



Sustainability Report 2010

Novartis Basel Sites

About Novartis

Novartis is one of the world's leading providers of innovative pharmaceutical products. Active in more than 140 countries, the concern is strongly established in Switzerland where, as the country's leading health care company, Novartis makes a significant contribution to the national economy. At the same time, Novartis contributes substantially to the common good in that our products offer relief from suffering, improve health and prolong lives.

As a highly innovative organization, Novartis has the advantage of a business model based on intensive research, target-oriented development, and many years of experience. These components play a prominent role in the future prosperity of the company as well as in Switzerland.

“Novartis wants to be known for being a responsible corporate citizen. We do everything we can to operate in a manner that is sustainable: economically, socially, and environmentally – in the best interest of long-term success for our enterprise.”

The Novartis Corporate Citizenship Policy (2001) constitutes an important foundation for the operations at the Basel Sites (St. Johann headquarters, Klybeck, Rosental and Schweizerhalle) which primarily include research, development, production and distribution of pharmaceutical products, as well as various headquarter functions.

In the year 2010, Novartis employed 9,844 associates at the Basel Sites.



Risk Management

It is the top priority at Novartis to minimize the risks neighborhood and associates are potentially exposed to at the Basel Sites. This includes not only the handling of chemicals in laboratories and production facilities, but also major events such as a pandemic or an earthquake. A comprehensive risk management approach is the key to managing these situations.

Mr. Roellinger*, risk is omnipresent – also in the pharmaceutical industry. How is Novartis handling the risk factor?

Over the years, we have established an elaborate and proactive system of risk management. In a first step, a holistic assessment of all potential risks is conducted. This starts with the immediate work environment and extends to major incidents, such as earthquakes or the outbreak of a pandemic. For each possible scenario, we assess in detail both the probability of its occurrence, as well as the potential impact on our people, structures and processes. Based on these assessments, we define appropriate measures to either eliminate the risk or to minimize its consequences. Depending on the situation, these can involve a simple process or more complex structural or technical measures.

In the year under review, which areas called for special attention?

Basel is one of the regions in Switzerland with the highest possibility of an earthquake occurring. Investigations have shown that some of the buildings at Novartis did not meet effective standards and requirements on earthquake

safety. Consequently, these facilities have been or will be brought up to the current standards by means of structural work, such as the reinforcement of steel frames. The most important objective is to always ensure the safe evacuation of all occupants in the building.

Is asbestos still an issue at Novartis?

Substantial amounts of asbestos have already been removed over the past years. To analyze the situation comprehensively, we have contracted external specialists to examine every single building. If any asbestos is found, appropriate measures are taken according to the situation and the estimation of risk. These measures could include the immediate removal of the asbestos. Alternatively, remediation is being undertaken, when larger structural alterations to the building are carried out. This is often possible, as structurally stable asbestos does not pose any harm to health unless it is mechanically disturbed in some way. In any case, the safety of personnel must be guaranteed at all times.

How have risks and hazards changed over the years?

Over the past years, biological hazards have become more prominent. These are also subject to our Risk Management procedures in the same manner as all other hazards. In addition to annual flu vaccinations, we carry out special vaccination programs, for example against the H1N1 virus that appeared in 2009. Associates who work with human cells are inoculated against Hepatitis B as a matter of routine. These are just a few examples of how we reduce risk in a continuous and systematic manner.

* Steffen Roellinger,
Head Governance Site Affairs
& Special Projects

Health Management

At Novartis, the health of associates is a central topic. Care Management and Behavior Based Safety programs are being continually enhanced on the basis of experiences to reduce absentee rates.

Care Management addresses absences caused by illness as early as possible. The goal is to consequently follow up on short-term absences. The proactive handling of possible absence causes at an early stage facilitates prevention of potential long-term absences, which should be professionally managed to ease re-integration into the workplace. Dialogue between associates and their superiors is intended to support this process.

