

# Safety Customer Seminar

04 - 06 December 2017  
Program



Simply reliable:  
Process safety  
from Endress+Hauser

# A strong partner worldwide

## Key figures (2015)

- Net sales: 2.1 billion euros
- Net income: 165 million euros
- Equity ratio: 73%
- Employees: 12,952

## Company structure

- Swiss-based family company, founded in 1953
- 134 companies in 47 countries, overseen by a holding company in Reinach, Switzerland
- Sales and support in more than 125 countries
- Production in Brazil, China, the Czech Republic, France, Germany, India, Italy, Japan, South Africa, Switzerland, the United Kingdom and the United States

## Business areas

- Process automation: products, services and solutions for flow, level, pressure and temperature measurement, process analysis and data management
- Laboratory automation: analytical instruments and bioanalytical systems (under the Analytik Jena brand)

## Core industries

- Chemical
- Food & beverage
- Life sciences
- Oil & gas
- Power & energy
- Primaries & metal
- Water & wastewater



CEO Matthias Altendorf.



Endress+Hauser's head offices in Reinach, Switzerland.

Endress+Hauser has been a reliable partner for the process industry for more than 60 years. We provide comprehensive support to our customers, from the laboratory to the process.

Our core expertise lies in the fields of process instrumentation and laboratory analysis. With our products, solutions and services, we help our customers design safe, reliable, efficient and economically friendly processes across the entire life cycle. Our customers value our deep understanding of their applications and the special requirements of their industry.

We maintain a close presence to our customers worldwide. With a dense network of our own sales centers, plus select representatives, we guarantee competent support around the globe. Production centers on four continents ensure fast and flexible delivery to our customers, wherever they are located.

Endress+Hauser was founded in 1953 by Swiss engineer Georg H Endress and German banker Ludwig Hauser. The Endress family, the sole shareholder since 1975, plays an influential role in the company's development to this day. And it has a stated objective: Endress+Hauser shall remain a successful family company.

## Comprehensive knowledge

Innovative, trendsetting technologies have been the driving force of our company since its origin. We recently strengthened our process analytical business with several acquisitions and established laboratory analysis as a new business area with the takeover of Analytik Jena. The breadth and depth of our offering is unique in the industry.

## Editorial



Simply reliable:  
Process safety  
from Endress+Hauser

Dear participants of the Endress+Hauser Safety Seminar,

The idea of safety is for sure deeply anchored in the philosophy your Company. Coping with risk reduction is a matter of protecting people, environment, infrastructure and last but not least reputation. However, applying safety measures in a proper way is not an easy task to fulfill. Especially if you have the impression that safety systems have a bigger impact on impairing the daily operation of your plant due to spurious trips instead of making it safer.

The fundament for safe and reliable operation of Safety Instrumented System is robust field instrumentation which is properly selected. To find the best fit for your most critical applications Endress+Hauser does not only offer a safety portfolio second to none, you can additionally rely on the wealth of our 60 years of field experience.

Find out how much effort we put into the proper development of our portfolio to ensure robust, safe and efficient operation during the complete life cycle. See how intelligent internal diagnostics implemented in our designs can extent

necessary proof-test intervals. Experience that even if you rely on recurrent testing on an annual base our devices offer smart test procedures which make process shutdowns obsolete, increasing your productivity. Straightforward document handling and product platforms additionally reduce complexity on your plant.

Enter the world of Endress+Hauser instrument, service and solution business and in the end you will agree that we live up to our mission: "We strive to sustainably generate outstanding value for our customers."

We are happy and honored to welcome you all here in our Endress+Hauser Headquarters.

Truly yours,

Philipp Conen  
Global Industry Manager Chemical Industry



## Our location during the week



Endress+Hauser Headquarters in Reinach, Switzerland



Product Center Flowtec  
Switzerland  
Flow Measurement Headquarters  
R&D, Production and Calibration



Product Center Maulburg  
Germany  
Level, Pressure, Tank Gauging,  
R&D, Production and Calibration

