



**BILFINGER**

**Bilfinger SE | Capital Markets Day 2018**

# **Digitalizing the Process Industry** **Potential for Profitable Growth**

**Franz Braun | Chief Digital Officer**

Frankfurt | June 13, 2018

# Bilfinger Digital Next

Frontrunner in digitalizing the process industry



## Bilfinger Digital Next

Bilfinger's center of competence and growth driver in digitalization

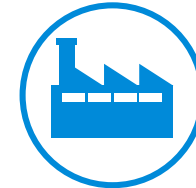
Consolidation of expertise, know how and intellectual property



## Core portfolio

- BCAP**  
Bilfinger Connected Asset Performance
  - Digital solution for process industry
- Industrial Tube**
  - Knowledge Platform
- PIDGRAPH**
  - Documentation for the future

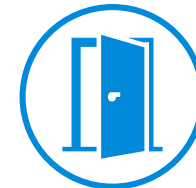
## Value for our clients



7-15% efficiency increase



Secured expertise



Fast and reliable access to information

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## Core portfolio



### BCAP

Bilfinger Connected Asset Performance

- Digital solution for process industry



### Industrial Tube

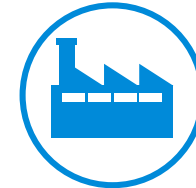
- Knowledge Platform



### PIDGRAPH

- Documentation for the future

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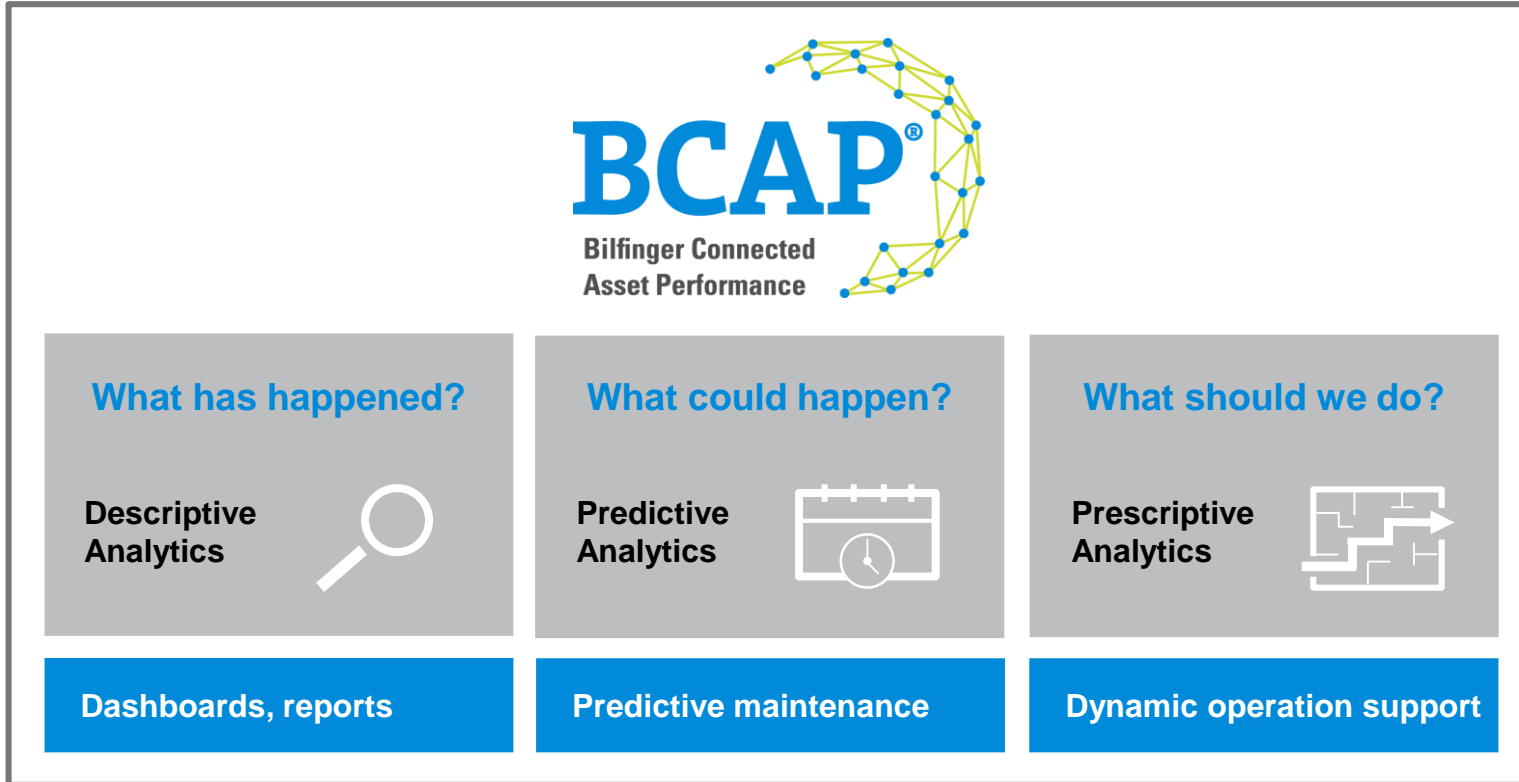
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# New analysis options

BCAP® provides a better decision-making basis



# BCAP®: Digitalization Plug & Play

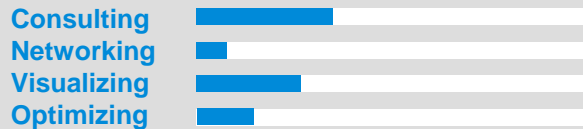
Fast and easy implementation



## BCAP® Taste

### Demonstrate potential

- Free data analysis to demonstrate BCAP® potential
- Feasibility check for start up



