation, with the related works scheduled for completion in 2014.



A tri-generation project is scheduled for 2013, envisaging concurrent production of heat, electricity and cold through the use of absorption chillers, to generate electricity savings and increase electricity production at the cogeneration plant. The project will however contribute to an increased consumption of heat. Nevertheless, it will generate financial benefits from chilling processes for parenteral dosage form production.

ELECTRICITY

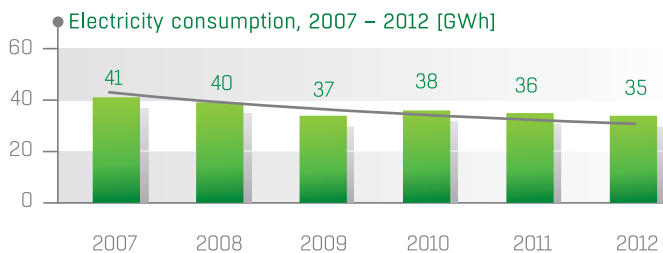
Polpharma consumes approximately 38 GWh of electricity per year. Electricity consumption has gone up in recent years due to the development of several facilities equipped with energy-intensive air-conditioning systems designed to meet increasingly more stringent regulations on pharmaceutical production and increased demand for energy carriers from rising production volumes. The increase was also connected with the launch of our regenerative thermal oxidiser (RTO) plant for volatile organic compound treatment.

The above notwithstanding, as a result of savings-generating projects scheduled for 2009-2014, Polpharma managed to reduce electricity consumption in previous years, except for 2010, when we recorded a slight increase caused by increased use of HVAC systems in periods of hot weather in the summer, in excess of the average for the season.

In turn, 2012 saw a continued drop in the consumption of energy, by 3.3% on the 2011 figure. This was possible owing to numerous initiatives aimed at increasing the efficiency of infrastructure and all manufacturing processes, and at reducing losses. Key projects in this area included:

- Optimised operation of compressed air plant, by introducing plant leakage detection and removal programme, upgrade of air dryer control systems, and reconfiguration of the existing compressors system.
- Building lighting system control – circuitry sectioning, replacement of light sources with energy-efficient units and the application of UV sensors.

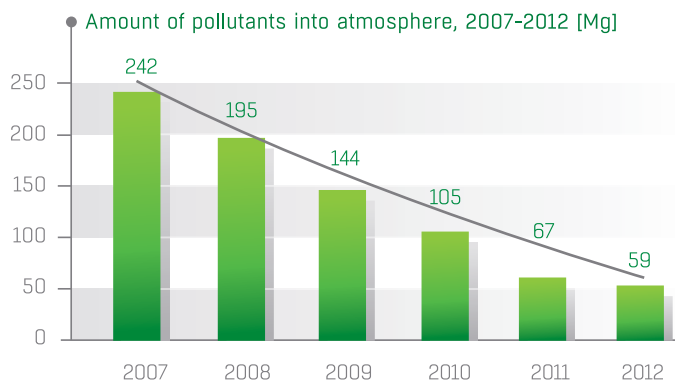
Some of the initiatives reducing electricity consumption also contributed to heat savings, e.g. through the application of HVAC systems weekend working mode.



4.4. Air emissions

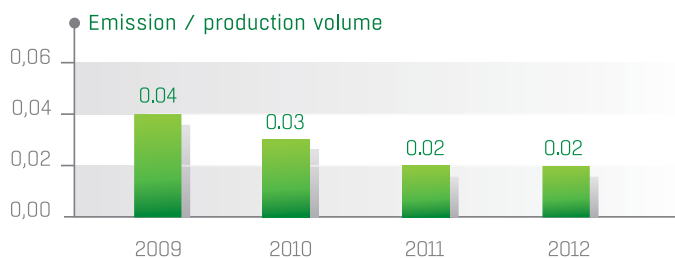
TOTAL EMISSIONS

Chemical synthesis and finished dosage form production processes generate emissions of pollutants into the air. There are 155 emission sources on Polpharma's premises, emitting about 40 different pollutants. The graph below shows the total of all air pollutants.



