The Power
of Where in
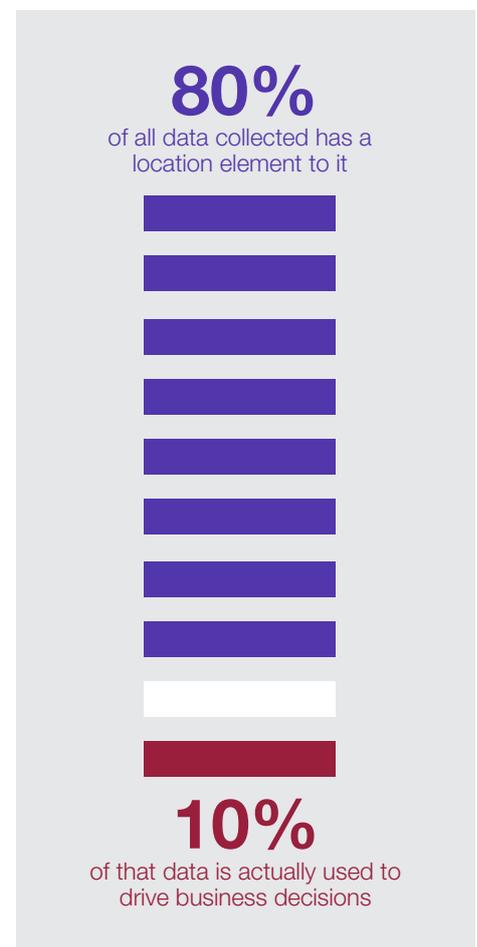# UK Central
Government

CGI

Data and analytics capabilities have made a leap forward in recent years. The volume of available data has grown exponentially, algorithms that are more sophisticated have been developed, and computational power and storage have steadily improved. This is nowhere more apparent than with location data.

One of the outcomes of the on-going COVID-19 pandemic is that it has made us all spatially aware in a way not thought about by many before. Ed Parsons, Geospatial Technologist at Google, estimates that 10% of the British economy is reliant on location data. Within Government location intelligence helps optimise policy and make better operational decisions — this is true right across Central Government and its delivery bodies.

Our Geospatial proposition provides high-end IT services and consulting to better leverage location intelligence. The following document focuses on our added-value driven approach and how our Geospatial Proposition can better support our clients in UK Central Government to accelerate business return and deliver geo-enabled business solutions and services.

80%
of all data collected has a location element to it

10%
of that data is actually used to drive business decisions

Location services and central government

Location services are poised to transform the delivery and operations of the public sector, equipping government to tackle the big challenges that face the UK this century.

The evidence of this is the creation by Cabinet Office of the Geospatial Commission and specifically their published strategy 'Unlocking the power of location'. The strategy states:

" ...by 2025 the UK will have a coherent national location data framework. Future technologies will be underpinned by data about events occurring at a time and place. Location data will be the unifying connection between things, systems, people and the environment."

The strategy highlights four key missions:

1 Promote and safeguard the use of location data

2 Improve access to better location data

3 Enhance capabilities, skills and awareness

4 Enable innovation

"UK Central Government are investing heavily in location data and technologies seeing it as a key enabler for better policy creation and delivery."

CGI and the power of where

To take advantage of the opportunities provided by enhanced location services, Government needs to engage with suppliers that span the breadth of these capabilities. The key skill is now the integration of location based technologies to deliver better outcomes.

CGI is uniquely positioned to bring "the power of where" to the UK public sector. We offer a comprehensive set of integrated location-enabled services, underpinned by an unrivalled blend of skills and expertise including geospatial experts, software development, data management and cloud deployment. We provide the design, delivery and ongoing maintenance of location-enabled business and operational applications.

As well as our ability to deliver at scale, CGI has more than 40 years' experience working with public sector organisations in the UK, helping them harness the power of digital for the benefit of citizens and society as a whole.

