

# 'Predictive maintenance is the most impactful lever to improve overall factory performance'

**Dr Raunak Bhinge, Founder and CEO – Infinite Uptime.**

**Infinite Uptime entered the market in 2017. How has the journey been in these 5 years?**

Our journey in the last 5 years to become a recognised brand in Plant Reliability Services has been truly memorable. Infinite Uptime began product development in 2017 and entered the market with a solution in 2020. As markets matured to the Industry 4.0 reality, more and more manufacturing industries realised the potential impact of predictive analytics and IIoT in their manufacturing operations. We had to quickly scale our teams to meet the global demand and maximise our reach and serviceability for our customers. We have helped our customers scale up faster and have provided long-term value to their investments. As of today, 190+ manufacturing clients across 14 industry segments have onboarded Infinite Uptime as their Digital Transformation and Reliability Services partner, and we are working diligently with them to ensure we meet the goals of digital plant reliability. To date, Infinite Uptime has digitised more than 750 plants, saving 6300+ hours of downtime which has resulted in more than 20 million dollars being saved by the businesses.

**The concept of predictive maintenance is now new. How has it been impacted by emerging technologies?**

Maintenance strategies have evolved over the years; however, predictive maintenance is the most impactful lever to improve overall factory performance. Predictive maintenance software allows companies to analyse critical machine data to improve equipment and plant reliability and avoid costly production downtime. By analysing machine health, plant maintenance teams can monitor the performance of the equipment and avoid catastrophic situations. Digital teams and transformation leaders can use these very insights to enable rapid digitalisation across plants and reimagine a connected enterprise. With the advent of digital technologies like IoT, edge computing, AI, data science, and



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cloud, we're seeing tremendous movement in this domain. We are just at the cusp of innovation and the next 10 years will see a complete transformation in the manufacturing landscape.

**Your basic product is centred on vibration monitoring of rotary equipment. What are the different packages offered?**

We provide a single-machine diagnostic and reliability service, which is powered by our unique technology. We work very closely with manufacturing industries to ensure they improve reliability, reduce unplanned downtimes and achieve scalable and repeatable value through improved machine health.

**This looks like an ideal fit for brownfield plants. How big is the potential here?**

Yes, this service is typically well-suited for brownfield plants. Most plants have equipment at various stages of deterioration and it

becomes critical to ensure the reliability of all the equipment to ensure there is no impact on the output of the plant. There is tremendous potential to add value to brownfield plants, as these plants are spread across the world and power the economies of many nations. Any impact created at these plants has a cascading impact on that industry and economy. We are excited at the impact we can create and the value we can add to these core industries.

### How do you see the current pace of digital transformation in India vis-a-vis the other markets you are operating in?

India, for the last 3 decades, has maintained its identity as a 'Global Manufacturing Hub' and Indian manufacturing industries have been taking strides in the digitization space. Manufacturing plants of the future in India are heavily investing in areas such as predictive maintenance and Industry 4.0 transformation. I can cite many such examples across industries in cement, steel, metals, tyre, oil & gas, FMCG, and various others that have doubled down on digitalisation and accelerated its adoption across the enterprise.

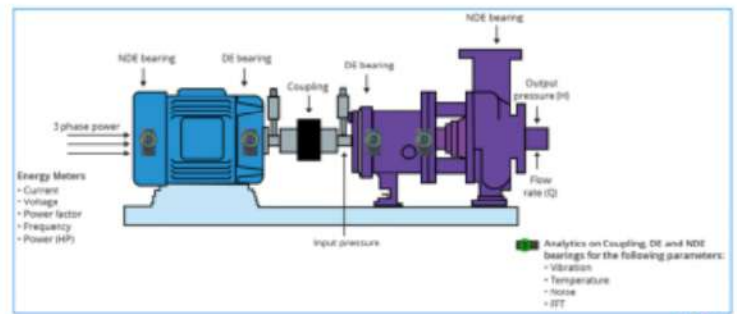
One of the largest cement producers has digitised more than 40 manufacturing plants across India as a part of its Digital Transformation journey and saved about 840 hours of unplanned downtime in the last year. The cement producer sees this as an opportunity to reduce its overall carbon footprint and a lever to sustainable manufacturing.

One of the largest metals companies in India deployed a predictive maintenance system for efficient operations and remote monitoring of critical assets. This resulted in eliminating 250 hours of unplanned downtime in 6 months.

As more industries are realising the value of predictive maintenance, the speed of adoption is increasing and Indian manufacturers are taking quick decisions on multiplying the value through digital transformation.

### There are many players in this field. How does IU distinguish itself? What is your market share and the typical ROI?

I believe our real IP lies in our culture and the people that make it possible. Although Infinite Uptime is a technology company, at the core we are still a 'People's Business'. Our customers see products and services in our people and that creates a sustainable advantage for them as well as us in creating a reliable predictive maintenance services brand.



Predictive analytics of a pump with the Smart Pump Kit. Graphic: Infinite Uptime

The demand for predictive maintenance is dynamically growing on a day-to-day basis. Research says that the Global Predictive Maintenance market will grow to the tune of US \$40 bn by 2030 with a CAGR of 25% annually.

Typically, plants should experience a reduction in downtime by 50-60%, 20-25% improvement in operational productivity, and 20-25% optimisation in maintenance costs. However, it varies from industry to industry, the specific industry applications, and other various factors that directly impact asset reliability. Broader impacts like sustainability, greener manufacturing, and health and safety cannot be ignored either. Our aim is to help our customers attain the highest level of plant reliability by reducing unplanned downtime, mitigating operational risks, and improving overall efficiency.

*Dr Raunak Bhinge is the Founder and CEO of Infinite Uptime, one of the fastest-growing Predictive Maintenance and Plant Reliability solution providers across the globe. For over a decade, Dr Bhinge has been active in the field of smart manufacturing, industry 4.0, innovation, and applying digital technologies for transforming manufacturing businesses. He completed his post-graduation in Automotive Design and Engineering from IIT Madras, followed by higher studies in Mechanical Engineering at the University of California, Berkeley where he has conferred a Ph.D. He has five patents to his name and owns several high-authority publications in the areas of manufacturing and technology. He is passionate about connected ecosystems, advancements in digitalisation, and sustainable manufacturing. Key areas of business interest include industrial IoT platforms, industrial diagnostics, data science, predictive analytics, and asset maintenance.*

*Dr Raunak Bhinge actively engages in public service as a speaker and mentor. He is also an avid bird watcher and loves exploring the latest innovations in deep-tech.*