

TOWARDS A EUROPEAN GEOGRAPHIC INFORMATION INFRASTRUCTURE

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ABSTRACT

Parallel to initiatives in the USA (NSDI) and similar ones in other parts of the world, Europe has been agonising over its own requirement for an EGII. The necessity for it, the issues involved, the organisational structures that may be needed are some of the subjects that have been addressed in particular by EUROGI and DGXIII of the European Commission. The latter have progressed the matter through its GI2000 initiative and will implement some of it through its current INFO2000 programme. EUROGI while being fully involved and supportive of these efforts has identified a requirement to widen the process and to add value to these and the many other projects that are currently either being planned or implemented at the European level.

The major issues involved are well known. They include data availability, standards, pricing and a whole raft of legal issues many of which impact differently at the European as opposed to the National level. Most are also cross-disciplinary.

The EGII would be a stable European wide set of agreed rules, standards, and procedures for collecting, exchanging and using Geographic Information. It would also ensure that European wide base datasets are readily available and that metadata services exist so that data can be easily located by potential users.

In working towards the creation of the EGII EUROGI is committed to helping to clear the barriers along this vital part of the Information Superhighway. In so doing it would place Europe in a position to participate in and to influence the moves towards a Global Infrastructure as many of the problems at an inter-national level would have been addressed and some solutions found which may have wider implications.

INTRODUCTION

The awareness of the value of Geographic Information (GI) its use and that of its related technologies is spreading more widely and it is involving and impacting on an increasing number of disciplines and activities. Although there are many definitions of GI in this context GI is defined as that which is spatially referenced in its widest sense. However, while this trend continues apace a number of constraints to development and to the ease of its use have been identified, many of which are common to a number of applications at the National, European and Global levels and across

many disciplines. It is this multi-disciplinary and cross-national impact which led those involved in the creation of the European Umbrella Organisation for Geographic Information (EUROGI) to perceive the necessity for such an organisation. A necessity which has been reinforced by the passage of time.

EUROGI AND THE EUROPEAN GEOGRAPHIC INFORMATION INFRASTRUCTURE (EGII)

Created as a European foundation under Dutch law in 1993 EUROGI now represents 16 National GI associations and 6 pan European ones, together with a number of observers.

Its mission is "to promote, stimulate, encourage and support the development and use of Geographical Information and related Technologies at the European level and to represent the common interest of the Geographical Information community in Europe". Central to the fulfilment of this role is the creation of an EGII. This EGII would be a stable set of European-wide set of agreed rules, standards and procedures for collecting, exchanging and using Geographic Information.

Critical to this has been the mutual support that EUROGI has given to and received from DGXIII of the European Commission. Both organisations have facilitated the holding of a large number of meetings over the past eighteen months, the outcome of which together with the resultant very wide consultation, has led to the widely circulated GI2000 document. This in turn will lead to a submission to the EC Council of Ministers and its implementation within their (DGXIII) INFO2000 programme over the next few years.

However, this alone might not be enough. There are a number of large players at the European level mainly those within or linked to the European Commission (although there are others) who are currently involved in large programmes with large budgets which increasing require GI and GIS. These programmes need an EGII for the efficient and effective implementation of their mandates. We need therefore, a wider approach to the establishment of an EGII which involves them directly. EUROGI in involving these other actors needs to add value to the work envisaged in the INFO2000 programme and our programme for 1996 and beyond which already has achieved some success in this direction, is designed to achieve this.

National European views such as the French response to the GI2000 document have added invaluablely to the debate.

THE ISSUES INVOLVED

More directly linked to the detail of the EGII are a whole raft of issues which need to be tackled if we are to eliminate or minimise the constraints to the easy use of the technology and high on a long list are the following.

a. Legal Issues

Intellectual property rights or copyright, liability issues of data and individual rights and data protection are among some of these that need to be tackled. EUROGI has commissioned a definitive survey of IPR within the 15 national European Union (now completed) and has commenced studies related to the others. To facilitate progress we have established firm links with the LAB (Legal Advisory Board) of the EC to achieve our joint aim in this area.

b. Standards

As the first phase of the work of the official European Standards Organisation (CEN) on GI draws to a conclusion and that of the International Body (ISO) in the same field commences, the relationship between the work of these two official standardisation bodies is brought into sharp contrast and highlights the marked difference in their approach to the subject. Additional urgency is also required due to the Open Systems and interoperability issues currently being addressed by the Open GIS Consortium (OGC) and others which is concentrating the minds of many vendors to some of the problems that need to be addressed. Over the past few months EUROGI has been involved in discussions with the OGC to ensure that Europe will have a voice in the deliberations that are ongoing. Technology has a valuable role to play but a number of the standardisation problems are organisational and cultural and may not be as amenable to such a solution.

THE GLOBAL SITUATION

EUROGI has recently published an open letter, which has identified some of the major questions we need to be addressed, the debate about which should lead to the identification of a strategy to guide those who have the responsibility in the development of standards so that relevant and sensible ones can be brought to the market in timely fashion and be used.

c. Role of the Private/Public Sectors

A debate has started in many National arenas with regard to the respective roles of the public and private sectors with regard to GI. This is an important issue with many different shades of opinion held in different countries by a wide range of organisations involved. EUROGI will support and facilitate this debate but it is clear that some form of partnership between the relevant sectors will be crucial to effective developments.

d. Data Availability

This is one of the key issues. An EGII should strive to provide access to a broad readily available high quality platform of base data within a uniform infrastructure across Europe, so that every market niche is open to everyone, so that existing data can be combined to provide relevant reliable, valuable information and so that new data can be effectively and immediately used. Meta data services and standards are critical to the achievement of this aim. A great deal has already been achieved in some national and disciplinary areas, but the quality and coverage is patchy. The current DGXIIIe projects on base data and meta data services will help to shine light on what has happened so far and identify the shortfall in the present situation. This platform can then be used to encourage others to fill in the gaps and yet more to increase the awareness of the information that is available in what globally is comparatively a data rich region.

While Europe has been debating its requirement for a GI infrastructure parallel initiatives (some far more advanced in implementation) have been started in other parts of the world. In the USA with its National Spatial Data Infrastructure (NSDI), in Australia, Japan, SE Asia and more recently Korea activities are well advanced with strong political support.

There are currently a number of tentative steps being taken to explore the need for and viability of a Global GI. A number of meetings, mostly unofficial have taken place in many parts of the world over the past year, some of which have involved various members of EUROGI. The next such meeting will take place with invited delegates under our auspices in Bonn hosted by our German Association (DDGI) in September where some of the next steps will be discussed. It is also of significance that the UN and the World Bank have now become interested in these activities. It is important that Europe plays an appropriate role and EUROGI will work to ensure that it does.

CONCLUSION

We live in interesting times. Europe has the means but needs to demonstrate the political will to create a GI information infrastructure that will benefit the market-place and its citizens, a will that supports, stimulates and challenges private companies and public bodies to invest in the creation and improvement of an EGII. EUROGI will play its part.