Location intelligence

UK government has long identified the importance of location technologies to support policy and service delivery. The reach and impact of location services is being enhanced by their integration with complementary technologies:

Advanced analytics and visualisation
Geospatial is merging with business intelligence tools to enable greater insight
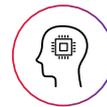
Real-time data
Provides a range of opportunities especially around decision making and automation

Sensor webs
From mobile phones to satellites, location based sensors are ubiquitous and offer the ability to provide greater insights
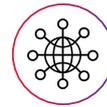
Artificial Intelligence / Machine Learning
The ability to generate location based insight at large volumes on a repeatable basis and relatively low cost

Cloud and edge-computing
Services can now store and process vast data holdings leading to greater location based insights

Connectivity and 5G
Connectivity is a crucial enabler for geospatial technology as it permits more data to be transmitted faster across more locations

Open data
Allows businesses and their partner organisations to have a global and comprehensible vision

Proven approach

Long-standing record of accomplishment

With a long-standing record of accomplishment, a global support network and a well-established presence in a number of key Government departments, we are well placed to exploit location intelligence and already do in a number of fast growing projects:

• Managing common land in Wales

• Automated service for generating mining reports during the home buying purchase

• An Earth Observation data processing and dissemination service for the Defra group

• Intelligent service for monitoring overseas coastal waters

Environment Government organisations are long-time users of geospatial technologies, but lack in-depth business integration

- Permit application
- Flood management
- Change detections
- Land management
- Reduce greenhouse emissions

Transport are long-time users of mapping technology, but lack the "geographic" integration

- Self driving vehicles
- Boost transport capacity
- Optimise / transform logistic
- Traffic management
- Incident management

Citizen Service and education have many uses of GIS, mainly in the classrooms, but it could benefit further to map social factors

- Mapping social needs
- Public health
- Emergency response
- Civil defence

Government are long-time users of geospatial technology, justice and policing could make greater use of visual tools to drive decisions

- Crime mapping
- Cross agency collaboration
- Show universal problems of concern across communities
- Identify targeted areas of discrimination

