Global Spatial Data Infrastructure Newsletter

Global Spatial Data Infrastructure Secretariat

WELCOME……..

To the first edition of the GSDI Newsletter.

Volume 1, Issue 2
Printed twice yearly.

WEB:
www.gsdi.org
FAX:
703-648-5755

Address:
GSDI Secretariat
U.S. Geological Survey
MS 590
Reston, VA 20191
USA

About Global Spatial Data Infrastructure

Global Spatial Data Infrastructure (GSDI) is a global and open process for coordinating the organization, management, and use of geospatial data and related activities. It encompasses the policies, organisational remits, data, technologies, standards, delivery mechanisms, and financial and human resources necessary to ensure that those working at global and regional scales are not impeded in meeting their objectives.

A quarter of the world's nations attend GSDI 6

More than a quarter of the world's nations participated in the 6th GSDI that took place in Budapest September 16-19, 2002. A record total of 225 delegates from 51 countries heard more than 80 presentations on a wide range of topics relating to the conference's 'global to local' theme. Keynote addresses included a speech on the Hungarian national spatial data infrastructure by the new Minister of Information and Communications, Kálmán Kovács, an overview of United Kingdom Government initiatives encouraging global access and re-use of public sector information by the Controller of Her Majesty's Stationery Office, Carol Tullo, and an outline of current European environmental research by the European Commission's Programme Director of Research on Environment and Growth, Christian Patermann. The Conference marks a turning point in the development of the GSDI as an organisation. After 6 years of operating

under the direction of an informal steering committee of representatives from global, regional, and national bodies in all parts of the world, the GSDI Association was formally incorporated as a not-for-profit association in August 2002. Its current Board of Directors is made up of the past, present, and future presidents of the Association together with the chairs of its two main working groups and its current secretary. This Board was charged by the Conference participants with the task of preparing a strategic plan to make the Association fully operational by the time of the next conference in Bangalore in February 2004.

Some of the main highlights of the Conference:

- Capacity building initiatives. It was reported that approximately 100 capacity building projects in all parts of the world are being supported through the $9 million ESRI Global Map/GSDI grant programme announced at the previous conference. Intergraph also announced a new $5.5 million Open Interoperability grant programme at GSDI 6.

- Growing international recognition of the importance of global mapping initiatives. This is particularly evident in the recommendations in the Action Plan agreed at the recent Johannesburg World Summit on Sustainable Development.

- New European Union initiatives to promote better access to public sector information and develop a European spatial data infrastructure.

In the closing session of the conference the outgoing President, Santiago Borrero from the

Colombian Geographical Institute (IGAC), welcomed the incoming President, Professor Ian Masser, President of the EUROpean umbrella organisation for Geographic Information (EUROGI). Mukund Rao from the Indian Space Research Organisation (ISRO) took over the position of President Elect.

Ian Masser was Professor of Urban Planning at ITC in the Netherlands from April 1998 until September 2002. Before that he was Professor of Town and Regional Planning at the University, of Sheffield for nearly 20 years. Educated in geography and town planning at Liverpool University, he received his Ph.D. in 1975 and was awarded a Litt.D. by the university in 1993. Professor Masser was elected President of EUROGI in March 1999. He codirected the European Science Foundation's GISDATA scientific programme from 1992 to 1997 and has acted as advisor to many international agencies, including the European Commission, Eurostat, Organisation for Economic Cooperation and Development, United Nations Development Program, and the World Bank.

Incoming President - Ian Masser

Resolutions, 6th GSDI Conference, September 16-19, 2002, Budapest, Hungary

The following resolutions were approved at the plenary session of the Conference. The full text of the resolutions, as well as the resolutions from GSDI-5, can be seen at www.gsdi.org.

