

# Productive Health & Safety

ISHCCO, Lisbon

## Concremote

DokaXact

Doka-ID

SiteLight

ENCORD



Formwork and Scaffolding  
We make it work



# 1. CONCREMOTE



## **Time savings**

- 75 days of construction time saved

## **More safety**

- Safety acknowledged due to post tensioning at the right time

## **Enhanced concrete quality**

- Overall quality enhancement by monitoring temperature gradient



# Warehouse Saland

Saland | Switzerland



## Time savings

- Earlier striking of the slab formwork based on real-time data
- Construction reduced by 30 days

## Cost reduction

- Savings of 23.000 EUR through optimized formwork process



# Pelso Bay

Alsóörs | Hungary

## **Time savings**

- Stripping of formwork 5 days earlier than initially planned
- Catching up on a 1-month delay

## **More safety**




- „Peace of mind“ due to reliable measurement and documentation

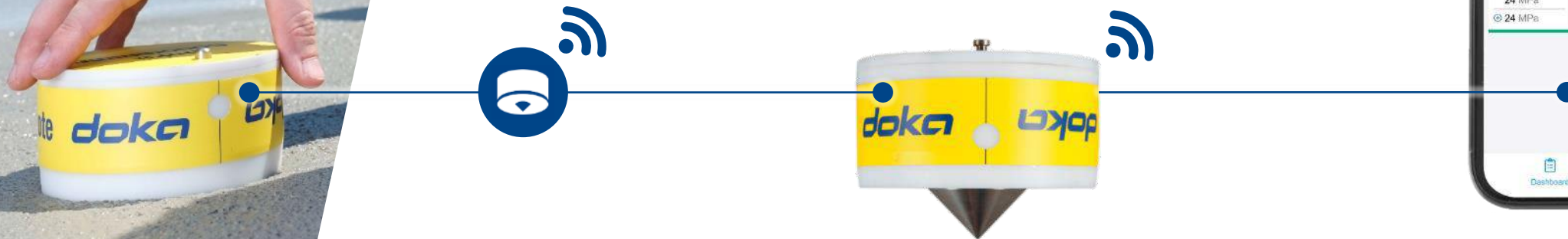
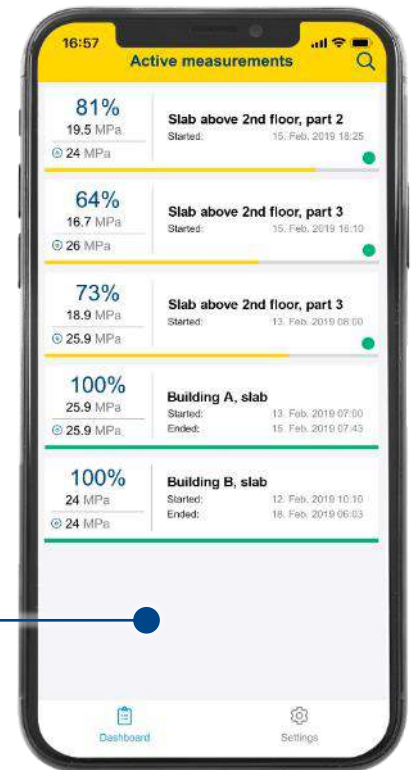


# CONCREMOTE

Real-Time Monitoring of Temperature & Compressive Strength

## Fields of application

-  Temperature monitoring in mass concrete
-  Early-age compressive strength
-  Fair-faced concrete projects



# CONCREMOTE

## Real-Time Monitoring of Temperature & Compressive Strength



### Slab

Reusable device in one handy unit for all horizontal parts.



### Wall

Reusable cable sensor and wall sensing element for walls.



### Mass Concrete

Monitoring of temperature & strength inside the structure.



