Innovative automation on a global scale

An interview with Gerhard Schiefer, Chief Automation Officer

Innovation seems to be an overused word – what does it mean to you at ANDRITZ Automation?
It seems like everything is innovative these days. Unfortunately, frequent use of the word has caused it to lose much of its meaning. The irony is that the NEED for innovation remains high among our customers, who are faced with ever-changing, competitive global pressures. They know that they have to do things differently (i.e. better).

> **"Innovation means being able to deliver higher-value performance, oftentimes using breakthrough technologies, in more manageable ways."**

For us at ANDRITZ Automation, innovation means being able to deliver higher-value performance, oftentimes using breakthrough technologies, in more manageable ways. It is difficult, if not impossible, to be innovative in a vacuum. So we work side-by-side with customers and research institutions to arrive at solutions faster and better that meet our customers' needs. R&D has been at the heart of ANDRITZ's technologies since its founding almost 170 years ago.

What are the main challenges ANDRITZ Automation is facing and how are you addressing them?
Our main challenge is to closely follow – and actually anticipate – the very dynamic needs of the industry sectors we serve. There are amazingly rapid changes, especially in the area of smart sensors, the Industrial Internet of Things (IIoT), and Big Data analytics. We address this challenge by being in constant contact with customers – especially the pioneers and

early adopters that we find in each industry sector. These are the people we want to know and have dialogue with.

Yet, we also know that the process industries are not adventurous. There is too much capital at stake, so risks have to be mitigated. Our challenge is to make sure that our solutions are balanced: HIGH in technology and performance and LOW in risk.

What are the key facts about ANDRITZ Automation that you would like customers to know?
That we provide automation services and solutions for a wide range of industries. That we offer a range of skills and services from pre-feasibility consulting, to estimates, to project management, to hardware and software engineering, up to plant simulation, optimization and commissioning on site. That we have more than 2,000 automation experts around the world in 110 locations. That we have a close connection with our colleagues in the Business Areas so that we integrate process + machinery + automation in a single interface to reduce commissioning, start-up, and optimization times and increase productive operating hours.

What good examples are there of innovative solutions at ANDRITZ Automation?
Our Metris system, Metris OPP contracts, and our network design using Edge devices are truly innovative. Not only are they technically elegant solutions – they are also very practical and offer a measurable return on investment.

The Metris solution is platform-independent and enables local control as well as plant-wide connectivity in a simpler, more elegant solution. Today, a classic, industrial automation network relies on a rather rigid hierarchy in order to operate. Optimization software is separate from this hierarchy, and the topology can be complex. The Metris concept combines the input/output, condition monitoring, and overall control. Unit level controls can be easily linked to perform machine automation or complete process automation. It is "configured" rather than "programmed" using a highly graphical, functional interface. Metris OPP (Optimization of Process Performance) combines Big Data analytical capabilities with our highly skilled process and equipment experts to perform a truly unique service. With Metris OPP, the vast amount of data generated by plant sensors and control systems becomes a valuable "raw material" for optimization. Metris OPP looks for data interrelationships and patterns that a human being with a spreadsheet could never uncover. Then intelligent algorithms create control models to exploit these patterns. The human experts verify whether the proposed modifications to the process and/or operating procedures will be effective.

Our Metris OPP team is creating an increasing number of mobile apps that address specific plant needs – to untether managers and operators from the control room. Supervisors can see alarms in real-time on their smartphones no matter where they are. Business managers have real-time production and cost data in hand. Maintenance technicians have logbooks, checklists, repair procedures, and other documentation instantly available for each asset they are observing. Information can be exchanged easily among team members or from one shift to another by smartphone. •