Community buliding

Building Online Communities of Practice

Foreword

Information and communication technologies are developing at a breath-taking pace. They repre-sent the foundation of the coming Information Society which will establish completely new struc-tures in economy and society. This process is chiefly characterised by the globalisation of com-munication and of all activities linked to it.

National frontiers are losing their significance. We are becoming global players, and services and goods can be produced in any part of the world. At the same time there is no aspect of human life and no group in society which is not affected by the new information networks and their potential for growth, wealth-creation and prosperity.

In order to exploit this potential we urgently need international cooperation at all levels and on all factors which impede the full development of the Information Society.

In view of this challenge the German government has always placed great emphasis on global cooperation. This was reflected in its active role in the Global Information Society initiative taken by the G 7 Heads of State and Government at the summit meeting in Naples in July 1994 and at the subsequent Ministerial meeting in Brussels in 1995 which launched eleven pilot projects for the Global Information Society.

I am delighted to present the final report on this work to the public on the occasion of the Co-logne G 8 summit meeting, which is being held under the German presidency.

The pilot projects are an impressive demonstration of the potential of the Information Society in many areas, such as commerce, culture, education, the environment, health and public administra-tion. They have led to the establishment of new structures of cooperation which will remain effec-tive even after the end of the pilot phase. The involvement of a growing number of Non-G 8 countries, including developing countries, was one of the most encouraging aspects of the pro-jects, as was the participation of representatives from industry and research.

With an enhanced exchange of information and experience the work has raised awareness of po-tential applications and of policy requirements. The projects have also yielded more tangible re-sults like memoranda of understanding and have given an impetus for standardisation and the de-velopment of new goods and services.

This was done without any new institution or new funding: the process relied on the goodwill and the commitment of the participants.

I hope that the global cooperation to which the pilot projects have contributed, can be further developed and extended.

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Federal Minister of Economics and Technology

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The G 8 Global Information Society Pilot Projects

Final Report

The information society is developing at a rapid pace. It is changing the way business is done in the private and public sectors and is having real impact on the lives of citizens. The Global Infor-mation Society initiative taken by the G7 Heads of State and Government at its summit meeting in Naples in July 1994 and the subsequent Ministerial meeting in Brussels in 1995 with the launching of eleven pilot projects has catalysed thinking and action for the information society in areas such as commerce, culture, education, the environment, health and public administration. It has encou-raged public and private sectors to work together and has led to new common platforms and net-works for cooperation, involving industrialised and developing countries. It has stimulated the creation of markets for new products and services. A number of techni-cal and other obstacles have been identified related to the implementation of practical applica-tions. In some cases work will continue through collaboration in appropriate international fora.

This final report reviews achievements and future pro-spects.

1. Terms of reference

The pilot projects had a number of key objectives. They were set up to

? support the goal of international consensus on common principles governing the need of ac-cess to networks and applications and their interoperability;

? establish the groundwork for productive forms of cooperation among G7 partners in order to create a critical mass to address this global issue;

? create an opportunity for information exchange leading towards the further development of the information society;

? identify and select projects of an exemplary nature having tangible and clearly under-standable social, economic and cultural benefits which demonstrate to the public the po-ten-tial of the information society;

? identify obstacles related to the implementation of practical applications serving the creation of a global information society;

? help to create markets for new products and services, where appropriate.

Several guiding principles were agreed for selecting and implementing the project themes in-cluding:

? adding value for the development of the information society;

? being relevant to the citizen;

? stimulating cooperation;

? encouraging open access and

? bringing in other countries.

In particular, the pilot projects should not create new bureaucracies or institutions, and should be financed by existing programmes.

2. The pilot projects – Highlights of results

Global Inventory Project (GIP)

Implemented as an infrastructure of decentralised national inventories, the Global Inventory Project has established a single access point for information on approximately 4000 projects and studies on the development of the global information society. Many sites all over the world are accessible on a multilingual basis, and interest in this inventory is still growing.

Global Interoperability of Broadband Networks (GIBN)

This project has accelerated the development of globally interconnected and interoperable broadband information infrastructure, essential to the global information society of the 21st century. It demonstrated a series of advanced broadband applications, raised the general awa-reness of their potential and contributed to the development and deployment of advanced tech-nology, products, services and networks.

Transcultural Education and Training for Language Learning (Tel*Lingua)

The project aimed to give producers, teachers, trainers and citizens a single ac-cess point to re-sources and experiences for language and transcultural

lear-ning through an international net-work of servers. An operational prototype was set up and helped to lay the ground for several virtual language servers. These services follow similar structures in different languages.

Electronic Libraries: Bibliotheca Universalis

This cultural project has coordinated part of the digitization programmes of the participating libraries through an agreed theme for document digitization Exchanges between people. It also led to the establishment of a formal agreement to pursue this co-operation on organisatio-nal and technical aspects.