## Your contact persons during the week



Philipp Conen  
Global Industry Manager  
Chemical



Céline Wolf  
Event Manager

# Program

<b>Occasion</b>	Safety Customer Seminar
<b>Date</b>	4 – 6 December 2017
<b>Language</b>	English
<b>Place</b>	Endress+Hauser Headquarters, Sternenhof, Reinach, Switzerland Product Center Flowtec, Reinach, Switzerland Product Center Maulburg, Germany
<b>Hotel</b>	Hotel Stücki Badenstrasse 1 4057 Basel, Switzerland <a href="http://www.welcomehotels.ch/en/stuecki/">http://www.welcomehotels.ch/en/stuecki/</a>  Check-in: 3 December 2017 Check-out: 7 December 2017
<b>Contact Persons at Endress+Hauser</b>	Céline Wolf      mobile: +41 76 553 8968 Philipp Conen      mobile: +41 76 553 8885

## Sunday, 03 December 2017

Time	Program	Speaker	Location
	Individual arrival of participants		
19h00	<b>Welcome</b> at the Hotel Stücki reception	Philipp Conen	Hotel reception ground floor
19h30	<b>Welcome Dinner</b>	Céline Wolf	Hotel restaurant 1 <sup>st</sup> floor

# Monday, 04 December 2017

Time	Program	Speaker	Location
08h30	<b>Transfer</b> to Endress+Hauser Headquarters Reinach, Switzerland Meeting point: Hotel lobby Time: 08h20		Bus
09h00 – 09h15	Welcome at Endress+Hauser Safety Instructions	Philipp Conen Global Industry Manager Chemical	Endress+Hauser Sternenhof Auditorium
	Organizational topics	Céline Wolf Event Manager	
09h15 – 10h00	The Endress+Hauser Group at a glance	Urs Endress	Endress+Hauser Sternenhof Auditorium
10h00 – 10h30	<b>Group picture &amp; coffee break</b>	All	Endress+Hauser Sternenhof Atrium
10h30 – 11h30	Keynote speech “Functional Safety”	Thomas Fritz Safety Engineer	Endress+Hauser Sternenhof Auditorium
11h30 – 12h00	Explosion Safety What to consider?	Thomas Fritz	Endress+Hauser Sternenhof Auditorium
12h00 – 13h00	<b>Lunch</b>		Endress+Hauser Sternenhof Atrium
13h00 – 14h45	Benefits of Endress+Hauser’s 2-wire portfolio and Applications	Daniel Maglione Product Manager Coriolis Flowmeters	Endress+Hauser Sternenhof Auditorium
14h45 – 15h00	<b>Coffee break</b>		Endress+Hauser Sternenhof Auditorium

# Monday, 04 December 2017

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15h00 – 15h45	Welcome & Introduction to Product Center Flowtec, Reinach Switzerland	Winfried Amann Head of Department Customer Care	Endress+Hauser Sternenhof Auditorium
15h45 – 17h30	<b>Factory tour Product Center Flowtec Reinach, Switzerland</b> <ul style="list-style-type: none"> <li>▪ Production of Coriolis massflow meters, Ultrasonic inline flow meters, Thermal mass flowmeters</li> <li>▪ Traceable gravimetical calibration Most accurate calibration rig around the world with accreditation</li> <li>▪ Gas calibration rig</li> </ul>	Winfried Amann	Endress+Hauser Flowtec, Reinach
17h30 – 18h00	<b>Transfer</b> to Beschle for Chocolate workshop		Bus
18h00 – 20h00	<b>Chocolate workshop</b> <ul style="list-style-type: none"> <li>▪ Learn about the origin of Swiss chocolate</li> <li>▪ Taste different chocolate blends</li> <li>▪ Create your own chocolate bar</li> </ul>		

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# Tuesday, 05 December 2017

Time	Program	Speaker	Location
08h30	<b>Transfer</b> to Endress+Hauser Headquarters Reinach, Switzerland Meeting point: Hotel lobby Time: 08h20		Bus
09h00 – 09h30	Heartbeat Level	Dietmar Haag Product Manager	Endress+Hauser Sternenhof Auditorium
09h30 – 10h00	Heartbeat Flow	Daniel Maglione	Endress+Hauser Sternenhof Auditorium
10h00 – 10h30	Heartbeat Analysis	Ralf Buender Business Driver	Endress+Hauser Sternenhof Auditorium
10h30 – 11h00	<b>Coffee break</b>		Endress+Hauser Sternenhof Atrium
11h00 – 11h30	Liquiphant with PFM	Martin Urban Product Manager	Endress+Hauser Sternenhof Auditorium
11h30 – 12h00	Pressure	Berthold Deschler Product Manager  Dirk Dohse Product Manager	Endress+Hauser Sternenhof Auditorium
12h00 – 12h30	Micropilot “Area of Incoupling” Live Demo	Manuel Biondi Area Manager	Endress+Hauser Sternenhof Auditorium
12h30 – 13h30	<b>Lunch</b>		Endress+Hauser Sternenhof Atrium