Resolution 1 – Transition to GSDI Association
Resolution 2 – Reaffirmation of Goals
Resolution 3 – Awareness
Resolution 4 – Capacity Building for NSDI
Resolution 5 – Regional SDI Groups
Resolution 6 – Collaboration
Resolution 7 – WSSD
Resolution 8 – Information Dissemination
Resolution 9 – Data Access and Interoperability

Resolution 10 – Stakeholder Participation
Resolution 11 – SDI Best Practices
Resolution 12 – GSDI-7
Resolution 13 – GSDI-8
Resolution 14 – Thanks to Intergraph
Resolution 15 – Recognition

GSDI-7 – India Beckons

The GSDI-7 Conference will be held in Bangalore, India. The Conference is scheduled for February 2-6, 2004, and will be held in conjunction with the International Steering Committee for Global Map (ISCGM-11) and the Permanent Committee for GIS Infrastructure for Asia and the Pacific (PCGIAP-10). The host for the Conference will be the Indian Space Research Organisation (ISRO) and the Department of Science and Technology (DST) of the Indian Government.

India is a country with an ancient culture and proud traditions, but it is also a leader in modern technology. It possesses a strong foundation in technology and industries that blend with the Indian culture to create a vibrant society. India is well suited to host the next GSDI Conference. It has the oldest surveying agency, at 200 years, which has produced some of the best regional maps. The government has an excellent geological survey and accurately mapped geology, and it has national mapping agencies for forests, soils, groundwater, and other features. India operates a system of remote sensing satellites with up to 5.8m resolution and global coverage. Indians have excellent GIS expertise going back more than 20 years. Like Hungary, the host of GSDI-6, the Indian Government is committed to the establishment of an NSDI.

Bangalore, The Garden City, which is known for its friendly people, is the Capital of Karnataka State. Be prepared for a salubrious climate with temperatures varying between 68 and 80°F. The official language is Kannada, but English is widely spoken and understood. It has airline connections to many major Indian and international cities, good, fast train connections, and excellent local transportation via taxis and three-wheelers. It is also the technological hub of India, the Indian home of many major multinational technology vendors, and is on a par with any country in the world as the host of various public and academic institutions.

Good accommodations are available at a range of prices and a number of luxury hotels are close to the modern convention cen-

Water/wastewater utilities
Public works/local government
Oil and gas pipelines

By 2000, the organization's membership had grown to include more than 2,200 individuals, 140 user affiliates, and 150 vendor companies. The 2000 Annual Conference attracted more than 3,800 industry professionals who attended nearly 100 educational sessions. A 100,000-square-foot exhibition hall showcased hardware, software, and services provided by more than 140 vendor companies. In addition, the educational opportunities available to members were expanded to include Web-cast seminars, conferences and seminars sponsored by 18 local chapters, new association publications, the annual ExecuNet Forum, and the GIS for Oil & Gas Conference.

GITA has a rich heritage—it is unparalleled in promoting geospatial information technology and the markets it serves. Every day, its staff, members, Board of Directors, and many volunteers emphasize its commitment to maintain GITA's focus on the present as it embraces its vision of the future.
www.gita.org

International Program Manager — Mr. Keith Thackrey

Mr. Keith R. Thackrey has joined the FGDC as the representative from the National Imagery and Mapping Agency (NIMA). He will serve as a GSDI liaison from the FGDC Secretariat.

Keith received his Bachelor's Degree from Duke University in 1975 and has a Master of Arts Degree in political science from The American University in 1977 and a Master of Science Degree in geodetic engineering from the Virginia Polytechnic Institute and State University in 1989. He worked for several years on political campaigns and worked several months on an internship in the U.S. House of Representatives and as a legislative aide at the Virginia General Assembly. He was a field operations assistant for the 1980 decennial census.

In 1980, Keith began his Federal career with the Defense Mapping Agency (DMA). During his career, he has worked in virtually every aspect of production, from source material collection and packaging, through product generation and dissemination. He has supported several major acquisitions, including all aspects of the DMA Digital Production System modernization program. In 1996, DMA joined with several other Department of Defense and Intelligence Community organizations to form NIMA. Keith served as a functional manager for the Imagery and Geospatial Community shortly after the creation of NIMA. Since then he served as a liaison from NIMA to the National Reconnaissance Office, supporting the acquisition of new imagery collection systems, and most recently, back at NIMA, he worked, on the preacquisition phase of the modernization program for the National System for Geospatial Intelligence (NSGI) Enterprise Architecture.

