

Messe News

March 2010

Research & Technology

PARTNER COUNTRY 2010
ITALIA
sustainable mobility



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Prof. Annette Schavan, German Federal
Minister of Education and Research

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Prof. Erich Barke,
President, Leibniz University of Hannover

HANNOVER MESSE at a glance

Ticket prices, opening
times, press services and
much more – visitors will
find an up-to-date sum-
mary of key facts and in-
formation about HANNOVER MESSE
2010 on page 4.

Innovations marketplace

Research & Technology tradeshow facilitates effective networking with
“tech transfer,” “Night of Innovations” and much more



© GKSS-Forschungszentrum Geesthacht

The beauty of research. Under the microscope, this magnesium alloy is an harmonious and productive interplay of many parts – just like the Research & Technology fair.

The Research & Technology fair at HANNOVER MESSE 2010 is an international marketplace for the latest research findings and industrial innovations. It has one overarching objective: to facilitate the productive transfer of technology between science and industry.

From research to commercialization: “tech transfer – Gateway2Innovation”

For example, the “tech transfer – Gateway2Innovation” forum provides solutions for all aspects of the tech transfer process – everything, from

securing financing, to selecting the appropriate cooperation model, through to ensuring compliance with product standards. It helps research institutes and businesses commercialize new technologies in the most efficient way possible. Prof. Gerd Wassenberg, head of the tech transfer project, explains the forum’s unique value to industry: “At tech transfer, visitors looking to commercialize new technology find all the information they need under one roof.”

Night of Innovations: technology trends in a relaxed, after-work atmosphere

The Night of Innovations is a regular highlight at the tech transfer forum on the evening of the opening day of HANNOVER MESSE. This year it starts at 5.15 p.m. and will be opened by the Prime Minister of Germany’s Lower Saxony state, Christian Wulff. The event provides a relaxed, after-work atmosphere where exhibitors and visitors can discuss and discover the latest trends, make new contacts and initiate productive business dialogue. Networking at its best!



Virtually a tradition: the Prime Minister of Lower Saxony, Christian Wulff, opens the Night of Innovations in the Research & Technology hall.

For further details, visit:
[hannovermesse.de/
research_technology_e](http://hannovermesse.de/research_technology_e)

“Cabinet of Scientific Curiosities” – Secrets of research revealed!

The “Cabinet of Scientific Curiosities” is a traveling roadshow set up in Hall 2 at HANNOVER MESSE 2010. Organized by the Helmholtz Association, it is a place where visitors can trace the footsteps of some of the world’s greatest scientific researchers. The show comprises 16 hi-tech “chambers of wonders” and features some 500 multimedia displays showing how Helmholtz researchers bring the universe into the laboratory and answer some of the big questions of our times.

Basis for a competitive economy

What holds the universe together at its deepest level? What turns bacteria and viruses into pathogens? What role do diatoms – a type of algae – play in the development of lightweight aluminum car wheels? These are just some of the many scientific, economic and social research issues in the Helmholtz Association’s strategic research program. The Association is engaged in the quest for new knowledge that will help preserve and even improve the human condition and create a strong technology basis for a competitive economy. It contributes to our knowledge of matter, energy, space and time in six fields of high-level research: Energy; Earth and Environment; Health; Key Technologies; Structure of Matter; and Aeronautics, Space and Transport. Its researchers develop aircraft, next-generation energy storage devices and photovoltaic cells. They discover new chemical

elements and conduct research into new materials and new ways of treating diseases.

Integrated perspective

Systems with complex structures or behaviors are nothing new. What is relatively new is science’s ability to adequately study them. Whereas in the past science could do no more than split complex systems into their individual components and focus on them in isolation, it now has the technological and methodological wherewithal to view the complex interplay of a colossal number of components as a whole. And this is true whether the system in question is a rainforest ecosystem, the Earth’s atmosphere, the immune system, the human brain, or transport systems in large population centers.