# Tuesday, 05 December 2017

13h30 – 14h00	Proof Testing Level conti	Manuel Biondi	Endress+Hauser Sternenhof Auditorium
14h00 – 14h30	Overfill Prevention System	Hai-Thuy Ngo Industry Manager O&G Industry	Endress+Hauser Sternenhof Auditorium
14h30 – 15h00	Proof Test Services	Gary Dreyer Product developer - Service	Endress+Hauser Sternenhof Auditorium
15h00 – 15h30	<b>Transfer</b> to Product Center Maulburg Maulburg, Germany		Bus
15h30 – 15h45	Welcome to Product Center Maulburg	Christian Reichert Division Manager BD/Sales Support	Endress+Hauser Sternenhof Auditorium
15h45 – 17h15	<b>Factory Tour at Product Center Maulburg</b> Mechanical Production - CNC Machining, Quality Inspections Pressure Transmitter Production - Ceramic Cell and Diaphragm Seal Transmitters - Differential Pressure Transmitters Level Transmitter Production - Tests in Production (Leakage test, X-ray Inspection, Pressure Test, Dye Penetration Test) - Final Assembly of Level Transmitters - Packaging and Dispatching Test Center - EMC Laboratory - Field Application and Safety Tests Calibration Rig for Radar - Custody Transfer (PTB, NMI) - Free Space, Stilling Wells, Guided Radar Electronics Production - Assembly, Functional Tests, Insert Production		Endress+Hauser Product Center Maulburg

# Tuesday, 05 December 2017

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17h15 – 18h00	<b>Transfer</b> to Mulhouse, Alsace, France	Bus
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18h00 – 21h00	<b>Shopping time, enjoying the Christmas market and typical Alsatian food</b>	
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21h00	<b>Transfer</b> back to Hotel Stücki	Bus
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# Wednesday, 06 December 2017

Time	Program	Speaker	Location
08h30	<b>Transfer</b> to Endress+Hauser Headquarters Reinach, Switzerland Meeting point: Hotel lobby Time: 08h20		Bus
09h00 – 10h00	Safety from perspective of a User DSM	DSM Kaiseraugst Udo Dehner (J. Orbach)	Endress+Hauser Sternenhof Auditorium
10h00 – 10h30	Exi Calculation - App	Philipp Conen	Endress+Hauser Sternenhof Auditorium
10h30 – 11h00	<b>Coffee break</b>		Endress+Hauser Sternenhof Atrium
11h00 – 11h30	IT Security on devices WLAN/Bluetooth	Mirko Brcic Team leader	Endress+Hauser Sternenhof Auditorium
11h30 – 12h30	Risknowlodgy – Loop Calculation	Dr Michel Houtermans Risknowlogy	Endress+Hauser Sternenhof Auditorium
12h30 – 13h30	<b>Lunch</b>		Endress+Hauser Sternenhof Atrium
13h30 – 15h00	<b>Workshop &amp; In-House Exhibition</b> including coffee break		Endress+Hauser Sternenhof Auditorium
15h00 – 15h30	Conclusion & certificates	Philipp Conen	Endress+Hauser Sternenhof Auditorium
15h30– 16h00	<b>Transfer</b> to City Center Basel		Bus

## Wednesday, 06 December 2017

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16h00 – 18h30 **Free Time** for sightseeing/shopping

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18h30 – 22h30 **Dinner and Entertainment**  
Safran Zunft

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22h30 **Transfer** to Hotel Stücki

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Bus

## Thursday, 07 December 2017

Time	Program	Speaker	Location
	Individual departure of participants		

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Cathedral of Basel, Switzerland with the river „Rhein“ in the front

## Basel, Switzerland

Basel is situated on the River Rhine and located in the three-country corner of Switzerland, France and Germany. Basel is the third largest city in Switzerland with 200 000 inhabitants.

