

Delivering a clearer picture

# Data Consultancy Group





### Getting the most out of your data

The successful implementation of any GIS solution is dependent on the data within it. Out-of-date, poor quality or inappropriate data significantly reduces the value of business information that can be derived from any IT system. But with an increasing array of datasets now available, and issues surrounding currency, interoperability and accuracy, many organisations face a difficult challenge when selecting the most appropriate and cost-efficient data.

That is why ESRI (UK) has established the Data Consultancy Group (DCG), which provides organisations from any industry with access to experienced data specialists that can help them to get the most out of their GIS through the deployment of data that truly meets the needs of their business.

Our data experts offer a range of services that guide organisations through the complex process of data selection, deployment and maintenance: from sourcing additional data to developing bespoke data solutions to providing strategic business advice.

The DCG is made up of a number of data experts with many years experience in the GIS data industry and draws on a wealth of GIS professionals from throughout ESRI (UK). We are uniquely positioned to not only provide a range of high quality GIS value added datasets, but deliver related consultancy and services. Our team can provide impartial advice on the most appropriate datasets that, singly or in combination, provide the link between your GIS software, your own corporate data and the business solutions you are seeking.

Our advice is aimed to provide the most appropriate solution for a given customer's requirements.

At ESRI (UK) we have long understood that geographic information is one of the most valuable assets an organisation has, and that by careful and planned management, appropriate use and a thorough understanding of capabilities it can help realise a wealth of business benefits including:

- More informed decision making
- Improved business efficiency
- Reduced operating costs
- Improved business intelligence

## Delivering a clearer picture

ESRI (UK) has established the Data Consultancy Group (DCG) to help organisations get the most out of their GIS. Based on the specific needs of the customer, the DCG ensures that businesses have the right data, in the right format to improve business decisions and processes.



### Focused on your needs

ESRI (UK) has always placed great value on the development of mutually rewarding, long-term business relationships and has worked closely with a number of key data suppliers for many years. By drawing on these relationships, the ESRI (UK) DCG is able to offer you data from a number of data partners that have been carefully selected to provide the greatest range of high quality UK, European and Worldwide digital data products.

However, we understand that different business solutions require a different combination of datasets and, whenever appropriate, we will make use of other datasets to ensure that you always benefit from the best possible solution. Because we maximise your choice, we increase your ability to make the most of your GIS solution.

As independent suppliers of data, not only do we have access to a wider range of datasets than traditional data vendors, but we are able to provide completely impartial advice regarding your technical, commercial and licensing considerations. What's more, purchasing your data through us will not cost you anymore than purchasing directly from the data supplier.

### Value added data sets

At no additional cost, we provide all datasets in an optimised value added format that enables you to instantly deploy and begin working with your data. Our established value added processes and quality assurance checks take the raw data provided by suppliers, and ensure that all datasets are delivered in a standard format that end users can quickly access from within their existing ESRI software. This reduces your setup overheads and administrative costs and ensures your data is provided in a high quality format that the user can quickly access.

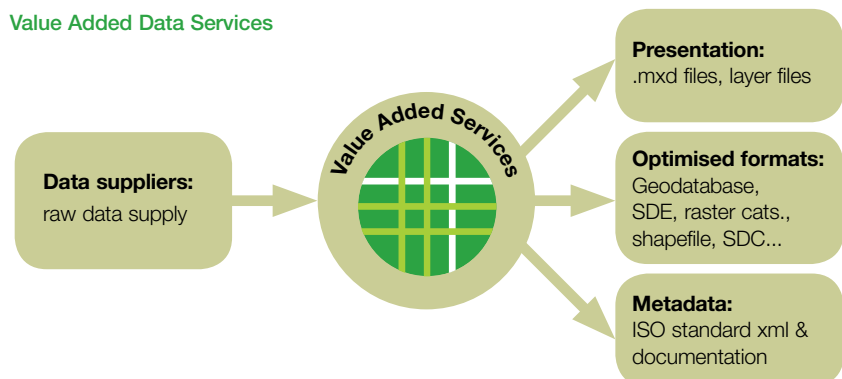
Our standard value added format includes:

- ISO standard xml metadata
- Layer files
- Mxd files for display
- Range of formats: shapefile, file geodatabase, personal geodatabase, SDC, SDE export
- Documentation and user guides