The downward trend continued in 2012 regarding air emissions, which was achieved owing to continued reduction in the use of organic solvents. Reduced emissions are also achieved through the application of specific systems, such as: regenerative thermal oxidiser (RTO) system for process gas thermal oxidation, absorption columns, catalytic gas burner, dust filters, safety dampers, and absorption systems for excess substances dosed.

Our priority for air protection is to reduce emissions by optimising production processes, using premium quality raw materials and applying specific in-process controls. The above initiatives are carried out inter alia as part of the Green Process Programme. As a result, the volume of the emissions was reduced relative to the production volume.



4.5. Solvent management

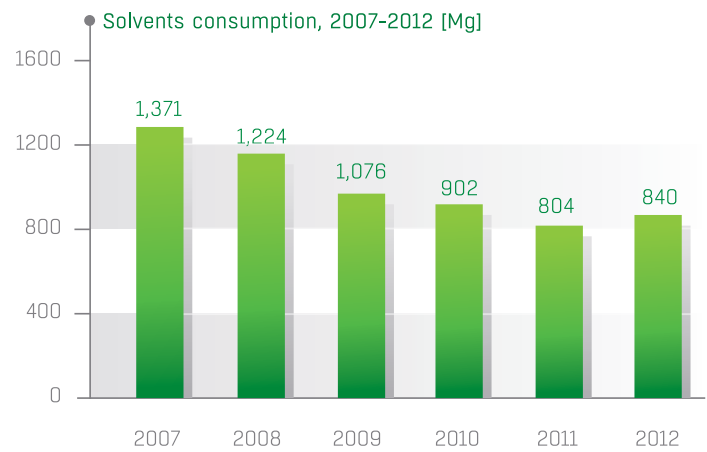
Organic solvents are used in Polpharma's pharmaceutical and fine chemicals production. According to the principles of the Green Process Programme, our solvent management practices are to achieve the following:

- elimination of chlorinated solvents and those of confirmed carcinogenic, mutagenic and teratogenic properties,
- reduction in the volume of solvents used,
- maximised regeneration and recovery of solvents,

- assessment of the chemicals and solvents used in the processes prior to their application in order to use those which have the least adverse environmental impact.

Solvents that cannot be recovered or regenerated for quality reasons are sent to Polpharma’s waste incineration plant for heat recovery. The combustion heat is then used as a heating medium for the sewage treatment and incineration plant.

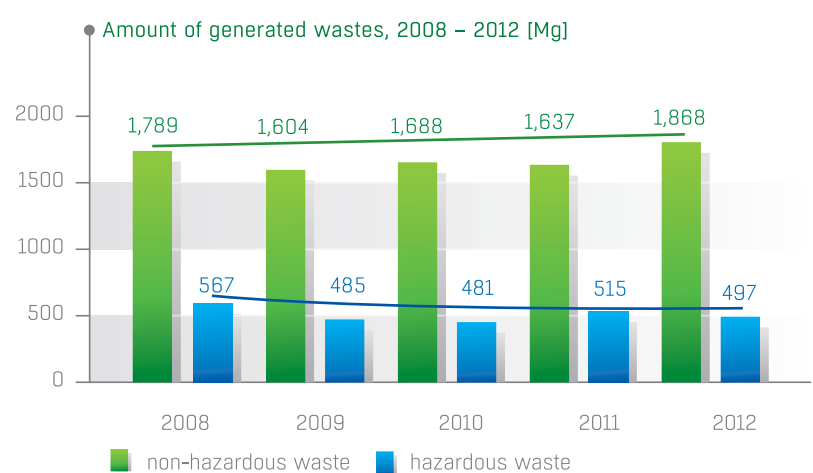
Improvements achieved over the last five years have helped the company to reduce consumption of fresh solvents by around 230 Mg.