The absentee rate¹ last year was more or less the same as in 2009. An increase of long-term absences was noticed. On the other hand, the number of shorter absences decreased. Our mid- to long-term goal remains to continuously reduce the absentee rate to 3% or less. Novartis recognizes that an absentee rate is merely a lagging indicator of health issues, and, consequently, puts special emphasis on prevention.

Numerous initiatives were launched in 2010: the Health Promotion program helps to inform associates about various health issues and encourages regular checkups. This service covers a spectrum from eye examinations, hearing tests, movement programs and skin cancer screenings to quit-smoking programs, and is getting a very positive response. Furthermore, a free annual health checkup with our in-house occupational health service is available to all Novartis associates. A new Medical Help Line service providing professional advice on all health issues 24 hours a day to associates and their family members was inaugurated this year.

¹ Absentee rate: absenteeism due to illness reflected in percentage of regular working hours

² Accident rate: number of accidents resulting in lost work time per 200,000 hours worked



The central concept of Behavior Based Safety (BBS) is the role of each individual in accident prevention. BBS has been launched in all divisions of the Basel Sites and all associates have been informed about the program. In 2010, emphasis was placed on education, with 530 line managers and HSE representatives having been trained as observers on safety inspection tours. At the core of this training is a simulated safety inspection where participants are educated on the particular hazards of their own work environment. During the inspection, participants learn how to conduct a so-called “improvement talk” for identification and correction of potentially unsafe behavior. In 2010, more than 1,200 inspection tours were documented and systematically evaluated. An analysis of the results shows there is potential for optimization, not only in the area of slips, trips and falls, but also in the context of chemical releases and the potential contamination of associates. Consequently, HSE will focus more intensely on these issues in 2011. Furthermore, the campaign “Avoiding Accidents Makes Friends” will continue to further raise awareness among associates. Thanks to these projects it was possible to reduce the accident rate² by 25% compared to the previous year. BBS will continue to be rigorously implemented and refined to meet the target rate of 0.18 accidents or less per 200,000 working hours in 2011.

Start of remediation

In the 1950s and 1960s, excavated material and construction rubble as well as manufacturing, industrial and chemical waste were deposited in a landfill site at Hagenthal-le-Bas, not far from Schönenbuch at the Swiss border. Approximately 10% of the roughly 35,000 m³ total waste volume originates from chemical and pharmaceutical industries.

A joint venture between BASF, Novartis and Syngenta named Groupement d'intérêts pour la sécurité des décharges de la Région bâloise (GI DRB) is presently undertaking voluntary and sustainable remediation of the Le Letten landfill. With this voluntary cleanup, the GI DRB embraces its environmental and social accountability as a responsible corporate citizen. Specifically, all pollutants, including any existing chemical waste, are being completely excavated.

To avoid emissions during the remediation process, the site has been completely covered by a sealed tent. The waste gases from the site are captured and purified with an activated carbon filter so that noxious odors are not released into the surrounding area. The excavated waste is put into hermetically sealed containers and transported to specialized plants in Germany, where it is thermally treated or incinerated. Once the excavation is complete, the area will be filled up and landscaped to fit in with the adjacent land parcels. Trees will also

be planted at the site to restore the environment's natural character.

The GI DRB is taking great care in protecting the groundwater at the site. The water quality is being regularly monitored at a total of 16 different sampling points. In the area surrounding the landfill, groundwater is drained and treated with activated carbon filters. This water is, then, subsequently treated in an industrial wastewater treatment plant. Rainwater is collected, analyzed and channeled to the nearby Lertzbach stream. To ensure safe working conditions and to protect the health of all those involved on-site, a comprehensive plan has been developed and implemented in close collaboration with regulatory authorities.

