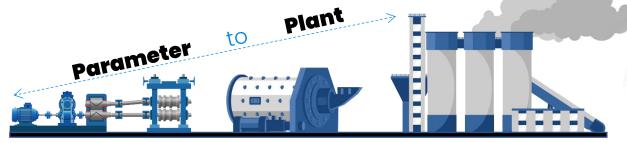


A Partnership for Production Reliability

In the harsh and complex world of cement production, unexpected equipment failures can grind operations to a halt. A leading player in the cement industry found themselves grappling with this challenge, as the overly complicated nature of the equipment and aging machinery threatened to undermine their production reliability. Determined to overcome these obstacles and realize the full potential of their production outcomes, they embarked on a transformative journey with Infinite Uptime.

Since June 2021, this partnership has grown from digitalizing a single plant with double digit monitoring locations to 60 plants and 6434 monitoring locations. This transformation has been made possible by leveraging **Plantos**TM manufacturing intelligence, which combines advanced sensing technology, collaborative AI, and a blend of human intelligence and domain expertise.



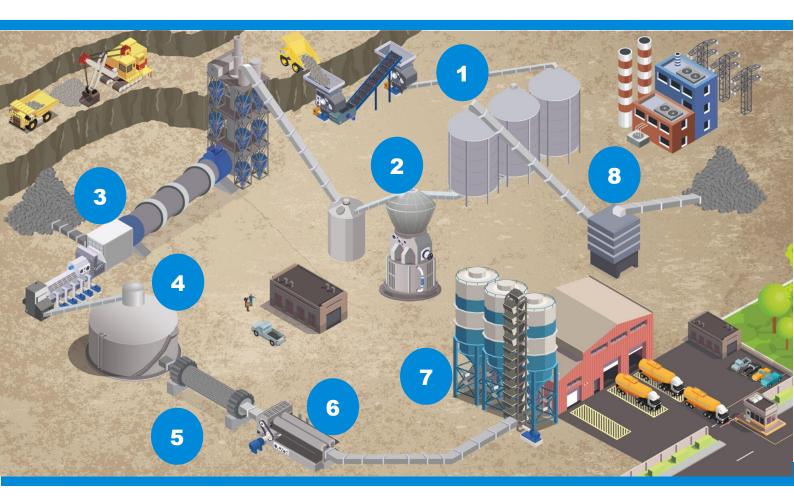




The Journey from Sensing to Savings

The journey began with Infinite Uptime installing the sensing technology in the cement manufacturer's Grinding unit, a critical component of the production line. By identifying anomalies and addressing them before actual breakdowns occurred, the company started adding production hours and reducing unplanned downtime.

To put the impact in perspective, by 2025, **3,279** user-validated breakdowns were avoided. As equipment reliability improved, the partnership expanded to cover the entire cement production line, including critical assets such as;



1 Raw material handling

Crushers Feeders Conveyors Stacker Reclaimer 2 Vertical Roller mill

3 Pyro Area

Kiln Clinker Area Cooling Systems 4 Conveyor in Silo Area

5 Cement Mill Area Bucket Elevators Milling Section

6 Roller Press Area

7 Packaging Plant

Bucket Elevators Conveyors

8 Power Plant

Cooling System Demineralization area Turbines





PlantOS[™] unlocked the key to achieving production outcomes across the facilities.



By empowering the cement giant to harness the full potential of the installed sensing technology, PlantOS[™] enabled them to optimize their production process, minimize downtime, and make data-driven decisions to proactively address potential issues.

Expanding Capabilities and Enhancing Efficiency



Piezoelectric Triaxial sensor



Piezoelectric Triaxial sensor

Infinite Uptime's upgraded Piezoelectric Sensing technology, with its compact footprint and in-built capabilities to perform ultra-low RPM vibration analysis, and work well in high surface temperatures, has been successfully installed in an Air Classifier/Separator Bottom Bearing (see illustration A). This complex machinery initially faced

monitoring limitations due to its intricate nature and network coverage issues. The sensor's implementation resolved these challenges, optimizing data flow and enabling seamless monitoring of this critical asset.



Air Classifier/Separator
With the Piezoelectric Uniaxial senso





The Next Chapter: Comprehensive Coverage and Process Optimization

With the successful implementation of PlantOS™ across the cement manufacturer's critical assets, a new chapter begins in their pursuit of operational excellence and production outcomes. The company now looks forward to extending Infinite Uptime's services to their non-critical and auxiliary assets, ensuring comprehensive coverage across the entire production line. The proposed 'Corrective Action Services', including NDT Balancing, Alignment, and Thermography, aim to enhance the performance of all auxiliary equipment, further improving the facility's overall production reliability.

As the cement manufacturer focuses on the future, enhanced Energy Efficiency presents an opportunity to empower the cement player to deliver more optimized and reliable production outcomes. Infinite Uptime, as the Production Outcomes delivery partner, is committed to work alongside the cement manufacturer to achieve their goals & maintain their position as an industry leader.







World's most user-validated Prescriptive AI platform for process industries

PRODUCTION OUTCOMES as a SERVICE

Baseline

With advanced sensing technology

Benchmark

with Targeted Production
Goals and Outcomes

Optimize

through Collaborative Al and Human Expertise

Collaborate

using Al-Powered Outcome Assistant