- ✓ Concrete mix design
- ✓ Cycle times, formwork quantities
- ✓ Critical path activities like stripping, post tensioning, climbing





## Slab sensor 2.0





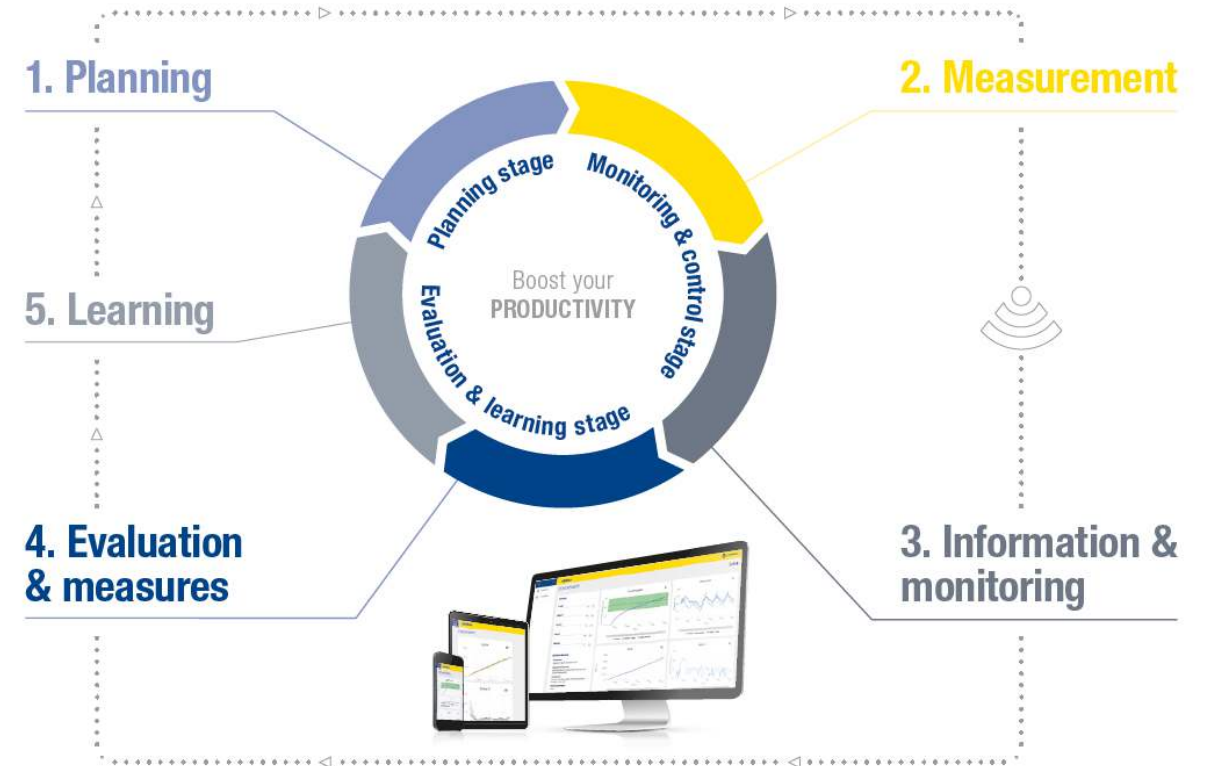
## Cable sensor 2.0 + wall sensing element





# Concremote – Value Engineering Methodology

Choose the suitable concrete mix to match desired cycle times at optimum costs





# Tunnel Trasa Lagiewnicka

Cracow | Poland



## Time savings

- Time to target value reduced by up to 40% per cycle in winter season

## Cost reduction

- 50% on costs for heating saved
- Savings on formwork rental costs





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## 2. DokaXact IOT Services

Real-time insights for optimized efficiency, quality and safety...