GI DRB

The Groupement d'intérêts pour la sécurité des décharges de la Région bâloise (GI DRB) is a joint venture between BASF, Novartis and Syngenta. These representatives of the Basel chemical and pharmaceutical industries are accepting responsibility for the former landfills of Le Letten and Roemisloch in Alsace. The GI DRB is responsible for any necessary assessments as well as the safeguarding of the site and is working in close collaboration with French and Swiss authorities.



Animal Welfare and Research

At Novartis, we want to discover, develop and successfully market innovative products to prevent and cure diseases, to ease suffering and to enhance the quality of life. Novartis needs animal research to find innovative, safe and life-saving medicines for patients. While we would like to see the end of medical research involving animals, a viable, legal alternative does not currently exist to replace the important role that animals play in the discovery and development of these essential medicines. At the same time, we are committed to reducing, refining and replacing animals in research and to upholding high standards of animal welfare.

The welfare of animals in our care is of primary concern to us for reasons of ethics, accuracy, reliability and applicability of scientific studies. That is why we have a total of 40 animal welfare officers in the Global Animal Welfare Organization who are dedicated to the care and well-being of the animals needed for research at all times. The core work of these specialists involves defining, implementing and monitoring the spectrum of animal welfare standards. All internal research projects, as well as studies conducted by third parties, must incorporate and be in compliance with the Novartis Animal Welfare Policy and the Novartis Animal Welfare Standards. Scientists at Novartis are required to explore efficient and effective alternative ways to carry out studies before performing animal research. These alternatives must then be developed and implemented wherever feasible.

Successful application of the 3Rs

The “3Rs” are a unique program aimed at Reducing, Refining and Replacing the use of animals in research. In addition to global efforts to support the 3Rs, Novartis makes a substantial contribution to the 3R Research Foundation Switzerland. This organization promotes

the development of alternative methods and the application of animal research in a responsible and respectful way. By contributing to this foundation, Novartis acknowledges the importance of the 3Rs and supports efforts to that end. To further encourage implementation of the 3Rs, an in-house award has been created which is annually given to the best proposal for practical implementation of the principles of the 3Rs.

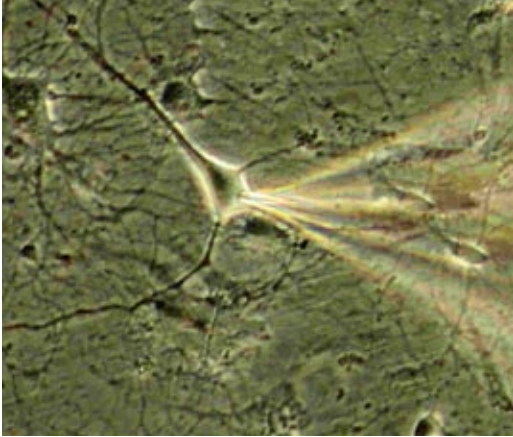
A variety of examples show the success of these initiatives in recent years:

- The number of tests performed in vitro have increased significantly in certain areas
- Novartis produces Calcitonin for patients with bone disease such as osteoporosis. In order to ensure that the product is safe and effective, Novartis has collaborated closely with the University of Heidelberg to



Approximately 98% of the animals used for research on the Basel Sites are mice and rats.

- develop an innovative method for in vitro testing. Thanks to this cell culture technique, which has been approved by the U.S. Food and Drug Administration, it is now possible to eliminate the previous animal studies.
- Modern technology such as ultrasound permits a reduction in the use of animals by up to 75% for the study of the progression of certain diseases. Through the use of magnetic resonance imaging (MRI) in



Cell cultures: one alternative test method contributing to reduce the number of animals used in research.

In lung disease research, a reduction of up to 90% is possible, resulting in considerable research optimization. MRI also offers interesting alternatives to traditional approaches in other areas of disease, such as oncology or neurological disorders.

