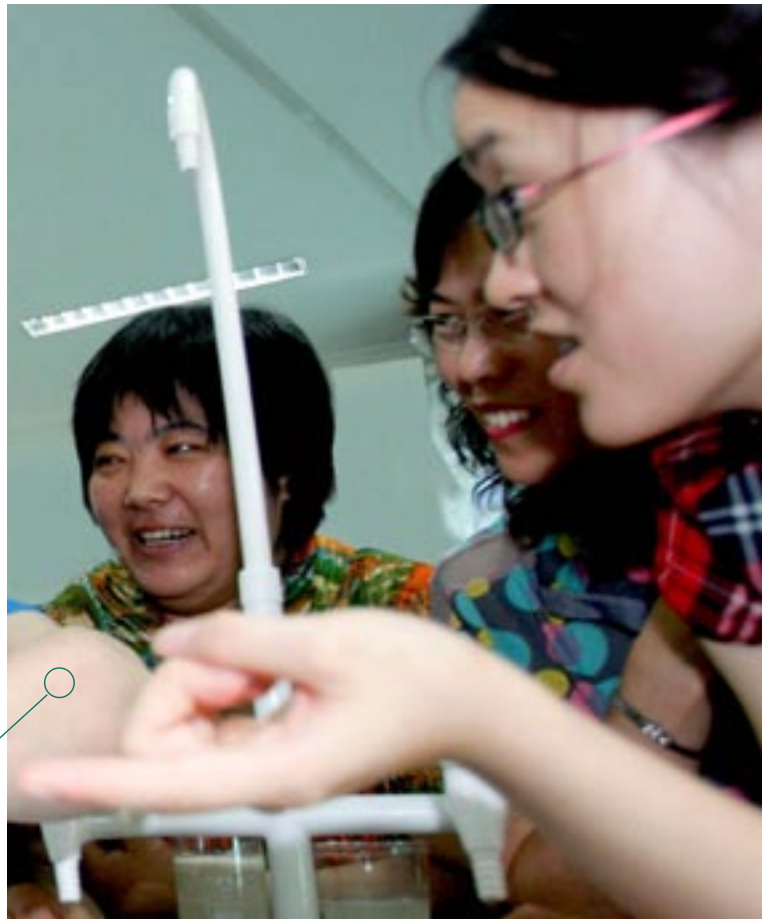
Agilent Technologies Foundation 2006

Science Today for Tomorrow's Success

Using an inquiry approach, a lead instructor for the Clean Air Challenge program in China engages participants in a curriculum addressing issues of air pollution.