Keith completed the Advanced Management Program with the Information Resource Management College of the National Defense University and holds Chief Information Officer certification, as well as the GSA 1000 x 2000 certification. He is a member of the International Who's Who for Professionals. Keith and his wife Jeanie, also an employee of NIMA, have achieved nothing else in their lives that can rival the accomplishment of raising two daughters.

SDI-Africa Newsletter

There were many activities in Africa over the past months, too many to list here. An excellent source for information on African SDI activities is the SDI-Africa Newsletter http://gsdi.org/docs/SDIA/sdiav1n13.txt. Back issues of the newsletter can be viewed at the GSDI Web site www.gsdi.org.

sented and discussed at the INSPIRE expert group meeting in Athens in October 2002. They provide the basic material for an Internet consultation on the future INSPIRE legislation that will be launched in the first quarter of 2003.

The current schedule should allow the European Commission to adopt a proposal for INSPIRE framework legislation in 2003, which will then be subject to negotiations in the European Parliament and Council, a process that can take 2-3 years. In the meantime, the Commission will prepare concrete implementing measures to be adopted shortly after the final adoption of the INSPIRE legislation.

International Standards: Key to the GSDI

International Standards Organisation Technical Committee 211 (ISO/TC 211), Geographic information/ Geomatics, supports development of the GSDI through international standardization in geographic information. International standardization promotes data sharing at the global, continental, regional, national, and local levels. There are 40 standards projects listed in the ISO/TC 211 program of work. These standards provide a framework for the development of sector-specific applications using geographic data. Many of these standards are in advanced stages in development, and work is underway to implement them in the SDIs of various countries.

Currently, 29 nations are participating members (P-members) of ISO/TC 211, with voting privileges on standards documents produced through ISO/TC 211. Twenty-seven other nations are observing members (O-members) that can access ISO/TC 211 standards documents and participate in technical development but do not have voting privileges.

ISO/TC 211 and GSDI

ISO/TC 211 and GSDI have established liaison relationships to share and coordinate information about their activities. Olaf Ostensen, Chair, ISO/TC 211, was recently named representative from ISO/TC 211 to GSDI. Santiago Borrero and Dr. Alan Stevens are representatives from GSDI to ISO/TC 211.

The SDI Cookbook (www.gsdi.org/pubs/cookbook/cookbook0515.pdf), Version 1.1, published by GSDI, highlights several standards being developed by ISO/TC 211 that promote data sharing and the development of SDIs. ISO 19109, Geographic information - Rules for application schema, provides a consistent set of rules for classifying geographic objects that will increase the ability to map one classification to another. ISO 19110, Geographic information - Feature cataloging methodology, defines a consistent methodology for creating catalogues to store the identity, meaning, representation, and relationships of geographic objects that will enhance the ability to map one catalog to another. ISO 19115, Geographic information - Metadata, provides a schema for geographic information metadata, including information about the currentness, accuracy, content and attributes, sources, prices, and coverage of the data. A standardized conceptual schema for metadata allows users to find geographic information and evaluate the suitability of the data for use in their applications.

ISO/TC 211 has submitted a draft chapter on terminology for inclusion in a future revision of the SDI Cookbook. Doug Nebert, Editor of the GSDI cookbook, has invited ISO/TC 211 to submit other chapters.

The GSDI encourages current O-members to become P-members and encourages non-members to follow or participate in ISO/TC 211 activities though their ISO member bodies (see ISO members, www.iso.ch/iso/en/aboutiso/ isomembers/index.html). To learn more about the organization and activities of ISO/TC 211, visit www.isotc211.org.

POC: Julie Binder Maitra
       FGDC Standards Coordinator
       Vice-Chair, INCITS Technical Committee L1,
          Geographic information
       Phone: +1-703-648-4627
       E-mail: jmaitra@fgdc.gov

GITA and GSDI Form Partnership

The GSDI will be strengthening its relationship with the Geospatial Information & Technology Association (GITA). The two organisations, sharing many goals, will work closely together in the future in a spirit of cooperation and collaboration.