Outlook

These examples demonstrate Novartis' commitment to advancing and implementing the 3Rs. These efforts have contributed to a reduction in the number of animals used in medical research on our Basel Sites by a third between 2003 and 2009. Despite these achievements, Novartis recognizes that it must continue to develop alternative research methods to minimize the need for animal research. When reliable alternatives to animal research exist, these methods are consistently applied. And today, major progress is being made scientifically to reduce, and perhaps someday eliminate, the need for most animal research while still yielding new, innovative medicines for patients.

The Pillars of the 3Rs

The 3Rs were first introduced in 1959 in the book "The Principles of Humane Experimental Technique." In the past 25 years, the 3Rs have gradually been incorporated into all decisive European and international animal welfare legislation.

Reduction

Methods that enable scientists to obtain comparable quantities of information through the use of fewer animals, or more information through an equal number.

Refinement

Methods to reduce or minimize potential pain, distress or confinement, as well as to increase the welfare of animals that cannot be substituted.

Replacement

Implementation of alternative methods, such as cell-cultures or computer simulation, to replace the use of animals.

Achievement of Objectives 2010

Occupational Accidents

No more than 0.2 occupational accidents and illnesses involving one day or more off work per 200,000 hours worked.

The accident rate was reduced by more than 25%, from 0.31 to 0.23. The objective of 0.20 was not achieved. The behavioral approach to accident prevention (Behavior Based Safety) will be pursued further.

Energy

A 14% improvement in energy efficiency during 2007–2010, corresponding to energy savings of 56,000 MWh derived from targeted projects.

The opening of new, modern, energy-efficient buildings on the St. Johann Campus, as well as optimization of ventilation and air-conditioning, saved more than 20,000 MWh of energy in 2010. The energy savings between the years 2007 and 2010 amounted to a total of 66,089 MWh. This corresponds to a 16.5% overall improvement in energy efficiency. The objectives of a 14% improvement in energy efficiency and savings of 56,000 MWh were significantly exceeded.

Health Management

A further reduction in the absentee rate through more effective health promotion, prevention campaigns and Care Management.

In 2010, the absentee rate was 3.34% compared to 3.32% the year before. An increase in long-term absences exceeding 30 days compensated decreasing short-term absences. An in-depth analysis reveals that in some departments the absentee rate was in fact below 3%. Thus, in order to identify potential measures for improving the situation, the causes of long-term absences will be examined.

Waste

Implementation of additional measures in order to achieve improvements in hazardous waste efficiency.

In 2010, the specific amount of hazardous waste – that is, the amount of hazardous waste per kilo of manufactured product – was reduced by an additional 13%. In particular, recycling of waste solvents increased substantially from 38% to 46%.

Objectives for 2011

Occupational Accidents

No more than 0.18 occupational incidents and illnesses involving one day or more off work per 200,000 hours worked.

Energy

An improvement in energy efficiency by eight terajoules per year during the period 2011–2015, corresponding to annual energy savings of approximately 2,200 MWh derived from targeted projects. An annual 2,000 ton reduction in CO₂ emissions in targeted projects during the period 2011–2015.

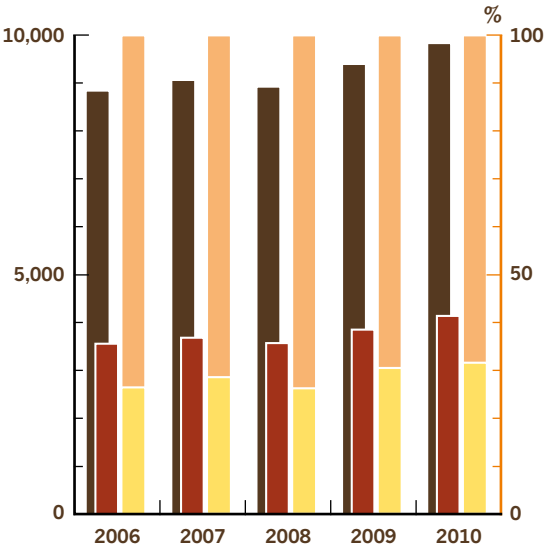
Health Management

Reducing the absentee rate to 3%, by implementing effective health promotion, prevention campaigns and Care Management.

