



Knowledge is power, or so Francis Bacon observed as long ago as 1597. The increasing ease with which the Internet and other electronic media are today permitting knowledge to be shared is causing creative processes to be redefined. Development teams are shifting away from closed cliques towards open forms of collaboration – such teams may consist of people who are not only spread across different geographic locations, but also between different companies and organizations. ABB is working with both universities and customers, permitting joint knowledge and experience to be put to mutual benefit.



Peter Terwiesch: "Staying ahead requires the consolidation of knowing and pushing what will be possible with understanding what will be needed".



Frank Duggan: "ABB is the undisputed market leader in most of our core businesses. An even greater focus on understanding our customer needs is the recipe for the further success of our products".

Collaborating for results

This issue of *ABB Review* is dedicated to a very important business principle: collaboration. As defined in the dictionary, the term means "to work jointly with others"; in ABB, we additionally associate it with learning, sharing ... and succeeding.

Many of ABB's greatest innovations have been achieved in close cooperation with customers. From the very first steps towards a new product, such a collaboration permits the partners to share their wishes and ideas. In later stages it allows customers to "test-drive" the proposed solutions, permitting these to be perfected well ahead of their market introduction. Allowing developers to see products from the customer's perspective has helped better attune development processes to real needs. It has furthermore extended the company's eyes and ears to what the customers of its customers are seeking. The results of such projects have often found their way into ABB's broader product palette and so benefited further customers.

Just as ABB is joining forces with its customers, the company is similarly entering partnerships with its suppliers. Cooperative agreements work from the presumption that successful businesses focus on their core technology strengths and permit others to fill in the gaps, thereby complementing the overall offering in terms of products and services. We are grateful to our partners for making this possible through the trust they place in us.

In the field of research too, ABB has built a number of significant partnerships. The company works together with more than 70 leading academic institutions, among them the Massachusetts Institute of Technology, Carnegie Mellon University, Imperial College London and China's Tsinghua University. Such cooperation not only expands the scope and ability of ABB's own research teams, but also unites some of the world's leading minds in important research projects.

While cooperation has often helped ABB showcase new designs and concepts, it has also helped identify areas that can be developed further in future joint projects. Cooperation alone, however, is no guarantee for a breakthrough. In our experience, the recipe to success can be broken down into three main principles: seeking, pioneering and sharing.

The first of these principles, seeking, is about asking the right questions. If participants take the time to learn about the business of the partner and understand its challenges and constraints, they are better equipped to identify solutions that overcome these limitations. Cooperation and collaboration are essentially two-way processes, in which both sides must equally be prepared to ask and to answer. They must develop a feeling for the "pulse" of the situation at hand. This requires not just talking to one's direct counterparts in the other organization, but seeking to learn from a broad range of stakeholders.

The second principle, pioneering, requires being prepared to think – and act – beyond the constraints of conventional practices. This is true not only for the collaboration partners individually, but also in terms of redefining their customer-supplier relationship.

The final principle, sharing, is about making results and insights available to the other participants. It encompasses the ability to not only learn from mistakes, but also to appreciate the real causes of breakthroughs rather than simply taking the credit for and moving on after incidental successes. This strengthens the partners' joint position for the future, assuring that lessons learnt in one project must not be re-learned for the next.

In this issue of *ABB Review*, we show how these principles have stood the test of practice. ABB employs some 6000 scientists and engineers across its organization in a wide range of different subjects and applications. Our collaboration partners may well jointly employ many times this number. We are grateful for the spirit of innovation that empowers all of them – and that makes possible the successes that enrich the pages of this issue of *ABB Review*.

Enjoy your reading!

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