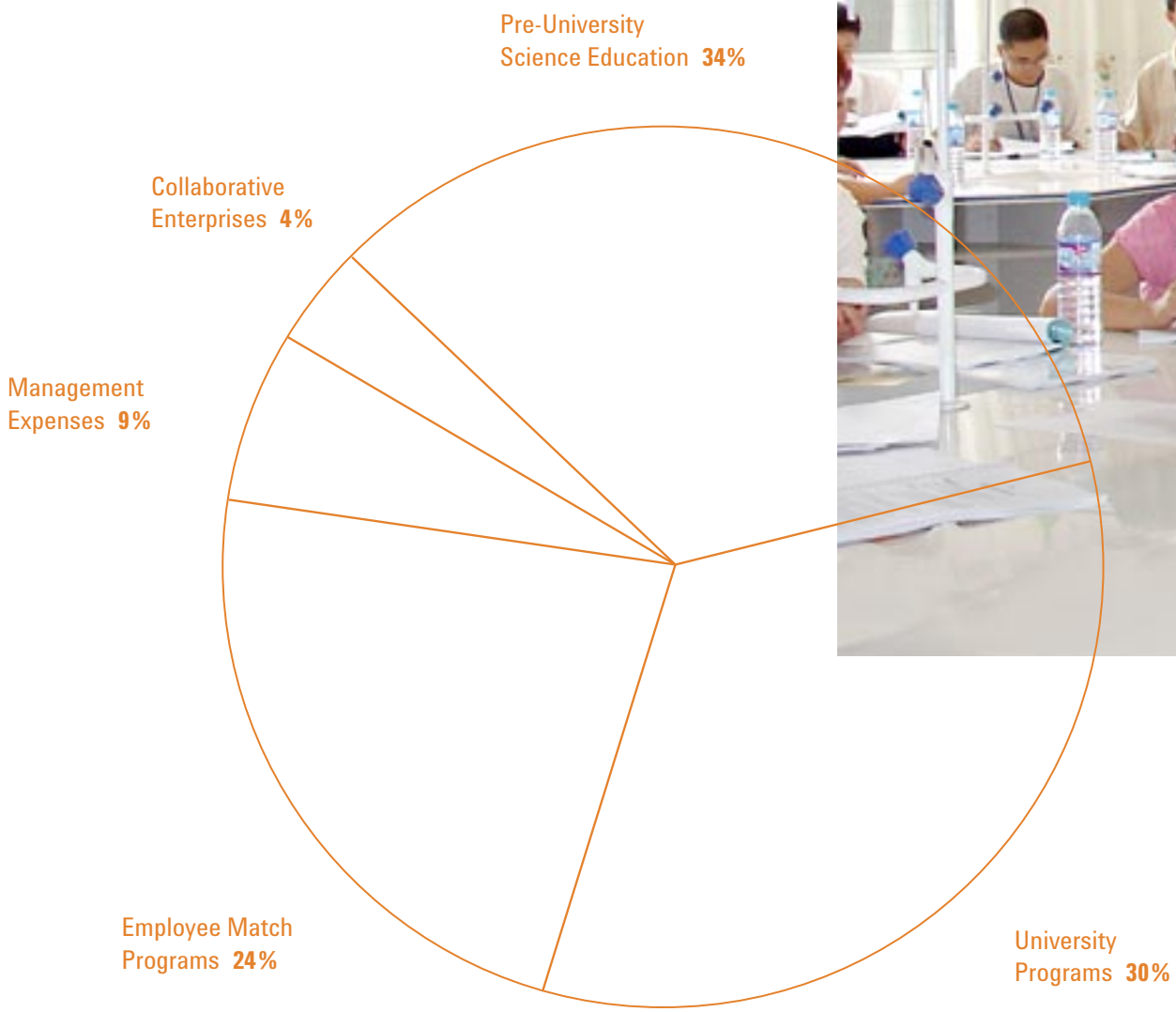
In 2006 the Agilent Technologies Foundation strengthened its focus with strategic grant investments in two major areas, areas which represent the talent and technology pipeline into the technology industry: pre-university science education grants, which focus on students ages 13–18, and university grants, which support research in areas of current and future interest to the technology industry at large.

Our programs are global in scope, contributing to the educational infrastructure of the communities, countries and regions where Agilent has a presence.

Science education and technology research are essential to the current, future and rapidly changing technology workplace and are critical to the future success and competitiveness within the technology sector. We think of it as science today for tomorrow's success.

Karen R. Lewis
Executive Director, Agilent Technologies Foundation

The Agilent Technologies Foundation focuses on advancing pre-university science education around the world by creating and supporting strategic initiatives linked to change and improvement in student learning and engagement. At the university level the Foundation funds research at the frontiers of measurement in electronics, chemical and biological sciences. The Foundation match of employee giving strengthens the communities where Agilent has a presence.



In partnership with the Agilent Foundation, Teachers Without Borders and its volunteers provided an opportunity for teachers in Sichuan Province, China to deepen their knowledge of inquiry-based science instruction.

Pre-University Science Education

Our pre-university grants focus on programs that develop the leadership capabilities of classroom science teachers, using inquiry-based science to improve student engagement and learning. With this focus, Foundation grant funds reach the greatest number of students and have the widest possible influence in helping students develop creativity and the critical thinking skills essential for tomorrow's jobs. In countries where Agilent has a presence, our community grants promote science education initiatives that address local needs. In 2006, the Agilent Technologies Foundation provided $1.85 million in pre-university science grants worldwide.

