



# Information Management and Information Exploitation – Developing Foundation GEOINT at an Enterprise-level

## What We Do

Helyx specialises in advising and supporting the definition of Information Management (IM), Information Exploitation (IX) and geospatial capability, to UK Defence and its major allies.

We support the end-to-end implementation of geospatial capability, from the definition of a vision to the design, development and deployment of a technical solution.

We advise, equip and enable the interpretation and utilisation of data, in a way that shows clear patterns and identifies trends, warnings and opportunities. We use our cultural, organisational and technical understanding of geospatial information and systems, to deliver an informed and intelligent view of the world, for our customers.

### **Enabling our customers' to exploit their spatial information**

In order to realise the full potential of spatial information and its uses, the principles and activities of spatial information must be integrated within an organisation's wider information strategy and capability.

To exploit spatial information effectively, data needs to be disseminated across the breadth and depth of an organisation and with its partners, which is dependent upon the interoperability of its systems and users.

We are experts in handling large volumes of data, providing and integrating private and Enterprise-level systems as well as providing mobile and inter-connected capabilities, for field and deployed operations.

By enabling our customers' to better exploit their spatial information; we develop and enhance their intelligence data; we highlight situational awareness, which in-turn informs their operational activities; and we help to identify new relationships within their Information Enterprise.

### **Our track record**

Helyx has considerable knowledge of the UK Ministry Of Defence (MOD) and North Atlantic Treaty Organisation (NATO) and we have a successful track record, in the operational use and programme delivery of IM and IX capabilities; delivering services to the MOD, Defence Science and Technology Laboratory (DSTL) and other Government Departments.

We employ a number of ex-military personnel (almost half our team), together with experts from related civil backgrounds. Our employees all have significant experience in Defence Policy, Acquisition and Applied Research, across the Land, Maritime and Specialist environments.

### **Our Comprehensive Analysis Framework**

Helyx's Comprehensive Analysis Framework, based on the MOD's Defence Lines of Development, ensures our approach addresses all aspects of capability.

We support the analysis and interpretation of requirements within an Enterprise-level Defence Lines of Development context. Our teams utilise a rigorous Systems Engineering approach and we are experts in the contextual application of modelling techniques and requirements management.

# Case Study

## Developing Foundation GEOINT as an Enterprise-level resource

Working within the Niteworks partnership, Helyx helped determine a baseline, to evaluate geospatial information and service requirements. This baseline enabled a draft Foundation GEOINT Strategy, a key component in the development of a Single GEOINT Battlespace (SGB).

### The task

Niteworks was established by the MOD, as a partnership between MOD, Industry and Academia, to assist organisations in making faster and more informed decisions, on complex issues.

The MOD's Joint Forces Command (JFC) engaged Niteworks to address several strategic challenges, relating to Foundation GEOINT capability. Their primary aim, was to develop a draft "Foundation GEOINT Strategy", to inform the continued evolution of a Single GEOINT Battlespace. JFC sought to determine a baseline against which all geospatial information and service requirements would be evaluated. The baseline would also identify the current service provision and highlight capability gaps and duplication.



**Figure 1:** The MOD's Joint Forces Command (JFC) co-ordinates, collects, collates and prioritises requirements for geospatial information and services from Joint, Maritime, Land, and Air domains. These prioritised requirements are delivered primarily by seven Specialist Geospatial Centres (SGC)

### Our approach

Helyx undertook an initial study to scope the task and to identify the key stakeholders. A comprehensive questionnaire was drafted to assist with the required data capture, identify different holdings across the SGCs and to elicit detailed requirements from the associated Geospatial Requirements Working Group, the outcome of which, would assist in developing the baseline.

### The outcomes and benefits

Our findings were analysed and presented as a draft strategy paper to the MOD C4ISR Joint User within JFC. The paper identified several prioritised activities and highlighted the overarching need for a coordinated and coherent implementation project, to realise the full benefits of GEOINT as an Enterprise-level resource. The strategy considered multiple Lines of Operations, including:

- Policy and Dependencies
- Data and Interoperability
- Equipment Capability Coherence
- People and Organisation

Fundamental outcomes included: Recognition that Foundation GEOINT should be considered as an Enterprise-level resource for the MOD and its Allies, on a National and International basis; and acknowledgement that effective interoperability would require stakeholders to adopt common data models (and metadata models), interfaces and standards. The paper determined that such an Enterprise would need to conform to an overarching Enterprise-level architecture. Coherent policy and associated governance would also be required, in order to reinforce it.

Helyx's contribution successfully supported the ongoing realisation of a Spatial Data Infrastructure (SDI) vision, positioning spatial data and Foundation GEOINT as an Enterprise-level resource. Our findings were instrumental in support of the ongoing evolution of a Single GEOINT Battlespace (SGB).