Waste

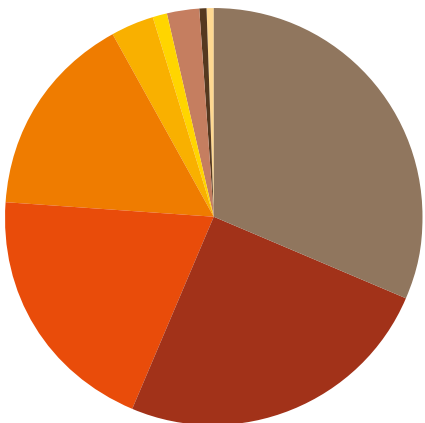
Implementation of additional measures in order to achieve improvements in hazardous waste efficiency.

Personnel



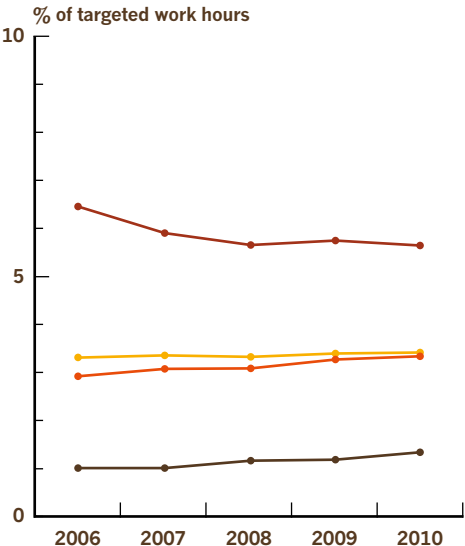
- Number of associates
- thereof women
- Men in management
- Women in management

Diversity



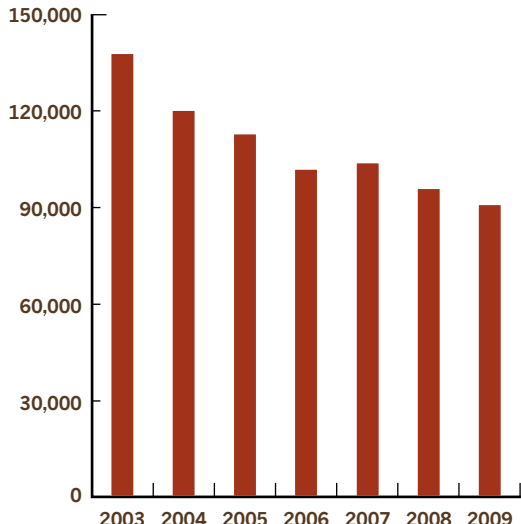
- Switzerland
- Germany
- France
- Rest of Europe
- USA and Canada
- South and Central America
- Asia
- Africa
- Australia and New Zealand

Absentee Rate



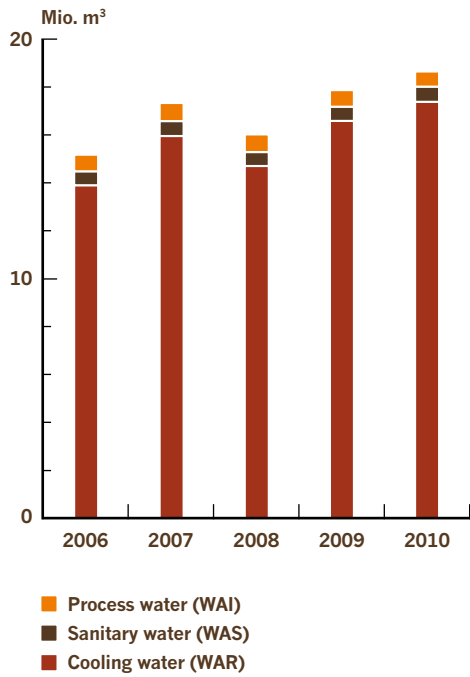
- Total
- Individual Employment Contracts
- Collective Bargaining Agreement
- Management