Science and society in dialogue

The Helmholtz Association’s roadshow thus lends an added dimension to the wide range of exhibits by research institutes and companies at HANNOVER MESSE 2010. It provides a new and highly immediate way for visitors to experience how scientists go about their research. The exhibition is primarily a visual event in that it dispenses with explicit explanations in the first instance. Visitors can instead read up on the science behind the pictures in specially provided booklets. They can also use touchscreens to navigate directly to a more in-depth gallery that gives detailed explanations of all the images on

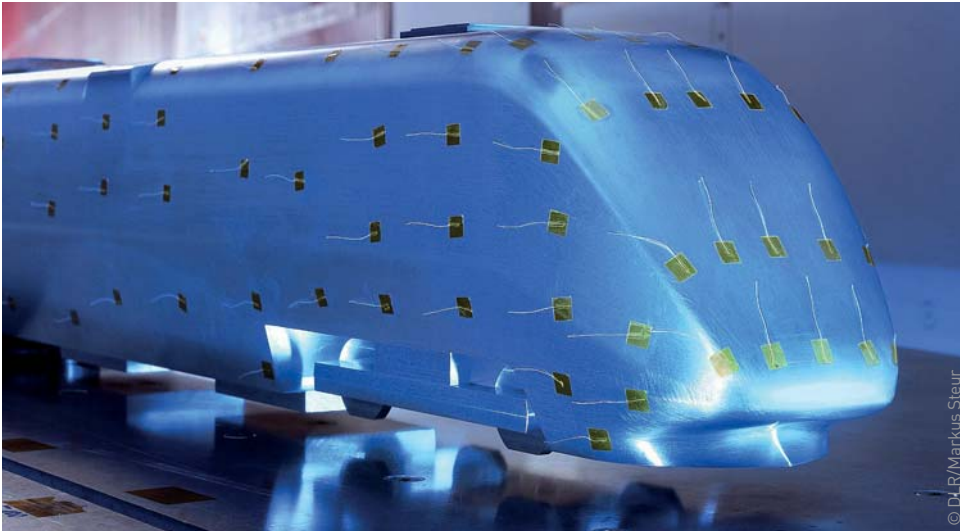
display. The Helmholtz Association has not so much been surprised by the success of its roadshow as totally overwhelmed. “The exhibition takes a new approach to making research accessible and understandable to the general public. It provides insights into a world that is often the exclusive preserve of scientists. This is a groundbreaking contribution to dialogue between science and society and as such has so far been very well received,” the Association’s head of communications and media relations, Thomas Gazlig, said.

Leading-edge technology for the market

The Helmholtz Association comprises 16 research centers and has an annual budget of about 2.8 billion euros, making it Germany’s largest research organization. It employs some 28,000 people and conducts high-level research in a number of programs spanning six fields: Energy; Earth and Environment; Health; Key Technologies; Structure of Matter; and Aeronautics, Space and Transport. The Association’s technology transfer ethos is modeled on the practice-oriented outlook of its patron, Hermann von Helmholtz, one of the greatest natural scientists of the 19th century.



Another kind of chamber of wonders: Technician inside the spectrometer tank at the Karlsruhe Tritium Neutrino Experiment (KATRIN). Cleanroom clothing is an absolute must for anyone entering the tank. When completed, the facility will operate under ultra-high vacuum conditions. Even the tiniest impurity would render the experiment worthless.



Train prototype in a wind tunnel. Ensuring compliance with safety requirements and determining the vehicle's environmental impacts during operation require a whole battery of aerodynamic tests. The wind tunnel provides the perfect controlled environment for this.

VISION 2050 – How mobile will we be 40 years from now?

Some future mobility scenarios are backed by solid research. One predicts that mobility will be more convenient, informative and safe, while another foresees that it will in many cases be redundant because virtual meetings will eliminate the need for physical meetings. Then there's everything else in between – countless scenarios, and all of them technically feasible. It's a huge area that is receiving a lot of attention from science, research, government and business.

