Technology at its best

ABB's history of innovation stretches back more than 100 years and includes many real breakthroughs: the world's first three-phase power transmission system; the world's first self-cooling transformer; the world's first high-speed locomotive to use a direct drive system; even the world's first synthetic diamond.

It is a history ABB is proud of, and an incentive for us to develop ever-better power and automation technologies that enable utility and industry customers to further improve performance while keeping an eye on the environment.

To maintain this tradition, ABB invests roughly seven percent of revenues – US$ 1.6 billion – in research and order-related development each year. It is an investment in the future and a commitment to innovative thinking that will ensure our customers compete successfully in their markets.

In today's economic climate, customers are looking for ways to optimize the technologies they already have in place, to get more out of existing operations and extend the lifetime of their assets.

This means, for example in the power sector, that we focus on high-quality, cost-effective products and processes that help producers and distributors extract the greatest value from their plants and grids.

A case in point is GridView, a new software tool for simulating the way power markets work. Operators of large grids get a complete overview that allows them to analyze different scenarios, so that resources can be deployed more effectively. Another good example is our package substation, which brings together world-class products and modular design in a compact unit that can be delivered faster and costs less to maintain.

In automation, it means creating new processes to optimize production lines and squeeze more value from the supply chain. Take our new HV motors and direct drives, which are slashing costs and improving efficiency in pulp and paper, aluminum, chemical and petrochemical plants; or our new heavy-duty robots, as adept at lifting cars and heavy forged parts as they are at gently putting down crates of beer.

The same holds true for the oil and gas industry, where environmentally friendly technologies are needed to make reservoir recovery more efficient and lower the cost of refining raw materials. ABB's clean fuel technology, developed in a joint venture with a leading oil and gas company, reduces harmful emissions by using a new process for making alkylate, the key ingredient in gasoline.

We shall be showcasing a selection of these and other new products and processes in *ABB Review* over the year.

All of the above examples underscore the technological strengths and pioneering spirit on which the ABB brand has been built. We try to take the best ideas and turn them into tangible products and solutions as fast as possible. It is worth considering that some 75 percent of our products have been developed in the last five years.

Our technology commitment will continue to keep pace with customer demand. Technology is the foundation of our prosperity and the source of so much that is good in our lives. It brings to our homes the power on which we depend for warmth and comfort. It is what makes a factory run with clockwork precision, why driving your car is a pleasure, and the reason for a whole host of simple enjoyments we have learnt to take for granted. All thanks to technology, helping to give you what you want, when you want it.

Jürgen Dormann,
Chairman and CEO, ABB Ltd