University Grants

Approximately 90% of Foundation-related university grants support promising science and engineering research projects at key universities as well as professors and engineers working in academic areas of current and future interest to the technology industry at large.

At the university level, the Foundation funds science and technology research by supporting professors and students working at the forefront of electronic and bio-analytical measurement technologies—areas which are critical to the future of the high-technology industry. In 2006, the Agilent Technologies Foundation provided $1.6 million in the form of grants and fellowships to support research and educational programs at 29 universities worldwide.

Learn more about University Relations

Creativity, problem solving and teamwork are all part of the BSCS National Academy of Curriculum Leadership, a leading professional development initiative building leadership teams in high school science education.

National Academy for Curriculum Leadership Builds Excellence at the High-School Level

While excellent professional development programs exist for K-8 science, there has been a void at the high-school level. That is changing, thanks to the work of the Biological Sciences Curriculum Study (BSCS) National Academy for Curriculum Leadership. The NACL is a comprehensive professional development initiative at the forefront in addressing the need for change in U.S. high schools to improve student achievement in science and enhance the country's future workforce capabilities. NACL assists school districts to build their capacity to design, implement and sustain an effective, inspiring high-school science program that uses inquiry-based teaching materials. To demonstrate its viability and sustainability as a regional program, Agilent partnered with BSCS to pilot the newly developed NACL in Washington state. The pilot's success is the building block for NACL expansion throughout the U.S. and internationally. Acting as an early-stage partner with BSCS, the Foundation is developing additional NACL partners to expand the reach of excellence in high-school science education.

Learn more about NACL

Students in India present experiments demonstrating the relationship between the sun and the earth.