### History

During the days of the Roman Empire, the settlement of Augusta Raurica was founded 15 km upstream of present Basel. The Romans built 30 B.C. a castle overlooking the river where the Basel Münster stands now. Even older Celtic settlements have been discovered in the area of the Münster.

Switzerland first university was founded 1460 in Basel. Notables like Erasmus of Rotterdam and Paracelsus taught at the University. At the same time the new craft of printing was introduced to Basel. Since 1837 the Saline Schweizerhalle (close to Basel) are mined. Salt as a raw material plays an important role in the chemical industry. Therefore various chemical companies settled down in the region of Basel.

### Today

Nowadays the most economic power comes from the pharmaceuticals industries as well as from logistic, transportation and financial field. Basel is the most important location for trade fairs and congresses in Switzerland. Basel is one of the cities with the highest quality of life worldwide.

### Museums

Basel is very proud of its many museums. No other European city has so many top museums in such a small space (37 square kilometers for almost 30 museums). The various museums cover a wide range of interests but mainly focused in fine art. Collecting art has a long tradition. Basel was the first European city to open the doors of an art collection in 1661.

Apart from the Art Museum some other interesting museum like the Museum of History, Museum of Culture, Museum of Antiquity and Museum of Natural History can be found. Over the last two decades, some private institutions such as the Fondation Beyeler (1997), the Museum Tinguely (1996) and the Schaulage (2003) have made Basel more attractive for the general public.

### Architecture

Basel is a city which is conscious of tradition and open to innovation. In the well-preserved Old Town classical patrician residences and medieval churches can be visit. In the meantime modern buildings designed by internationally renowned architects such as Richard Meier, Mario Botta, Renzo Piano or Herzog & de Meuron can be found.

### Shopping

Best places for shopping are the shopping malls Stücki and the St. Jakob-Park in Basel. Many jewelry and watch stores can be found at the shopping street Freie Strasse in Basel.



Dinner at Restaurant "Safran Zunft" with Endress+Hauser customers



# Travel information

## Location

### Seminar Venue

Endress+Hauser Headquarters  
Sternenhof  
4153 Reinach, Switzerland

### Product Site Visits

Product Center Flowtec, Reinach, France  
Product Center Maulburg, Maulburg, Germany

### Hotel

Hotel Stücki  
Badenstrasse 1  
4057 Basel, Switzerland  
Check in: 3 December 2017  
Check out: 7 December 2017

Kindly settle all extras such as late check-out, minibar, phone, laundry etc. upon check out.

### Flight arrangements & transfer

#### EuroAirport Basel, Mulhouse

Most convenient airport to fly in is EuroAirport Basel. Upon arrival please ensure to take the **French Exit** and **not** the Swiss Exit. A driver with an **Endress+Hauser sign** will wait for you after baggage claim and French customs exit.

#### Zürich Airport

After customer and baggage claim a driver will wait with an Endress+Hauser sign. Kindly note we only arrange pick up **for two or more participants** arriving at the same time. **No** pick up will be arranged for **single arrivals**. Single arrivals are kindly asked to take the train from the Zürich Airport to the Basel SBB station. It is a one hour ride by train. Please use the following link for train connection [www.sbb.ch](http://www.sbb.ch).

#### Railway Station Basel SBB & Badischer Bahnhof DB

Please note no transfer will be arranged from train stations in Basel. Customers are kindly asked to take a taxi to the hotel. Cost of taxi will be reimbursed by showing taxi receipt to Céline Wolf.

### Airport restriction and security

Check with your airline for any specific hand luggage policies and the number of items of baggage that can be taken onto the aircraft.

Limited quantities of liquids, gels and pastes can be included in your hand luggage. 100 ml bottles with a maximum capacity per bag up to one litre. These items need to be contained in a single, transparent, re-sealable plastic bag (about the size of a small freezer bag) - 20cm x 20cm. Please do not put any sharp, pointed or dangerous items in your hand luggage.

# Travel information

## Visa

Please check with the Swiss Embassy if visa is required. Kindly ensure that you get a Schengen Visa. Please let us know in due time if visa invitation letter for the Embassy is needed.

## Weather

The day temperature is around 0 – +5° C and at night around -5° - +5° C. It is winter. A warm winter jacket and warm clothes are required. Umbrellas are available in case of rain. Please check out your weather forecast: <http://www.weather.com/weather/tenday/Basel+SZXX0004:1:SZ>

## Dress code

Dress code for the full meeting is smart casual.