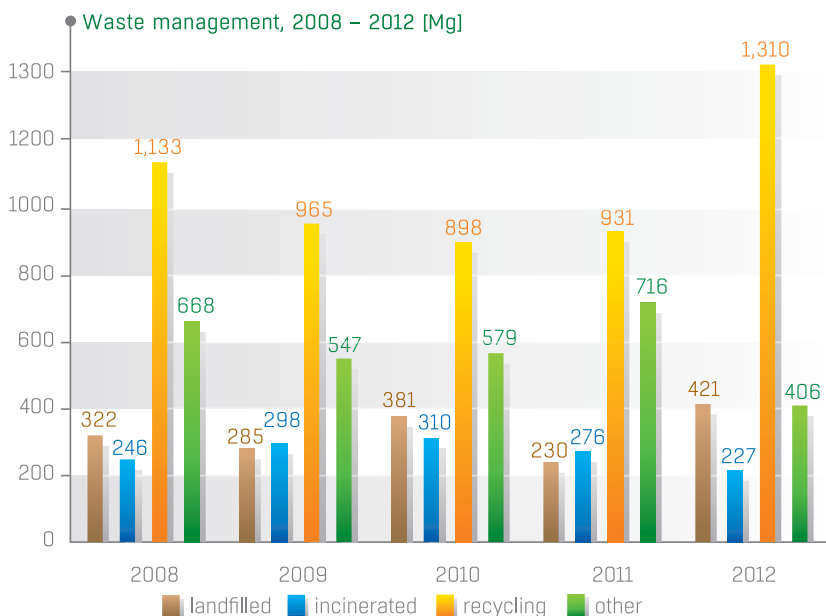
A small increase in the consumption of solvents was recorded in 2012. The consumption volume results from the varieties in the production of fine chemicals and finished dosage/forms.

4.6. Waste management

Polpharma takes action to minimise the volume of waste it generates. The company implements low-waste technologies, optimises its production processes, and uses high-quality raw materials. We generate 54 types of waste, of which 23 are hazardous. The quantity of hazardous waste is gradually decreasing. Since 2010, the data also include waste generated by the production plant in Duchnice and the company’s subsidiary Medana. The growth in the quantity of non-hazardous waste primarily results from the intensity of construction and renovation works.



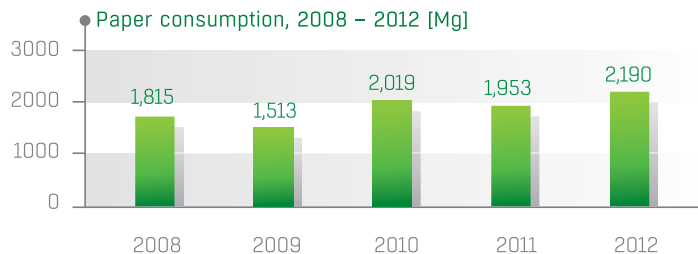
Some 50% of the annual volume of waste is recovered or recycled, with the share gradually increasing since 2010. This applies mainly to plastic waste, paper, composite material waste, steel, debris, glass and selected types of post-synthesis and waste solvents as well as composite-material packaging. In 2012, some 200 tons of waste more were sent for recycling and recovery, of which composite-material packaging (PVC/AL) accounted for some 100 tons. The remaining wastes are disposed of and hauled by specialty contractors in an environmentally-safe way, in compliance with ADR regulations. The company-generated waste is segregated at source, collected and stored in designated, properly marked and safe locations. Polpharma regularly assesses the environmental impact of waste and explores options for recycling, reuse, treatment and safe storage and transport.



4.7. Packaging materials

PAPER CONSUMPTION

Paper as the main packaging material is fully recyclable. 2012 saw our continued efforts to use recycled paper packaging. Polpharma encourages its employees to save paper by double-sided printing of documents and the use of electronic data carriers.



Fluctuations in packaging paper use (single-unit boxes, secondary boxes) primarily result from the variety of products sold to the national and international markets.

PVC CONSUMPTION

Polpharma’s uses annually some 3,000 tons of packaging materials, of which 500 tons are PVC-containing composite materials.