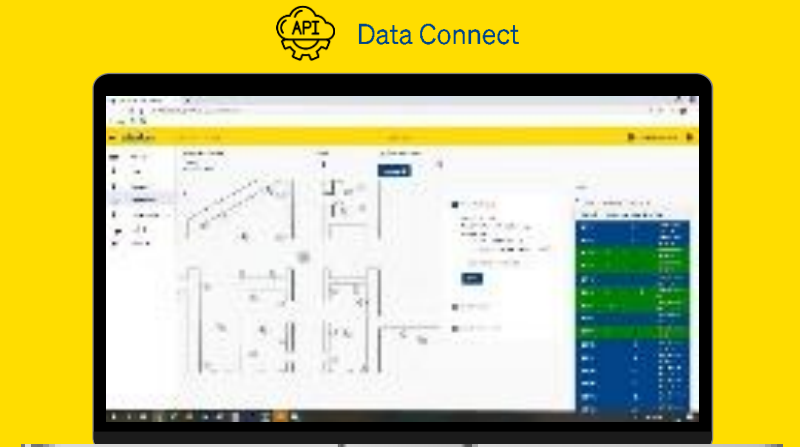
... on a shared IOT Platform



**DokaXact  
Load**  
Formwork  
Load  
Monitoring



**DokaXact  
Pressure**  
Concrete Pressure  
Monitoring



Data Connect

**DokaXact**  
software suite for mobile and web





# DokaXact Pressure

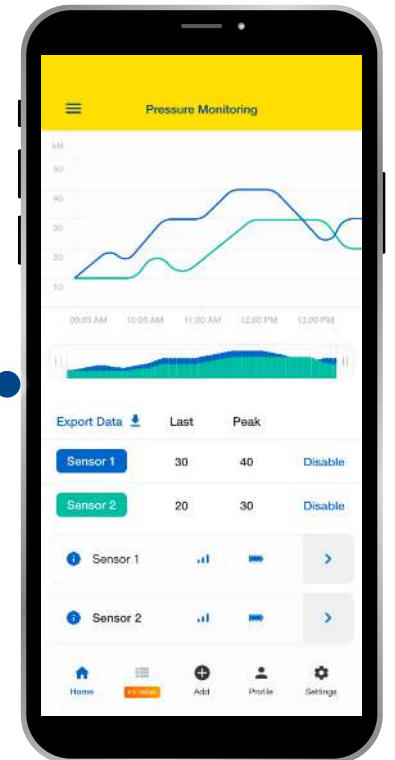
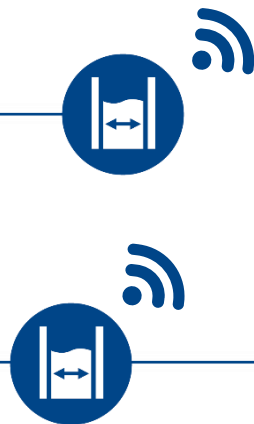
## Concrete Pressure Monitoring

The sensors enable the realization of **economical form design** and **optimum concrete placement speeds** in the most challenging environments.

Used for **tall walls & columns, mass concrete, tunnel formwork, single-sided walls.**



