

# Energy Management

Industrial IoT, Data Acquisition & Energy Management

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Central & Eastern Europe

**Weidmüller** 

Customers worldwide:

22,500



Sales companies worldwide:



30

Locations



60

Representations

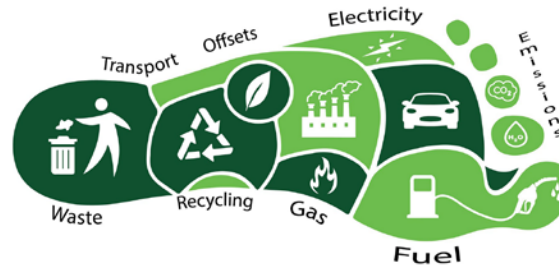
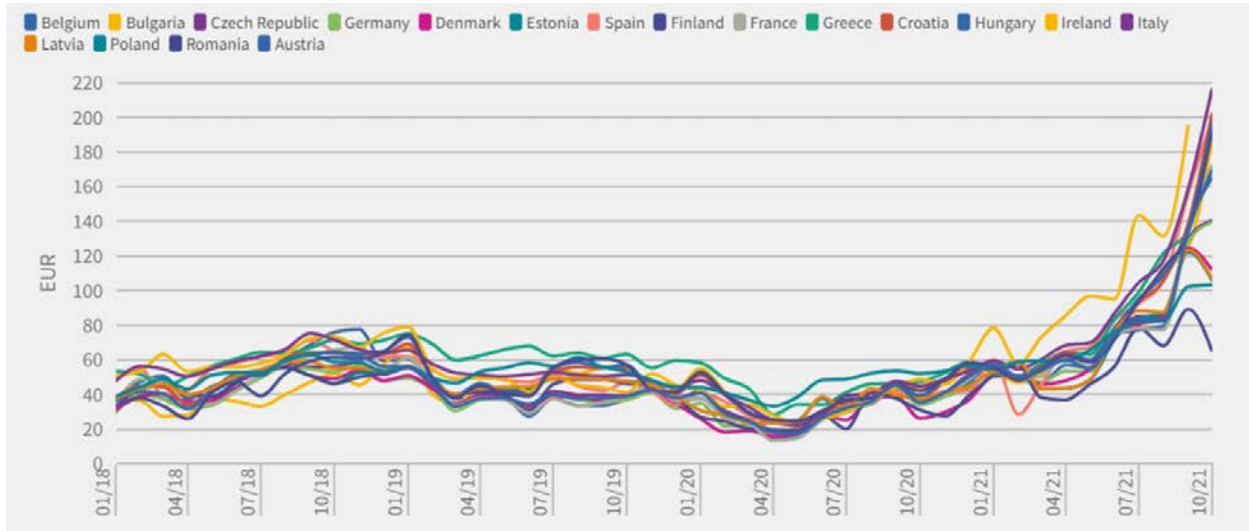