PVC is an ingredient of plastic wrapping used for primary and secondary packaging material. It is extensively used by the pharmaceutical industry for the formation of blisters, owing to its mechanical and physical properties that guarantee optimal blisters resistance and barrier to preserve the quality of products during their shelf life. Disposal of waste containing PVC causes harmful environmental emissions (dioxins, halogenated compounds), and therefore non-incineration methods for rendering it harmless have been explored. In 2012, cooperation was launched with a plastics recovery (including PVC) operator. In addition Polpharma is analysing different types of structural films and foils to replace PVC with less harmful and polluting plastics, such as PP and PE, which, in the long term, could entirely replace PVC.

4.8. Water and sewage management

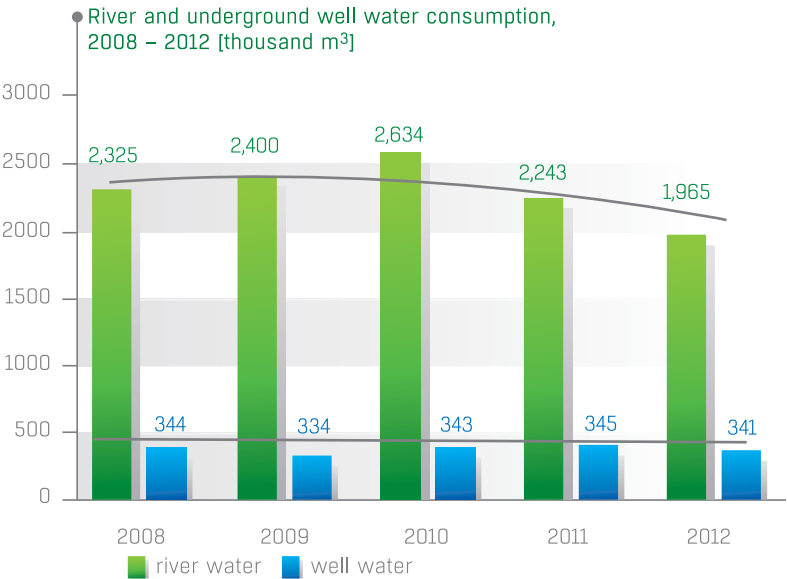
WATER

Water is one of the most valuable natural resources. Its use at Polpharma is under continuous scrutiny. The Company focuses on reasonable water use for production, refrigeration, fire-fighting and household purposes. We use our own river and deep-well intake points.

By 2010, our consumption of river water had been increasing year on year, however, over the last three years, our intense effort has contributed to a consistent decrease in the use of river water.

The consumption of well water varies depending on the volume and type of production in a given year. Since 2005, we have gradually decreased the intake volume of deep-well water.

The chart below covers water consumption by our pharmaceuticals production site in Starogard Gdański, branch production site at Duchnice (13,807m³), and Medana of Sieradz (16,248 m³).



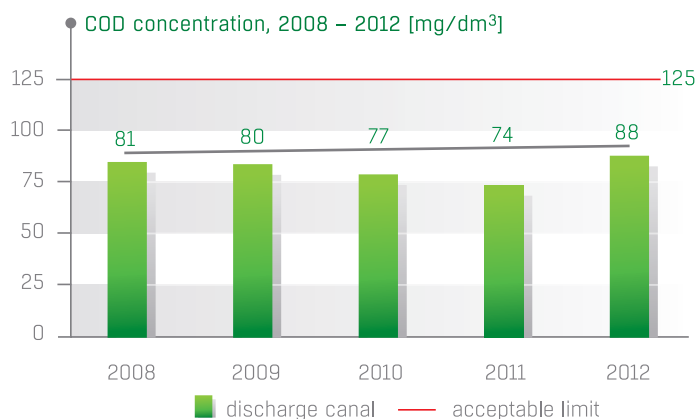
Well water is used by Polpharma for our manufacturing and household needs. The company carries out a programme aiming at the reduction of its consumption. In 2010, we launched a campaign to raise our employees' awareness of reasonable water use for household needs (toilets, kitchen) and manufacturing purposes (equipment cleaning, washing). Almost all our process cooling systems have been upgraded to use well water only as a back-up in the case of a failure of river water supply pipelines, or whenever river water does not meet the cooling parameters (occasionally, during summer).

