



**KROHNE**

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## Unleashing Digital transformation

A workshop on integrating the field level  
in the process industries

Workshop 10 & 11 October 2023

# Increase efficiency and performance of a plant!

On the 10th and 11th of October, KROHNE is organizing a workshop "Unleashing Digital Transformation" in collaboration with Polzer Automation Solutions.

This workshop is intended for technicians, instrumentation and project engineers, active within all kinds of process industries. It will focus on how sensors and transmitters in the field level can be integrated in higher levels in the automation pyramid. like in the Control Strategy, Asset Management System or even to IIoT servers. (see next pages for the complete agenda)

The content of the workshop is independent of systems and products of special suppliers, however systems and components from the market are used to explain things in a more practical way and give hints how to build up solutions. It is not just a technical training, it also includes market related topics like applications and customers' benefits.

Following **topics** will be presented and discussed in the workshop:

- **Short introduction how Digital Transformation effects businesses**
- **Automation solutions and concepts in Digital Industries and Process Industries**
- **Basics on Industrial Communication where IT meets OT**
- **Communication Protocols at system and at field level**

An overview on communication technologies and protocols, like 4 ... 20 mA with HART, WirelessHART, HART-IP, PROFIBUS, PROFINET, Ethernet/IP and MODBUS.

- **Device Integration based on FDI**

The device description technologies EDDL and FDT were replaced by FDI. Compatibility to former hosts and customer benefits are presented and discussed.

- **The NAMUR Open Architecture (NOA) and PA-DIM as its Information Model for field devices**

NOA defines four components which allow secure and unique access to data in a plant to enable new business models: the Information Model (PA-DIM), the NOA Diode and Security (referred as second channel), Verification of Request and the optional Aggregating Server.

- **Ethernet-APL which brings Ethernet to the field level in Process Automation solutions.**

Technology, concepts, architecture, and components are presented and discussed.

**Price of the 2 days-workshop: €950 VAT excl.**  
Registration is only valid upon receiving inscription fee!

Please register on our website now: [krohne.link/academy-digital-transformation-be](https://www.krohne.com/academy-digital-transformation-be) as spots are limited!

We look forward to your participation!

# Tuesday October 10th 2023

<b>08:30 – 09:20 h</b>	<b>Welcome + Introduction</b>
<b>09:20 – 09:35 h</b>	<b>Agenda</b>
<b>09:35 – 09:55 h</b>	<b>Digital transformation effects your business</b>
Lesson 1	Digitization, Digitalization, Digital Transformation - Quo vadis?
<b>09:55 – 10:10 h</b>	<b>Discussion on previous lesson - Q&amp;A / break</b>
<b>10:10 – 10:30 h</b>	<b>Introduction in Automation in Digital and Process Industries</b>
Lesson 2	<ul style="list-style-type: none"><li>• Difference Factory and Process Automation</li><li>• Major requests for Process Automation</li><li>• Overview Communication Protocols</li></ul>
<b>10:30 – 10:40 h</b>	<b>Discussion on previous lesson - Q&amp;A / break</b>
<b>10:40 – 12:30 h</b>	<b>Basics on Local and World-wide Communication Networks</b>
Lesson 3 Part 1	<ul style="list-style-type: none"><li>• OSI 7 Layer model</li><li>• Local Area Networks</li><li>• Switching - Routing - VLANs</li><li>• Ports and World Wide Web</li><li>• IWLAN</li><li>• Security - VPN - Firewalls: Availability and Redundancy</li></ul>
<b>12:30 – 13:30 h</b>	<b>Lunch</b>
<b>13:30 – 14:40 h</b>	<b>Basics on Local and World-wide Communication Networks</b>
Lesson 3 Part 2	<ul style="list-style-type: none"><li>• OSI 7 Layer model</li><li>• Local Area Networks</li><li>• Switching - Routing - VLANs</li><li>• Ports and World Wide Web</li><li>• IWLAN</li><li>• Security - VPN - Firewalls: Availability and Redundancy</li></ul>
<b>14:40 – 15:00 h</b>	<b>Discussion on previous lesson - Q&amp;A</b>
<b>15:00 – 15:30 h</b>	<b>Coffee break</b>
<b>15:30 – 18:00 h</b>	<b>Industrial Communication in Process Industries and Use Cases</b>
Lesson 4 Part 1	<ul style="list-style-type: none"><li>• HART</li><li>• WirelessHART</li><li>• HART-IP</li><li>• PROFIBUS-DP</li><li>• PROFIBUS-PA</li><li>• PROFINET</li><li>• MODBUS</li><li>• Ethernet/IP</li></ul>

