

TOMRA Embraces the Era of Industrial AI with IFS Cloud



At the heart of TOMRA's operations lies its field service organization – tasked with keeping mission-critical machinery running across many locations, industries, and climates. Field service in a business of TOMRA's scale is inherently complex, but this complexity is compounded by factors such as acquisitions, expansion into new regions, growth among its install base, and of course, keeping pace with technological advancements.

Creating a Global Digital Foundation

TOMRA first recognized the need to create more global consistency in 2011, experiencing significant growth while operating in a highly decentralized manner, with each region using its own systems, processes, and performance metrics. "There were teams doing amazing work in their own regions, but the approach simply wasn't scalable," Daniel Basile, VP of Field Service for TOMRA North America explains. "We needed to rethink how we support customers in a consistent, efficient way across the globe."

That rethinking sparked a multi-year transformation that included aligning around a common vision, defining repeatable processes, and harmonizing systems. TOMRA set to work on:

- Establishing a global field service framework with shared terminology, processes, and KPIs
- Creating a service playbook to guide technician workflows, customer engagement, and escalation path along with a global training program to ensure consistent execution of the new model
- Implementing a common technology stack, which is where TOMRA's relationship with IFS began. The company took its first step toward global standardization in 2014 with IFS for ERP, Field Service Management and Planning & Scheduling Optimization in North America

About TOMRA

TOMRA is a global leader in sorting and recycling technology, with approximately 85,000 installations across more than 60 markets of its innovative reverse vending machines. These machines capture more than 48 billion used beverage containers each year, keeping bottles and cans in the loop of reuse and out of our streets, oceans and landfills.

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IFS Enables Data-Powered Decision-Making that Pays Dividends

TOMRA's holistic approach along with the company-wide visibility offered by IFS had a significant impact on the business. With the newfound ability to track key metrics, such as first-time fix rate, response time, and customer satisfaction – globally and in real-time – TOMRA dug in and determined where to apply focus to yield results.

"The visibility was a game changer. Suddenly we could benchmark, identify bottlenecks, and replicate what was working," Daniel says. "We could see where we had gaps in employee knowledge, we noticed where we had deficiencies in inventory fulfillment rates, we were able to benchmark first-time fix rates. Having this information at our fingertips allowed us to define and agree targets and create scoreboards within IFS to drive performance in each function."

As a result of this focus, TOMRA improved its first-time fix rates from 84% when Daniel took on his current role in 2019 to between 96-97% today. Moreover, the company achieved an overall increase of 27% in operational efficiency from its initial investment in IFS.

Entering the World of Evergreen with IFS Cloud

TOMRA's business has continued to evolve since its initial global transformation effort as have the capabilities of IFS. In 2023 TOMRA chose to upgrade from its existing IFS solution set to IFS Cloud, a single composable platform with AI innovation embedded. "When we evaluated whether to upgrade to the newer versions of our existing applications or to move to IFS Cloud, either option could do what we needed – but the Cloud solution allows us to adopt an evergreen approach," explains Daniel. "We don't have to worry about going through a full implementation process every 6 or 7 years."

To ensure a smooth transition from an on-premise solution to the cloud, TOMRA relied on the agile and DevOps expertise of its managed services partner Infosys, with which the company has partnered for more than 20 years. In addition, TOMRA invested in IFS Success, an engagement framework created to support customers in achieving their desired business outcomes. "Leveraging IFS Success changes the dynamic of the relationship from one of a customer and provider to that of a partnership. With Success, we receive a more white-glove approach, but even more importantly, the Success team has gotten to know our business very well which gives them a true understanding of how IFS technology can best help TOMRA achieve its goals."

TOMRA embarked on its "one more major upgrade," expecting at least a year-long process. When the company was hit by a cyberattack mid-2023, they sped the implementation process and pushed go-live up. "The attack took down our entire network," says Daniel. "It left us with no systems outside of Microsoft Office. The ability to be flexible in our go-live was something we never knew we'd benefit from, but we did."

Benefits

- First-time fix rates rose from 84% to 96-97%, driving a 27% efficiency gain.
- Unified processes and KPIs improve global scalability and consistency across 85,000+ installations.
- IFS Cloud updates reduce upgrade timelines from years to weeks with minimal business disruption.
- AI-powered Copilot is expected to cut technician onboarding time by up to 50%.
- WISE tool simulated rule changes instantly, saving weeks of manual planning analysis.

Now, TOMRA adopts a release update of IFS Cloud usually once per year. The first update after go-live took the company about eight weeks, according to Daniel, but the second took around six and he expects they'll continue to refine the process.