**DokaXact Pressure**  
Concrete Pressure Monitoring







# DokaXact Load

## Load Monitoring

Compact **wireless load cell**

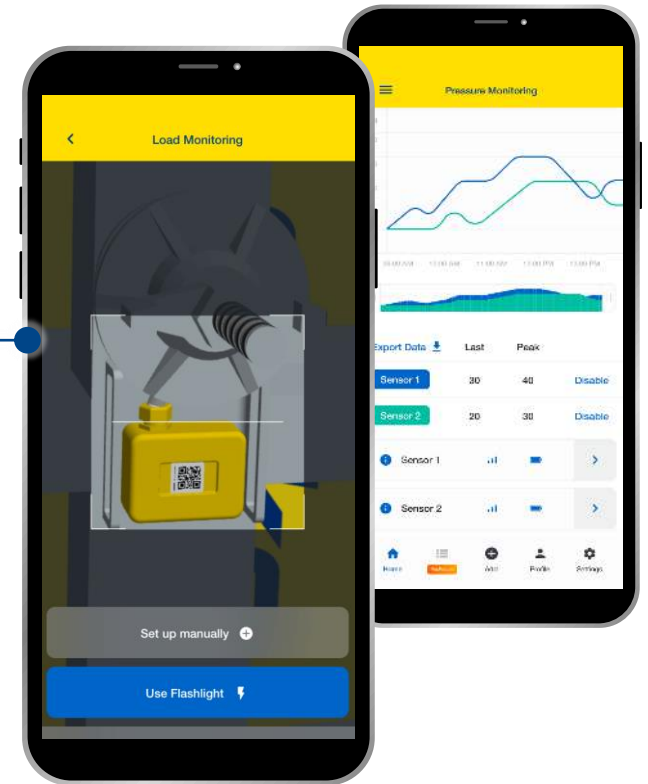
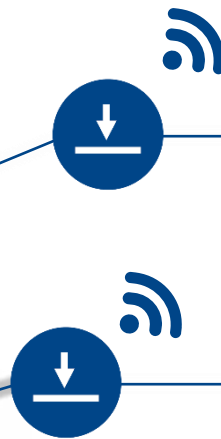
Robust water and dust resistant design

**33mm hole** to fit **most common** rod systems

High capacity



**DokaXact Load**  
Formwork  
Load  
Monitoring





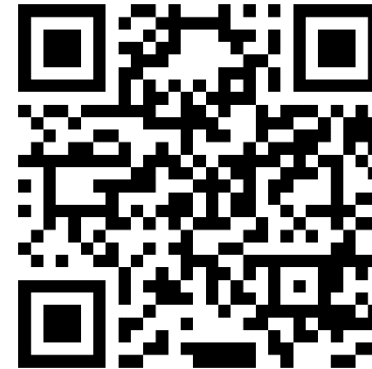
# Doka Xact IOT Contact

**QR code to our  
homepage**



**or**

**get directly in touch  
with Stephan Hödl**



**I'm happy to hear from you!**



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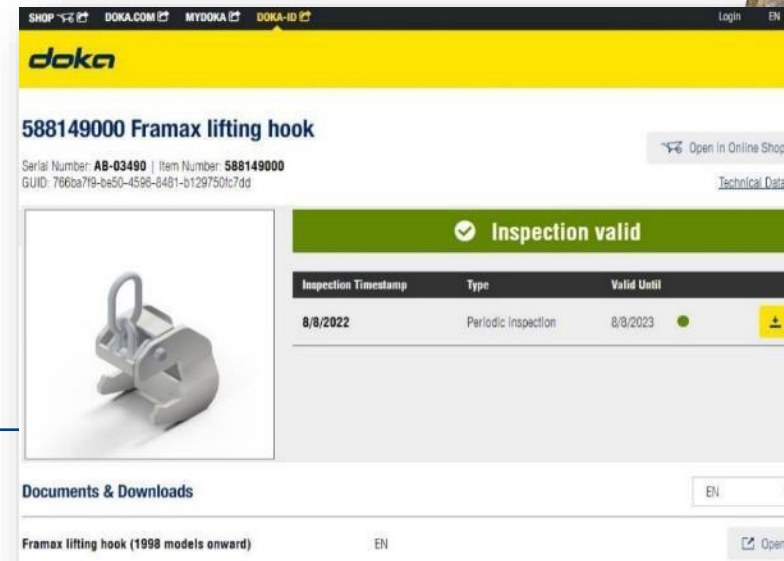
# 3. Doka-ID

Easy product identification and access to safety-related information



Doka-ID is a service to simplify information access for parts which require recurring mandatory inspections

- **QR-Code** on type plates forwards directly to [id.doka.com](https://id.doka.com) to show **necessary information**:
  - **Status** of the last inspection
  - Access to **inspection report**
  - Further **documents & downloads** (e.g. operating instructions)
- Current range of application: **lifting equipment** in AT, DE and CH





