THE WORLD IS OUR LAB

IBM Research – Zurich is one of 12 IBM Research laboratories around the globe. It was established in 1956 and is home to world-class scientists representing more than 45 nationalities. Cutting-edge research and outstanding scientific achievements—most notably two Nobel Prizes—are associated with this lab.

As the largest European branch of IBM Research, its mission—in addition to pursuing innovative research for tomorrow’s information technology—is to cultivate close relationships with academic and industrial partners. IBM Research – Zurich strives to be one of the premier places to work for top researchers, to promote women in IT and science, and to help drive Europe’s innovation agenda.

In 2011, a new facility for collaborative nano-scale research was opened on the IBM campus in Zurich. The Binnig and Rohrer Nanotechnology Center is part of a strategic partnership in nanosciences with ETH Zurich, one of the world’s foremost science and engineering universities.

WHERE BUSINESS MEETS THE FUTURE AND RESEARCH MEETS THE MARKET

The Client Center at IBM Research – Zurich is a unique place in Europe to gain insights from IBM researchers, industry and trend experts in order to tackle today’s and tomorrow’s challenges.

This think-tank is part of the European IBM Client Center network. It provides companies, academia and governments with the opportunity to find out how IBM’s R&D assets, trend research, advanced technologies and solutions could enhance their success. It is also the place where customers can get first-hand experience of innovative prototype solutions.
CURRENT PROJECTS

- Solar Concentrator: IBM Research has partnered with Airlight Energy, a Swiss-based supplier of solar power technology, to bring affordable solar technology to the market by 2017. The system can concentrate the sun's radiation 2,000 times and convert 80 percent of it into useful energy to generate 12 kilowatts of electrical power and 20 kilowatts of heat on a sunny day—enough to power several average homes.

- Project DOME: ASTRON, The Netherlands Institute for Radio Astronomy, and IBM are engaged in a five-year collaboration to research extremely fast, but low-power exascale computer systems targeted for the international Square Kilometre Array (SKA). The SKA is an international consortium to build the world's largest and most sensitive radio telescope. Scientists estimate that the processing power required to operate the telescope will be equal to several millions of today's fastest computers.

- Long Range Signaling and Control: A long-range, low-data-rate communications infrastructure that needs fewer base stations to serve more simple devices like online smoke detectors, temperature sensors or smart electrical heating controllers.

- Secure Enterprise Desktop: an innovative service that enables corporate users to securely access the contents of their entire hard disk, including operating system, applications and company data, from anywhere in as little as two minutes.

- Phase Change Memory: For the first time, scientists at IBM Research have demonstrated that a relatively new memory technology, known as phase-change memory, can reliably store multiple data bits per cell over extended periods of time. This significant improvement advances the development of low-cost, faster and more durable memory applications for consumer devices, including mobile phones and cloud storage, as well as high-performance applications, such as enterprise data storage.

IBM RESEARCH - ZURICH AT A GLANCE

Founded: 1956
Director: Dr. Alessandro Curioni
Nationalities: 45
Collaborations: More than 90
Nobel Laureates: 4

- 1986: Nobel Prize in Physics for the invention of the scanning tunneling microscope by Heinrich Rohrer and Gerd K. Binnig
- 1987: Nobel Prize in Physics for the discovery of high-temperature superconductivity by K. Alex Müller and J. Georg Bednorz

RESEARCH AREAS

- Cognitive Computing & Computational Sciences: next generation cognitive systems and technologies, big data and secure information management, HPC and computational sciences

- Industry and Cloud Solutions: transforming industries through data and domain specific algorithms, delivering secure enterprise solutions on the Cloud, and enabling systems of engagement for enterprises

- Cloud & Computing Infrastructure: novel server and accelerator architectures, software-defined environments, security, infrastructure for big data management, technologies for moving big data on logical & physical layers, all-Flash storage systems and next-generation memory technologies

- Science & Technology: Semiconductors, Systems, Beyond the Transistor, Nanotechnology

IBM RESEARCH WORLDWIDE

Founded: 1945
Employees: 3,000
Research Labs: 12 on six continents

For more information: www.zurich.ibm.com