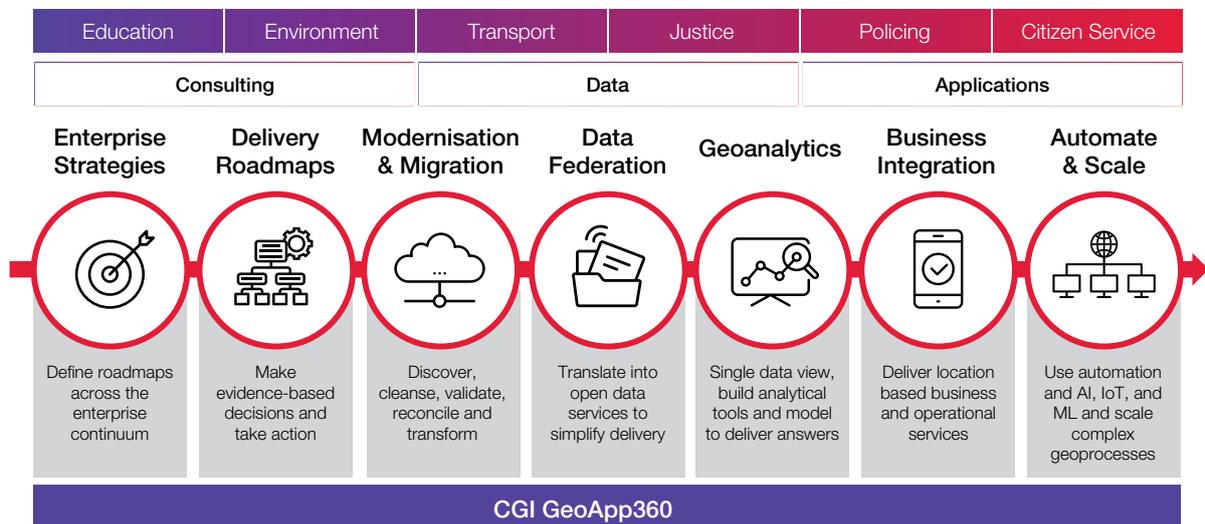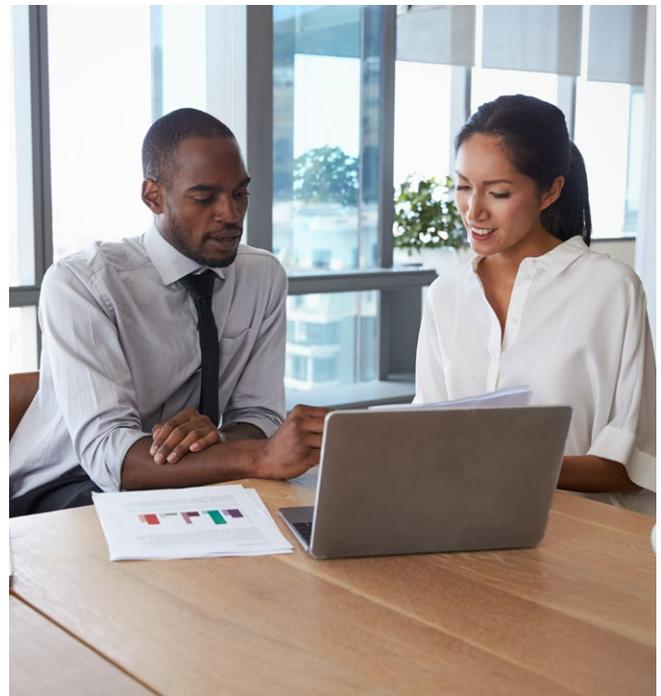|	
OPEN VISION	Review business, information system and technology architectures to facilitate the development of open solutions allowing a maximum reuse
PROOF OF VALUE	Provides visibility and awareness into the value of the location data and analytics use case of your choice - Expert overview of solutions and benefits, discovery of the potential business value, address challenges with key stakeholders, and establish a shared view of the business case - test the use case in our lab
STAKEHOLDER ENGAGEMENT	Continuous stakeholder engagement to build a value for money solution, addressing key challenges first with a continued review of the total cost of ownership
OPEN VISION	With a committed engagement in the location and analytics industry, we are well placed to provide on-going support and enhancement

Our capabilities

Integrated solutions within the enterprise continuum, using non-intrusive and iterative delivery.

Our strengths

- **30 members strong** in the UK and more than **500 worldwide** with geospatial expertise
- **25+ years of experience** in development, integration and design of business solutions
- Agile and DevOps applied to Geospatial Information Systems and Location Analytics

Our services

- Enterprise location strategy, enabling full use of location data and service in the organisation
- Evidence based focus delivery road map
- Data migration allowing legacy solution integration
- Design and build of open geo-system, maximising data sharing
- Automate and increase use of geospatial technology within the organisation

Education	Environment	Transport	Justice	Policing	Citizen Service
Consulting		Data		Applications	

