

Cementir 4.0: is our Digitization program which includes both Industry 4.0 concepts and new technologies in the cement production process.

“We are changing our way of producing cement, our existing practices and making a digital transformation journey which requires investments, capabilities to manage the changes and special commitment from the entire organization”. Francesco Caltagirone Jr., Chairman and CEO of Cementir Holding.

The main objective of this digital transformation is to **digitalize our processes** in order to **strengthen our leadership**, improve our competitiveness, **support our growth** and **prepare ourselves for future challenges**.

Launched in March 2019 with a “diagnostic phase”, we are currently running two pilot projects in the cement plants in **Aalborg**, Denmark, and **Gaurain**, Belgium.

Cement production today is looking to embrace Digitization as a critical enabler of productivity. Enormous opportunities come from the application of **digital technologies across our entire value chain**, from procurement to production process, maintenance and logistics.

The Digitization will bring around 15 million Euro of recurring annual savings from raw material, energy as well as operational efficiencies.

Among the initiatives under implementation, the most noteworthy are:

- **Smart maintenance:** as cement plant equipment and processes are monitored digitally, management can react more quickly, make smarter decisions on when to repair or maintain equipment based on unique data specific to the operation. This ultimately increases productivity by reducing down-time. and optimizes energy costs. Automatic data collection through a network of sensors and instruments, boosts autonomous maintenance and automatic inspections, thus freeing up management time and effort.
- **Future-ready production:** advanced production process control and production “*smartification*” allow systems monitoring and continuous complex parameter setting optimization, thus guaranteeing high output quality. Boosted automation, remote control, human labor production efficiency improve quarry operations and increase mill throughput. The ability to predict quality is particularly important. High-quality cement requires homogeneous raw meal and consistent operations throughout the plant. Digital technologies enable us to monitor input materials and adjust operations to achieve the best output.

- **Streamlined supply chain:** smart logistics based upon real-time information about shipment orders, smart warehousing, integrated digital Sales and operations planning (S&OP). Improve tendering & RFQ process through digitization and physical inventory streamlining.
- **People engagement and safer workplace:** all automation and technology will increase employees' safety and boost their level of engagement.

By optimizing processes and reducing resources in cement production, we want also to reduce our **operations environmental footprint**. Digital tools are not only useful in helping to streamline raw materials and consumables management; they are essential to helping our operations comply with local legislation. They help give us a detailed picture of our operations, giving us the opportunity to reduce consumption of energy and other materials.

Work better, work sustainable, work green!

KEY BENEFITS OF DIGITIZATION

- Reduce environmental footprint
- Improve cement plant productivity
- Increase capacity
- Improve quality through
- Reduce consumption