≈ 2 months

## BCAP® Start up

### Connect first process unit

- Working with BCAP platform from 2nd month
- On-site training
- Organizational readiness
- Technical readiness
- Stop / go gate after 3 months



6 months

## BCAP® Live

### Site roll out

- Training of algorithms
- Configuration of applications
- Continuous performance tracking
- Minimum 30 months contract

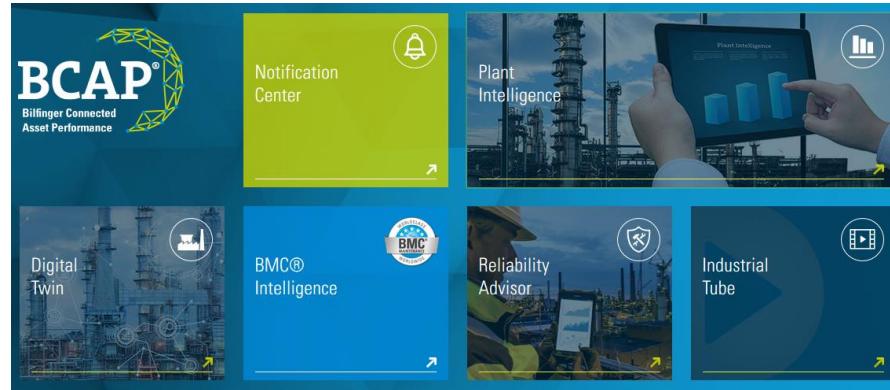


min. 30 months

# Reference project

## Implementation of the BCAP® platform at Münzing Chemie

### Establish the BCAP® portal as central hub for digital services

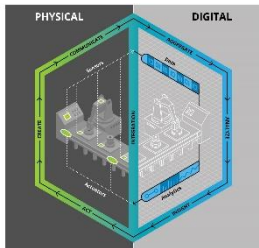


**Build up digital twin**  
at brownfield and greenfield:  
Intelligent PID linked with 3D  
and EMSR planning as well as  
plant documentation

**3D-Scanning**  
of various plants to enable  
virtual browser tours

**Build up client dashboard**  
“Plant Intelligence“ for a better  
monitoring and analysis of  
maintenance and production  
processes

**Visualizing**  
the sensor data at “Asset  
Monitoring” and integration of an  
adjustable alarm system

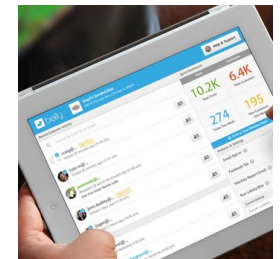


Installation of LoRa sensors  
for a simplified asset  
management, e.g. level  
sensor and door contacts

Installation of wireless sensors  
at the powder system for  
condition monitoring



Build up an interface  
between the new PLS  
and the BCAP® platform



# Reference project

## Tangible benefits within 6 months

- **Digitalized as-built documentation**
  - 15% improved regulatory compliance and efficiency
- **Installed and connected WHART and LoRa sensors**
  - 10% less routine walks
- **Plant intelligence dashboard**
  - 10% OEE improvement potential uncovered
  - 5% improved reliability
- **Intelligent monitoring of DCS data**
  - 5% less unplanned downtime
- **Implementation of BMC dashboard**
  - 50% increased transparency towards customer
  - 30% improved maintenance data quality



# Future BCAP® applications

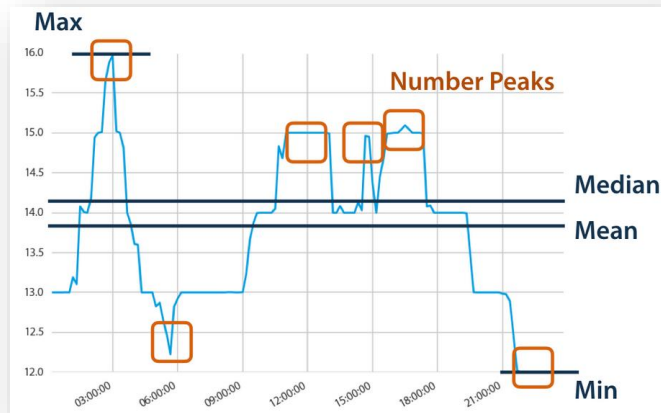
## Development of additional innovative solutions

### Asset monitoring & process flow

Intelligent plant monitoring with attached configurable reaction management

### Predictive analytics

Development of forecast models to optimize maintenance and production



### Bad actor advisor

The analysis of historic (failure) data about the automatic RCA improves the reliability significantly

### Cognitive analyzer

Cameras and microphones as universal hazard identification and predictive analytics

## Integration of established market solutions “Third party app store“

### Energy optimizing

Optimizing the process energy consumption and use of energy data for plant optimization

### Process data analysis

Provision of an analysis software for experts like process or reliability engineers

### OEE

Complete package for the collection, monitoring und optimization of the OEE



# Leading industrial service provider

Excellently positioned for the digitalization of the process industry



**01**

**Long-standing experiences  
in the process industry**

**02**

**Covering the entire life cycle  
of industrial plants**

**03**

**Detailed knowledge due  
to on-site presence**



**BILFINGER**

**04**

**Comprehensive  
digitalization competences**

**05**

**Platform-  
independent solution**

**06**

**High imple-  
mentation speed**



**WE  
MAKE  
DIGITALIZATION  
WORK!**