950

Sales representatives worldwide

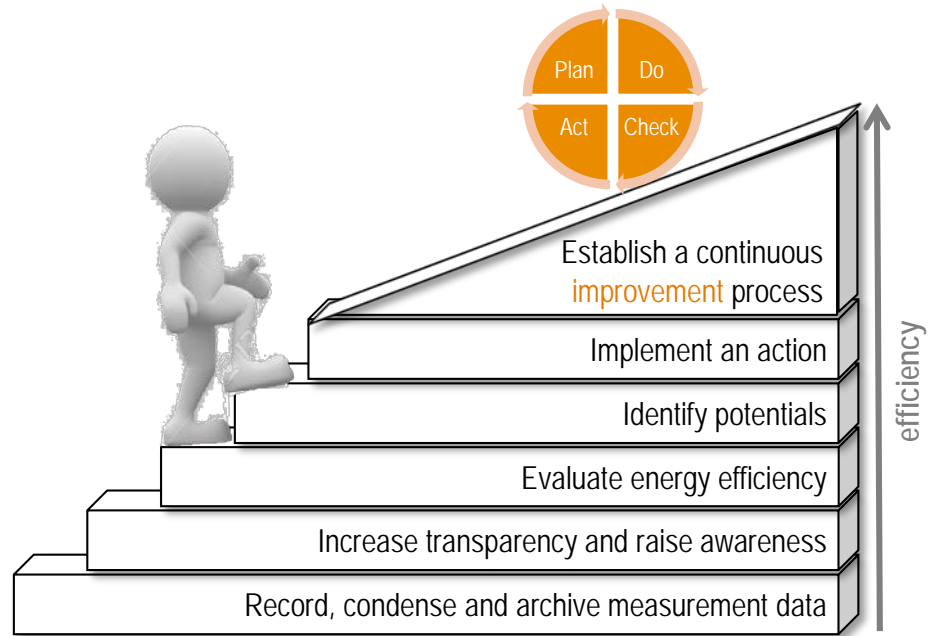
Customer proximity Worldwide

# Energy Management Motivation



# Step towards an energy-efficient, intelligent factory

Transparency as the key



▶ Energy efficiency in production processes is based on the transparency of the energy input