Agilent Foundation Launches 'QUEST' in India to Leverage Teacher Training

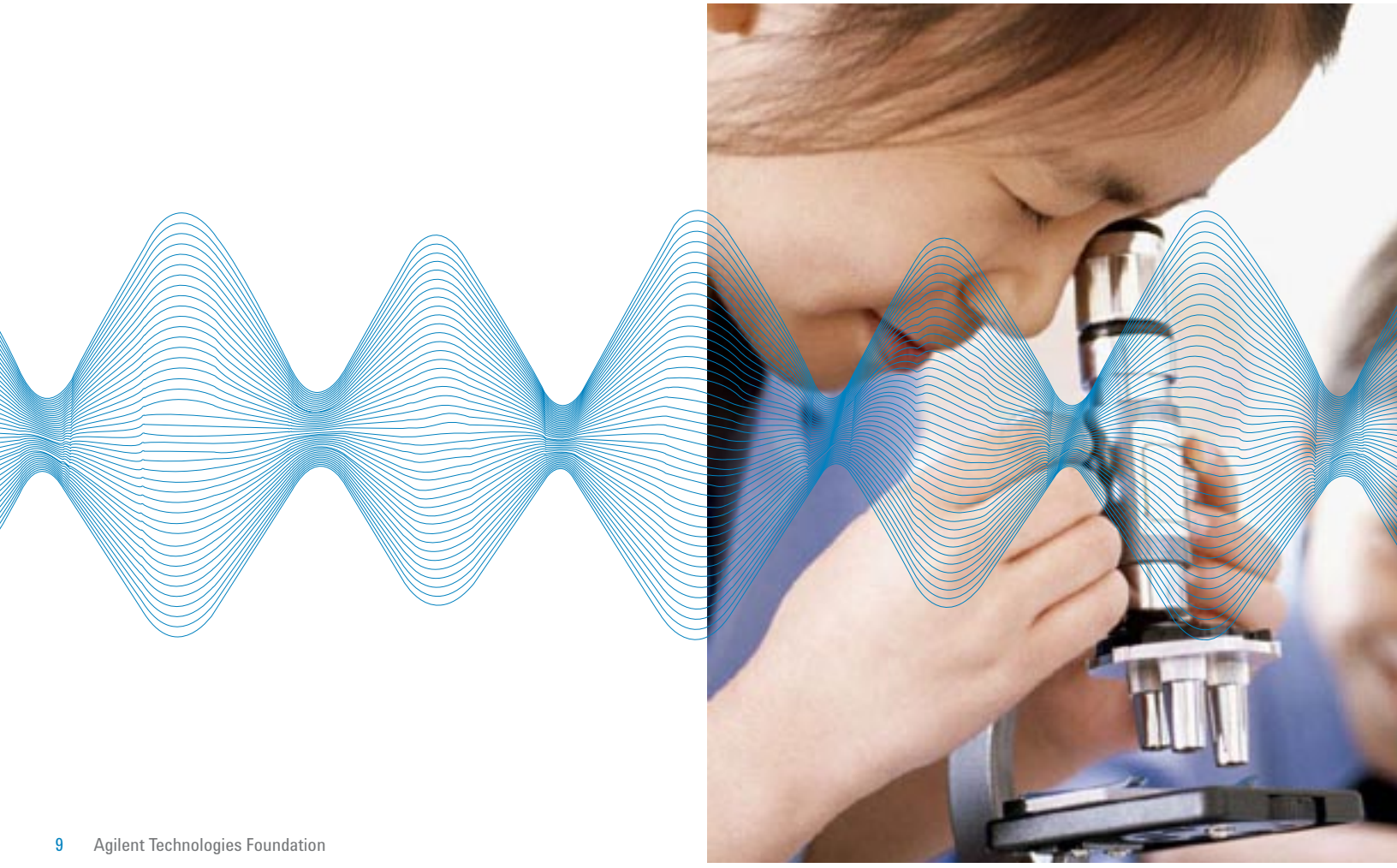
India's program to bring "Learning for All" to students in impoverished areas inspired the Agilent Technologies Foundation to commit to the first stage of a pilot project known as Quality Science Education and Teachers' Training (QUEST).
In partnership with the India-based SNS Foundation, the Agilent grant is funding laboratory facilities in resource-poor schools and providing training to science teachers. Thus far, the innovative pilot has been leveraged to reach 21 teachers and 2,626 students from ages 9 to 12 at government schools in Bangalore, Hyderabad and Gurgaon. Plans for 2007 call for expanding the program and adding more schools. QUEST's outcomes are aligned with India's program, Universalization of Elementary Education (Sarva Shiksha Abhiyan), which aims to provide quality education for all of India's children by 2010. QUEST is a pioneering example of the multiplicative power of teacher training. It demonstrates what an alliance of government, private interests, and a technology-based company can do to strengthen the capacity of teachers in impoverished regions of the world.

Learn more about Universalization of Elementary Education (Sarva Shiksha Abhiyan)

Teachers Without Borders Builds Bridges to Knowledge in Sichuan

In early 2006, the Agilent Technologies Foundation joined forces with Teachers Without Borders, the international non-profit teacher-development group, to launch a training program that is the first of its kind in western China. Aligned with the priorities of China's Ministry of Education, the initiative focuses on building the knowledge and skills of teachers in a region of the country where many of the poorest schools are located. To get under way, the Teachers Without Borders project director and a TWB teacher joined employees from Agilent Technologies China in introducing the program, explaining its goals and gaining the support of the local education and government offices. The teachers accepted it with enthusiasm, seeing the program as an opportunity to learn advanced teaching methodology, concepts and science teaching philosophy. Building on the Foundation's commitment to inquiry-based science, the teachers are learning how scientists work and how scientific research is conducted in order to shape their students' analytical skills. TWB volunteer teachers conducted workshops last summer for 140 Chinese teachers. The program plan is to expand within Sichuan Province, ultimately creating a provincial model.