A Brief History of GITA

Back in the late 1960s, a group from Public Service Company of Colorado was among the first to develop an automated mapping/facilities management system. It was revolutionary for its time and provided significant advantages in efficiency and cost-effectiveness for the company. People saw the technology's potential and in 1978 decided to hold the first "Keystone Conference," which attracted 32 attendees. In 1982, a formal not-for-profit organization was chartered to serve this growing industry with an educational forum to exchange ideas and keep up with changing technologies. The association was named AM/FM International, reflecting a revolutionary new technology that was sweeping the utility industry.

AM/FM International provided vision and leadership in educating individuals interested in implementing AM/FM/ GIS technology. In 1998, AM/FM International changed its name to the Geospatial Information & Technology Association to better reflect the association's new focus. GITA's mission is to provide excellence in education and information exchange on the use and benefits of geospatial information and technology in telecommunications, infrastructure, and utility applications worldwide.

The industries that GITA serves are defined as infrastructure-based organizations that can benefit from the application of geospatial information technologies. These industries include the following:

> Electric utilities
> Gas utilities
> Telecommunications companies

- A workshop to support the countries that are soon to join the European Union (Prague in September 2002) in building sustainable GI capacity

- A workshop of Mediterranean countries to be held in Crete in April 2003, with the aim of producing a model of collaboration for the whole Mediterranean area.

Development of a European Geographic Information Strategy

Developing a cohesive European strategy for GI is the central objective of the project as a whole. The activities highlighted above aim at learning from other people's experiences through doing comparative case-studies, raising awareness, disseminating best practice, and building organisational and institutional capacity. In addition, the project has established government and industry panels to formalize the input of these important communities to the development and implementation of the European GI strategy. These panels, established during 2002, will play a central part in setting the terms of reference and developing a business plan for the GI Strategy.

We are sure that the meetings and discussions that took place at GSDI 6 will provide a major input to the activities of GINIE, and vice versa. For additional information on the activities of GINIE, please see our Web site: www.ec-gis.org/ginie.

INSPIRE
Infrastructure for Spatial Information in Europe

europa.eu.int/comm/environment/geo/index.htm

A regional initiative in a global context

After several attempts to stimulate the establishment of a harmonised SDI in Europe, the European Commission has recently launched a new initiative aimed at setting off a major effort to deal gradually with the problems of scattered spatial information in Europe.

At this first stage, the INSPIRE initiative has a restricted focus. Geographically, it focuses on the EU and its future members. As regards the sectors, it focuses on environmental policy making and targets mainly the citizen and those stakeholders involved in the preparation, implementation, and evaluation of environmental policy.

However, the INSPIRE initiative has the firm intention to overcome in the long run the above-mentioned restrictions by extending the scope to other sectors than environment and by being linked to what happens on the international scene. In the short run, INSPIRE will follow established international standards, where available. In the end, we anticipate an active contribution from Europe to the establishment of the GSDI.

What is the INSPIRE initiative and why is it needed?

Good policy starts with quality information. This is increasingly recognised by policy-makers, and it influences the way new policies are being prepared today. In the field of EU environmental policy, for instance, the Sixth Environmental Action Programme emphasises the need to base environmental policy making on sound knowledge and participation, principles that will influence the Union environmental policy making for the next 10 years.

In Europe, much high-quality spatial information is available at the local and regional levels, but this information is difficult to exploit in a broader context for various reasons. The situation on spatial information in Europe is one of fragmentation, gaps in availability of geographic information, duplication of information collection, and problems in identifying, accessing, or using data that are available. Because of these problems, effective EU policy actions suffer from a lack of monitoring and assessment capabilities that take into account the spatial dimension.