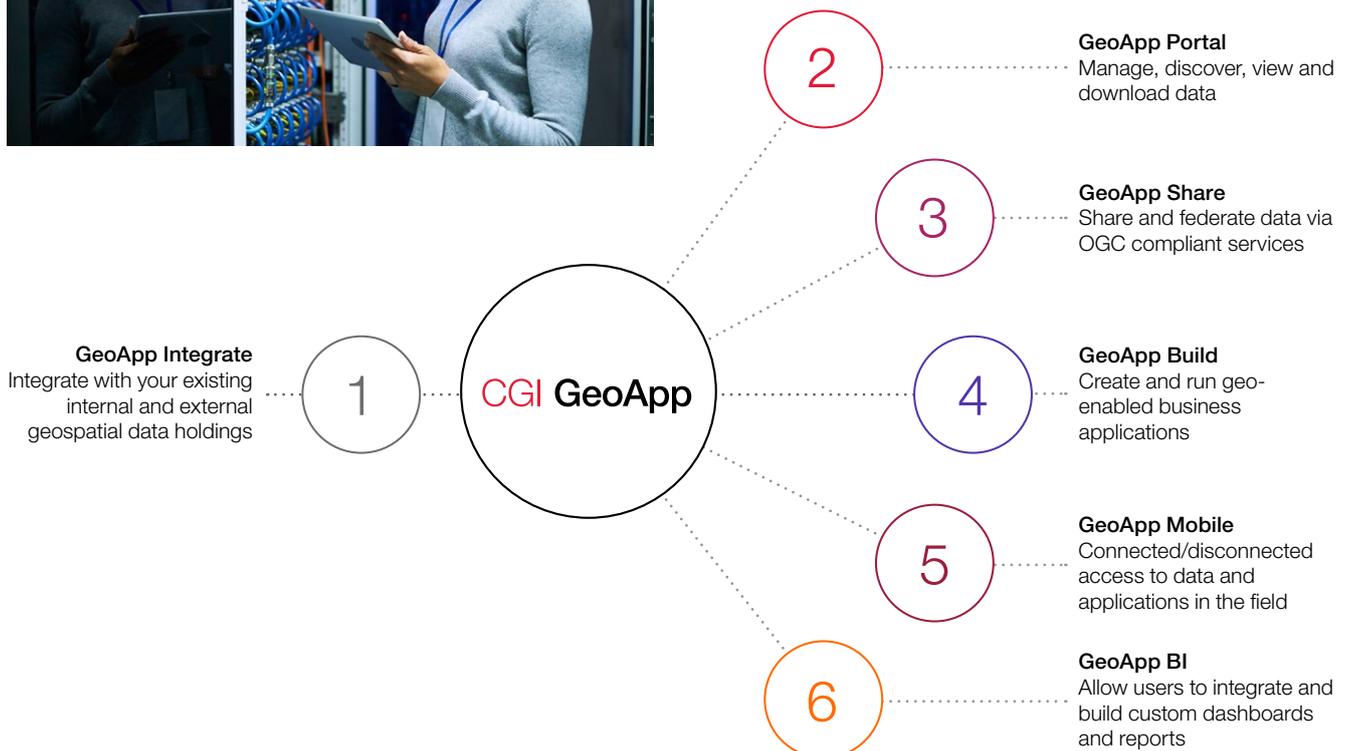| Enterprise Strategies	Delivery Roadmaps	Modernisation & Migration	Data Federation	Geoanalytics	Business Integration	Automate & Scale
Define roadmaps across the enterprise continuum	Make evidence-based decisions and take action	Discover, cleanse, validate, reconcile and transform	Translate into open data services to simplify delivery	Single data view, build analytical tools and model to deliver answers	Deliver location based business and operational services	Use automation and AI, IoT, and ML and scale complex geoprocesses

CGI GeoApp360

CGI GeoApp

Our long-standing capabilities are supported by CGI GeoApp. CGI GeoApp delivers all of the essential tools an organisation needs to successfully take advantage of location based data and intelligence.

Based on well-established and supported open source products, it enables a range of capabilities allowing the rapid sharing and analytics of location data integrated within the existing enterprise continuum; reducing the need for re-engineering and user training.

Benefits

- Scales to meet user demand
- Fine-grained access control for datasets with licensing / security restrictions
- Cap-ex free
- Builds on your existing GI investment
- Integrates with your own and 3rd party data sources
- Complies with Open Geospatial Consortium (OGC) standards
- Configurable by your own system administrators
- Consumes multiple data types
- INSPIRE compliant
- Cross platform with low barriers to entry

GeoApp Integrate
Integrate with your existing internal and external geospatial data holdings

1

CGI GeoApp

2
GeoApp Portal
Manage, discover, view and download data

3
GeoApp Share
Share and federate data via OGC compliant services

4
GeoApp Build
Create and run geo-enabled business applications

5
GeoApp Mobile
Connected/disconnected access to data and applications in the field

6
GeoApp BI
Allow users to integrate and build custom dashboards and reports

About CGI

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomes-based to help accelerate returns on your investments. Across 21 industry sectors in 400 locations worldwide, our 84,000 professionals provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

Our commitment: Insights you can act on.

[cgi.com/uk](cgi.com/uk)