



## **Laboratories for the 21<sup>st</sup> Century Annual Conference History (1999–2011)**

The Laboratories for the 21<sup>st</sup> Century (Labs21<sup>®</sup>) Annual Conference is sponsored by the International Institute for Sustainable Laboratories (I<sup>2</sup>SL), in partnership with the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA). The event is the largest gathering of sustainable laboratory professionals in the nation. Each year, the Labs21 Annual Conference highlights recent advancements in laboratory efficiency and performance, providing the laboratory and high-tech facility community with a unique forum for information exchange and education.

### **Conference Attendance**

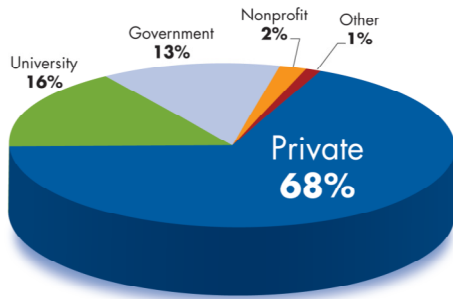
More than 700 high-tech facility professionals are expected to attend the Labs21 2012 Annual Conference scheduled to take place October 2 through 4 in San Jose, California.

<b>Conference Year</b>	<b>Conference Location</b>	<b>Conference Attendance</b>
2011	Providence, RI	692
2010	Albuquerque, NM	643
2009	Indianapolis, IN	607
2008	San Jose, CA	758
2007	Charleston, SC	560
2006	San Antonio, TX	555
2005	Portland, OR	545
2004	St. Louis, MO	452
2003	Denver, CO	484
2002	Durham, NC	410
2001	Washington, DC	358
2000	San Francisco, CA	218
1999	Cambridge, MA	111

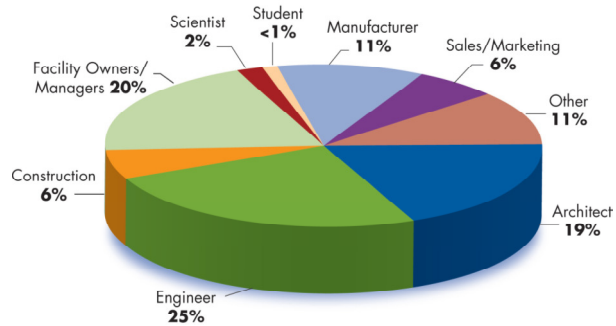
### **Conference Demographics**

The Labs21 Annual Conference draws laboratory owners, managers, engineers, architects, designers, operators, and builders, as well as manufacturers of sustainable laboratory technologies. Organizations include a range of federal agencies, public utility and service companies, universities, and private institutions.

Typical Percentage of Attendees by Employment Category at the Labs21 Annual Conference



Typical Percentage of Attendees by Profession at the Labs21 Annual Conference



According to Labs21 2011 Annual Conference surveys, taken as attendees registered for the event, 44 percent of attendees indicated that they planned to start a new project within the year, and 24 percent indicated that they have purchasing power.

### Conference Agenda

The Labs21 Annual Conference consists of the following types of presentations:

- **Technical Sessions**—These 30-minute presentations cover a wide variety of topics including, but not limited to, case studies, lessons learned, overviews of cutting-edge technologies and design strategies, and industry best practices that are aimed at reducing energy and water consumption and improving the environmental sustainability of laboratories and high-tech facilities.
- **Symposia**—These sessions provide attendees with a more in-depth look at topics pertinent to the Labs21 Community. New topics are developed each year, but past symposia have focused on metering, sub-metering, and benchmarking; operations and maintenance; international laboratory efforts and initiatives; construction; building information modeling; data centers for computational research laboratories; and carbon neutrality.
- **Morning Roundtable Sessions**—These informal, open discussions allow attendees to discuss new trends, issues, and other emerging topics for laboratory design, engineering, and operation.
- **Tool-Torials**—These late-morning sessions are similar to Morning Roundtables in that they encourage informal discussions among attendees; however, as the name implies, Tool-Torials cover useful tools and resources that the audience can use to improve their facility's level of energy efficiency.
- **Technology Demonstrations**—These demonstrations occur mid-day in the exhibit hall. The demonstrations allow vendors to showcase their sustainable technology by featuring their product in action, giving attendees the chance to see how various industry tests and procedures are performed.

