# SUSTAINABLE DEVELOPMENT

## BASF first chemical company to be founding member of The Sustainability Consortium

BASF is the first chemical company to join The Sustainability Consortium, an organization of retailers, consumer packaged goods companies, governmental and non-governmental organizations, and academics that work collaboratively

to build a life-cycle based scientific foundation that drives innovation to improve environmental and social aspects of consumer product sustainability.

SUSTAINABILITY CONSORTIUM

"At BASF, we are committed to leading industry toward greater sustainability, transparency and responsible interaction with both the environment and society," said Kurt Bock, CEO, BASF Corporation. "The mission of The Sustainability Consortium aligns well with that commitment -- we are pleased to join a coalition of companies and individuals similarly dediconsumer products and supply networks."

cated to the advancement of sustainable

"We are pleased to welcome BASF into the Sustainability Consortium, and we

> look forward to a fruitful and productive partnership ahead," said Dr. Jay S. Golden, Co-Director of the Sustainability Consortium. "BASF will contribute an experienced team of experts collectively

focused on a scientific approach to sustainable consumption. Together we will spur a new generation of products and supply networks that address environmental, social and economic imperatives."

more information more about The Sustainability Consortium

### Making business sustainability transparent

BASF creates measurable value for employees, shareholders, customers and society with its products and solutions, as shown in the Report 2009 published by BASF on March 11. The report combines economic, ecological and social aspects. The publication meets the internationally recognized Standards of Global Reporting Initiative for sustainability reporting. The independent institution reaffirmed maximum transparency for the third time in succession, issuing an A+ rating.

The report documents BASF's economic, ecological and social performance and shows how sustainability contributes to corporate success even in times of economic difficulty. BASF measures its performance on the basis of clearly defined, in most cases long-term targets and reports annually on the extent to which The Chemical Company

## **Topics**

- BASF first chemical company to be founding member of The Sustainability Consortium
- Making business sustainability transparent
- Partnership for bee health
- Next-generation malaria control
- Research for utilizing CO<sub>2</sub> with solar energy
- Quiet and comfortable
- Using wind energy more efficiently
- Start of drinking water project in South Africa
- Promoting biodegradable bags for Thailand
- The first passive building in French social housing
- Educational development of needy communities in São Paulo
- BASF Corporation celebrates Earth Day



those targets have been achieved. These include economic targets, but also global goals regarding environment, safety, and product stewardship as well as for employees and society.

more about the report more about our goals

#### Partnership for bee health

BASF and NOD Apiary Products, which was established in 1997 in Canada by beekeepers committed to organic ideals, have announced a partnership to bring to European beekeepers a new product that controls the Varroa destructor, a parasitic mite that has been identified by indepen-



Varroa destructor, a parasitic mite affecting bees

dent institutions as a major contributor to the declining number of bee hives on a global scale.

BASF and NOD are investing in "Mite Away<sup>™</sup> Quick Strips" (MAQS), which target Varroa mites while they feed on developing baby bees. The backbone of this easy-to-use strip is a film made of BASF's biodegradable plastic Ecoflex<sup>®</sup>, which is filled with the miticide formic acid in a saccharide (plant sugar) formulation. The strip's secret: Designed to penetrate the brood cap, it stops the mite where it reproduces.

more information

#### Next-generation malaria control

BASF has signed an agreement with the London School of Hygiene & Tropical Medicine and the Innovative Vector Control Consortium, to develop a new generation of malaria prevention products based on the BASF insecticide chlorfenapyr. This cooperation was announced in the run-up to World Malaria Day on April 25.

These products, the first of which is expected to be available next year, will help reduce malaria in areas where mosquitoes are already becoming resistant to existing solutions. The products will include residual wall sprays as well as long-lasting insecticide treated nets (LLIN). LLIN are pointed out as one of the most efficient methods to prevent malaria. The net creates a physical barrier that prevents mosquitoes from reaching individuals and the impregnated insecticide guarantees that the mosquito will be knocked down as soon as it comes into contact with the net.