Learn more about Teachers Without Borders

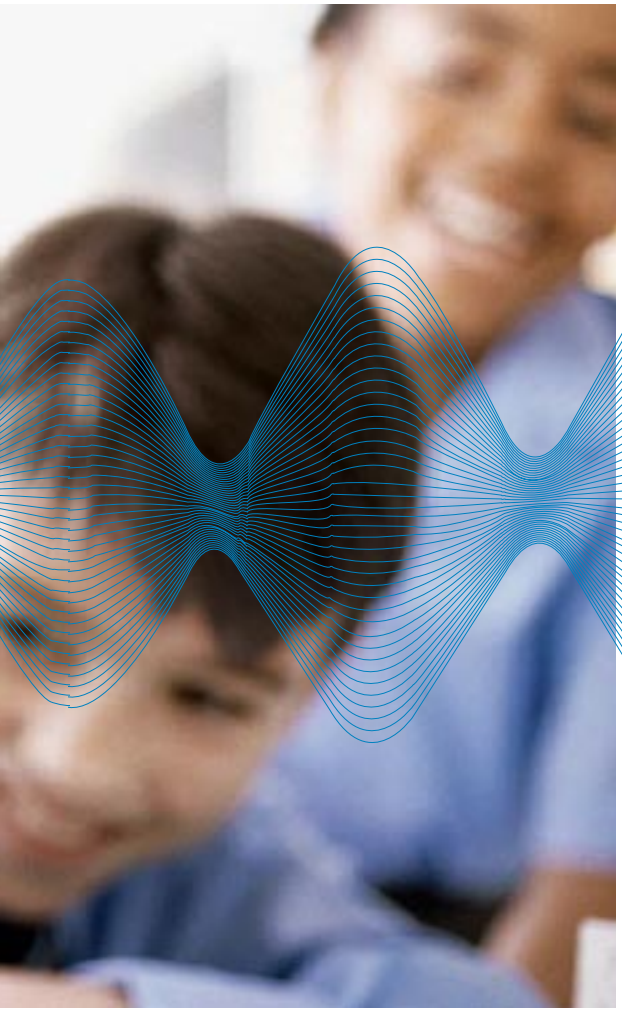


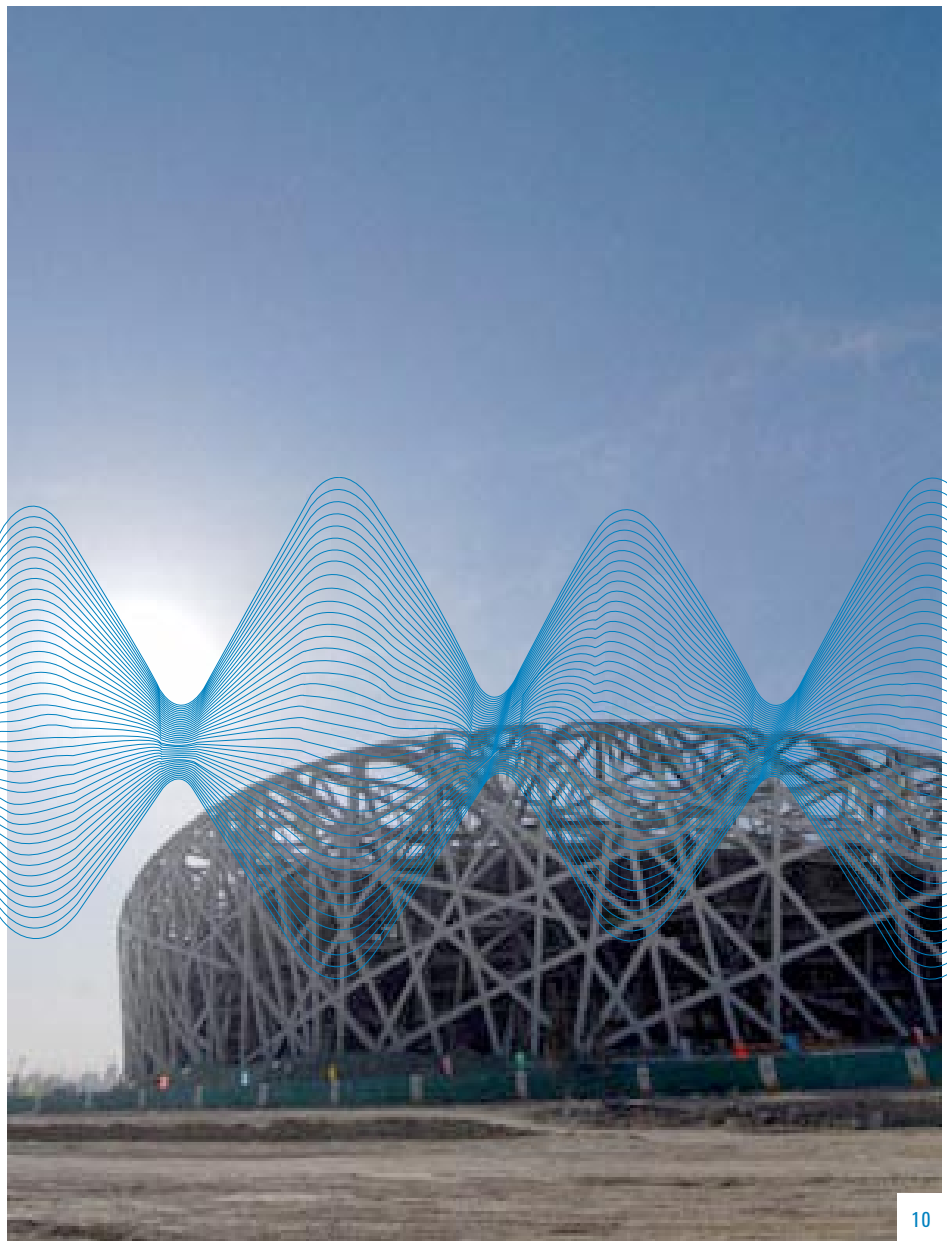
Clean Air Challenge Helping China Achieve Promise of 'Green' Olympics

The Beijing Games will take a unique place in the annals of sport, promising to become the first "green" Olympics. Building on this national focus, the Agilent Technologies Foundation expanded a U.S.-based environmental curriculum—the Clean Air Challenge—to include classroom training in China for high-school teachers and volunteers for the