

McCain Digital Revitalization

Leveraging AI to Drive Innovation and Sustainability

McCain Foods is a global leader in potato and french fry production, working with major players in the consumption and distribution of french fry-related products.



Much like other competitors in the food manufacturing industry, McCain saw huge opportunity for digital and data in their business. Following a successful digital transformation of their agricultural function, McCain aimed to optimize their manufacturing operations using real-time analytics and AI-driven decision-making. Their strategic direction focused on leveraging technology to increase profitability, improve quality standards, and enhance global production efficiency, with the goal of maintaining both their competitiveness in the market and commitment to sustainability.

Challenge

McCain had been relying on traditional paper-driven reporting and analysis for their in-plant operations, an industry standard that market leaders have been modernizing. They wanted to shift to a digitized and AI-driven solution to address several pain points affecting their lean manufacturing process including: reducing unplanned downtime, optimizing planned downtime, enhancing product quality, enabling proactive monitoring of plant efficiency, streamlining shift handover and reporting documentation, and improving employee engagement and training.

KEY RESULTS



100% application completion rates within 2 months of deployment



10-25 second average improvement in app performance due to redevelopment of back-end connectivity



Implementation across McCain's flagship plant with plans to roll out to all other 50 plants globally



Why TribalScale

TribalScale stood out as a leader in Agile and digital transformation, aligning with McCain's vision of sustainable and functional releases. McCain's VP of Digital & Data, Caroline Morissette, recognized the value of working with an organization that embraced iterative development and could lay the groundwork for present needs while preparing for future advancements. TribalScale's expertise in Agile development methodologies and ability to drive change made them the ideal partner for McCain's digital transformation journey.

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We were introduced to TribalScale because we were actively looking for a company that could lead the build of our digital tools. McCain has a great IT team, but less development of bespoke solutions. TribalScale's model of bespoke development and custom solutions appealed to us because we knew we wanted a custom tool.”



CAROLINE MORISSETTE
VP of Digital & Data at McCain Foods

Solution

TribalScale collaborated with McCain to develop a custom digital manufacturing solution, starting first with their flagship plant in Florenceville NB, Canada, with plans to roll it out to their other plants globally. Our approach focused on scalability and transferability, allowing the developed solutions to be implemented across multiple plants. Wave 1 of the project involved building two key applications: Digital Centerline Management (DCL) and Digital Daily Direction Setting (DDDS).

- DCL leverages AI and historical data to optimize cooking and preparation processes for McCain's fries. It provides real-time recommendations for adjusting the production line based on raw potato quality and environmental conditions. Wave 2 aimed to enhance DCL further with proactive recommendations to operators and supervisors, leveraging AI and mechanical situational awareness.
- DDDS transforms traditional checklists, handoffs, and shift meetings into a modern, customizable tool. It facilitates efficient communication, knowledge sharing, and problem-solving among shift participants, ultimately improving production and packaging line efficiency.

The transformation element was ingrained in each product and wave, ensuring usability, modification, and future adaptability. TribalScale's iterative development approach involved continuous collaboration with McCain's executives, champions, operators, and supervisors, resulting in a sustainable and impactful digital transformation.

TECHNOLOGIES

Frontend

+ Microsoft Powerapps

Backend

Microservices built with RESTful APIs

+ TypeScript

+ Node.js

+ Koa

+ Swagger

+ Docker

+ Cucumber

+ Jest

Cloud Infrastructure

+ Microsoft Azure



Our Process

TribalScale and McCain worked together to interpret needs from preliminary research, establish goals, and refine requirements as the foundation for each product. Agile principles were embraced, allowing for incremental releases and feedback loops from the Florenceville plant. This approach minimized disruption and allowed for quick adaptation to new or changing needs, fostering a more efficient and effective development process.

Implementation involved augmenting the core team as the project progressed. Additional developers were added to the team, specializing in PowerApps and other assistive technologies. A Director of Product Management was also assigned to manage the project's overall picture and facilitate communication between TribalScale and McCain. Regular visits to McCain's offices in Toronto and the Florenceville plant were conducted to foster collaboration, gain valuable user insights, and inspire future capabilities resulting from the digital transformation.



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Working with McCain has been a great experience, the strong relationships we've built with people across multiple departments at McCain have enabled our team to understand and share their vision for digital manufacturing. We keep that vision to our core and use it to design, develop, and deliver technical solutions for McCain's MDIxAI program.”



SAM LINEHAN

Engineering Manager at TribalScale

Outcome

As a testament to the project's success and ongoing commitment, McCain Foods continues to work closely with TribalScale, pushing the digital transformation forward with an eye on future advancements and innovations.

With the McCain Digital Revitalization project as a shining example, TribalScale reaffirms its position as a leading Agile digital transformation partner. Through their holistic approach, deep expertise, and focus on sustainable, functional releases, TribalScale empowers enterprises to adapt, thrive, and innovate in the digital era.



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TribalScale's expertise with Agile development has been key in this project, which is ultimately a great learning opportunity for McCain as we are focused on building a capability to build digital tools.”



CAROLINE MORISSETTE
VP of Digital & Data at McCain Foods

Get Started with Digital Transformation.

We implement a custom program that addresses your operational challenges and business goals, opening up new capabilities and driving value for your team.

- » Agile digital transformation experts
- » Holistic approach that incorporates a wide range of business factors
- » Full support from idea to product release and beyond

75+

NUMBER OF PARTNERS

500M+

UNIQUE USERS REACHED

350+

PROJECTS SHIPPED

TRIBAL⁷ SCALE

TribalScale is a global innovation firm that helps enterprises adapt and thrive in the digital era. We have years of experience in digital strategy, design, and multi-platform engineering and through agile practices, we transform teams, build best-in-class digital products, and create disruptive startups.

Whether we're righting the ship for another company or creating a fresh end-to-end solution, we innovate for a better tomorrow.

Contact us at: [**contact@tribalscale.com**](mailto:contact@tribalscale.com)

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