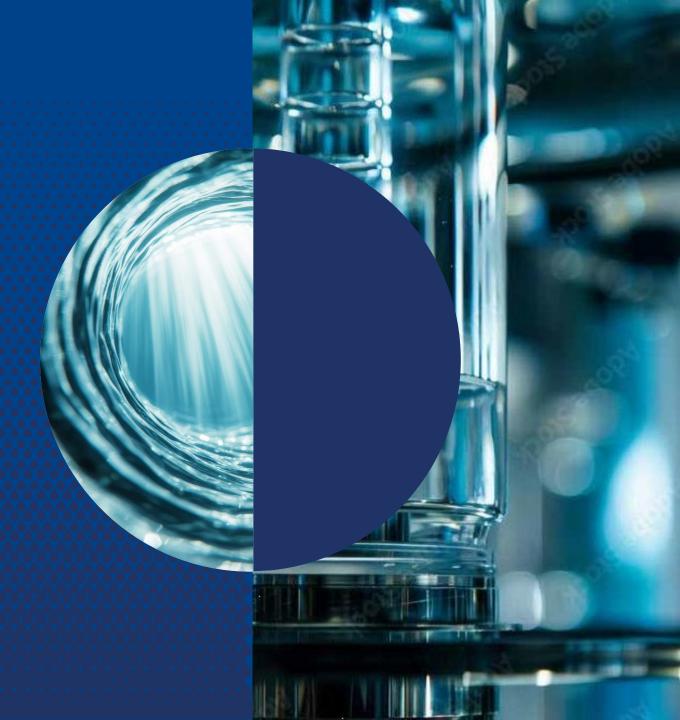
# Water & Wastewater

Efficient systems for our most important resource:

Measurement, control, visualization & documentation

**FFONSECA** 





#### Our role in the association

Partner of the Plant OEM/construction companies, engineering offices and planners, municipal institution...

in the fields of

**Sensors & Automation Products** 

Digitalization

Sensor Networks & Communication

Cloud & SCADA Solutions

Service & Installation

Training & Capacity Building





JUMO at a glance...





## **That's JUMO**

Since

1948

Headquarter located in Fulda, Germany

14 production sites

**26** subsidiaries

More than **60** agencies

More than 2400 employees

Nearly 350 Mio € turnover

Bound by tradition, committed to progress







# 100% Family owned

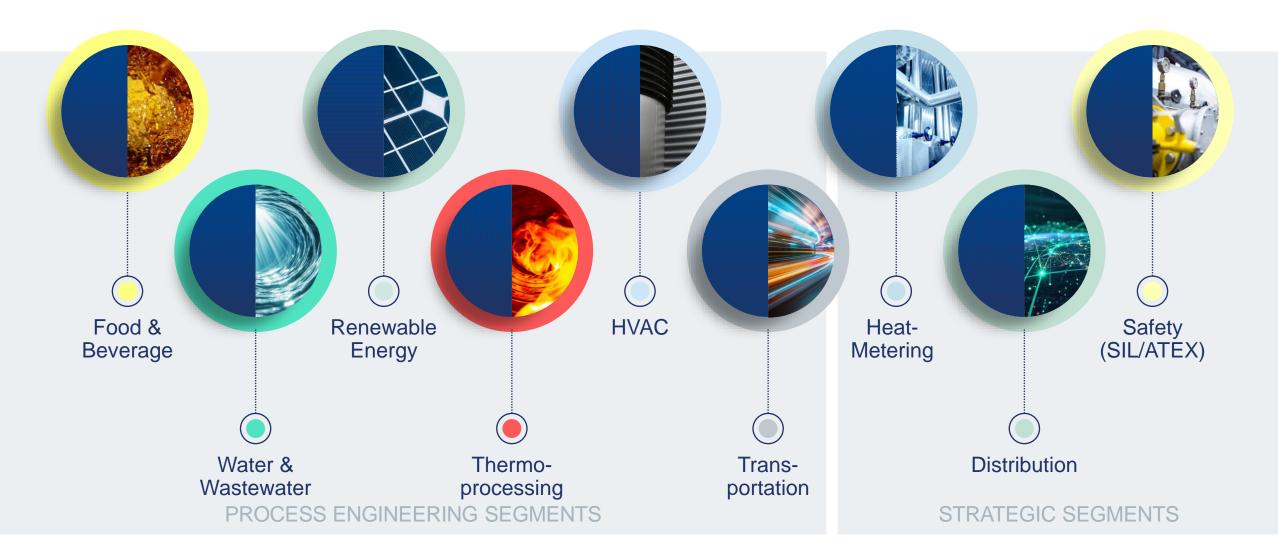


Michael Juchheim

Bernhard Juchheim



## **Our focus industries**





# **Focus Industry Water & Wastewater**





# Your Partner in all water qualities

#### Ultra Pure Water:

Pharma & HealthCare, Electronic parts & Optical products production

#### O Drinking Water:

from source to tab; Irrigation water; Pool- & Spa Control, River-, Lakewater Control