Use of Animals in Research



- Number of animals

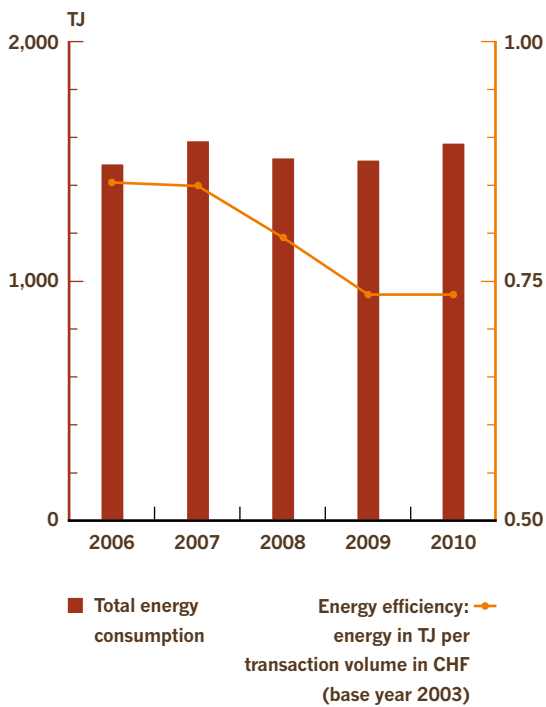
Water Usage



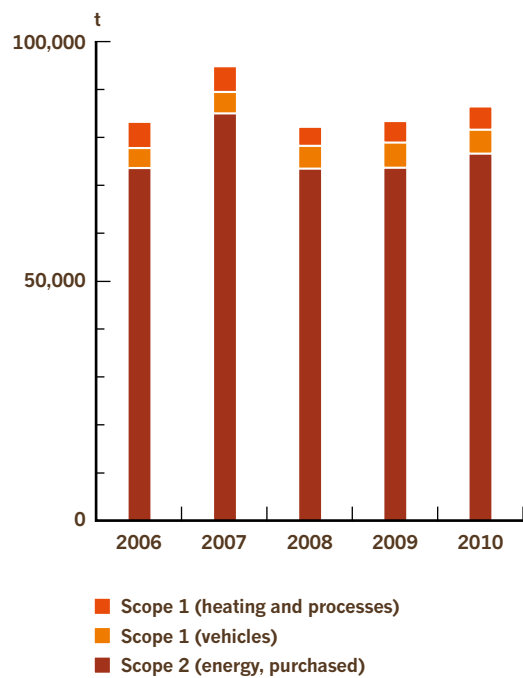
Safety



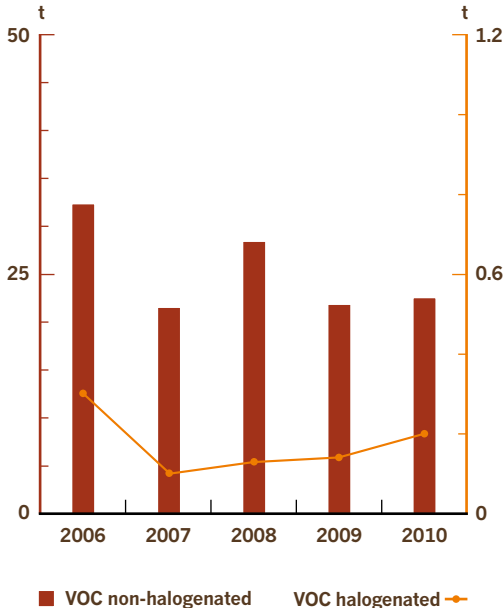
Resources



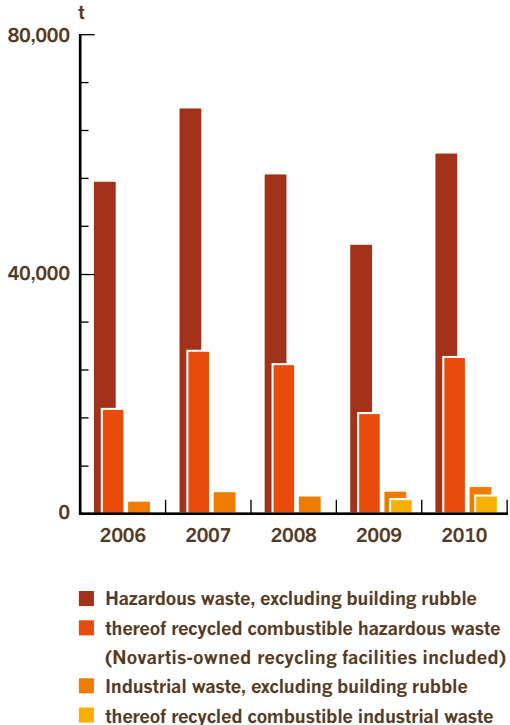
CO₂ Emissions