# Doka-ID

Live Demo





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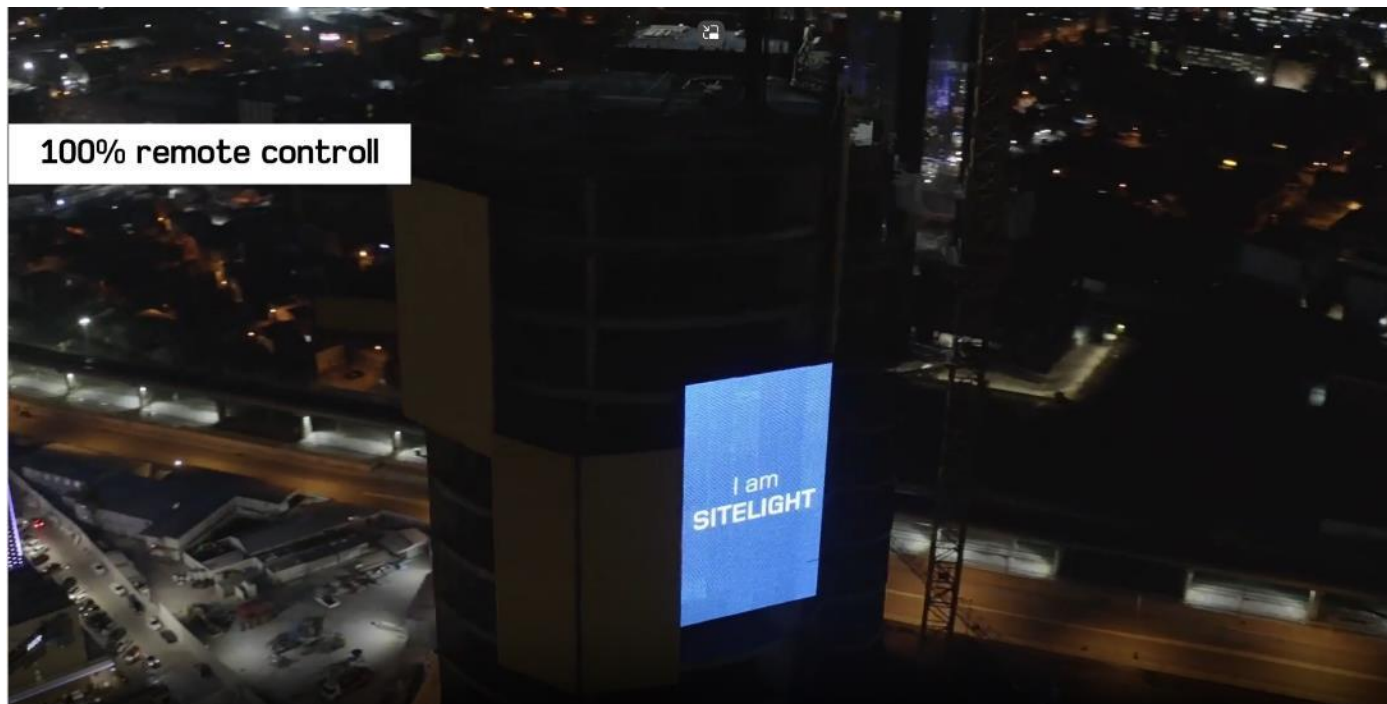
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## 4. SiteLight

<https://retail.umdachgroup-ventures.com/sitelight/>

SiteLight transforms construction sites into (Digital-Out-Of-Home) DOOH advertising spaces.