SEWAGE

Sanitary and industrial sewage generated by the Starogard site is sent to the Company's sewage treatment plant. Sewage treatment includes mechanical, chemical and biological treatment. COD (Chemical Oxygen Demand) load in sewage discharged to the sewage treatment plant was on the level of over 93% in the last five years. The observed drop in the average COD values in recent years is the result of technological innovations and improvements both in manufacturing and sewage treatment processes. The sewage treatment plant keeps all pollutants of treated wastewater within the allowable limits.

In recent years, pre-treatment systems were installed for individual production systems.

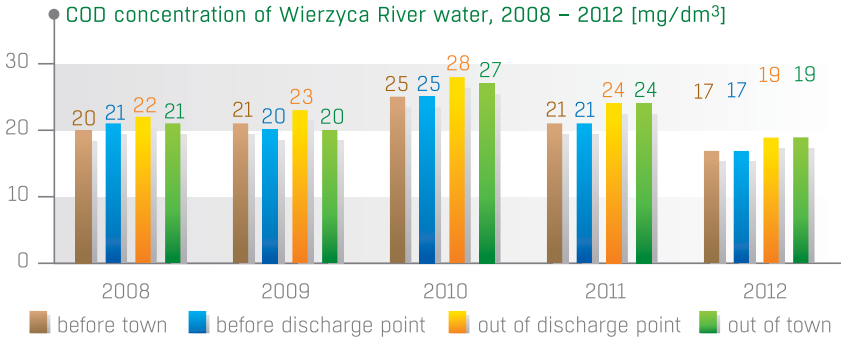
Analyses and pilot-plant scale trials are still being carried out on various technologies for drying and incineration of sludge from the sewage treatment plant to change methods of its disposal. In 2012, we continued our actions in collaboration with the Gdansk University of Technology to reduce the quantity of ammonia nitrogen in treated sewage.



WIERZYCA RIVER PROTECTION

Polpharma takes particular care of the quality of water from the Wierzyca River, flowing across Starogard Gdański. COD was selected as the indicator to trend the impact of the Company's operations on the Wierzyca River. The largest COD concentrations across the river section under analysis were recorded in 2007. In 2008-2011, COD stayed relatively flat on the previous years' figure.

In 2012, COD concentration slightly dropped at all sampling points. These results indicate that Polpharma's operations do not have a deteriorating effect on the quality of the water from the Wierzyca River.



4.9. Soil and groundwater protection

Maintaining the best possible quality of soil and groundwater is currently one of Polpharma’s top priorities. Preventive measures are continuously undertaken, and potential pollution sources are either controlled or eliminated. Between 2008 and 2011, measures were undertaken in Starogard Gdański to protect soil from being penetrated by hazardous materials. A new hazardous waste storage site was built. Handling facilities were provided with mobile polyethylene spillage containers, and old containers were upgraded. All storage areas for container or drum handling were provided with shelters. Production and warehouse departments were provided with mobile polypropylene sorbent kits (so-called environmental first-aid kits). Sewage pipeline were also renovated (700 running metres).