Beijing 2008 Olympic Games. The CAC teachers also are training local faculty to raise Chinese students' awareness about air pollution though science education. As Bai Keming, Party secretary of Hebei Province, said in a recent speech, "During the Games, blue skies are a requirement not only for Beijing, but also for the places around it."

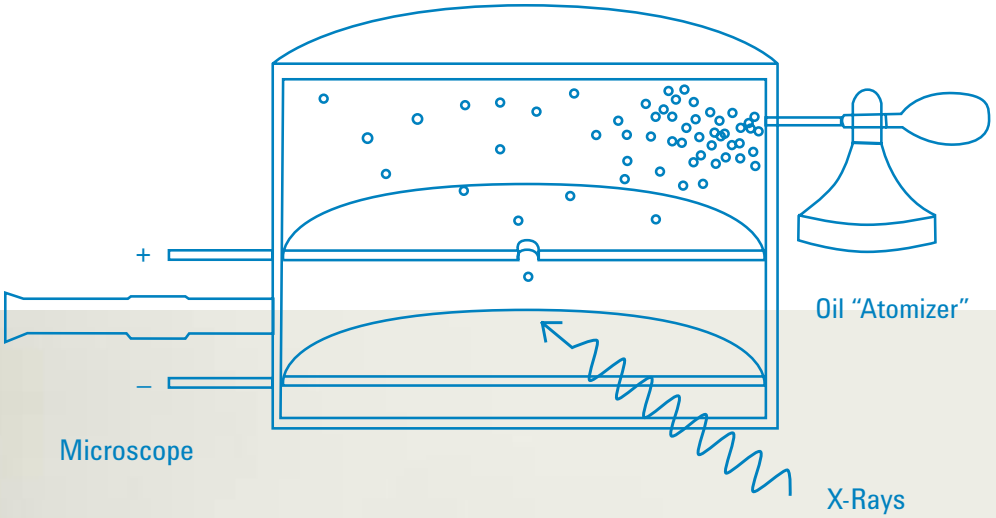
Learn more about the Clean Air Challenge

The Agilent Foundation focuses support on inquiry-based science to improve student engagement and learning.





