The financial realities of the 21st century are driving the academic and industrial worlds – once thought of as separate entities – closer together. Identifying opportunities that lead to collaborations with leading universities around the globe are high on the agendas of many industrial research communities. Basic research and applied work are of interest as long as mutual respect exists and an acceptable business model can be defined.

ABB has had a long and successful tradition of working with universities and in this issue of ABB Review we explore this relationship with leading universities on three continents. We will review a number of interesting co-operative projects, their results and their benefits.

Two cultures team up to create knowledge

Research and researchers have always been searching for new knowledge. In fact Thorstein Veblen, a American economist and social philosopher, once said that "the outcome of any serious research can only be to make two questions grow where only one grew before."

Reaping the benefits of knowledge and turning them into jobs and prosperity, however, is not just a question of research and research policy. It is about the conditions for creating enterprises and how to promote contact between researchers and entrepreneurs.

In the long run, only more scientific and technologically driven innovations can provide new, more powerful tools required to help ensure a better future for all. Not only this, but innovations enable enterprises to compete successfully on international markets. Therefore companies should strive to integrate university research collaborations into their product and service development process. To be more specific, industrial research organisations should stand with one foot on the university campus while the other is on the premises of the customers.

During the last decade, this principle has become more attractive for researchers in industry and ABB is proud to be among the forerunners.

Over the past five years in particular we have had three management priorities for our R&D:

- A strong focus on value creation in terms of innovation, which results in new businesses for ABB and the building of a platform for future growth and profitability.
- The globalisation of R&D to bring our research closer to the market and make it more cost effective: two years ago, we opened a research center in Bangalore, India and this year we have followed it with the opening of new research facilities in Beijing and Shanghai.
- A strong and systematic co-operation with universities around the world.

Indeed ABB's co-operation with universities all over the world has a long tradition. We have working contacts with more than 50 universities in the US, Europe and Asia, many of these are internationally renowned as the best in their fields of research.

By actively promoting the path to "open innovation" we are not only adding cutting edge technology to our products, but are also attracting the best talents from the universities into our own R&D organisation. At the same time we are helping the universities find research areas that are beneficial for society. Such intense co-operation between industry and academia can only speed up the innovation process and contribute to growth in all parts of the world.

This line of thinking is promoted by many political authorities including the European Commission. Our lead story was written by Viviane Reding, the EU Commissioner for Information and Media. In her article, Ms Reding emphasises the importance of university and industry co-operation in achieving a more competitive knowledge-based economy and a better place in which to work and live. If the inspiration of university researchers is to contribute to an area's gross domestic product, their inventions must be transformed into competitive products on the global market. Co-operating with industrial partners is the most effective way of accomplishing this.

In this issue of ABB Review we report on our strategic partnerships and way of working with leading universities. The examples we have chosen are meant to reflect the broad scope of our activities, both from a geographical and research area point of view.

Our collaboration covers the development of new processes in the manufacturing area, research on power systems, advanced material research, wireless networking, control systems, man-machine interfaces and much more.

ABB's partner universities in the US, Europe and Asia work closely with our research centers around the world. The recently opened research facility in Beijing has already established close connections to many Chinese universities.

For ABB the development of relationships with the leading universities in the world is a key element in our global R&D strategy. This mutual exchange of ideas and information gives ABB access to the latest development in emerging technologies. Not only this, but we are able to develop competitive solutions based on these technologies for the benefit of our customers and society at large
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