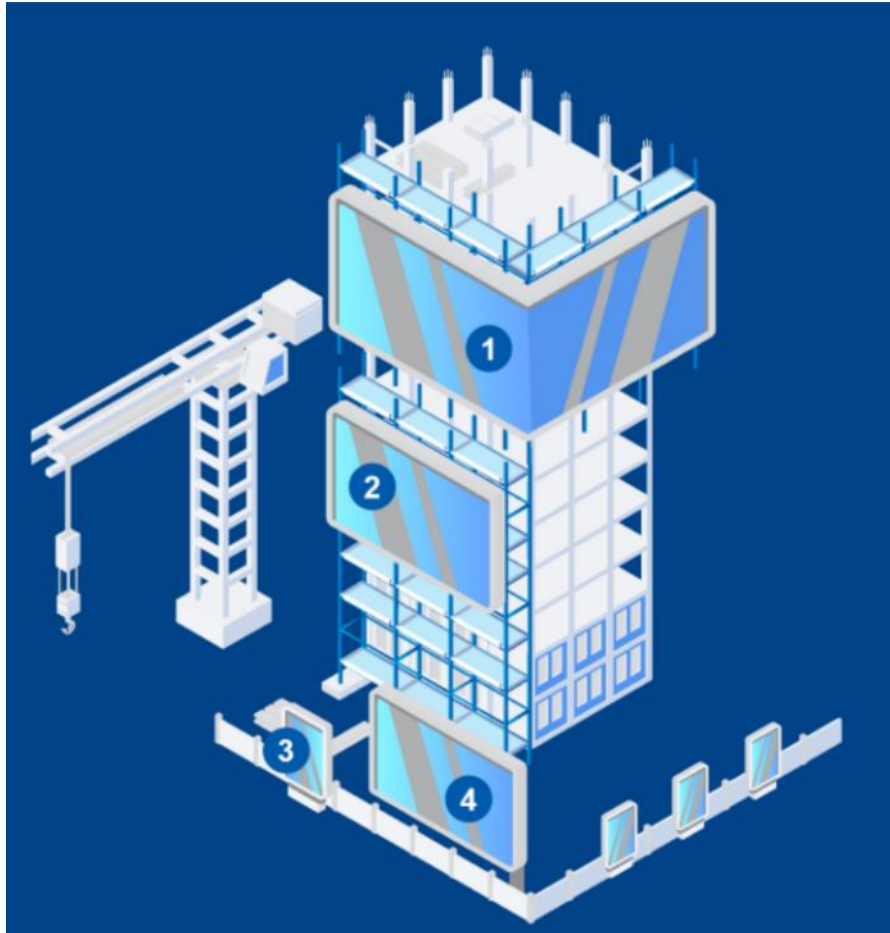


*... and for safety-related  
information's for workers, visitors, ...  
=> a communication tool!*

<https://umdachgroup-ventures.com/wp-content/uploads/2023/10/SiteLight-1.mp4>



# SiteLight



Real Estate



Contractor



Marketer

- 1 LED Technology for Protection Screens on High-Rise Buildings
- 2 LED Technology for Scaffolding
- 3 LCD Screens for Construction Fences
- 4 LED Technology for Construction Boards



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Home

About

Working Groups

Members

Contact



## European Network of Construction Companies for Research & Development

ENCORD is a forum for all industry stakeholders whose main business lies in the construction sector. Founded in 1989 ENCORD has become a major network in the construction sector. Our members are leading companies and suppliers with a business focus on Europe. Representatives of the companies are decision-makers and executives working on research, development and innovation.



**15 Million**  
Construction Workers  
or the combined population  
of Sweden & Denmark



**2.8 Million**  
person-years  
of work delivered



**755** ++fatal++  
accidents  
in 2019 in the European construction industry

someone wearing  
a bandage?



**371K** non-fatal  
accidents  
in 2019 in the European construction industry





## Working Groups

Digital Built Environment

Foresight

**Health & Safety**

Lean

Sustainability

AI

## ENCORD WG Health & Safety

(lead: Helmut Weißengruber)

Next meeting in person:

20-21 March 2024

in Amstetten (HQ Doka)

### Agenda:

ENCORD H&S Charter

**28. April**

**AI**



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# Contact



## Helmut Weißengruber

Safety



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[www.doka.com](http://www.doka.com)



<https://www.doka.com/at/solutions/sicherheitsmitdoka>