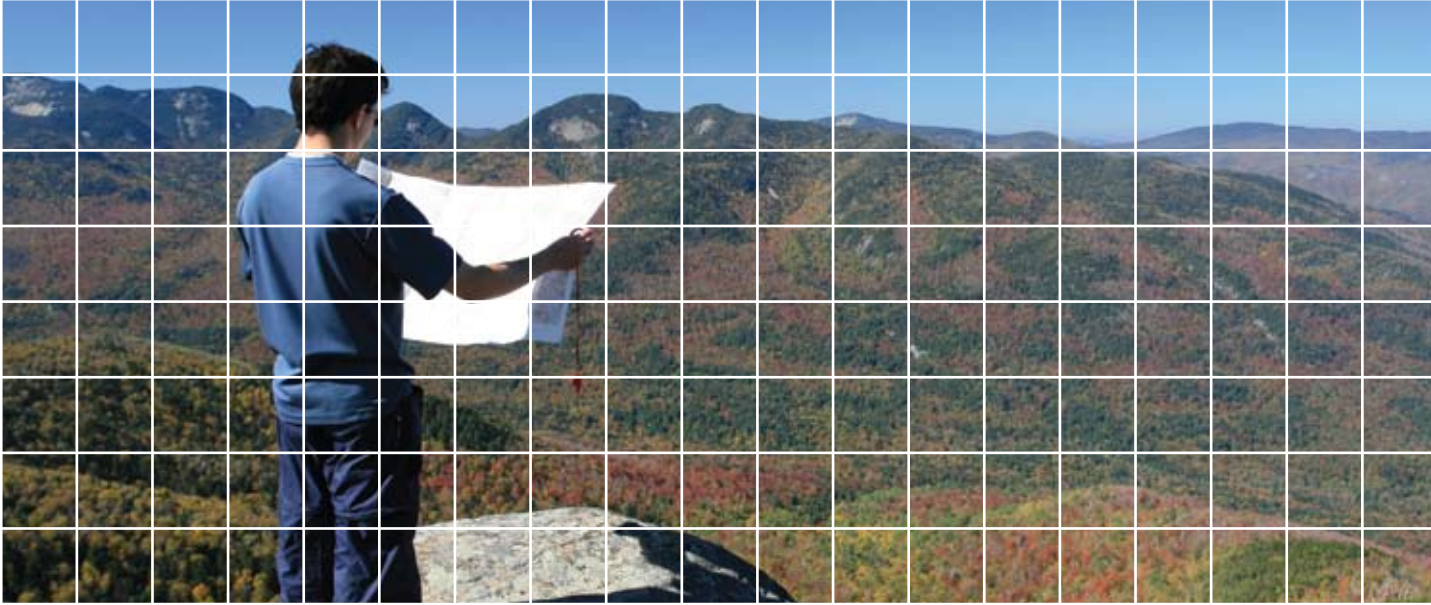
We provide and source data from a range of categories, including:

- Postcode data
- Administration boundaries
- Demographic and lifestyle data
- Routing/street level data
- Raster/background mapping
- Terrain and height data
- Aerial and satellite imagery
- Business data
- European and Worldwide data

### Value Added Data Services



# Visionary



## Data consultancy services

The ESRI (UK) Data Consultancy Group provides a comprehensive range of professional services to meet all your geographical data-related business requirements. Our team has extensive experience of the issues surrounding the best use of geographic data within a variety of business applications. We use our knowledge of the geographical data market to deliver your project in the most efficient way possible.

## The DCG approach to delivery

You are allocated a project manager to ensure that our strict quality standards are met and your requirements are delivered within budget. We will further resource the project using the appropriate resources from one or more of the following:

- Specialist data consultants from within the Data Consultancy Group
- Software and database consultants from the ESRI (UK) Consultancy team
- 3rd party companies with specialist capabilities that meet our quality standards

Delivery of a data project typically involves the following stages:

- Specification – defining the business and technical requirements
- Review – reviewing geographical data currently held by the customer
- Acquisition – acquiring other data sets required for the project
- Preparation – ensuring the data is clean, complete and in the correct format
- Fulfilment – providing the analysis and output required

We take a flexible approach to delivery and will deliver your project based on the best mix of these stages. Whether you require a complete end-to-end service or one specific service, we are able to help. The following case study, based on a UK building society undertaking a strategic review of its branch network, illustrates the key features of our service offering.

Every client is different and we are happy to discuss your exact needs on a case-by-case basis. If your specific requirements are not contained in the following section, then please contact us to find out how your organisation can benefit from our data consultancy services.

# thinking in action

## Stage 1: Specification

### Requirements Specification

We work closely with you to define your business requirements and advise on the datasets and services required. We will also provide detailed estimates on cost and timescales.

Although the client had a good idea of what they wanted to achieve, they were unsure of the feasibility and cost of their objectives.