World Malaria Day is an initiative of the Roll Back Malaria (RBM) Partnership, a global framework launched in 1998 by WHO, UNICEF, UNDP and the World Bank to implement coordinated action against malaria. BASF is an RBM Partner organization and member of several RBM



Long-lasting insecticide treated nets for Africa

## Research for utilizing CO<sub>2</sub> with solar energy

Utilizing carbon dioxide as an energy source with the aid of sunlight is the goal being pursued in a new research project for recycling of greenhouse gases. Researchers from BASF, Energie Baden-Württemberg AG (EnBW), Heidelberg University and Karlsruhe Institute of Technology (KIT) are seeking to convert CO, into a fuel for fuel cells or retrofitted internal combustion engines - a step towards implementing environmentally conscious mobility technologies and simultaneously an alternative to existing carbon dioxide storage plans. The Verbund project "Solar2fuel" belongs to the "Forum Organic Electronics" excellence cluster and is being sponsored by the Federal Ministry of Education and Research (BMBF) with more than €1 million over two years.

While public discussion has so far centered mainly on the underground storage of carbon dioxide, the "Solar2fuel" project is focusing on the direct utilization of carbon dioxide. The goal of the project is to convert the carbon in carbon dioxide into climate neutral fuels with the aid of sunlight. The aim is to combine approaches based on nanotechnology and material research with catalytic processes.

more information

Working Groups to facilitate best practice in malaria vector control interventions.

more information more about Roll Back Malaria

## Quiet and comfortable

BASF's specialty foam Basotect<sup>®</sup> is used in the Metro Line 9 stations in



Acoustic insulation in Seoul's subway

Seoul, Korea, to provide a quieter and more comfortable experience for com-

muters. The soundabsorbing and flameretardant Basotect was installed behind perforated steel walls in 25 subway stations of line 9. The foam was also chosen by the operators for its ease of maintenance.

"Regular exposure to noise in subways can have a detrimental effect on the hearing of commuters, since subways are typically long enclosed spaces where sounds from human traffic and trains are amplified. Reduction of the noise level is the best strategy to diminish the impact of this hazard", says Dr. Christof Moeck, head of global business management Basotect.

The high level of thermal insulation brought about by the low thermal conductivity of Basotect contributes to energy-efficient construction.

more information

## Using wind energy more efficiently

Wind energy is on the rise as a climate friendly source of energy. Ever larger rotor blades are constantly increasing the power output of modern wind turbines. The stresses and strains to which rotor blades of wind turbines are exposed at 90 meters above the ground are truly immense. Reaching top speeds of up to 300 kilometers per hour, forces are exerted on blade tips which make them bend for more than a meter. Weather conditions such as snow, rain, heat and UV radiation also take their toll on the blades. BASF is supporting the manufacturers of these mighty machines by supplying innovative epoxy resin systems for highly resilient, fiber-reinforced components and coatings for rotor blades. The longevity of these wind energy plants is a key factor in improving the economic efficiency of wind power as a climate friendly source of energy.

This two-component system of epoxy resins and hardeners is marketed by BASF under the name Baxxodur<sup>®</sup>. The coating systems marketed under the name Oldodur come from Relius, a BASF subsidiary. More than 25,000 rotor blades with Relius coatings are now spinning in the wind and have been defying the forces of nature for years.



#### Start of drinking water project in South Africa

In a collaborative effort, BASF and the United Nations Environment Programme (UNEP) set up a drinking water project in the region of Umzimvubu in South Africa. With this initiative, BASF would like to improve the drinking water supply in the region and thereby enable a healthy and better life for people there. The



Clean and affordable water is fundamental for a healthy life (Photo: Helvetas)

employees of UNEP create new ways for handling the resource water by collaborating with local people. This means: the South Africans receive the needed technical equipment, are educated in sustainable water management, and circulate the lessons learned to others. For the short-term 20,000 people, and in the long-term one million people, get access to clean and affordable drinking water. One part of the revenues achieved by the improved water supply goes back into the project. The drinking water supply can thus be financed and further developed in the long run.

BASF employees from Germany and South Africa proved their readiness to help others by donating more than €100,000 for the drinking water project in the last Christmas donation campaign. The company provided an additional donation of €100,000.

