Welcome to the 2004 Association for Geographic Information Sourcebook, the premier source of information about GI in the UK.

About the Sourcebook

Since its creation in 1989 the AGI has published 11 editions of its Sourcebook (initially called the Yearbook). It fulfils a variety of purposes :-

- It informs the world about the AGI itself: It's organisational structure; which organisations are corporate members; it's resources such as available AGI publications, past conference papers, etc.

- It is a trade directory of providers of Geographic Information Products, Services and Applications within the UK. As many of these organisations are also corporate members, inclusion in the Trade Directory of the Sourcebook (at a discounted rate) is another of the AGI member benefits.

- It is also a source of additional information of benefit to AGI members and the wider GI community. There has been no set rule on the nature of this additional material, just whatever the editor thought was of relevant interest to GI professionals in the UK at the time. Usually it was in the form of specially authored papers by leading experts in the various fields of GI. As the GI industry has evolved and matured however, there are now a great variety of regularly published paper magazines, internet e-zines and websites that provide a more immediate and accessible outlet for these expert papers than could be possible in a single paper book, published annually.

This latter point illustrates the fact that, as the GI industry evolves, so too must the AGI Sourcebook in order to maintain it's status as a relevant source of information for professionals working within it. Thus this 12th edition of the Sourcebook sees some changes in both the format and content in order to update it to reflect GI in the 21st Century.

Sourcebook Format

The last (11th) edition of the Sourcebook in 2002 consisted of a series of Adobe Acrobat files, and was only issued on CD rather than in paper form. It could be printed out as A4 paper pages if so desired, but as an e-book it was no longer necessary to do this in order to view the information. This meant that for the first time the Sourcebook could be viewed online on the AGI website.

This edition goes one step further and is unashamedly digital, dispensing with the concept of the traditional printed page altogether. Instead all the different sections are arranged as a series of interlinked mindmaps. For those not familiar with them, mindmaps are simply an alternative means of storing and presenting information in a way that works in harmony with the

way your brain and eyes process it, namely by branching association. Because the information is presented in a similar way to how you actually think, when you look at a mindmap you are actually stimulating your own thought processes on the subject in question as well as assimilating the existing information presented on the map.

Mindmapping as a technique has been around for some 30 years or more, but it is only in the last couple of years that good quality mindmapping software has become available. The free software that comes with this Sourcebook is MindManager 2002 from [MindJet](#), which with some 400,000 licences worldwide, is one of the leading mindmapping software packages around. The distribution model is similar to Adobe Acrobat, with freely available viewer software that enables you to look at the mindmap files themselves, but you have to pay for the full version that allows you to edit the maps or create your own ones. I find the viewer software very easy and intuitive to use (as I hope you will find out for yourselves), but I urge you to take a couple of minutes to read the ['how to'](#) notes to familiarise yourself with it so that you are able to take advantage of all the features of the Sourcebook.

So why use digital Mindmaps for the Sourcebook? Well the advantages over the traditional format of lines of text on a page are many :-

- Information is communicated in a more intuitive way so viewers should be able to find and assimilate what they need easily and quickly without having to scroll through pages of text.

- The relationship between different packets of information, such as hierarchies, is preserved, indeed exentuated, when they are stored and presented on a mindmap.

- More information can be packed into one map than a single A4 page of traditional text. When a map becomes too cluttered it is a simple task to create another map with the additional information arranged about the new (but related) subject centre, with a hyperlink between the two.

- New information can be quickly and easily added to a mindmap over time without the need to reformat or reposition the information that is already there, but at any point in time it provides an instant and easily understood snapshot of the current knowledge base of the subject in question.

- Because they are digital, mindmaps can be searched for specific words and phrases as well as being easily hyperlinked to any other digital file.

Sourcebook Content

AGI Section

I have tried to build on previous Sourcebooks and include as much information and documents pertaining to the AGI as possible. This is so that the Sourcebook can serve as an AGI document archive, both for historical purposes and as a resource to inform future AGI activitists of the results of past endeavours. As a result of an EGM in December 2003 the AGI reorganised it's internal structure, effective from 2004 onwards. This new structure and how it operates is also explained in this section.

Trade Directories

The Trade Directory, or rather Directories, are now fully cross referenced and searchable. All the information in them was provided by the organisations themselves from a questionnaire distributed in November 2003. No charge was made for the basic entries in the book, although some organisations have chosen to expand on their entry by purchasing further space and/or including their logo and hypertext links to their websites.
Note : Although the editor has done his best to ensure that the information included is accurate; no responsibility can be taken for any errors that may be included. We would of course be grateful to receive notification of any errors or omissions.
See more **About the Trade Directory**.

SDI Directories

As mentioned previously, it is up to the editor to decide what is topical, relevant and useful to the GI professional, and therefore worthy of inclusion in the AGI Sourcebook as additional content. It is my belief that one of the most pressing issues facing the GI professional today, not just the UK but throughout the world, is that of Spatial Data Infrastructures, otherwise known as SDI's.

What is an SDI? Well there is no one, universal definition, but my working definition is that :-

"A Spatial Data Infrastructure (SDI) is the combination, at the appropriate geographic area level, of stakeholders, strategies, initiatives, procedures, technological infrastructure, metadata and core/framework data required to ensure that <u>all</u> geospatial datasets can be properly collected, maintained, accessed and ultimately delivered to whoever needs them, whenever they want, for whatever (legitimate) purpose, wherever they are."