Business suit



Smart casual



Casual

## Currency

Local currency in Switzerland is Swiss Franc CHF and in Germany Euro €. Most Swiss Shop may accept Euros. Please use the following website for current exchange rate: [www.oanda.com](http://www.oanda.com)

## Electricity

The Swiss and German electricity is 230 Volts alternating at 50 cycles per second. If your device does not accept 230 Volts at 50 Hertz you will need a voltage converter.

**We are looking forward to welcoming you at Endress+Hauser!**

# Simply reliable – Process safety from Endress+Hauser

Every element of a process control system must be reliable to contribute to the overall safety. Reliable measurement of critical process parameters sets the basis for safe processes. You need best-fit and most robust sensors designed to reliably withstand extreme process conditions.

**Safety by choice, not by chance** You can only find the best-fit for your application if you have a variety of choices and are familiar with instrumentation. This requires a lot of detailed know-how. Our experienced sales force and engineers help you to make the right choice out of our wide-ranged portfolio and from a wide range of materials:

- What is the measurement application and what are the process conditions? You must know for example pipe size, flow rate, accuracy, chemical compatibility and much more. Is the media corrosive or abrasive? What are the ambient and process conditions with respect to temperature and pressure? Will the instrument be installed in a hazardous area?

**Safety by design** You need the most robust sensors designed to reliably withstand extreme process conditions. Depending on the application they have to deal with extreme vibrations, process pressures or temperatures and are exposed to aggressive media. Here is one example how we ensure during the design and manufacturing phase that our instruments possess the highest mechanical integrity.

**Predictable failure modes** Flowmeters can be equipped with rupture disks that relieve pressure in a controlled way when the meter is exposed to overpressure.

A pressure connection can be used for failure indication or even continuous flushing of the containment in the case of highly critical substances.

## Set the base for a reliable process:

- Right solution with best-fit, reliable instruments
- Supported by experienced sales force and online tools

## Reliably measure under harsh conditions:

- Robust design
- Highest mechanical integrity



Learn more about process safety:  
[http://www.endress.com/process\\_safety](http://www.endress.com/process_safety)