### Promoting biodegradable bags for Thailand

The National Innovation Agency (NIA), Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ: German Technical Cooperation), Thai Bioplastics Industry Association (TBIA) and BASF launched a pilot project to highlight the potential of composting as a feasible and effective waste management option.

The pilot project is a first for Thailand and will demonstrate the use of biodegradable plastic bags to collect household organic waste in the most efficient way, as well as the potential of producing organic matter or fertilizer from organic waste.

BASF's Ecoflex<sup>®</sup>, a fully-biodegradable, compostable polyester, which is tear-resistant, puncture-resistant, waterproof, and printable, will be the main compound of the fully biodegradable plastic bags.



Dr. Jens Hamprecht, Head of Global Product Management, Biodegradable Polymers of BASF, and Dr. Suchinda Chotipanich, Permanent Secretary, Ministry of Science and Technology, explaining how to use the biodegradable plastic bag for the collection of organic wastes

more information

## The first passive building in French social housing

Energy-efficient housing for everyone – this is the idea BASF, the French housing company le Foyer Rémois, and the French energy company EDF share. In March, the partners dedicated "La Clairière" in Bétheny near Reims, the first passive building in French social housing. BASF contributed products and expertise in the field of energy-efficient construction to the project.



French social housing building "La Clairière" in Bétheny near Reims

The aim of the project La Clairière was to create comfortable living spaces that are energy-efficient and at the same time affordable for everyone. The building contains 13 units, of which four are handicap accessible. La Clairière needs fewer than 15 kilowatt-hours a year per square meter of heating energy. That is considerably less than the 50 kilowatt-hours per square meter per year which French law defines as low-energy standard.

This was made possible mainly by a thermal insulation system based on Neopor<sup>®</sup>, while the building's roof and floor insulation also use Elastopor<sup>®</sup> from BASF Polyurethanes.

In addition, BASF and le Foyer Rémois mutually signed a Memorandum of Understanding concerning their future strategic partnership. Part of the concept is also training architects, contractors and builders in construction systems, application techniques and the passive house concept itself.

## Educational development of needy communities in São Paulo

During the 5<sup>th</sup> Edition of the World Urban Forum in March, a new public-private partnership presented a project for the construction of a large Community Centre in the district of Vila Brasilândia in São Paulo's North Zone. The partners are BASF, BASF Social Foundation, CDHU (the Housing and Urban Development Company of the State of São Paulo), the United Nations Programme for Human Settlements – UN-HABITAT and architect João Valente from architecture firm Valente, Valente Arquitetos.

The location shall be used by the community for the implementation of the project named "Support for Community Development and Business Ventures among the Young in Vila Brasilândia", social work that seeks to generate opportunities and



Presentation of public-private partnership for Brazil during 5th World Urban Forum

income for needy youngsters in this community.

The partnership between the institutions aims to not only help towards social development but to also encourage other companies and government institutions in the building of awareness with regard to the social and educational ills of the country.

more information

#### BASF Corporation celebrates Earth Day

To celebrate Earth Day on April 22, the BASF's Florham Park New Jersey Chapter of the Women in Business employee group, in coordination with Communications and Ecology, Health and Safety hosted an event on Climate Protection, a global, regional and local perspective.

Dr. Cordula Mock-Knoblauch from BASF SE, Climate Protection Coordinator, helped employees understand BASF's 3:1 carbon balance and the company's global position on climate protection. James L. Bero, Senior Vice President of Ecology, Health and Safety, discussed BASF Corporation's position on U.S. climate policy and Colby A. Swanson, Manager of Building and Construction Markets, demonstrated how individual employees can promote climate protection through energy efficiency at home utilizing BASF products such as insulation materials and at the same time save energy costs.

The event educated and engaged employees about how BASF proactively addresses the challenges around climate protection and seeks sustainable solutions.



Planning team and speakers of Earth Day event at BASF Corporation

#### Contact:

Do you have questions or comments? We are looking forward to your suggestions:

BASF SE Sustainability Center

Dr. Iris Ursula Rau Phone: +49 621 60-97027 Fax: +49 621 60-95873 Email: iris.rau@basf.com

Internet: www.basf.com/sustainability

To order the report 2009 please click <u>here</u>.

