

Speqtre satellite mission

October 23 - April 24

Outcome: Higher productivity, stronger collaboration and huge cost efficiencies.

Opportunity

A large multi-disciplinary team was responsible for building a satellite aiming to demonstrate quantum key distribution communication technology from orbit. It was a complex, experimental mission involving multiple international stakeholders and collaborators, with high uncertainty.

Challenges

- Fragmented collaboration across the team
- Limited visibility of priorities, progress, and dependencies
- Inconsistent planning and tooling
- Low predictability and extended delivery timelines

These factors were increasing coordination overhead and delivery risk.

Hypothesis

Introducing agile ways of working through embedded team coaching and practical experimentation would improve alignment, predictability, and flow – reducing overall delivery risk without compromising quality.

Approach

40 days of fractional coaching support, both in-person and virtually, over a 6 month period.

Step 1: Gain CLARITY

Time was spent understanding the current system of work, team health, structure and constraints. Shared goals were clarified, pain points surfaced, and success criteria agreed, creating a common understanding of where change would have the greatest impact.



Science and
Technology
Facilities Council

The Science and Technology Facilities Council (STFC), supports world-leading research and innovation across areas including space science, particle physics, astronomy, and computational science, operating major national facilities.

Mission press release can be found here:
<https://www.ukri.org/news/satellite-launch-to-test-unhackable-quantum-communications-tech/>



Step 2: Take ACTION

After co-creating a single, prioritised backlog of small improvements and experiments, the team agreed to work in monthly iterations to implement and test ideas including:

- Standardise tooling and processes
- Monthly face to face planning and retrospectives
- Weekly discipline specific alignment
- Weekly inter-discipline dependency management

Step 3: Measure RESULTS

Outcomes included:

Increased Productivity

371% increase in average tickets completed per week / per team member.

Accelerated Team Health

+80% prioritisation process.
+80% clarity on roles.
+60% cross-team collaboration.
+50% dependency mgmt.
+30% visibility of work.

Greater efficiency

An estimated £480k in potential cost avoidance, due to 6 months reduction of mission lead time.

Step 4: EMBED

External coaching was deliberately front-loaded to ensure internal capability was built. This enabled the team to see behaviours modelled, learn by doing, and progressively take ownership of the new processes, tooling, and cadence. Eight months after coaching stopped, the data shows productivity and team health continued to improve.

David Pearson
Lead Systems Engineer

“The design phase for the Speqtre mission ran for 12 months. If we had applied this collaborative way of working from the start I believe we would have completed the design phase 6 months earlier.”

“Their support led to productivity gains, a high-performing multi-disciplinary team with a culture of psychological safety. I can't recommend Noel and his team enough.”

Jayne Price
Transformation Director

Andy Vick
Disruptive Tech Lead

“SpeQtre is the first satellite developed through our agile mission facility, and a credit to the teams who have worked hard to deliver the payload for launch”