One of our consultants worked closely with the client to refine the requirement - in this case a set of maps, reports and analysis for each of their branches.

From that we were able to estimate timescales, costs and the need to outsource parts of the project to 3rd parties who we would project manage.

## Stage 2: Review

### Data Audit

We review your current usage of geographic data and advise you on action required to remedy issues relating to completeness, currency (i.e. up-to-date), best value, licensing, deployment and quality assurance.

Our consultant worked jointly with the client to make recommendations to ensure that a significant amount of customer data belonging to the client was complete, up to date, and fit for purpose.

The client already owned licenses for external datasets that would be required for the project, and we were able to identify the most cost-effective licensing option for further use.

## Stage 3: Acquisition

### Data Sourcing

We review the market, advise and source all the geographic data sets required to fulfil your project, whether UK-based or worldwide.

We acquired "off-the-shelf" data sets from our product range and identified that the client would need a geodemographic classification system to profile their customers. We recommended the classification that was most suitable for them. In addition we were also able to source and supply specific estimates for total market size by product.

### Data Capture

We can identify and recommend the best 3rd party organisation to fulfil your data capture requirements.

Some customer information was held on hard paper copy. We identified a supplier who could capture information held on hard paper copy into the required format cost-effectively.

### Data Loading

We work closely with our internal database group to load spatially enabled datasets into standard database systems including (but not limited to) Oracle, SQL Server and ArcSDE.

Our recommendation, due to the data volumes involved, was that it would need to be replicated from an internal proprietary format into Oracle and ArcSDE for further analysis. We engaged a consultant from our database division to advise on and implement this.

## Stage 4: Preparation

### Address Cleaning

We ensure your addresses are cleaned and enhanced to the required standard, if necessary to BS7666.

We identified, briefed and project managed a company who were able to rectify a significant number of errors and omissions in the customer database, and then output the data to our specifications.

### Geocoding

To map-enable your data, we enhance your own address and geographically related corporate data.

Having loaded their customer data, we then automatically geocoded it against a UK database to map each customer to a resolution of 10m.

A 90% success rate was achieved. Manual geocoding increased this rate to 95%, sufficiently high for the purposes of the project.

## Stage 5: Fulfilment

### Data Conversion

We can provide data in a variety of vector and raster formats to fit your requirements.

The client's branch locations database was in an incompatible format, which we then converted to ESRI Shape format. Additionally, some of their data in Northern Ireland was mapped to the Irish grid: we re-projected it to British National Grid so that Northern Irish data could be displayed on the same map as the rest of the UK.

### Data Modelling

Using your own and commercially available datasets, we can create geostatistical models which can then be used for "what-if" type data analysis.

We used a combination of customer data, national market size values by product and a geodemographic classification to model a set of estimates of market size for each product by postcode sector, to be used as an input for the final analysis phase.

### Data Analysis

We analyse all the available data in order to meet the original requirements with a combination of customised datasets, customised printed or digital (pdf) maps, tabular reports and recommendations for further action.

We delivered a set of tabular reports, maps and written analysis for each branch. This enabled the client to review the performance of its branch network and identify an individualised strategy on a case-by-case basis.



Example of a bespoke derived dataset from DCG - 3D building height data and imagery for central London shown in ArcGlobe.  
© Ordnance Survey © Getmapping © Precision Terrain Surveys Ltd



Small scale Global vector data in ArcGIS.  
© Collins Bartholomews

## ESRI (UK)

ESRI (UK) is part of the global ESRI network. With the single, largest pool of GIS expertise in the UK, the company is the technical authority on GIS. ESRI (UK) provides solutions, technology and services including off the shelf applications built on the ArcGIS software suite and an extensive range of consulting and training services.

Its offerings meet a range of business needs in different markets including Business, Local & Central Government, Public Safety, Utilities and Telecommunications, as well as catering for system integrators and application developers through the ESRI Developer Network.

ESRI (UK)'s customers include both public sector clients such as Manchester City Council, Leeds City Council, Metropolitan Police, DCLG, The Environment Agency and businesses including Thames Water, Royal & SunAlliance and The AA.

By building a deep understanding of its customers' needs, ESRI (UK) is able to help businesses become more profitable and public service more efficient through the better use of GIS. This process of enhancing sustainable business growth by developing solutions with the power to anticipate and meet industry specific requirements is known as **Visionary Thinking**.

### Training

ESRI (UK) runs a full training programme each year. These courses can also be tailored to your precise requirements and can be delivered at your premises. For more information visit [www.esriuk.com/training](http://www.esriuk.com/training).