Successful implementation of the INSPIRE initiative will help to attain the objectives set out in the Commission's White Paper on European Governance. It will help the Commission establish more coherence in its policies by better integrating the common territorial dimension and will improve policy coordination, which is part of a new approach to policy making as stated by the Community Sustainable Development Strategy. It will allow better participation by presenting information in a clear, understandable way at national and local levels. Finally, it will help to make European governance more effective by supporting the evaluations of what impact EU policies will have.

The approach to the preparation of INSPIRE

A Common Infrastructure for Spatial Information in Europe can only be realised in the long run; therefore, a step-by-step approach is being developed. The first step is the adoption of a European Council and Parliament framework legislative act addressing a range of issues common to all sectors and developing the environment sector as the first for which spatial information is to be made available.

The state of play

Several services of the European Commission jointly started in mid-2001by preparing the INSPIRE initiative, with strong support from the European Environmental Agency.

Since September 2001, an INSPIRE expert group chaired by the European Commission has been in place, with representatives from the member states, candidate accession countries, international organisations, and umbrella organisations. At its Vienna meeting in December 2001, the INSPIRE expert group set up the organisational structure for the preparation of the INSPIRE initiative, with the creation of six INSPIRE working groups addressing the different issues to be covered by the INSPIRE framework legislation.

In September 2002, all the INSPIRE working groups produced position papers, stating the working groups' recommendations on the provisions to be included in the INSPIRE framework legislation. These papers are available on the Internet and were pre-

- Promoting the development of strong national GI associations: an important element of EUROGI's strategy is to create the institutional capacity to take a lead in formulating and implementing such development.

- Improving the European spatial data infrastructure: Although many of the main elements of a European infrastructure are already in place in different countries effective mechanisms are lacking for promoting greater harmonisation and interoperability between countries.

- Representing European interests in the global spatial infrastructure debate: In an era of increasing globalisation, it is essential that Europe does not evolve in isolation.

With these strategic objectives in mind, EUROGI published a consultation paper entitled "Towards a strategy for geographic information in Europe." Its starting point was the belief that positive steps are needed to fill the current void in GI strategy at the European level. This paper sets out a framework for the first stage of such a strategy and outlines several measures that will bring it into being. Following the publication of this paper, EUROGI, together with the Joint Research Centre, OGC Europe, and the University of Sheffield, submitted a proposal for partial funding of this strategy to the Commission as an Accompanying Measure under its Fifth Framework for Research and Development in October 2000. The research programme subsequently agreed with the Commission in connection with the GI Network in Europe (GINIE) project.

GINIE: Geographic Information Network in Europe

Max Craglia, University of Sheffield
gisdata@sheffield.ac.uk

GINIE is a project funded by the Information Society Technologies Programme of the European Union, running from the 1st November 2001 to the 31st October 2003. Its main purpose is to develop a cohesive GI strategy at the European level, and address the organisational, institutional, and political challenges that have long been recognized as crucial to the development of a European Spatial Data Infrastructure. To do so, GINIE brings together three crucial sets of players: the national and pan-European GI associations represented by EUROGI, the European Commission, represented by its Joint Research Centre, and industry through the European arm of the Open GIS Consortium. The project is coordinated by the University of Sheffield, one of the OGC members, which is also strongly linked to the European GI research community.

The overall aim of the GINIE project is to establish and promote a European strategy for GI. To do so, GINIE is structured around a series of key activities that include the following:

- developing a sound knowledge base through the comparative policy analysis of frameworks for access, use, and dissemination of GI in the wider Europe and beyond
- raising awareness and capacity building
- contributing to the international and European debates

- establishing government and industry panels to help formulate a cohesive European strategy for GI and a business model to make it work

GINIE's Contribution to the GSDI effort.

Given the objectives of the project, it can be argued that all the activities of GINIE are a contribution towards the development of a GSDI, from a European perspective. This is certainly the case. However, there are some activities in the project that are specifically designed with a global perspective in mind. They are highlighted below:

Establishment of a European View on the Global Perspective Related to GI

Within the framework of this overall set of activities, GINIE organized a workshop on National Spatial Data Infrastructures in Italy in May 2002 with the participation of experts from Europe and the United States. They analysed the points of strength and weakness of their experiences and produced recommendations for action at the European level. Fourteen countries were represented at this workshop, and the full country report was released before the GSDI 6 Conference in Budapest, with a summary presented at the Conference itself.

