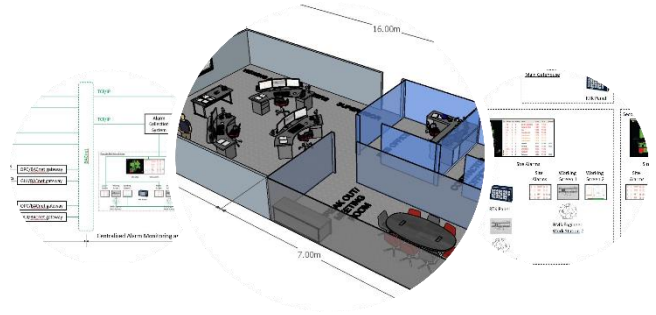


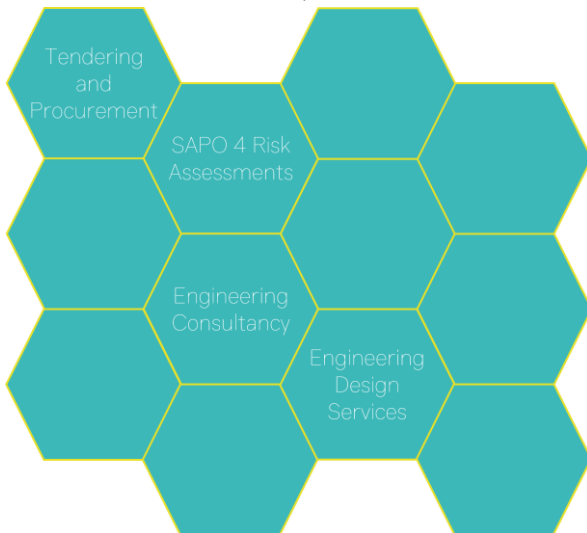
Client: The Pirbright Institute
 Sector: Life Sciences
 Project: BMS Control Room Upgrade
 Project Value: £N/A
 Date: Sep 2019 to Nov 2021



Our Client's Need

As part of the Institute's continuous development, the BMS control room needed to be upgraded to provide improvements in Business Processes, Alarm Handling and Human Factors. To develop the concept and scope of the project, input from several departments was required. They needed Grationeer Ltd to provide PM resources and Consultancy to facilitate the concept and feasibility stages across all departments and develop the scope of works for a project to deliver all improvements.

Services provided



Benefits Delivered

- Grationeer Ltd's in depth knowledge of SAPO 4 buildings helped to identify all risks and methods to implement improvements.
- Grationeer Ltd are able to work with multiple departments and bring their input into a single project deliverable.
- Grationeer Ltd demonstrated their extensive knowledge of BMS systems and Project Development from concept to handover.
- A Chartered Engineer provided invaluable consultancy to ensure regulations were met in the design.

Works Completed

Grationeer Ltd took a leading role from Concept through to project scope definition. As there were multiple departments required to provide input into this, Grationeer Ltd's role drew on their communication skill to transfer information between groups and obtain approval in line with the timescales set by the client. Grationeer Ltd also provided consultancy and recommendations based on their experience and knowledge of BMS control systems and procedures.

The first work package was to review existing policies and update them to drive the improvement. Grationeer Ltd ran several workshops with key stakeholders from each department over several months. The purpose of the workshops was to review the policies, discuss the ways that the improvement could be implemented within the business and assign actions to update the policies and put procedure in place to implement the change. Grationeer Ltd tracked all workshop actions and ensured they were completed on time.

The second work package involved looking at the layout of the BMS control room to ensure the best environment for the BMS Engineers to monitor the critical systems. The approach was to benchmark designs from Air Traffic Control rooms as the environments are very similar where a human error could result in a Major Hazard Accident. Grationeer Ltd worked with the site to develop the parameters for the future control room and then carried out the 2D AutoCAD drawings to obtain concept design sign off. This included producing a Human Factors Integration Plan which was the user requirement specification for the project. To visually promote the new design, Grationeer Ltd also produced simple 3D visual layouts.

The BMS Control room had alarms triggered from multiple vendor systems and the alarms were not displayed or prioritised in a common format. This became a major 'human factor' issue as it may result in the BMS engineers missing critical alarms leading to a more serious event. Grationeer Ltd worked with the client to develop the Alarm Strategy which included how alarms were displayed, prioritised and managed. This was used to develop the user requirement specification for a centralised alarm monitoring system.

Finally, Grationeer Ltd pulled together all the work and produced a scope of works and Request for Quotation to deliver the project. We also put together all the tendering documents to engage with a Project Manager to deliver the project. The project was delivered in 2025 and Grationeer continued to provide ad-hoc support.