



Create more product at lower cost

ABB has developed plant optimization solutions for a variety of processes – pulp and paper, steel, copper, cement, power generation, oil and gas – which enable customers to get the most out of their existing assets at the lowest possible cost.

How do companies with complex manufacturing processes improve efficiency and increase productivity without resorting to capital-intensive measures like moving to a low-cost country or revamping an entire plant?

The answer is plant optimization – the use of existing plant assets in the most efficient and cost-effective way possible.

ABB has successfully developed new methods and tools to make that option possible.

They address key issues like improving production scheduling and plant maintenance, ensuring consistent product quality by providing complex and accurate measurement data, making the flow of real-time data integral to the entire process, securing data consistency and data quality by integrating the plant's various automation systems and databases, and using these and other tools to minimize costs (of assets, energy, materials, and labor) and maximize product revenues.

Unique ABB expertise

ABB has unique expertise in plant optimization based on its leading position in power and automation technology products and systems, and its expertise in industrial processes such as pulp and paper, cement, steel, and oil and gas.

For instance, in the cement industry ABB has developed a number of plant improvement tools on behalf of industry leader Holcim at its showcase cement plant in Switzerland.

They include, to give just one example, an energy management tool for kiln optimization that uses real-time data to compute the lowest-cost fuel mix and simultaneously satisfy business and process variables like heat

balance, excess oxygen level, clinker chemistry, volatile concentration, emission limits, fuel consumption, and contractual conditions.

ABB has similar ongoing optimization projects on behalf of Billerud in a pulp and paper mill in Sweden; Alcan, at a cold rolling mill in Switzerland; Shell, at oil production plants in Nigeria and Norway; Norddeutsche Affinerie, at a copper production plant in Germany; and at power generation plants in Germany and the United Kingdom.