Through the findings of this SDI workshop and also the one on Data Policy in Europe that GINIE also held in May 2002, the project contributed to the GSDI 6 discussions and will subsequently contribute to the legal and economic GSDI Workgroups and to the revision of the GSDI Cookbook with a stronger European input.

Following these events, GINIE wll also organize the following events:

- A workshop on local-to-global infrastructures to be held in Rome in March 2003 to evaluate the institutional, organisational, and technical mechanisms put in place in different countries to integrate national, regional, and local level spatial data to support good governance and services.

- An indepth comparative study of SDIs in Canada, the United States, and Australia to learn from these experiences and also establish Memoranda of Understanding between European and international organisations in charge of SDI coordination to help support and coordinate their activities.

GI capacity building and awareness raising

This part of the project is critical because there is little point in developing strategies at European or global levels if there is no institutional, organisational, and human capacity to implement them. Therefore, GINIE activities include the following:

- The analysis of existing national GI associations or coordinating bodies with a comparative analysis of alternative models to develop guidelines of best practice

tre. There are many things to see and do in the area, including the Nandi Hills, a picturesque hill-site, the Nagarhole Tiger Reserve, and the Lalbagh Botanical Gardens; it is within 600 km of Mysore, Ooty, Chennai, Kerala, Hyderabad, and Goa.

Potential themes for GSDI-7 include "Spatial World," "SDI - The Technologies and Policies," and "Empowerment and Good Governance." The tentative programme features a preconference tutorial, PCGIAP sessions, ISCGM sessions, Map India 2004, Map Asia 2004, and international exhibitions. The Conference itself will have one 2-hr plenary on a major topic daily, four or five speakers and discussions, presentation sessions, both parallel and joint, 1-hr panel debates on key topics, posters, and tele-sessions.

The subject of the Pre-Conference Tutorial will be "SDI - the technologies and policies". It will be held over 5 days from January 27 to 31, 2004 (Tue. to Sat). From 50 to 75 participants are expected, many from Asia-Pacific nations. The tutorial will focus on global case studies and on global programmes, such as ISCGM, Global Map, The International Society for Photogrammetry and Remote Sensing, and others.

The subject of the exhibitions will be "Spatial World." The focus will be on the international SDI agencies and will bring to the Asia-Pacific area the best technology and applications showcasing SDI. The exhibitions will feature successes and achievements in SDI, highlight future aspects, and target global exhibitor groups from industry, government, academia, research institutions, and nonprofit institutions, with about 100 exhibitors. The map world exhibition will be open to the public. Other events and features around the Conference will include excellent pre- and post-conference tours, an Internet facility, a VSAT network for telesessions, demonstration booths, secretariat support, receptions, dinners, and high tea.

In short, a good conference and a good time. We will see you in Bangalore.

Editor's Note: There are many activities going on around the world related to the global spatial data infrastructure, too many to adequately cover in a single newsletter. This edition will focus on activities within Europe. Future editions will cover activities in other regions in more detail.

EUROGI an overview

In 1991, the DG XIII (now the DG Information Society) of the European Commission set up a study group to consider the desirability of establishing a European-wide association to promote the use of geographic information (GI) at the European level. This group presented a vision of European Umbrella Organisation for General Information (EUROGI) is an organisation that would not "replace existing organisations but ... catalyse effective cooperation between existing national, international, and discipline oriented bodies to bring added value in the areas of Strategy, Coordination, and Services.'"

The group proposed establishing a EUROGI at a meeting in Luxembourg in November 1993 that was attended by delegates from 14 European countries and 6 pan-European organisations. These delegates formally resolved to set up EUROGI and elected Michael Brand as its Founder President, together with an eight person Executive Committee to produce a work plan regarding some of the most important issues identified by the team).

