

Digital transformation for the concrete industry



The future is here

### INTO THE DIGITAL AGE

Construction has entered the digital age, and this change is unstoppable.

Many companies are making the strategic decision to engage in a complete digital transformation of their ready-mix and precast businesses.

This decision will ensure the company a healthy future for many years to come.





### **DIGITAL TRANSFORMATION**

Technologies for the change

#### SPECIALIZED SOFTWARE

Using specialized software for specific tasks, overcoming the limitations of Excel-based templates and analysis, and obtaining full connectivity everywhere.



## SENSORS & MONITORING

Incorporation of sensors and monitoring technologies to increase control and gain full visibility of different stages of the process, such as production, transport, on site, etc.



#### LINKING SYSTEMS

Linking different software packages together to obtain a comprehensive business intelligence system that provides full traceability and allows for informed decision making.



### AUTOMATING TASKS

Automating tasks such as data entry, specifications compliance, etc. This reduces human errors and frees up time for senior staff to focus on decision making instead of collating data.



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## WHO WE ARE

For concrete producers, by concrete producers





## CONCRETE IS IN OUR DNA!

Coming from different backgrounds, we've been boots on the ground in ready-mix plants, construction sites, precast factories, aggregates quarries, chemical admixtures, testing and R&D labs, etc.





We know this business inside out!

# ABOUT OURSELVES

We at Concrete Quality are *all about that*: focusing on the quality of your concrete to produce a real impact on your bottom line.



## INTERNATIONAL NETWORK



Our digital transformation solutions are backed up by the technology and experience of our partners, providing worldwide reach.

We have partners in:

- USA
- Canada
- UK
- Russia
- China
- 🗸 Australia
- Middle East
- Africa
- France
- Spain
- Poland
- Mexico
- Colombia

## **OUR VALUE PROPOSITION**

Leveraging experience and technology





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#### **Batching enhancements**





Moisture probes for aggregate bins.

Automated water dosage control system for fixed mixers.

Microwave technology proven in over 70 countries worldwide.

#### **Real-time monitoring**





**On-site**: Monitoring setting, maturity, moisture, durability and service life.

All with wireless transmission and their own stand-alone app.

#### Automated QA/QC & BI





Quality Control with advanced statistical control and mix design optimization.

Quality Assurance for traceability, record keeping, and auditing.

Business Intelligence with automated reporting and analytics.



# TOTAL INTEGRATION

We interact with any existing system to integrate their inputs into our QA/QC Business Intelligence system.

You will have access to a hub for information that provides both technical analysis and full traceability in a few clicks.

All these tasks happen automatically, reducing human errors and freeing up time for informed decision making.





# PAIN POINTS & RELIEFS

Variability in results overdesigning to compensate high SD

Responsibility for on-site issues they do it wrong but you pay for it

> Routine paperwork keeping up with all those reports

Mix designs maintenance always the same recipe = wasting money

Auditing

#### Total water control

for aggregates, in the mixer, and for trucks

**Full-cycle monitoring** 100% visibility and immediate alerts

Automated Excel/PDF processing coming from third-party or your own

Bulk updates to all your plants flexible, automatic, and centralized

**One-click traceability** *link every system, all relevant info at hand* 

# It's a driverless system!

### Achieve 100% visibility over the whole process

In transit





- ✓ Aggregate moisture sensors
- ✓ Moisture, temperature, drum rotation & GPS tracking
- ✓ Water additions detection

 Monitoring setting, maturity, moisture, and durability

On site

✓ Wireless data transmission

### With a fully automated *Quality Management & BI* software!



## IMPLEMENTATION

What – Why – When – How



## **MODULAR & FLEXIBLE SYSTEM**

The different components of our system can be acquired and implemented independently and in steps, adapting to every situation and needs.

We offer connection interfaces with any existing or new systems, no matter what technologies they're based on.

#### QA/QC

Our base system for technical and quality management and auditing. Interfaces

Connection with 3<sup>rd</sup> party systems: • Batching

• GPS

• ERP

• etc.

Automation of sample identification and testing.

#### Laboratory

Sensors at the plant, on truck, and on site for short and long term monitoring. Total process visibility.

Monitoring

## IMPLEMENTATION TIMELINE

### Transforming a business takes time and effort.

We accompany you all the way and customize our solutions to your specific needs, while your company learns and its culture adapts to the new paradigm.





# VALUE SINCE DAY ONE

When you add a system element you will start obtaining returns immediately, and this value will increase as you gain experience. In six months you can get the full value of the whole system.



# WORKING SIDE BY SIDE

We provide consultancy services to define business goals, assess critical action points, and to improve your processes and products.



## FINAL THOUGHTS

Create your own future

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"As it happened with admixtures, it will happen with sensors:

At first nobody used them, now it's **unthinkable** to work without them."

JM Pereira, MICT



### IMAGINE THE IMPACT ON YOUR BOTTOM LINE IF...

There were no blind spots in the whole process during production, in transit, and on site.

✓ You delivered the exact same mix and W/C every single time.

✓ No unauthorized water additions were possible.

You knew setting, strength, curing, durability in real time.

You received immediate alerts if anything is out of specs.

It was controlled enough to reduce on-site testing.

It took a minute to report full submittal packages.

You had a *driverless* quality management system.

Whatever you've imagined, there's much more.

## We will help you *get there!*