Digital learning is a growing aspect of how students obtain knowledge and the Millikan Experiment is one example of online learning providing an experience not possible in an individual classroom.



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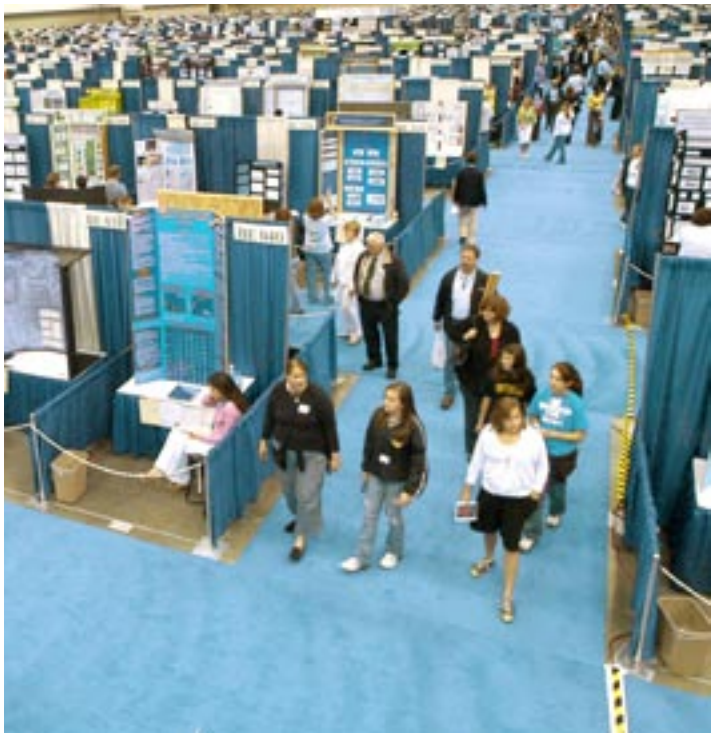

Students at The Intel International Science and Engineering Fair present their entries and have an opportunity to learn from other participants representing 47 countries.

Drop By Drop, Xplora Grant Shrinks Time And Distance for Science Classrooms Across Europe

How do you take a physics experiment typically covered in dry lectures and turn it into a vibrant classroom experience? That is the opportunity awaiting scores of European teachers, students and scientists as they bring the famed Millikan oil-drop experiment to life. Through a Web-based, European science-education portal called Xplora, the Agilent Technologies Foundation's grant is helping science-teaching partners — including the 28 national EU Ministries of Education, which operate the Xplora portal — to develop this Web experiment. It is an ideal pairing of science education with the collaborative, distance-shrinking power of the Web. To demonstrate the proof, a large database must be compiled with hundreds of measurements of the charge of a single electron. As a Web experiment, students enter individual results into the Xplora database and share them with students conducting the same experiment throughout the EU. Instead of observing a few pinpoints of light, students gain new insight into how and why scientists cooperate.

Learn more about Xplora

Foundation Backs International Science Fair

The Intel International Science and Engineering Fair is the world's largest "celebration of science" for students in grades nine to 12. The Agilent Technologies Foundation has become one of its key partners. The Foundation helped fund the 57th annual ISEF held in May 2006, in Indianapolis, Indiana. It was a record-setting event as 1,470 student finalists – the largest number ever — represented 47 countries in the week-long competition. With this donation, the Agilent Technologies Foundation helps to inspire young scientists' exploration and search for knowledge through the exciting, rigorous process of science fair competition.

Learn more about the Intel ISEF

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