*photo:
Damian Janiszewski*





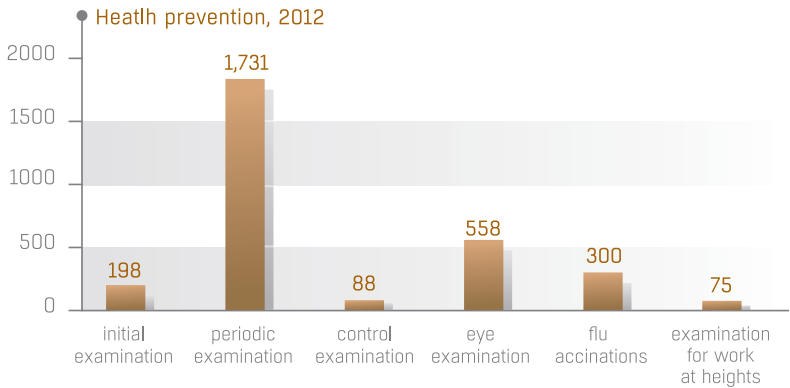
*photo:
Justyna Szramka*

5. Safe work

Safety culture as part of sustainable growth is manifest in the care for the health of employees, provision and maintenance of safe working conditions and the promotion of healthy lifestyle. Polpharma continuously improves working conditions to make workplace employee-friendly. For the last few years, we have been gradually eliminating those hazardous materials from manufacturing processes which can have particularly adverse effect on the health of the workforce due to their toxicity. High-volume demanding manufacturing processes have also been gradually reduced, which contributes to a consistent reduction in the quantity of hazardous materials used, and thus enhances working comfort. The automation of manufacturing processes and introduction of improved storage practices and ancillary operations has enabled considerable reduction in manual operations. Facilities, storages, laboratories and office premises have been constantly improved and renovated in compliance with international EHS standards.

5.1. Health protection

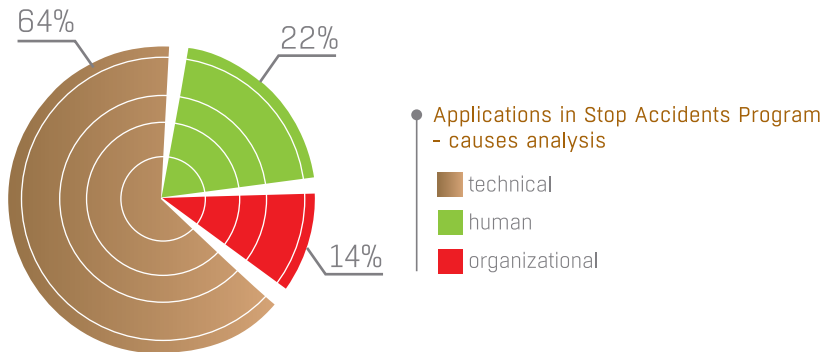
Polpharma cares for the health of its employees by providing a comprehensive prevention package and broad access to numerous health care specialists. Specialty health consultations on offer include laboratory and diagnostic tests, as well as advice from such doctors as: internists, paediatrists, gynaecologists, surgeons, ophthalmologists, dermatologists, orthopaedists, otolaryngologists, cardiologists, pulmonologists, neurologists, urologists, oncologists, physiotherapists and psychiatrists. The company also supports employees' fitness and healthy lifestyle initiatives by offering aerobics, fitness, gym, and other sport facilities.



5.2. Stop Accidents Programme

The care for employees' health also means the prevention of accidents at work. To achieve that goal, Polpharma has developed collective and customised personal protective measures. Employee training programmes represent an important part of our prevention efforts. Training courses on safety and hygiene at work, fire hazards, first aid as well as the principles of process regimes are regularly provided. In 2012, Polpharma launched the Stop Accidents Programme to foster proactive staff attitudes towards preventing accidents at work, developing workplace safety culture and minimising the social cost involved in accidents. The programme is targeted primarily at company staff and intended to enhance our employees' involvement in developing safe and healthy working conditions. Near-miss accidents, dangerous situations, irregularities and deviations, as well as dangerous behaviours and attitudes of employees are recorded under the programme. In 2012, we recorded and remedied 541 dangerous events and behaviours. Their root causes were analysed for technical, organisation and human factors.

Attractive rewards are offered to the most active employees in terms of reporting. In order to monitor the programme's efficiency, the safe attitude promotion index was developed, indicating the number of recorded and conducted actions relative to the number of accidents at work.

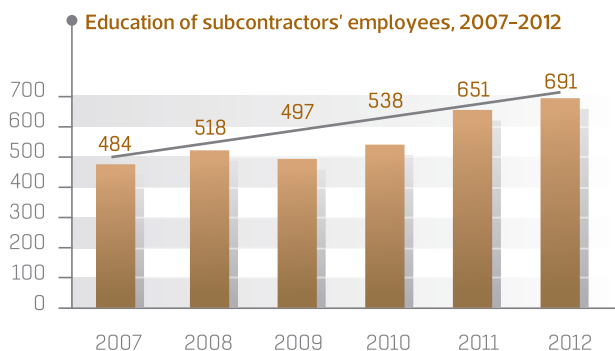


5.3. Education for safety

Employee education plays an important role in building the corporate safety culture. OHS training provided to our employees offers all the necessary information about regulatory requirements and international standards on prevention, risk control and system improvements at the company. The courses are conducted by specialised and experienced trainers, who present the specific aspects in an attractive manner, using multimedia, and involving the attendees by conducting interactive workshops and practical classes. The company also has in place active work safety programmes as part of meetings of individual business areas' personnel, implementing the "learn by having fun" principle. Our employees acquire certain skills and competences by participating in games and competitions, which have proven to be friendly and acceptable to participants.