# Wednesday October 11th 2023

<b>08:30 – 08:45 h</b>	<b>Q&amp;A previous day</b>
<b>08:45 – 09:45 h</b>	<b>Industrial Communication in Process Industries and Use Cases</b>
Lesson 4 Part 2	<ul style="list-style-type: none"><li>• HART</li><li>• WirelessHART</li><li>• HART-IP</li><li>• PROFIBUS-DP</li><li>• PROFIBUS-PA</li><li>• PROFINET</li><li>• MODBUS</li><li>• Ethernet/IP</li></ul>
<b>09:45 – 10:05 h</b>	<b>Discussion on previous lesson - Q&amp;A</b>
<b>10:05 – 10:35 h</b>	<b>Coffee break</b>
<b>10:35 – 11:35 h</b>	<b>Future-proof Field Device Integration with FDI</b>
Lesson 5	<ul style="list-style-type: none"><li>• EDDL</li><li>• FDT</li><li>• FDI</li></ul>
<b>11:35–11:50 h</b>	<b>Discussion on previous lesson - Q&amp;A / break</b>
<b>11:50–12:50 h</b>	<b>Lunch</b>
<b>12:50–14:20 h</b>	<b>NAMUR Open Architecture (NOA) with PA-DIM</b>
Lesson 6	<ul style="list-style-type: none"><li>• Motivation</li><li>• Overview on NOA</li><li>• Overview on PA-DIM</li></ul>
<b>14:20–14:35 h</b>	<b>Discussion on previous lesson - Q&amp;A / break</b>
<b>14:35 – 15:35 h</b>	<b>High Speed in the Field with Ethernet-APL</b>
Lesson 7	<ul style="list-style-type: none"><li>• Motivation</li><li>• How it works</li><li>• Architecture</li></ul>
<b>15:35 – 15:50 h</b>	<b>Discussion on previous lesson - Q&amp;A / break</b>
<b>15:50 – 16:20 h</b>	<b>Coffee break</b>
<b>16:20 – 18:00 h</b>	<b>Best practice for real use case</b>
Lesson 8	<p>Every participant should prepare a real use case he/she knows from his/her customers which shall be presented and discussed to find a best practice solution.</p> <p>Examples:</p> <ul style="list-style-type: none"><li>• Add a Safety Switch in a tank without add. Cable</li><li>• Integrate a remote measurement point</li><li>• Every participant has to prepare a Use Case</li></ul>

# Speaker

## **Kurt Polzer - Polzer Automation Solutions**

Kurt studied Mathematics at KIT and gained expertise in software development, product management, and business development at Siemens. He worked in areas like process instrumentation, process control systems, SCADA systems and communication. As a product owner, he developed SIMATIC PDM (Process Device Manager) and a web server for remote measurements. Kurt also conducted technical workshops for the process control system from Siemens and designed and built demo systems for fairs.

He represented Siemens in various working groups (VDI/VDI GMA, PROFIBUS International and the HART Communication Foundation) and became a Siemens Certified Professional for Industrial Networks.

After retiring, he founded Polzer Automation Solutions. He built demo systems for FieldComm Group to present most of their technologies, like HART, HART-IP, WirelessHART, FDI and PA-DIM including design, commissioning and use cases. For Ethernet-APL he built a second system and integrated Process Control Systems, Power and Field Switches and Ethernet-APL field instruments from leading suppliers in the process industries, ProfiNet, Ethernet/IP, HART-IP and OPC-UA. Both systems have been presented at the AICHEMA 2022.

Kurt developed training on digital transformation for salespeople in the Process Industries, focusing on industrial communication protocols and integration. The focus of this training lies on industrial communication protocols and integration from the field level to upper systems even to the cloud.

# Organiser

## **KROHNE**

KROHNE is a global leader in the development and production of innovative and reliable measurement technology, offering measurement solutions for all conceivable industries. KROHNE is your partner for flow, level, pressure, analysis and temperature measurement instrumentation.

[www.krohne.be](http://www.krohne.be)

# Event location



## Mechelen

UGC Cinema  
Spuibekstraat 5  
2800 Mechelen



Register here :

[krohne.link/academy-digital-transformation-be](https://krohne.link/academy-digital-transformation-be)

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