In its move to IFS Cloud, TOMRA opted for configuration over customizations; a decision that in large part is what makes the evergreen approach possible. “One of the considerations in moving to IFS Cloud was that there’s less ability for customization,” Daniel explains. “But what we found through the discovery process is that the options for configuration still allowed us plenty of opportunity to make the solution ‘our own.’ Also, the expansion of API capabilities offset any drawback of less customization.”

Welcoming the Impact of Industrial AI

As part of the IFS Pioneer program, TOMRA lends valuable insight to the IFS R&D teams that are building out industrial AI capabilities within the platform. “We’ve given input on the Copilot functionality that’s in the latest IFS Cloud update,” says Daniel. “We’ve also worked with the teams on capabilities for advanced troubleshooting on our equipment as well as for assessing patterns in equipment operation to get more predictive in our asset management.”

Daniel is excited to see new AI capabilities arrive in IFS Cloud and suggests that business leaders play an active role in determining how AI will evolve operations and where it can deliver the biggest value. “Even with capabilities being offered within solutions like IFS Cloud, you can’t take a hands-off approach,” he cautions. “You have to own the vision for where and how AI can benefit your business, because you still have to ensure your data is structured appropriately, get the buy-in of your teams, and make the capabilities work for you.”

TOMRA has begun to incorporate its technical knowledge base and is focused on using AI to provide its remote support technicians faster access to the information they need. “Rather than an employee needing 30 minutes or an hour to sift through the information of an 800-page manual, with Copilot, they can ask a question and in seconds it will return the answer, what page(s) it’s on, and links to any supporting documents,” says Daniel. “We’re working to validate the quality of the data and refine the user experience so that when we roll it out to the field, we’re confident in its accuracy and usability.”

When Copilot is rolled out to the field, Daniel expects it to streamline onboarding of new technicians significantly. Currently new TOMRA field technicians undergo a combination of classroom and ride-along training over the span of about three months, but with Copilot that could be reduced by up to 50%.

Embedded AI can also help TOMRA capture knowledge from its more senior technicians. “Instead of just what does the manual say, we can use AI to digitize the real experience of our most tenured technicians to help us capture and share their knowledge,” says Daniel. “Our technicians are the face of TOMRA. When they’re informed, confident, and empowered, the customer feels that. And that’s what drives loyalty.”



From Efficiency Gains to Operational Excellence

While the massive operational overhaul TOMRA underwent when it first deployed IFS is in the rearview mirror, its investment in IFS Cloud is just as crucial in enabling the company to not only maintain but refine those improvements. As the company embraces the evergreen approach, it says goodbye to time-consuming and costly major upgrades and instead shifts focus to adopting and incorporating new functionality as it's released.

One such example is the powerful What-If Scenario Explorer (WISE) capability within IFS Cloud that TOMRA is using alongside Planning & Scheduling Optimization. "PSO was AI before AI was in style, and the algorithm is impressive" says Daniel. "But the addition of WISE in IFS Cloud makes me salivate. It allows us to virtually play with the rules we have set in PSO to see instant results of it to determine what to implement. It essentially offers you a test environment right within production which saves weeks if not months in assessing the impact of different potential changes."

Examples of embedded industrial AI, like copilot and WISE, will continue to be released and refined within IFS Cloud to offer TOMRA new opportunities for ease, automation, and predictive capabilities as it updates to the latest version. "These AI capabilities, like WISE, help us a lot," notes Daniel, "and the evergreen approach of IFS Cloud makes it easier for us to keep pace with change."

"Our initial investment in IFS allowed us to baseline our performance and improve operational efficiency, and now IFS Cloud allows us to make informed decisions as a business on how we define and achieve operational excellence," says Daniel. "For instance, we've attained a first-time fix rate of 96-97% - now we can not only determine what it would take for us to raise that to 98%, but also evaluate the costs to do so and determine if it's worthwhile amid our overall objectives."

Technology is a Powerful Enabler; Results Require Partnership

While IFS has played a major role in TOMRA's ability to improve efficiency and drive toward an era of continual improvement, Daniel points out the importance of remembering that any technology is but a tool. "IFS is a powerful tool, but the onus is on us to determine how to use that tool in a way we can make the most of it," says Daniel. "The business needs to know what it is looking to measure and needs to ensure data is set up right. You're never going to drive any improvements if you don't know what your desired outcome is. If you mess up along the way? It's not the systems fault. If there's an operational problem that needs to be fixed, you need to figure out what it takes to fix it."

TOMRA's journey isn't over – but its direction is clear. "As a business, and with the help of IFS, we've moved from firefighting to foresight," Daniel says. "That allows us to be more consistent, more strategic, and more valuable to our customers. And that's where the real impact happens."



Find out more

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