In other words it is no longer enough in itself just to collect geospatial data. Equal emphasis must be given to the other components of the whole

process necessary to deliver that data to the people who need it so that it can be transformed into information, and ultimately knowledge.

If it isn't, what's the point in spending all those resources collecting it in the first place? If there is no means of knowing who is collecting what datasets and how they are going about it, what is to stop the wasting of resources through duplication of effort and reinvention of wheels? Likewise if more than one dataset of a particular type is being collected, how is anybody to know which one is definitive? This is especially relevant for GI as many datasets are collected by public bodies, at public expense for public good.

Thankfully the need for considering spatial data as a cohesive whole with it's supporting infrastructure seems to be being gradually accepted by the 'powers that be'. For example the Regional AGI Groups in Northern Ireland, Scotland and Wales have made great progress in advancing the causes of National Geographic Information Strategies with their respective devolved Executives as a first step in the implementation of cohesive national SDI's. (In the absence of an English Regional group, an Action Working Group (AWG) was initiated by AGI Council and they are now progressing the cause of a National Geographic information Strategy for England). Nor is this sort of activity confined to the UK. SDI initiatives are being undertaken in Europe and all around the world at all geographic levels, many at a much more advanced stage than here in the UK.

However the world is no longer a simple place, or at least at simple as it seemed. It used to be that individual organisations operated at a single geographic level, with a well defined geographic area of responsibility, which did not alter much, or all that often. For example many of the parts of boundaries of government administration areas from community up to national level, have altered little over decades or even hundreds of years (although names and importance may have changed). Increasingly today however :-

- Organisations must work at more than one geographic level, often in partnership with other organisations that may traditionally operate at a different level, with a non-identical geographic area of responsibility. For example in the UK many national bodies must also operate at a European Union level in cooperation with similar bodies from the other member states. Likewise in this post devolution UK, many so called 'national' bodies may only now cover England (and maybe Wales), with similar but not necessarily identical bodies in Northern Ireland and/or Scotland and/or Wales (and let's not forget the Isle of Man and Channel Islands!).

- Geographic areas of responsibility of bodies may now be defined along other, non-historical, more 'fuzzy', lines. For example what is the precise

boundary of a river catchment area, or the habitat area of a particular species, or a particular area of social exclusion?

- Boundaries of these geographic areas of responsibility may change more often as bodies are reorganised, merged, split up, devolved, privatised, or whatever is the fashion of the day in this fast paced, commercial world where perpetual reorganisation is almost the norm, and where the boundary between what is a public body and what is a commercial organisation is becoming increasingly blurred.

And that's just the dynamics of geographic areas of responsibility of organisations! What about the complexities of sourcing and combining the many different geospatial datasets in their charge in order to make meaningful and effective work possible? Datasets that will have been collected at different geographic area levels, over different time frames, in different computer systems with different software formats?

It is no wonder that the need for a whole infrastructure approach to GI is increasingly recognised, and that more and more GI professionals are becoming involved in SDI initiatives at all geographic levels.

And this is where the AGI Sourcebook SDI directory comes in.

In our working SDI definition above, one of the key phrases is 'appropriate geographic area level'. Obviously the geographic area of interest must be defined first before stakeholders, and in turn their level of ownership and responsibility in the SDI process, can be identified. However in this dynamic, complex world there are no longer only a small, finite number of appropriate geographic levels. There is a need for simultaneous, multi-geographic level views of the world, as demonstrated by the complex, globally interactive nature of global warming and climate change, or the workings of international terrorism. An 'appropriate geographic level' is now anything from your own back yard to the whole planet, and any and all points in between!

So given all this complexity, where and how does the humble GI professional begin to even engage with the SDI process? How can they progress an SDI initiative that they are involved in and synergise it with similar initiatives in neighbouring areas and those at higher or lower levels in the geographical hierarchy?

The SDI Directory of the AGI Sourcebook is a first attempt to document SDI initiatives, and their stakeholders, around the world at National, Continental and Global levels. It is by no means definitive or complete, but the benefit of the mindmap format is that new information can be quickly and easily added to the SDI directory over time, but at any given time it provides an instant and easily understood snapshot of the current knowledge base.

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A full description of <u>how the SDI Directory works</u> is given in the relevant section. The SDI Directory will be continually added to by the editor as time goes on. It's usefulness and value as a resource will increase however if it is a collaborative effort across the GI community. If as many different people as possible contribute the sum of their own SDI knowledge, then :-

- The sum of the whole knowledge resource becomes greater than the sum of the individual parts.

- Those who are engaging in the SDI process for the first time can rapidly bring themselves up to speed.

- Those who are undertaking a new SDI initiative can see what has gone on before, or is going on now, in the same sector or geographic area. This in turn should :-
    o Minimise duplication of effort, and therefore the wasting of precious organisational resources
    o Maximise the synergy between different but related SDI initiatives (or at least cut short the time it takes for the synergising process to begin because individuals are unaware of other SDI initiatives going on)

An individual SDI initiative should serve it's own unilateral purpose within it's own geographic and/or sector context. Synergised together however they form the basis for a complete, global SDI, where the sum of the whole is much greater than the sum of the individual parts.

Thus additional contributions and suggestions for further content for the SDI Directory will be welcomed by the editor for inclusion in future editions (send to <u>sourcebook@agi.org.uk</u>). In the meanwhile I hope you find it, and the other resources contained in the 2004 AGI Sourcebook, a useful tool in your work as a GI professional.

Angus McDonald
2004 AGI Sourcebook Editor

30th May 2004

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