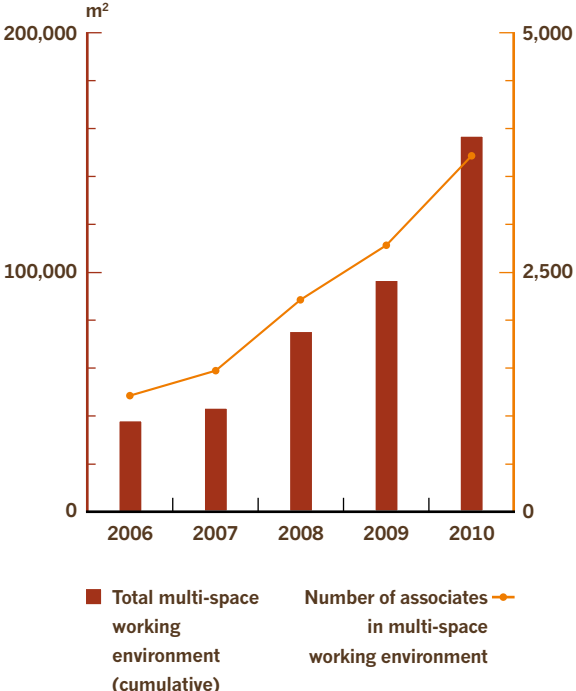
Exhaust-Air Emissions



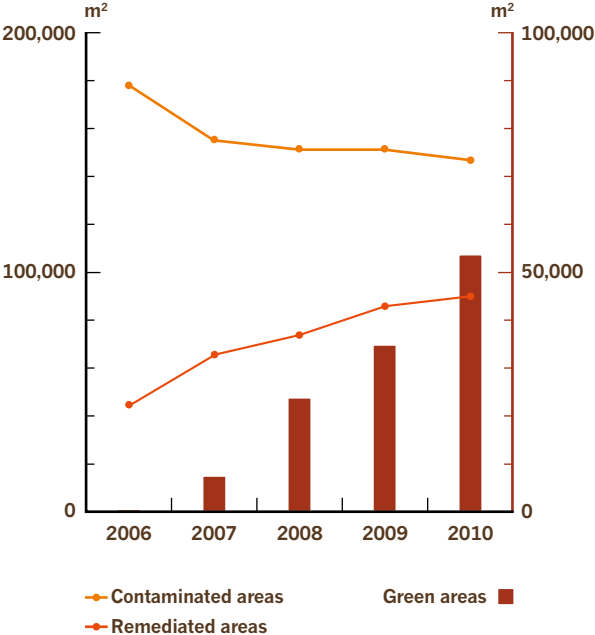
Waste



New Working Environment



Remediation Progress St. Johann Site



Contact

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This document is also available in German.