EUROGI is an independent non-Government organisation that seeks to develop a European approach towards the use of GI technologies. Its mission is to maximise the use of GI for the benefit of citizens, good governance, and commerce. With this in mind, it promotes, stimulates, encourages, and supports the development and use of geographic information and technology and also acts as the voice of the wider European GI community (www.eurogi.org).

Its membership is drawn from two categories: national GI associations and pan-European organisations. Currently, EUROGI has 22 national and 3 pan-European members. Throughout its existence, EUROGI has experienced a slow but steady growth in the number of its national members. Its current membership includes representatives from all 15 EU countries, together with Iceland, Norway, and Switzerland. Recently there has been a lot of interest from the Central and East European countries that plan to join the EU. Hungary and Poland have been full members of EUROGI for some time, and the Czech Republic and Slovenia have become candidate members in the last 2 years. Overall, these countries represent more than 6,000 member organisations.

EUROGI is a 'stichting' under Dutch law that supports a small secretariat based in Apeldoorn in the Netherlands. This consists of a full-time Secretary General (Bino Marchesini), an Assistant Secretary General (Karen Levoleger), and some contract staff. The activities of EUROGI are managed by the Secretariat in conjunction with an Executive Committee elected by its members, which meets four times a year. Seats on this committee are currently held by representatives from the British, Danish, French, German, Hungarian, Italian, and Swiss national associations and the European association of national mapping agencies (Eurogeographics). Under its statues and bylaws, EUROGI must convene a General Board meeting once a year to approve its work plan and budget. This meeting also approves any proposed changes in the statutes and bylaws and elects its President (every 2 years) and its Executive Committee (on a rotational basis).

The current activities of EUROGI are linked to the following five strategic objectives:

- Encouraging greater use of GI in Europe: this is the overarching goal as it is vital to ensure that GI is used as widely as possible in both the public and the private sectors, as well as by individual citizens in the interests of open government.

- Raising awareness of GI and its associated technologies: there is a continuing need to raise awareness in the community as a whole regarding the importance of recent advances in technology and their potential for an increasing range of applications.

Global Spatial Data
Infrastructure Secretariat

Global Spatial Data Infrastructure
590 National Center
Reston, Virginia
USA 20192
Phone: +001-703-648-5455
Fax: +001-703-648-5755
E-mail: gsdi@gsdi.org

We're on the web at
www.gsdi.org

Upcoming Conferences:

March 20-21, 2003
Brussels, Belgium
EUROGI Members Day and Board Meeting
www.eurogi.org

April 24-26
Lyon, France
AGILE 2003: The Science Behind the Infrastructure
agile2003.insa-lyon.fr/

May 2003
Nairobi or Addis Ababa
UNGIWG annual meeting

June 2003
San José, Costa Rica
PC IDEA 4th Annual Meeting

May 12-16, 2003
Addis Ababa, Ethiopia
The 3rd Meeting for the Committee on Development
Information
www.uneca.org/eca_resources/Conference_Reports_an
d_Other_Documents/disd/codi/default.htm

May 22-23, 2003
Switzerland
16th ISO TC211 Plenary Meeting
www.isotc211.org/calendar.htm#Upcoming

July 12-14, 2003
Okinawa, Japan
GM Forum 2003
www.iscgm.org/html4/index_c1_s1.html#doc2_org.iscg
m.schedule.gmf03

July 14-18, 2003
Okinawa, Japan
15th UNRCC-AP
www.gsi.go.jp/PCGIAP/okinawa/okinawa_rep

July 14-18, 2003
Okinawa, Japan
PCGIAP
www.gsi.go.jp/PCGIAP/okinawa/okinawa_rep

July 20-25, 2003
Cambridge, UK
Cambridge Conference
www.cambridgeconference2003.com/

July 25, 2003
Cambridge, UK
10th Meeting of ISCGM
www.iscgm.org/html4/index_c1.html#doc1_org.iscgm.s
hedule

September 21-25, 2003
Digital Earth 2003 Conference
Brno, Czech Republic
digitalearth03.geogr.muni