

CASE STUDY

Modernising Ofgem's critical energy efficiency system with microservices

Version 3 of the Energy Company Obligation legislation (ECO3) required Ofgem to make substantial changes to its ECO service. Ofgem engaged Triad to work collaboratively to modernise ECO2 system and extend its functionality to support ECO3 without the need for data migration or extended downtime as the project faced a fixed budget and fixed delivery date.

Triad provided a multidisciplinary Agile team and flexed the team's composition to optimise costs, address changing skill needs and maintain velocity throughout the project.

The tight timescales made close collaboration critical and Triad used co-location at Ofgem's premises to build a seamless team and collegiate environment. Triad also quickly got to grips with Ofgem's governance framework, processes, and technology (based on Microsoft Team Foundation Server (TFS) and .Net).

A new system was designed together based on microservices, to support the roadmap to a Docker-based containerised architecture. Microservices was used to implement the new ECO3 functionality pipeline and migrated the backend functions using a strangler patterns.

About the client

Ofgem is the Office of Gas and Electricity Markets. They are a non-ministerial Government department and an independent National Regulatory Authority. Their role is to protect consumers now and in the future by working to deliver a greener, fairer energy system.

The Energy Company Obligation (ECO) mandates energy suppliers to help improve the energy efficiency of their customers' premises. Ofgem manages the scheme for the Government.



Commenting on the transparent collaborative style that built a strong, cohesive team. "I didn't know which team members were Triad and which team members were Ofgem".

Adrian Ross | Director of Business Change and Ofgem

The solution

Triad provided a multi-disciplined Agile team including a Scrum Alliance Certified Scrum Master, user researchers, user experience designers, analysts, technical leads, developers and testers. During the project, we flexed the team composition to optimise costs, address changing skill needs and maintain velocity.

The tight timescales made close collaboration critical. Co-locating at Ofgem's premises helped us build a seamless team and collegiate environment as well as hasten our understanding of Ofgem's governance framework, processes, and technology (based on Microsoft Team Foundation Server (TFS) and .Net).

We agreed an effective management and governance approach with Ofgem to keep the project on track and maintain impetus. By using easily digestible flash reports and running tiered management meetings, from project level to senior leadership team, we achieved complete transparency.

In line with GDS guidelines, we used a Scrum approach, building a business priority-focused Product Backlog managed in TFS. We tightly scoped the first delivery as a "Minimum-Viable Product" designed to be extended and enhanced through continuous improvement.

The ECO service was a monolithic .Net application with websites to support internal and external (energy suppliers) users. We worked closely with Ofgem's leadership, technical architect, and analysis team to design a new system based on microservices and designed to support the roadmap to a Docker-based containerised architecture.

We used microservices to implement the new ECO3 functionality pipeline and migrated the backend functions using a strangler patterns. Our in-depth technical knowledge and agile delivery expertise, including CI/CD and DevOps, enhanced the quality assurance process and led to user acceptance testing resulting in minimal rework.

Through the project, we focused on knowledge-sharing to build capacity in the Ofgem team and key third parties to optimise self-sufficiency and minimise handover documentation. Where appropriate, we provided coaching and mentoring to team members.

The result

Due to our efficient development and highly effective engagement with Ofgem, ECO3 smoothly transitions to live with zero priority 1 defects, no data migration and minimal downtime.

The team met the legislative deadline and key architectural objectives.