- **Pre-Conference Workshops**—These workshops are taught by seasoned professionals and cover a wide range of topics. Courses range from a half day to a full day in length, and workshop participants are eligible to receive continuing education credits.
- **Poster Session**—This unique forum showcases some of the world’s most innovative projects and how they embrace a sustainable approach to laboratory design.
- **Working Group Meetings**—A number of different Working Group Meetings are coordinated by I<sup>2</sup>SL and scheduled throughout the Labs21 Annual Conference. These informal side meetings provide an opportunity for I<sup>2</sup>SL and select industry members to identify or initiate specific activities associated with promoting the mission and reaching the goals of I<sup>2</sup>SL.

### Keynote Speakers

Each year a prominent, forward-thinking industry or academic leader is invited to address conference attendees during the plenary session. Past keynote speakers include:

- **Honorable Lowell Weicker, Jr**, President of the Board of Directors, Trust for America’s Health (2011)
- **Dr. Jonathan Trent**, Senior Scientist, National Aeronautics and Space Administration Ames Research Center (2010)
- **Dan Darrach**, Director of the Office of Science and Technology Cooperation, U.S. Department of State (2010)
- **Dr. John C. Lechleiter**, Chairman, President, and CEO of Eli Lilly and Company (2009)
- **Dr. Marcia McNutt**, President and CEO of the Monterey Bay Aquarium Research Institute (2008)
- **Dr. Chris Field**, Director of the Department of Global Ecology at Stanford University (2008)
- **John Knott**, President and CEO of the Noisette Company, a development company for the base realignment and closure of the North Charleston Naval Base, South Carolina (2007)
- **Dr. John Kelly**, Vice President for Public Service and Agriculture at Clemson University (2007)
- **Juan Enriquez**, Founder, Chairman, and CEO of Biotechonomy (2006)
- **Kevin Hydes**, Chair of the U.S. Green Building Council and President and CEO of Keen Engineering (2006)
- **Dr. Dan Arvizu**, Director of DOE’s National Renewable Energy Laboratory (2005)
- **Douglas S. Kelbaugh**, Fellow of AIA, Dean and Professor of Architecture and Urban Planning at the University of Michigan (2004)
- **William McDonough**, Founding Principal of William McDonough + Partners, Architecture and Community Design (2003)
- **Dr. George Tchobanoglaus**, P.E., Professor Emeritus, University of California, Davis (2002)
- **Peter Garforth**, Global Energy Manager, Owens Corning (2001)
- **David Gottfried**, WorldBuild Technologies, Inc. (2000)

## Technology and Services Fair

The Technology and Services Fair is an integral part of the Labs21 Annual Conference. This venue showcases the latest in forward-thinking laboratory technologies and designs from the industry's leading manufacturers and service providers. The event has been cosponsored by I<sup>2</sup>SL since 2006 and was planned in partnership with the Scientific Equipment and Furniture Association from 2006 through 2010.

Conference Year	Number of Exhibiting Organizations
2011	67
2010	56
2009	68
2008	65
2007	60
2006	52
2005	40
2004	28
2003	27
2002	28

Labs21 Technology and Services Fair displays include products such as fume hoods, furniture and casework, water purification systems, and HVAC equipment. Services include energy efficiency consultations, commissioning, and security analyses.

## Tour Sites

The Labs21 Annual Conference is held in a different region of the country each year to provide attendees with a broad perspective on sustainability challenges and solutions for high-tech facilities. As part of this effort, I<sup>2</sup>SL organizes offsite tours of local laboratories and high-tech facilities that showcase green building efforts. Past tour sites include:

- Brown University's Sidney E. Frank Hall for Life Science, Providence, Rhode Island (2011)
- University of Rhode Island's Center for Biotechnology and Life Sciences, Kingston, Rhode Island (2011)
- EPA Atlantic Ecology Division Laboratory, Narragansett, Rhode Island (2011)
- Sandia National Laboratories' Microsystems and Engineering Sciences Applications complex, Albuquerque, New Mexico (2010)
- New Mexico Scientific Laboratories, Albuquerque, New Mexico (2010)
- Eli Lilly and Company's Biotechnology Research Facility Building 362, Indianapolis, Indiana (2009)
- Indiana University School of Medicine Research III Building, Indianapolis, Indiana (2009)
- C. C. Perry "K" Generating Station and District Steam System, Indianapolis, Indiana (2009)

- Stanford University's Yang and Yamazaki Environment and Energy Building and Carnegie Institution, Department of Global Ecology Building, Palo Alto, California (2008)
- Santa Clara County Crime Laboratory, San Jose, California (2008)
- Sun Microsystems and NetApp Data Center Facilities, Palo Alto, California (2008)
- The Navy Yard at Noisette, North Charleston, South Carolina (2007)
- Medical University of South Carolina, Charleston, South Carolina (2007)
- Southwest Foundation for Biomedical Research, San Antonio, Texas (2006)
- University of Portland, Portland, Oregon (2005)
- Nidus Center for Scientific Enterprise, St. Louis, Missouri (2004)
- Donald Danforth Plant Science Center, St. Louis, Missouri (2004)
- Washington University, St. Louis, Missouri (2004)
- National Renewable Energy Laboratory, Golden, Colorado (2003)
- National Center for Atmospheric Research, Golden, Colorado (2003)
- EPA Research Triangle Park (RTP) Laboratory, RTP, North Carolina (2002)
- PG&E Energy Center, San Francisco, California (2000)

### **International Outreach**

As part of its mission as conference cosponsor, I<sup>2</sup>SL is taking steps to increase the visibility of the Labs21 Annual Conference throughout the international community. Nearly 500 international representatives have attended the Labs21 Annual Conference.

<b>Conference Year</b>	<b>Number of International Attendees</b>
2011	53
2010	69
2009	48
2008	76
2007	56
2006	44
2005	35
2004	53
2003	42
2002	16

Among these attendees were representatives from Algeria, Australia, Belgium, Canada, China, Denmark, Egypt, England, France, Germany, Hong Kong, India, Iraq, Ireland, Japan, Libya, Kenya, Mexico, Morocco, the Netherlands, New Zealand, Qatar, Russia, Singapore, Spain, South Africa, Switzerland, Taiwan, Thailand, and the United Kingdom.

To better serve an international audience, I<sup>2</sup>SL has created the Global Sustainable Laboratory Network (GSLN), a group of international contacts committed to providing a global voice for sustainable laboratories. The GSLN provides a concentrated global focus on shared concerns and impediments for developing sustainable laboratories and other high-tech buildings. Working group members are committed to:

- Expanding awareness of sustainable laboratory design, engineering, construction, and operation practices worldwide.
- Identifying specific topics of mutual concerns and interests.
- Coordinating resources to address the agreed-upon concerns and interests.

The group meets each year at the Labs21 Annual Conference and participates in periodic calls and meetings during other international conferences or events.

I<sup>2</sup>SL has also formed partnerships with several international organizations that share the sustainability ideas presented at the Labs21 Annual Conference with their organizations and others throughout the world. International partner organizations include: EGNATON, Higher Education Environmental Performance Improvement (HEEPI), The MAITE Foundation, Public Works and Government Services Canada (PWGSC), and the Joint Institute for Caribbean Marine Studies (JICMS).

### **Additional Information**

Please contact the Labs21 Annual Conference Planning Committee at <[labs21@i2sl.org](mailto:labs21@i2sl.org)> or 703-841-5484 if you have any questions or would like additional information on any of the above-mentioned topics. Details on all past Labs21 Annual Conferences, including complete agendas and abstracts, exhibitor lists, tour descriptions, keynote speaker biographies, and host city profiles, can be found on the I<sup>2</sup>SL website at <[www.i2sl.org/labs21/conference/index.html](http://www.i2sl.org/labs21/conference/index.html)> and on the Labs21 website at <[www.labs21century.gov/training/conf/index.htm](http://www.labs21century.gov/training/conf/index.htm)>.