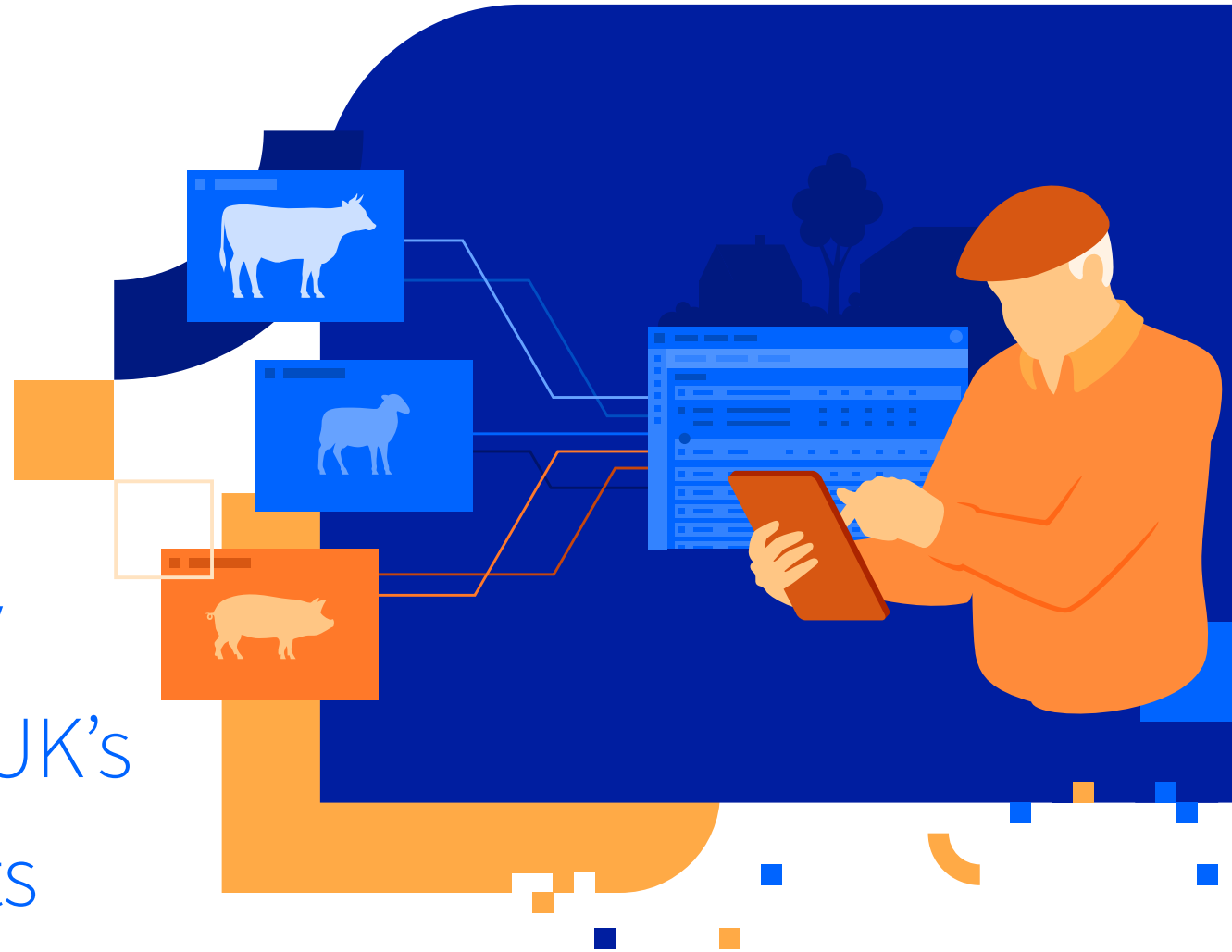


An innovative supply chain app for one of UK's leading supermarkets



Case Study

Business Need

The Client, being one of the largest chains of supermarkets in the UK, owns and controls their own supply chain. As a result, the success of their daily operations is in large part reliant on the means to seamlessly conduct business with their suppliers (i.e. local livestock breeders and buyers).

As such, the company was looking to digitally transform the system they were using to cooperate with their supply chain partners. Their operations outgrew the system they had been using and the solution was proving increasingly difficult to use.

Some of the inconveniences the company and their suppliers were experiencing included:

- A manual and paper-based documentation processes, e.g. payment certificates were sent by traditional post,
- A lack of an analytics functionality and graphical data interpretation,
- Static web pages which did not support onboarding new suppliers, buyers, or farmers,