#### Sea & Brakish Water:

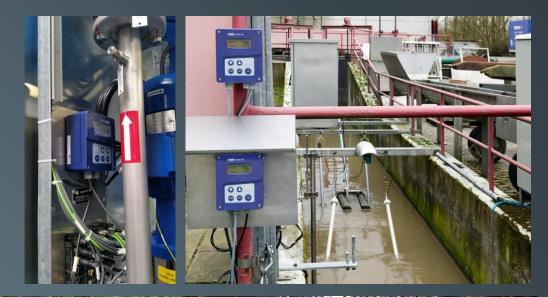
Fish Farming; Seawater-Desaltening

#### Process Water:

Cooling (-tower) & Cleaning processes; Galvanics, Chemical Processes; Food/Beverage

#### Waste Water:

Industrial/WasteWater; Recycling & ZLD Processes









# Sensor technology for all main parameters in your water project



#### **Liquid Analysis**

#### Water quality parameters

pH & ORP

Conductivity, TDS & Concentration

**Dissolved Oxygen** 

**Turbidity (NTU)** 

Free & Total Chlorine

Peracetic Acid & Chlorine Dioxid

**Brom** 



#### **Flow**

#### Different principles available

**Magnetic-Inductive (MID)** 

Ultrasonic

**Turbine** 

**Finger MID** 

Flow Controller



#### Level

#### **Certified for safe storage**

Hydrostatic level probes

Pressure sensor as level probe

Wireless pressure transmitter

Capacity level switch

Float based switches

Float based level transmitters



#### **Pressure**

# From basic sensor to process instrumentation...

Pressure sensor basic sensor

Sensors for relative and absolute pressure measurement

**Precision pressure transmitters** 

Sensor with switching outputs

**Digital pressure transmitters** 



# **Automation technology**



#### **Automation Components**

#### For all your needs

**Single-Chanel PID-Controllers** 

**Mult-Chanel Controllers** 

Recorders

**SIL-/Safety Products & Solutions** 

**Electromechanical Thermostats** 

#### **Automation System (PLC)**

#### Scalable & state of the art

**Codesys PLC** 

**Intelligent IO-Moduls** 

**Controller Moduls up to 120 PID loops** 

Fieldbus compatible (Profinet, EtherCat, ModBus TCP/RTU)

Communication via OPC/UA & MQTT

**Web Services** 

#### **SCADA & CLOUD**

#### Data handling safe & smart

Visualisation and data control from anywhere (Web based)

Save data hosting & highest security

Flexible Dashboard design

Alarm & Control system

#### **Engineering & Service**

#### We will not leave you alone

**Engineering solutions from Sensor to Cloud** 

Software & Hardware Project planning

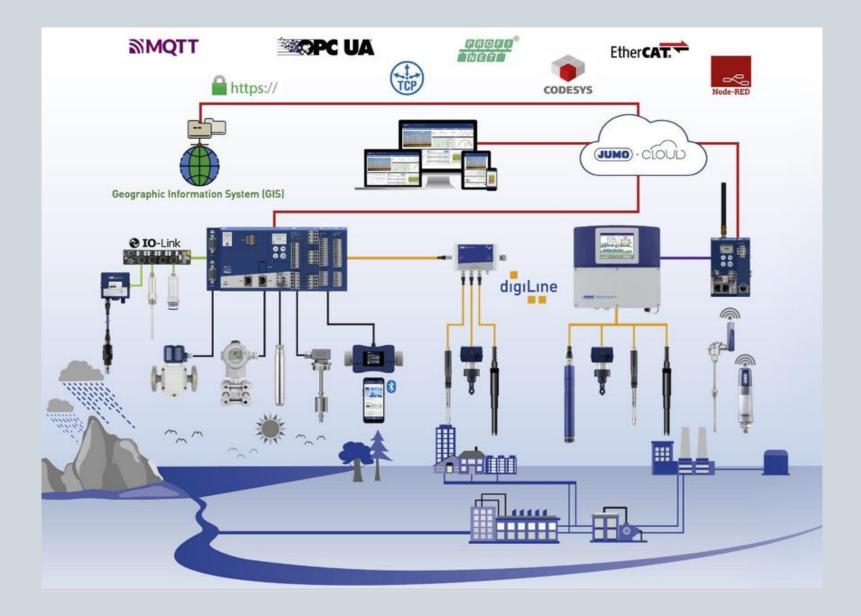
**Pre- & After Sales Services** 

**Installation support** 

**Online support** 



# And now FFonseca, Jumo's representative in Portugal...







## F. Fonseca

# Your partner for sensor and automation solutions



**Carlos Gonçalves** 

Founder and CEO F. Fonseca, S.A.