# From the feed-in to the machine module

Production hall with  
production areas

← Power feed-in and  
power distribution



Production level with  
production lines

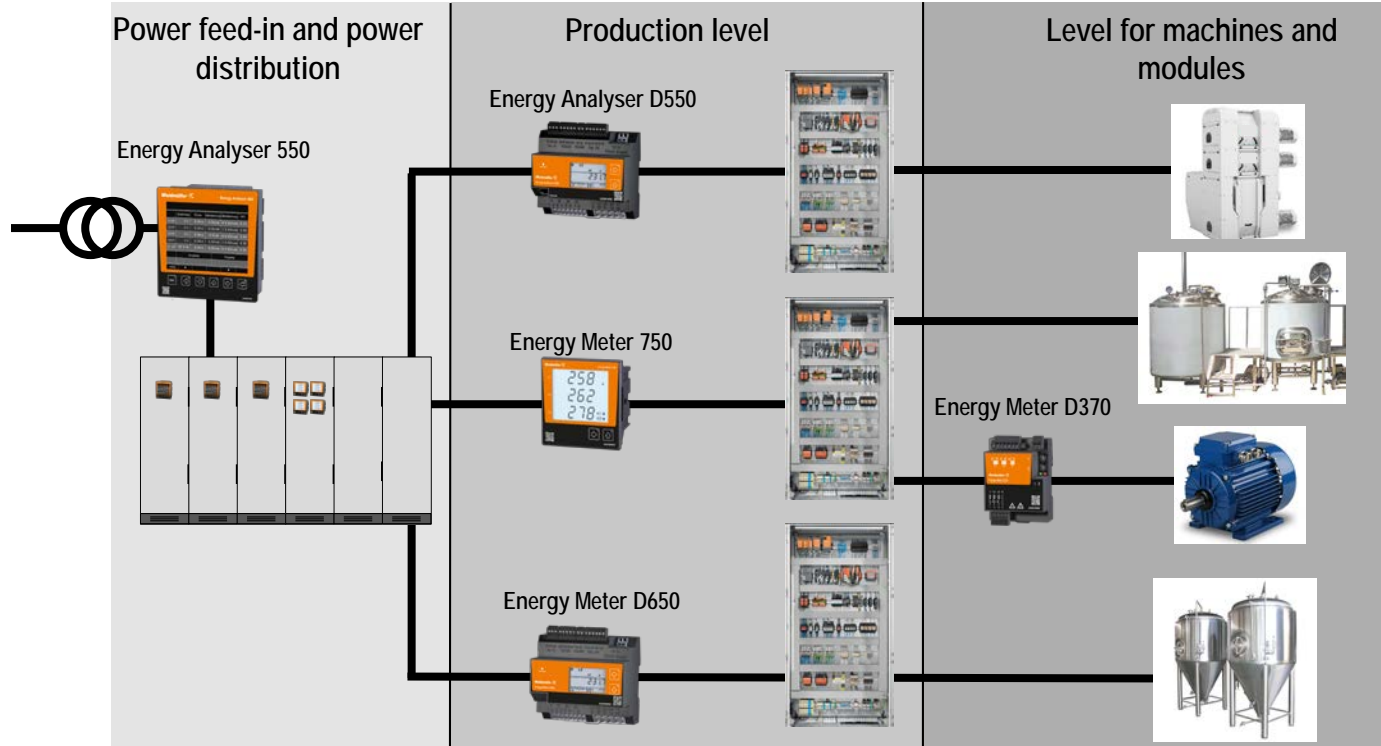


Machine level

Machine module

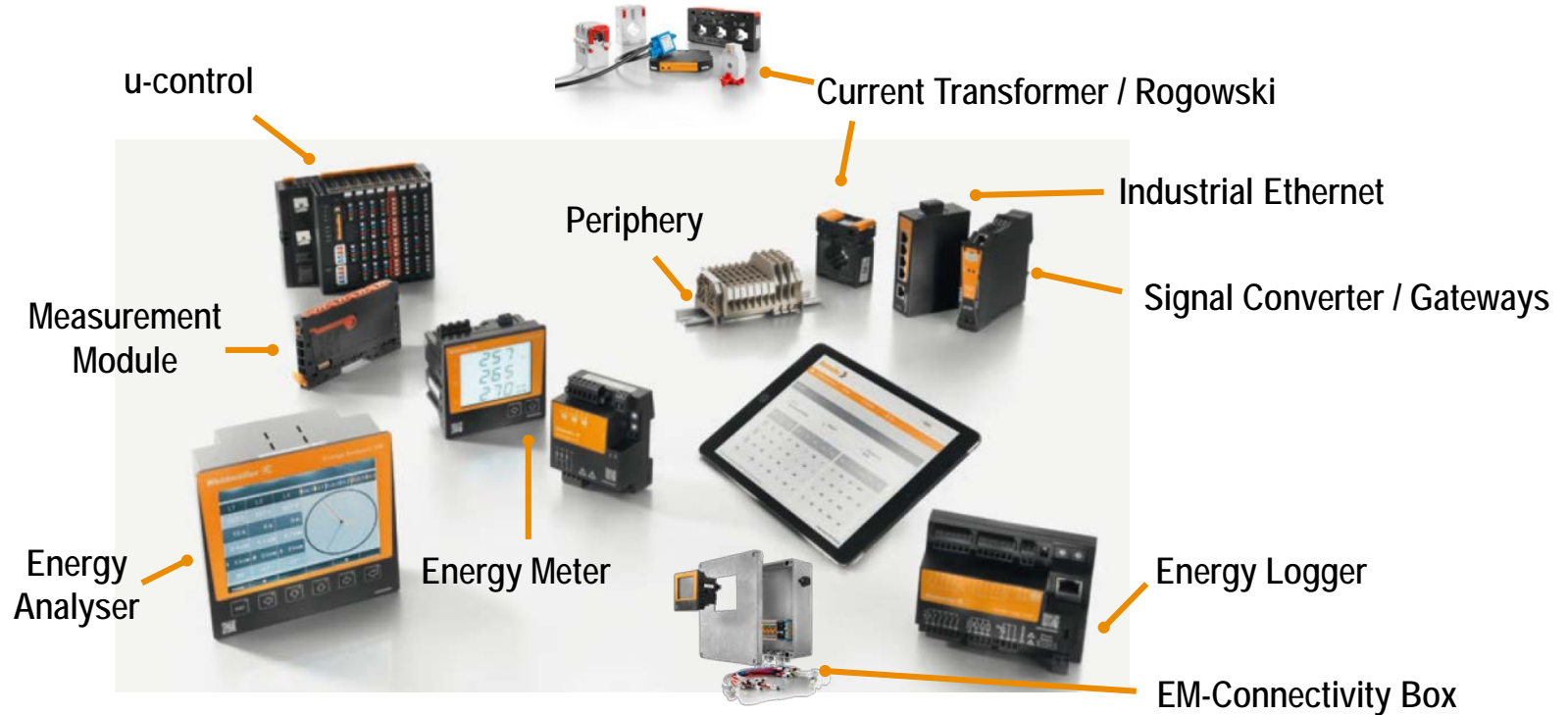


# Sample architecture



# Energy Monitoring Hardware

Data collection





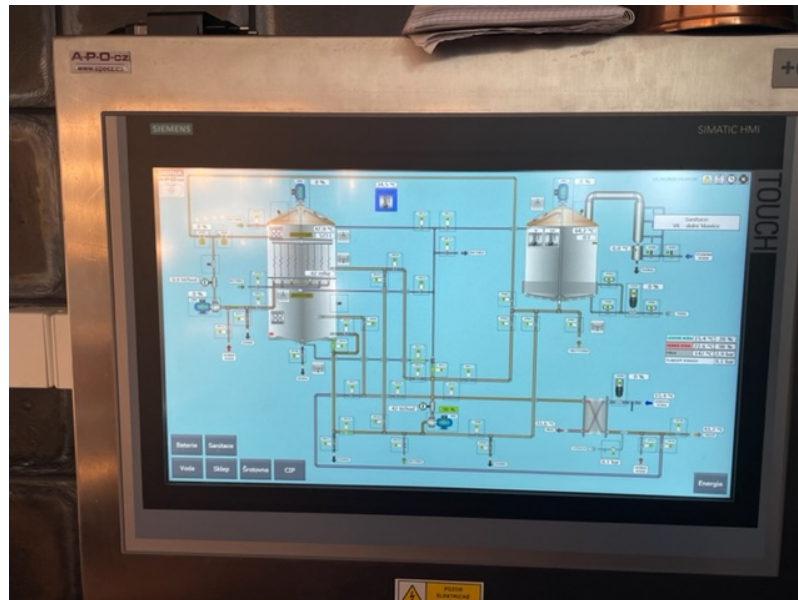
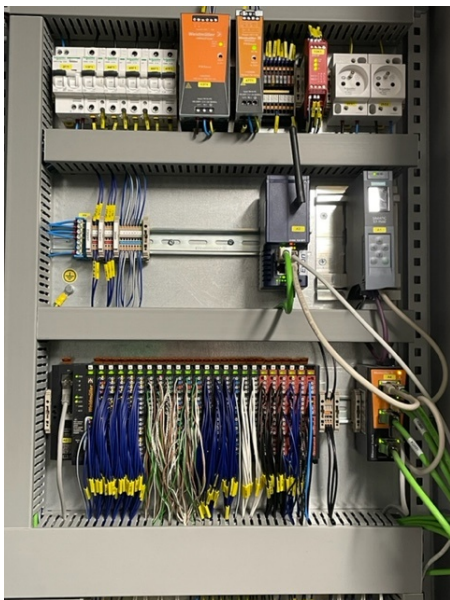
## Acquisition and pre-processing locally with **u-control 2000 web**

- Data concentrator for any sensor technology
- Connection to the existing PLC infrastructure
- Preprocessing of raw data
- Various status visualizations - accessible locally via web browser
- Integrated cloud connector - simply transfer data to higher-level structures
- If desired, initiate switching processes remotely, manually or automatically



