







Triad re-uses an existing system to help the DfT offer a new digital service

The Low Carbon Fuels (LCF) Delivery Unit operates within the UK's Department for Transport (DfT). They administer government schemes to encourage the supply and use of low-carbon fuels in the transport sector, such as the Renewable Transport Fuel Obligation (RTFO) and the Sustainable Aviation Fuel Mandate.

The LCF Delivery Unit's Challenge

-  The Sustainable Aviation Fuels sector is estimated to be worth £1.8 billion to the UK economy by 2030, generating over 10,000 jobs.
-  The SAF Mandate is a complex piece of legislation designed to lower greenhouse gas emissions from aviation by incentivising the use of low-carbon alternatives to fossil jet fuel.
-  The LCF Delivery Unit is responsible for ensuring compliance with the SAF Mandate.
-  Triad's challenge was to leverage and reuse the existing RTFO system that we created to help road fuel suppliers comply with RTFO legislation, so that it could help aviation fuel suppliers comply with the new SAF Mandate.

Our approach

- 1 We reunited the same award-winning team that designed the RTFO digital service.
- 2 Process mapping identified areas of commonality and reusability between SAF Mandate and RTFO. This helped create new functionality, such as certificate calculation methodologies and verification of SAF fuel volumes.
- 3 The team had designed the RTFO system to be modular and extensible. This enabled us to build the SAF functionality into the RTFO system, releasing tested, working code before the SAF Mandate came into effect.
- 4 This significantly reduced the risk of delivery as it avoided the need for a big bang release. All the code was there, fully tested and waiting, ready to be 'activated' on the day.
- 5 Using .Net as our technology stack, Agile methods, in-person research and user-testing sessions, we delivered two weekly sprint review sessions to showcase the latest developments and answer questions from RTFO and fuel suppliers.
- 6 We built in functionality associated with areas of the SAF Mandate that were not yet live and will test and activate this when required.

Results

- + Digital reuse in government is low. And the legacy cost is often high due to poorly thought-out design, time pressures, poor delivery, and sometimes intentional duplication by suppliers looking to resell the same service multiple times.
- + We showed how we could introduce a completely different methodology for SAF Mandate certificates alongside the RTFO, combining similar application processes whilst maintaining a modular approach to design and avoiding the cost of a new digital service.
- + The service went live in January 2025. The data has been live since February.
- + We delivered the project on time and under budget.

Their story



Department
for Transport

Triad leveraged and reused the Renewable Transport Fuel Obligation (RTFO) system that they created to help fuel suppliers comply with RTFO legislation, so that it could help aviation fuel suppliers comply with the Sustainable Aviation Fuel Mandate (SAF Mandate).

Avoiding the cost of building a new system

We designed and built the RTFO digital service to be modular and extensible. This avoided the need for us to create a new system for SAF Mandate users. Instead, we used process mapping to identify areas of commonality and reusability. We built SAF Mandate functionality into the existing RTFO system and released the code before the SAF Mandate came into effect.

Creating a seamless, unified experience

Conscious that some users would be operating both systems, we created a familiar user journey for customers submitting for RTFO and SAF Mandate.

A clear identity between RTFO and SAF

User insight identified a need for users to distinguish between RTFO and SAF Mandate submissions, as the options for fuel submissions and fuel certificate applications were very similar.

Displaying relevant information in a usable format

We researched and validated the user journey to understand common tasks. This helped us understand where it was logical to group information to facilitate efficient processing and validation of both SAF Mandate and RTFO submissions.

Facilitating external verification of fuel volumes

We navigated the complexities of adding additional capability for external verifiers to check volume information in addition to fuel certificate applications, which were already part of the RTFO functionality.



“It was fantastic that we were able to utilise the RTFO system, which had recently been successfully introduced. This meant that both external users and the department’s own admin team were already familiar with the core functionality and system structure. It also meant that operations for the new SAF Mandate could be added as generally similar user journeys within a stable, easy-to-use environment. Thus, minimising costs and the risks of either system or user errors.”



Andy Robertson

Product Owner - Department for Transport