- Established in 1978
- 77 employees
- 2 locations
  - ✓ Aveiro
  - ✓ Carnaxide

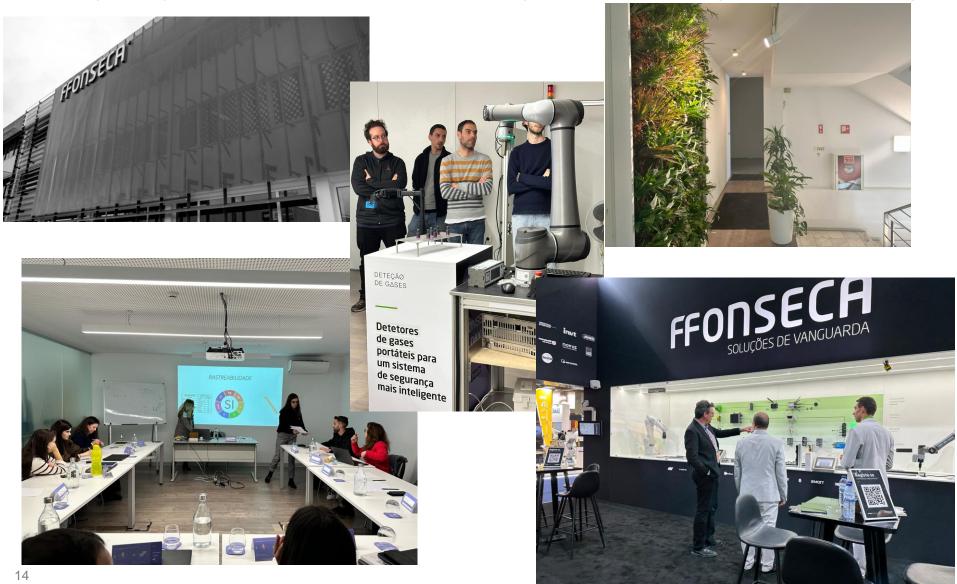




Sales – Engineering – Technical Service

# F. Fonseca – Main Office (5000 m2 workplace)

Sales / Engineering / Tech support / IT / Warehouse / Marketing / Finance & Accounting / Back Office / Training rooms / Gym







# The team









# F. Fonseca Water Project Samples



# **Water Treatment (Reverse Osmosis)**







# **Water Treatment (Reverse Osmosis)**





- Measurement of ORP at the inlet of the treatment process.
- Dosing control.





# **Water Treatment (Reverse Osmosis)**



Control board and command center installation.

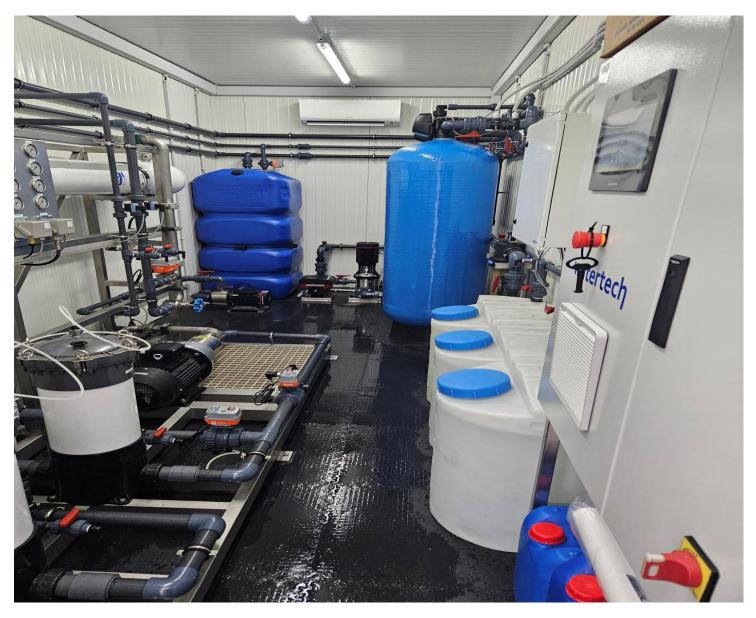
 Measurement of conductivity in untreated water (before treatment process) and treated water (after treatment process).

With compensated temperature measurement.





# **Water Treatment (Dessalination Process)**



Control board and command center installation.

 Measurement of conductivity for the inlet water and for the treated water.

With compensated temperature measurement.





## ...why JUMO

- Complete range of products
- Strong sales & service network across Portugal
- JUMO offers complete solution
- JUMO's project references and experience
- Local and global engineering
- Wide range of products available for delivery from stock





# Thanks for your audience

Matthias Kremer & Bruno Carvalho