# Remote IO - Integrated Energy measurement

Reference APO cz

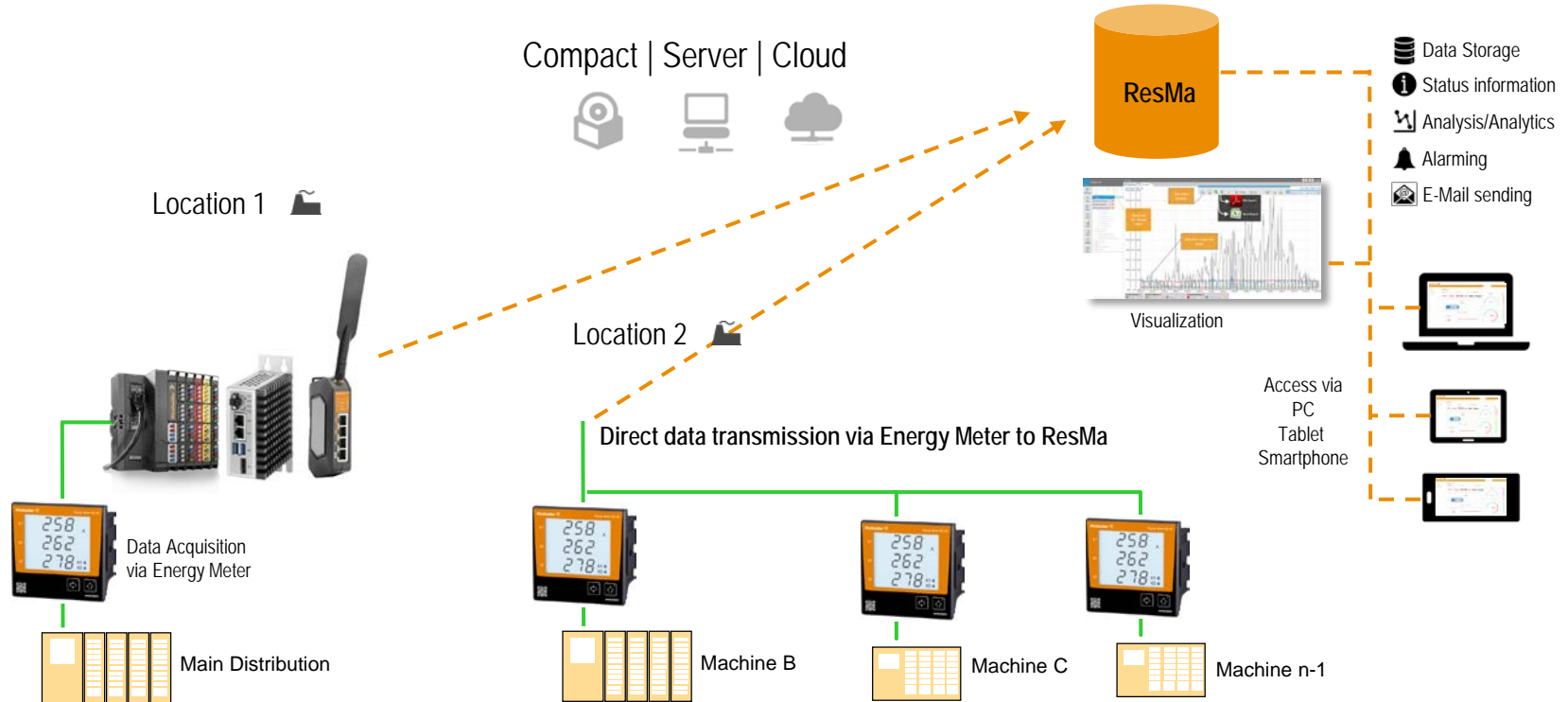


# Plug'n'Play Boxes

Electrical energy & Compressed air



# Data Acquisition - Variants



# Overview

ResMa software



Data Acquisition



Energy Analysis



Reports



Monitoring



Load Management



KPIs and EnPIs



Visualisation



Administration



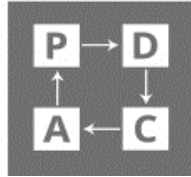
Cockpit



Alarming



Documentation



PDCA-Cycles



Energy Forecasts

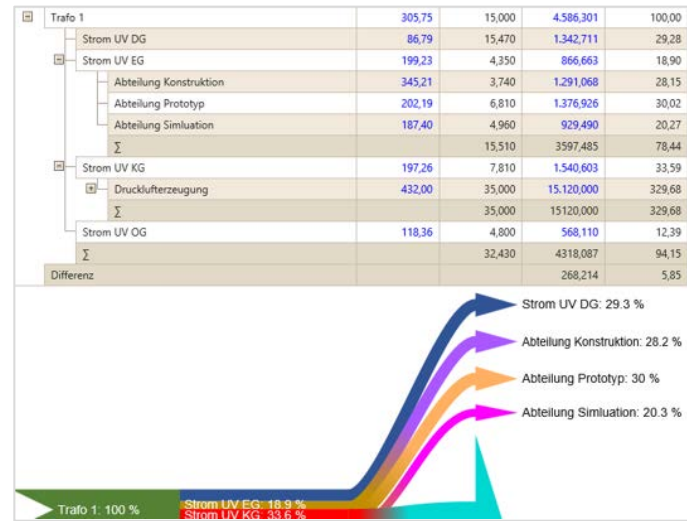
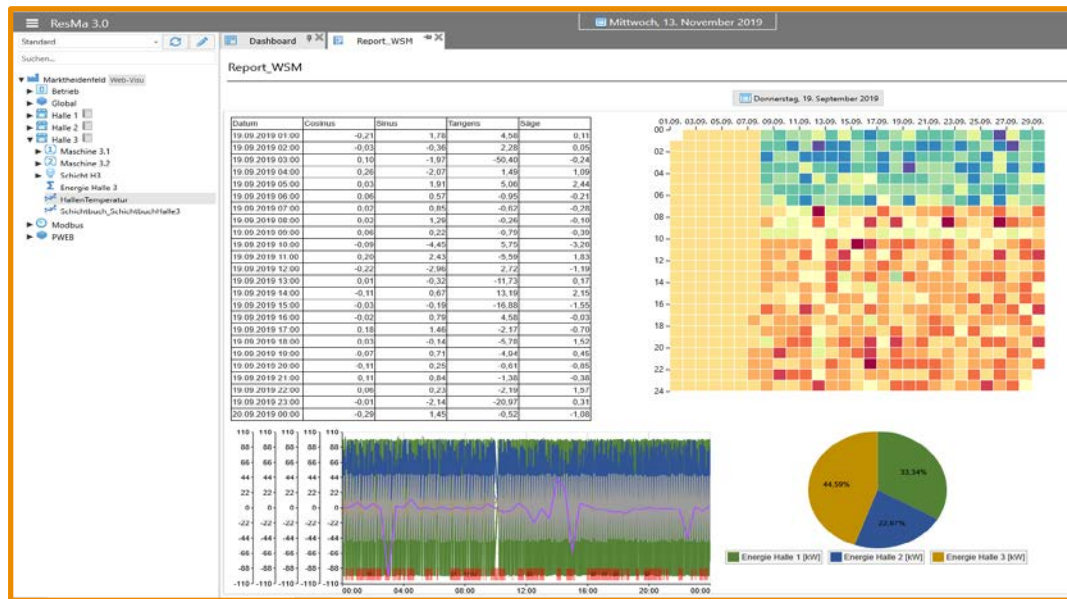


Integration of Tariffs



IT-Integration

# Resma Dashboard



# Industrial Data Acquisition System

Reference Knauf

- Installation of numerous ResMa versions in various plants worldwide
- Each plant has its own system
- Connection to PROCON client-server system (from Weidmüller GTI) and Energy Meters
- Data exchange with various control systems
- Batch-oriented data acquisition and evaluation (SAP orders)
- Focus on production process optimization in plasterboard factories
- Progressive usage of self made KPIs
- Feeding azure cloud with ResMa data via REST-API for global reporting purposes

**KNAUF**



# Energy Management System

Reference Deichmann

- Deichmann is the market leader in the German and European shoe trade
- Across all locations: Connection of over 2700 branches across Europe
- Data acquisition via various control systems (> 180,000 tags)
- Data exchange from and to SAP and other ERP systems
- Energy savings through optimization in the first year of operation 2,500 MWh



**DEICHMANN**



# Energy Management System

## References



**WESTFLEISCH**  
DIREKT VON BAUERN



