

### The MS Wissenschaft exhibition ship

From 18 May to 7 October 2010, the MS Wissenschaft exhibition ship will stop at over 30 cities in Germany – and make a short side tour to Austria. School pupils are especially welcome to come aboard and tour the ship's 600 m<sup>2</sup> exhibition area, a wealth of displays about future energy use and about current research projects that could have major impacts on our society. Young visitors are urged to get involved with the ship's interactive exhibits – and possibly even discover that they want to be a part of efforts to shape the future of energy!

### Exhibition on the Isle of Mainau, Lake Constance

The "Discoveries" exhibition, focussing on the topic of energy, will take place from 20 May to 29 August 2010 on the Isle of Mainau, in Lake Constance. In connection with its major focus, the exhibition will highlight global challenges and sustainability issues. With this orientation, the event's exhibitors want to present ways of significantly reducing emissions and to feature promising new research ideas. At a total of 18 different exhibit stations, young people will have the opportunity for a close look at basic energy principles, the history of energy use, and energy strategies and visions. A special supporting teaching programme will round out the event.

### Science Summer 2010

For one week, this coming summer in the city of Magdeburg will be a science summer: From 5 to 11 June 2010, the science festival of *Wissenschaft im Dialog* (Science in Dialogue) will take place in that city, home of pioneering scientist Otto von Guericke. The science festival will be sure to spark your interest in new ideas and fascinating current scientific research. At a range of different locations in Magdeburg, including the city's Alter Markt (Old Market), scientists from Magdeburg, the surrounding region and throughout Germany will appear in person to report on their own careers and work.

## Help share the future of energy. Become a Science Year 2010 partner.

A reliable, affordable and clean energy supply is an indispensable part of a bright future for society. And energy research is leading the way toward such an energy supply. We need your help in our efforts to communicate the importance of such research to young people: Plan a project, an event or a competition on the topic of energy research, in the framework of the Science Year 2010. Then, add your plan to the calendar at the Science Year Web site. On 25 September 2010, the Day of Energy, open your institution to children and young people. And present your activities under the umbrella of the Science Year 2010. Enter your name in the research exchange, and take the opportunity to inspire young people with your work. The Science Year 2010 offers you a range of attractive opportunities – please join us by becoming a Science Year 2010 partner.

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#### Imprint

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Initiated by the German Federal Ministry  
of Education and Research

Science Year 2010

# The Future of Energy



Dear readers,

Profound climate changes, limited resources and drastically growing energy demand will combine to present mankind with what will surely be its greatest challenge in the coming years: How can we achieve long-term energy security without endangering our environment?

Energy research has answers to this question. Scientists from many different fields are developing new methods and technologies that

will enable us to use resources more efficiently and intelligently and to develop renewable energies.

During the Science Year 2010 – *The Future of Energy*, researchers will welcome visitors to their laboratories and explain their work. In areas as diverse as hybrid cars, bio-refineries and nuclear fusion, scientists are turning good ideas into pioneering innovations.

The most important “fuel” for research is curiosity! That is why the Science Year 2010 – *The Future of Energy* is designed to inspire curiosity. And, working under the motto “Driven by curiosity”, we especially want to spark the enthusiasm of children and young people. After all, the young generation’s enthusiasm is the foundation for tomorrow’s innovations. A broad and diverse range of events will give young researchers the opportunity to discover and get caught up in the excitement.

I cordially invite you to learn more about the fascinating world of energy research – and to see first-hand how we can already use energy more efficiently and effectively today.

Prof. Dr. Annette Schavan, Member of the German Bundestag  
Federal Minister of Education and Research

## The Science Year 2010 – The Future of Energy

The Science Year 2010 is focussed on the Future of Energy. How can we produce electricity and heat safely, reliably, cost-effectively and cleanly? The Science Year 2010 seeks to highlight the central role that energy research is playing in finding viable answers to this question. A great many scientists are cooperating closely to develop new ways of using energy intelligently.

The Year of Science has four thematic focuses:

### **Better protection for our climate and environment**

How can we use fossil fuels – coal, oil and natural gas – more cleanly and more responsibly?

### **Energy efficiency**

Intelligent use of energy resources is one of the keys to reducing global energy consumption.

### **Renewable energies**

How can we improve solar, wind-power, hydroelectric, geothermal and biomass systems and (especially) make them more cost-effective?

### **International cooperation**

In international cooperation, we need to concentrate on making safe, clean and climate-friendly energy available to all the world’s people.

The Science Year 2010 is being sponsored by the Federal Ministry of Education and Research (BMBF), in cooperation with *Wissenschaft im Dialog* (Science in Dialogue) and the Helmholtz Association of German Research Centres (HGF). Its purpose is to present the world of research to the public, and especially to children and young people. This year, for the first time, a Science Year will present topics of vital future importance. Via an overarching approach, it will highlight research – comprehensive, interdisciplinary and systematic – that is underway in the interest of our future.

### **Getting involved on the Day of Energy: 25 September**

The highlight of the Science Year 2010 will be the Day of Energy (Tag der Energie), 25 September 2010. On that day, universities, research institutions, museums, municipal utilities, energy facilities and companies will open their doors and invite visitors to learn about new developments and research projects. In the process, visitors will have the opportunity to learn about how energy is produced and used now and how it will be produced and used in the future. We urge you, too, to offer an open house on the Day of Energy – and to present your activities under the umbrella of the Science Year 2010 – *The Future of Energy*.

### **Exhibitions and events nation-wide**

Under the motto, “Driven by curiosity”, a wide range of different events and special programmes, such as workshops and competitions, will be offered. The Web site [www.zukunft-der-energie.de](http://www.zukunft-der-energie.de) includes a calendar in which events can be entered and checked.

### **The research exchange**

Via the research exchange at the Web site [www.zukunft-der-energie.de](http://www.zukunft-der-energie.de), school classes and teachers can invite energy experts to their classrooms or set up appointments to visit them and watch them in action. In such encounters, children and young people will receive exciting and fascinating insights into research and first-hand looks at an enormous variety of different energy-research areas.

### **Energy and schools: A platform for instruction materials relative to the topic of “Energy”**

The *Schools Online* initiative is giving schools online access to content of the Science Year 2010. And it offers teachers a broad range of interactive instruction materials for secondary levels I and II, as well as for elementary schools and vocational training programmes. It also features an **online computer-simulation game** in which young people can develop their visions for the energy systems of the year 2050. In addition, the platform presents an **online energy quiz**, in which participants can try their hand at answering 10,000 questions posed by scientists.