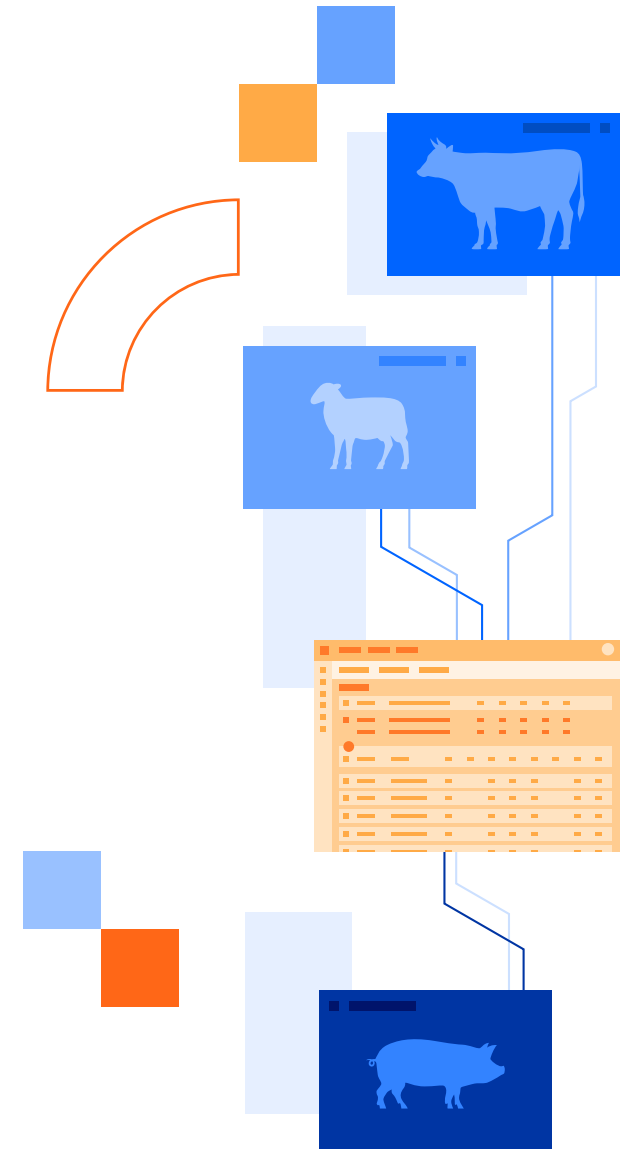
- Poor quality dashboard visualisation, which made it difficult to analyse graphs,
- The lack of an efficient, comprehensive search functionality.

To address these inefficiencies, the Client decided to build a new solution using the state-of-the-art technologies that they had already implemented in other parts of their business. This would enable them to take advantage of their internal domain knowledge and manage the solution independently in the future.

Project Details

Before the start of development, Objectivity took the time to work closely with the company to gain an in-depth understanding of their manufacturing processes and the particular challenges they were looking to resolve.

Discussions with the Client led to the decision to implement the new portal as a Progressive Web App (PWA). The development team's approach supported the use of modern technologies, such as combining Java/Angular with Amazon Web Services' (AWS) cloud integration. This rendered the application truly industry-leading, scalable, and future-proof.



The portal was built using a microservices approach, with each microservice representing a different business domain. This allows each domain to be scaled up independently. The microservices communicate with each other to share data required to perform specific actions. Authentication and registration are provided by an Authentication Service using Google authentication. The solution was verified against non-functional requirements from a capacity and performance perspective to ensure that there is space for onboarding new portal users in addition to the existing users. The system is equipped with an extensive logging and alerting mechanism which enhances supportability, whereas AWS ensures its high availability.

Additionally, Objectivity's User Experience (UX) design team was asked to employ their knowledge to help design the application's interface. Working with end users, they made sure that the new solution is easy to use and appealing to all user roles.

Objectivity provided a dedicated team to work with the Client for the duration of the project. The software development team was additionally supported by a wider group of experts from within Objectivity – such as UX Designers, Business Analysts, Consultants, etc. Operating in line with the standard agile development process, the team tailored the solution to align with the Client's own processes and feedback.

Business Benefits

Objectivity built and delivered a brand-new supplier portal for the Client's manufacturing team, using industry-leading technologies in just 14 months. The new solution was designed according to Progressive Web Application (PWA) design principles, making it compatible with desktop and mobile devices.

The new portal has equipped farmers, livestock buyers, and the head office administrative team with a modern and easy to use tool which enables them to:

- Check and create livestock bookings,
- View, print, or download processing data and payment certificates,
- Build reports based on selected dates,
- Receive notifications,
- Access information on scheme cattle,
- Access useful documents such as Food Chain Information (FCI) forms.



One of the portal's main features is its booking-in functionality – it allows users to book livestock into available slots by manufacturing site, species, date, origin, and quantity. The feature was designed to mirror an airline booking system, ensuring it is intuitive and easy to use for non-technical users. Once the booking is confirmed, a notification is sent to the suppliers and becomes visible in the booking panel. After livestock is delivered to the chosen site, it is checked against booking data (quantity, time of delivery, condition). Then, once the livestock is processed at the manufacturing site, data such as grading and weight is imported to the portal from a third-party system. At this point, a financial report is generated and made available to the booking user via their notification reports.

The new portal has significantly streamlined the Client's supply chain and manufacturing processes and enabled all users (farmers, livestock buyers, administrators, and head office managers) to access the system via various web browsers and mobile devices. The system has made it possible for the Client's team and their supply chain partners to complete all manufacturing, livestock processing, and reporting tasks in one, convenient place.

Since its implementation, the portal has been able to bring about a range of various operational and business benefits for both the Client and their partners.

- Easy farmer/buyer management and related administration work,
- An intuitive portal that is easy to use even for non-technical users,
- Faster and comprehensive reporting for the Client's teams,
- A reduction in tasks for the Client's administrative team,
- A portal designed with the latest design trends, resulting in a refreshed look and feel,
- A portal accessible through a browser link that works on standard mobile devices (Bring Your Own Device) and via the web,
- Dynamic web pages with the ability to onboard new farmers and agents quickly and easily,
- User friendly, comprehensive, and simplified slot search and booking-in functionality,
- A digitised documentation process where required documentation is sent electronically.

About the Client

The Client is one of the United Kingdom's largest chain of supermarkets. The company has hundreds of superstores across England, Wales, and Scotland, offers online home delivery, and serves millions of customers on a weekly basis.

Contact us to learn more

Please get in touch if you would like to discuss this, or other digital strategies, in more detail.

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