The challenge of individual and collective mobility is fertile ground for innovation, as will be seen at the VISION 2050 special display, which is back again this year after its enormously successful premiere in 2009. In Hall 2, leading research institutes and companies will be profiling a number of important aspects of

tomorrow's world. Among the questions they will be addressing are: Will internal combustion engines still be around in 40 years? Will accident rates fall dramatically if all vehicles on our roads are equipped with car-to-car communication systems? Will the ability to transmit large volumes of data to moving objects transform cars and trains into totally viable workplaces and open up new options for traffic monitoring and control? Of course, these visions cannot be realized without technical innovation in allied areas such as high-speed fiber-optic networks and base stations, a fact that highlights the need multidisciplinary collaboration. Facilitating this kind of collaboration is one of the key roles of the Research & Technology fair, as exemplified by the close ties between its VISION 2050 display in Hall 2 and the MobiliTec fair in Hall 27.

Technology transfer plus: b2fair cooperation exchange

Successful trade fairs generate plenty of quality leads for their exhibitors. The b2fair business cooperation exchange will again be a core part of the lead generation process at HANNOVER MESSE 2010. Located in Halls 2 and 27, b2fair is a simple, highly time- and cost-effective way for exhibitors to meet new business partners, customers and suppliers from all parts of the industrial value chain. The Hall 2 component of b2fair is titled "Technology Cooperation Days" and is based at the tech transfer pavilion. Organized by b2fair in cooperation with the Enterprise Europe Network (EEN), the Technology Cooperation Days will be in their second season at HANNOVER MESSE 2010, following their successful launch last year. Their objective is to help broker R&D cooperation agreements and foster technology partnerships, with a strong focus on quality innovation strategies and technology transfer.

The b2fair platform as a whole is an integrated business-to-business forum offering tailored, industry-specific matchmaking services to a wide range of industries. It brokers, organizes and coordinates B2B meetings based on its users' individual cooperation requirements. Since its introduction at HANNOVER MESSE 2005, the b2fair cooperation exchange has successfully brokered meetings between significantly more than 1,600 companies from over 40 countries. More than one third of the 18,000 initial contacts generated by b2fair have led to follow-up dialogue.

Further details:
b2fair.com/hannovermesse2010

Adaptronics, Bionics and Textile Solutions – Themed exhibitions for three key trends

Like bionics, technical textiles and smart textiles, adaptronics is a technology that has moved out of the laboratory and been in industrial use for quite some time. One of the main reasons for this is the dramatic drop in series production costs in recent years. Adaptronics [adaptive electronics] is now finding increasing use in innovative mechanical and robotics products. Bionics – a multidisciplinary field comprising biology and electronics – has a similar success story and an equally big future in industrial applications. Similarly, technical textiles, a

broad discipline with wide applications in things like fiber-reinforced components and electrically conductive textile structures, is finding buyers in industries which have traditionally had little to do with the textiles industry. Notable examples include the automotive, aircraft, medical technology and environmental technology sectors and even architecture.

The Research & Technology show is supporting the rapid development of these technologies with three themed pavilions: Adaptronics, Bionics, and Textile Solutions.



Firm from Italy revolutionizes restaurant and catering trade

Anyone familiar with Italy's exquisite culinary culture will not be surprised to learn that the HANNOVER MESSE 2010 Partner Country's R&D focus includes gastronomy. CEI Systems, of Grugliasco (Turin), has developed the ATZ4, a handheld terminal that gets the food onto the table quicker by enabling restaurant service staff to electronically record orders at the table and transmit them directly to the cash desk. CEI Systems is a successful firm that specializes in the manufacture and sale of electronic devices, primarily for restaurants,



pizzerias, pubs, discotheques and cafés in Italy and Europe. The ATZ4 is an excellent example of the company's product range. It is easy to use, elegant and, at only 15 cm long, very portable. It features advanced wireless technology for rapid, secure data transmission, has a large, nonreflective display that adjusts its brightness according to conditions, and is powered by a long-life lithium-ion battery. The perfect companion for the hard-working waiter. CEI Systems will be showcasing its innovations at the Research & Technology fair.