Polpharma has also introduced an innovative information service for users of company cars. Further, it carries out education activities concerning safe arrival to and return from work. To that end, we use Panaceum and Remedium corporate publications as well as information materials targeted at various company stakeholders.

Polpharma focuses specifically on the education of third-party employees working on our premises. The company provides them with training on safety at work, and supervises the safety of work they perform. All of these measures considerably improve safety and the working environment awareness, thus contributing to safe performance of their work.





6.

Industrial accidents and hazards

*photo:
Anna Boużyk*

Polpharma uses hazardous materials in high enough volumes for the Starogard Gdański manufacturing plant to be recognised as being at risk of an industrial accident. The hazards have been identified and risk assessment carried out. The established emergency scenarios have enabled the development of appropriate operational procedures in the event that an accident occurs. The Serious Industrial Accident Prevention Programme has also been developed. The potential environmental impacts resulting from a serious accident have been analysed in our Safety Report and the Internal Operational Rescue Plan. The documents are included in the overall corporate management system.

Polpharma also operates specialized rescue equipment and resources, allowing the company to conduct rescue operations in the case of fire, chemical, technical or local emergency. In case of emergencies beyond the handling capacity of the Corporate Fire and Rescue services, we cooperate with external squads equipped with appropriate rescue means as stated in our External Operational Rescue Plan.

In 2012, we held a mock drill, headed by the Pomorskie Province Fire Brigade Commander, to check the assumptions of our rescue plans. Rescue actions by Polpharma's Fire Brigade, the operation of the Integrated Monitoring Centre and technical capacities, as well as the Starogard site provision with water for fire-fighting needs and fire-fighting were highly evaluated.

Our priority is to prevent accidents, and, should they happen, to minimise their effects. All facilities are equipped with technical safety systems under continuous surveillance. Equipment and facilities are adapted to the designated explosion hazard zones. Fire detection, dosimetry, and explosimetry systems are supervised by a dedicated platform. Fire and explosion safety systems are equipped with emergency power supply sources.

In terms of the carriage of goods used by our sites, we fully observe international regulations in this respect and requirements for specific transportation methods, such as ADR for road, RID for railway, IATA DGR for air and IMDG for sea.



*photo:
Kinga Ciešlik*

7. Aspirations for the future

The Company consistently pursues its goals, as shown in this report. We also continuously explore new ideas, as well as verify and analyse our primary and ancillary processes. We have adopted a list of ten sustainable growth aspirations, showing the way to improve over the next years.

1. Polpharma's business operations shall be conducted with utmost care for the needs of our employees and the natural environment.
2. We shall continue with our efforts to reduce the ecological footprint of our operations.
3. Polpharma's infrastructure shall be designed taking into account the principles of Green Building.
4. Polpharma shall enhance its sustainable growth strategy by relying on the creativity and innovative ideas of our Employees and Partners.
5. The Company shall take further steps to eliminate chlorine-containing packaging. To that end, we will search for more economical and environment-friendly solutions.
6. Polpharma wishes to become the leader in the pharmaceutical business in terms of material and process efficiency.
7. Zero accidents at work – this is the primary goal of Polpharma's policy to create a safe working environment.
8. Polpharma also wishes to become one of the leaders in the pharmaceutical business in terms of providing its Employees and Local Communities with healthy environment and development opportunities.
9. Our operations shall comply with the United Nations Global Compact principles, by giving preference to partners and suppliers who also observe them.
10. Polpharma intends to cooperate with people and organisations developing and sharing the same values, and abiding by them in their everyday operations.



