

ABB technology – the backbone of many industries

ABB's customer base cuts across many industries – consumer goods, utilities, oil, pulp and paper, mining, chemicals and pharmaceuticals. Our customers are market leaders because they produce excellent products. To do so, they need technologies that surpass expectations for efficiency, cost, productivity and environmental compliance. That's where we come in – as a true technology partner.

The ABB brand is built on strong technology and a pioneering spirit. We strive to turn the best ideas into tangible products and solutions, ready for market, as quickly as possible. There are three reasons for our success: we know what our customers want; we have the cutting-edge technology needed to provide it; and we transform this technology into first-rate products in the most cost-effective way.

Understanding our customers' needs is essential. Key issues include:

- Squeezing maximum value from assets by increasing output, yield and uptime, or, alternatively, reducing the capital needed for a certain output.
- Getting products fast. Why, for example, should anyone have to wait more than 24 hours for a transformer?
- No compromises; being able to rely on getting exactly the performance that is needed.
- Environmental compliance – having products and systems that run on minimum energy with low emission levels.

To prepare for the future, we undertake research in areas like wireless technology, micro-electromechanical systems

(MEMS), mechatronics, power electronics and software development. A global network links experts in our own global labs with scientists at more than 50 universities and research institutions around the world. In this way, we monitor the frontiers of technology, enabling us to quickly identify opportunities that benefit our customers.

We ensure effective R&D through technology platforms that eliminate unnecessary research, saving money for ABB and customers alike. Increasingly, we work in two main areas:

- Power technologies
- Automation technologies

Within these areas a major focus is Industrial^{IT}, the platform which brings interoperability to our many and varied products. Industrial IT represents our vision of future industrial systems and solutions, where information technology is harnessed at nearly every stage of the industrial process to increase efficiency and profitability. In this issue of *ABB Review* we present, under the banner 'World of technology', some of our latest products and innovations. A good example of innovative thinking in the power technologies area is a new dry capacitor we have developed for HVDC applications that can store twice the energy in half the space a fluid-impregnated unit needs!

In an entirely different area – marine propulsion – we show how we continue to build on our success with the Azipod electric propulsion unit by introducing a drive system with contra-rotating propellers.

Another exciting area that we are pioneering is the integration of wireless technology with industrial products and systems. Our solutions in this field will be very important for the future of many industries. One wireless application we have developed – in robotics –



recently won us the gold award for innovation from Wall Street Journal Europe. More about this in the R&D Digest section of the magazine.

This issue of *ABB Review*, in tandem with our recently published Group Technology Report, underlines ABB's strong commitment to innovation and to R&D – ultimately the lifeblood of our company.

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