Complete SIL instrumentation portfolio

Point level measurement



Continuous level measurement



Pressure measurement



Liquid analysis



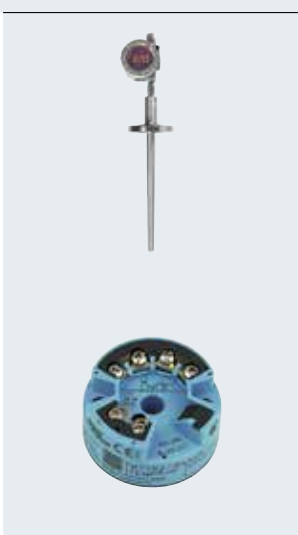
Flow measurement



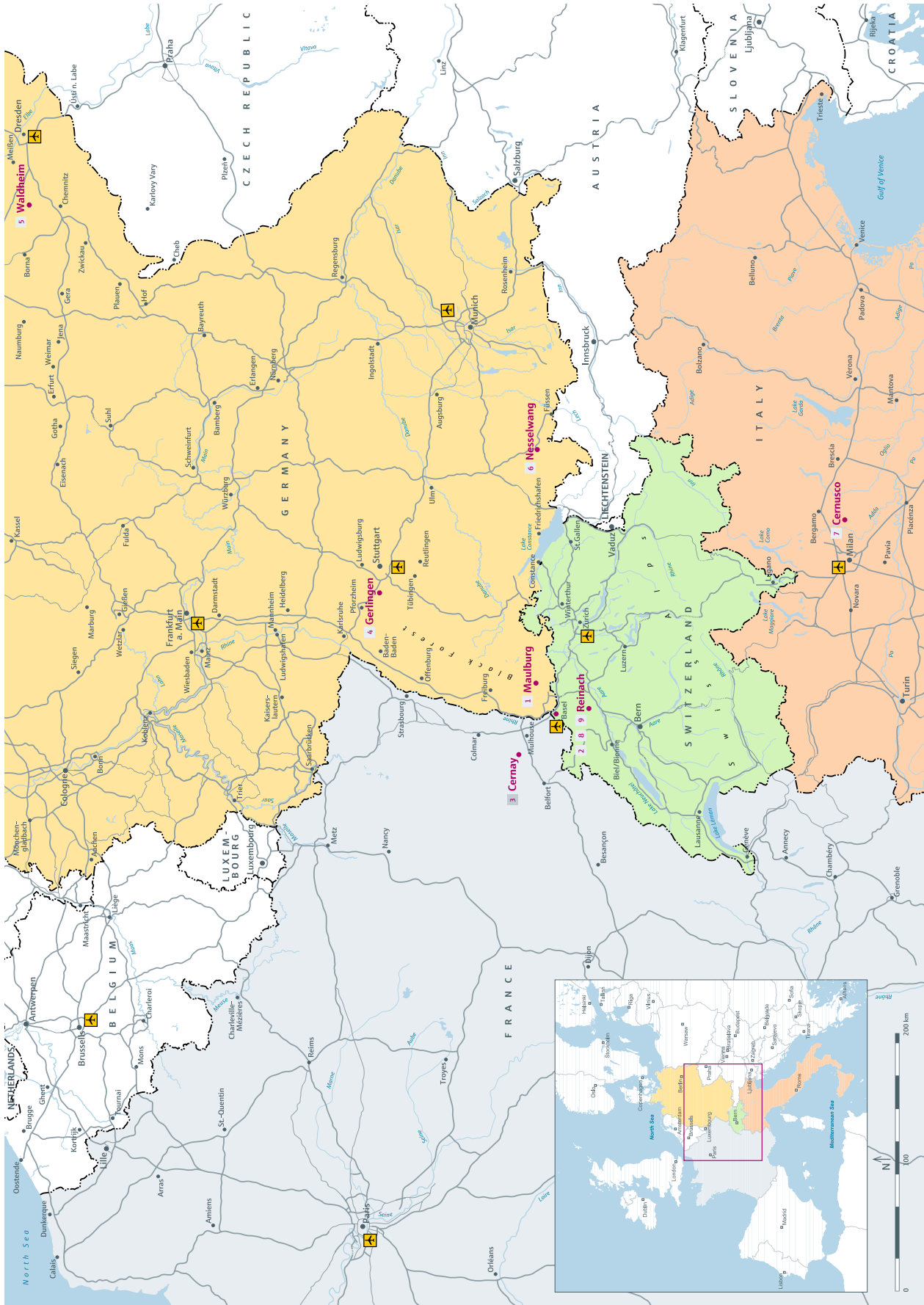
System components



Temperature



# Map





# Notes





In the search for solutions the customers' needs come first

## What moves Endress+Hauser

Close contact with customers provides crucial input into the development of technological innovations, ensuring their success in the marketplace. In 2014 Endress+Hauser applied for new patents for 259 developments – all in all the company holds 6,066 'live' patents and patent applications. With expenditure for research and development accounting for almost seven percent of net sales, Endress+Hauser safeguards and sustains its business success.

**Success for all** Endress+Hauser strives for loyal relationships with its customers, employees and partners – in a spirit of fairness and partnership, borne and driven by quality and mutual benefit.

As an employer, Endress+Hauser provides an environment in which people come first. Equitable wages and salaries, above-average social benefits, the freedom to develop, recognition for good work and attention to all concerns reflect the trust and confidence that Endress+Hauser has in its employees.

### Responsibility for the whole

As a family-owned enterprise, Endress+Hauser faces its social responsibility – from the firm belief that success must be shared if success is to endure tomorrow and the day after tomorrow. This is how Endress+Hauser will continue to meet its economic, ecological and social responsibilities in future.

### Credo of the Endress+Hauser Group

- **Customer** We learn from the customers we serve.
- **Strategy** We concentrate our resources on business we understand.
- **Autonomy** We protect our status as an autonomous and independent corporation.
- **Organization** We believe in autonomy and decentralization, while appreciating the necessity of certain centralized functions.
- **Leadership** We encourage our employees to take responsibility for their actions. We manage by open communication, agreed goals and performance reviews.
- **Quality** We strive for exemplary quality in our products and services.
- **Employees** We seek motivated, committed and actively involved employees.
- **Communication** We speak openly with one another. We handle information freely and responsibly.
- **Creativity** We wish to create an environment that is conducive to progress and innovative ideas. We encourage our employees' creativity.
- **Profit** We recognize profitability as the driving force of our corporation.

#### Contact

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