# Case **Study**
## Smart irrigation (iNeta) & automated crop analysis (iSurf)

## ABOUT US

BlueArc Technologies is a leading provider of AI-driven business process automation, empowering organizations worldwide to achieve operational excellence.

We help businesses turn inefficiencies into growth opportunities, driving innovation through tailored, transparent automation solutions that deliver measurable results and sustainable impact.

## CHALLENGE

Singapore's local food production needed smart farming systems to replace manual irrigation and manual plant monitoring. In the field, static watering schedules provided little visibility and no agility; in hydroponic labs, human checks limited frequency and consistency. Netatech required real-time, low-supervision systems that could scale across zones and labs, unify device inputs, and deliver AI-ready data for analysis.

## COST OF NOT CHANGING

- Water risk: Leaks, rigid schedules, and no-flow waste resources and stress crops.
- Slow research: Manual phenotyping delays insights and reduces accuracy.
- Fragmented operations: Disconnected sites and sensors cause blind spots and slow response.
- Limited scalability: Lacking automation and cloud makes large-scale control impractical.

## SOLUTIONS

We offer two integrated platforms: iNeta for smart irrigation with real-time monitoring, weather-adaptive scheduling, leak alerts, and scalable serverless architecture; and iSurf for automated crop analysis using autonomous multi-sensor scanning (RGB, 3D, thermal, hyperspectral) with structured, AI-ready data for precision insights.

## OUTCOME

Delivers reliability and scale with 99.5% uptime and support for 10,000+ controllers, speed and savings through 1.3-second valve response and 20% lower cloud costs, and research acceleration with 40% faster workflows via AI-ready data pipelines—validated by client success and plans for expansion.

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