PROMOTION WORLD – specialist trade fair for promotional products and incentives

This year will be the fifth year that PROMOTION WORLD, the international trade fair for promotional products and incentives, is co-located with HANNOVER MESSE, the world's leading industrial technology expo, at the Hannover Exhibition Center. Located in Hall 18, PROMOTION WORLD shares powerful synergies with HANNOVER MESSE's nine flagship fairs, especially its Research & Technology fair, which is right next-door in Hall 2. This is a perfect opportunity

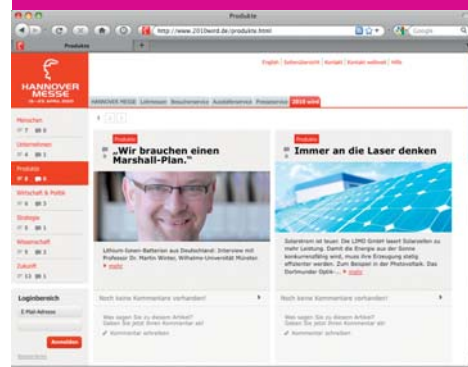
for R&T visitors and exhibitors to learn how their business can benefit from the optimized use of promotional give-aways. The best time to visit is during PROMOTION WORLD's four trade-professionals-only days, from 20 to 23 April. The displays include leading brands, such as WMF, Pelikan, Kahla Porzellan, Villeroy & Boch, Lamy and many more.



For further information, visit promotion-world.de/homepage_e

“We need a Marshall Plan!”

Any country seeking to shape the future of electric mobility needs an efficient research infrastructure and a competitive lithium-ion battery manufacturing industry. How does Germany measure up internationally? What areas need improvement if that country is to keep up with the big Asian providers? www.2010willbe.com spoke with lithium-ion technology expert Prof. Martin Winter, of Münster University. Have your say!



You'll find interviews with Prof. Winter and many other experts plus profiles of exciting innovations and key trends online at www.2010willbe.com.



HANNOVER MESSE 2010 in brief

Deutsche Messe AG

Messegelände, 30521 Hannover, Germany

Opening hours Mon 19 April to Fri 23 April 2010, open daily from 9 a.m. to 6 p.m.

Tradeshows lineup at HANNOVER MESSE 2010

Industrial Automation, Energy, Power Plant Technology, MobiliTec, Digital Factory, Industrial Supply, CoilTechnica, MicroNanoTec, Research & Technology

Internet

Press releases available at www.hannovermesse.de/pressservice

Digital images available at www.hannovermesse.de/imagedatabase

General information, services and order forms, as well as information on exhibitors and their products available at www.hannovermesse.de/homepage_e

Admission prices

1-day ticket	Full-event ticket
Advance sales € 23.00	Advance sales € 53.00
At the gate € 29.00	At the gate € 63.00

1-day ticket, discounted (for school and tertiary students, trainees and persons engaged in compulsory military service or alternative service):
At the gate € 13.00

Advance sales of one-day and full-event tickets

- Buy online at www.hannovermesse.de/tickets_e
- Order through Deutsche Messe's foreign representatives

Visitor information system

Detailed information (in English and German) on exhibits, supporting events, etc. can be accessed via Electronic Visitor Information (EBI) terminals located in all halls and service areas

Rooms in all categories of hotel can be reserved online at

www.hannovermesse.de/hotels/hannovermesse
Direct inquiries are also welcome:
Hannover Marketing & Tourismus GmbH
Tel. +49 511 12345 555, hotels@hannover-tourismus.de

Press Service

The Press Center is located next to the Convention Center (CC) on the Exhibition Grounds. Open 8.30 a.m. to 7.00 p.m. Sunday 18 April – Thursday 22 April 2010 and 8.30 a.m. to 5.00 p.m. Friday 23 April. There is a shuttle bus service between the entrances and the Press Center.

End-of-show press conference

Friday 23 April 2010, 11 a.m., Room 3, Convention Center, Exhibition Grounds, 30521 Hannover

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Published by Deutsche Messe
Messegelände
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Content & design:
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Translation: Down Under Translation, New Zealand
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