Multimedia Access to World Cultural Heritage

The project has coordinated the combined experience gained by each country in the field of methodological and technological standards thus enhan-cing the international multilanguage he-ritage with specific projects such as the Multilingual Thesau-rus of Religious Objects of the Roman Catholic Church.

Environment and Natural Resources Management (ENRM)

The project created the necessary tools for establishing a virtual library of environmental and natural resources mana-gement using international standards for networked information, dis-co-very and retrieval. It reached an international consensus on a Global Environmental Infor-ma-tion Locator Service for climate change, biological diversity and other resources.

Global Emergency Management Information Network Initiative (GEMINI)

GEMINI covered through demonstration projects and conferences the areas of net-works, communication, support functions and specific hazards with the aim of taking advan-tage of in-formation society tools to help in emergency management on a global scale. The project has been instrumental in laying the ground for a follow-up initiative to develop a Global Disaster Information Network.

Global Healthcare Applications (GHAP)

Subprojects demonstrated how medical databases, images, health cards and computer based training material can be used internationally, and how remote second opinions in the diagnosis and treatment of cancer and heart disea-ses can be achieved. The project contributed to the set-ting of global standards.

Government On-Line (GOL)

The project focused on ways of providing on-line services to citizens. Collaboration in 32 key subject areas has resulted in shared approaches, identified best practices, and given added im-petus on the development of new policies and actions around the world.

Global Marketplace for Small and Medium Enterprises (SME)

Concentrating on increased competitiveness and participation in global trade for smaller com-panies, the project set up an international business information network on the Web. It success-fully catalysed a common vision

of electronic commerce policy development around the world, supported some thirty international testbeds and published a best practice guide for SMEs.

Maritime Information Society (MARIS)

MARIS supported applications of information technologies in the maritime sector – creating synergies and new solutions for the benefit of maritime industries. The project actively contri-buted to standardisation in the field and established global and regional maritime information and collaboration networks.

A detailed description of all projects and their results can be found in the Annex.

3. Assessment

The G8 pilot projects succeeded in giving strong impetus to

-an enhanced exchange of information, experience and expertise in the various project areas on a global level reaching far beyond the G8 countries

-the establishment of strong cooperative links between various partners in the world leading to a substantial number of concrete projects and initiatives

-demonstrating the potential and raising the awareness of information society applications

-promoting cultural diversity and demonstrating the importance and feasibility of multilingual applications

-the worldwide establishment of physical infrastructures and applications as well as of co-operation networks

-identifying barriers regarding the implementation of applications and ways to overcoming them

-the development of new products and services.

The work has contributed substantially to the promotion of standards in infor-mation networks and has given inputs to digitise information resources and promote their dissemination.

Operative cooperation structures were established which will be kept alive after the end of the pilot project phase.

The pilot projects have given an important input to policy development and have led to inter-national agreements.

In line with the Ministerial decision in Brussels in 1995, the pilot projects were implemented without the creation of new bureaucracies or institutions, and were financed by existing pro-grammes.

4. Conclusions and Perspectives

The G8 Global Information Society pilot projects have successfully demonstrated the potential of the Global Information Society in areas such as commerce, culture, education, the environ-ment, health and public administration.

They have stimulated cooperation of various actors in G8 and Non-G8 countries thus foste-ring a common vision and direction of information society applications.

This growing involvement of Non-G8 countries including developing countries was one of the most en-couraging achievements and reflects the global character of the new information society.

The pilot projects will have a lasting effect through the establishment of cooperative structures and the continuation of various joint projects and initiatives, the generation of various inputs for discussion and negotiation in national and international fora, and the support of knowledge and technology transfer to third countries including developing countries. The continuation of these efforts should be encouraged in the appropriate national and international frameworks.

Annex

Theme 1: Global Inventory Project (GIP)

Theme 2: Global Interoperability for Broadband Networks (GIBN)

Theme 3: Transcultural Education and Training for Language Learning (Tel*Lingua)

Theme 4: Electronic Libraries (Bibliotheca Universalis)

Theme 5: Multimedia Access To World Cultural Heritage

Theme 6: Environment and Natural Resources Management (ENRM)

Theme 7: Global Emergency Management Information Network Ini-tiative (GEMINI)

Theme 8: Global Healthcare Applications (GHAP)

Theme 9: Government On-line (GOL)

Theme 10: Global Marketplace for Small and Medium Enterprises (SME)

Theme 11: Maritime Information Society (MARIS)

Global Inventory Project (GIP)

G8 Pilot Project Theme 1

Final Report

1. Purpose and Objectives of the Pilot Project

The purpose of the Global Inventory Project (GIP) was to provide a one stop facility on the World Wide Web by linking distributed national and international inventories of projects, studies and other activities relevant to the promotion and the further development of knowledge and un-derstanding of the Global Information Society.

The objectives of the Global Inventory Project were set as the following:

1To act as an international point of reference that will assist in the promotion of the Infor-mation Society,

2To establish a network for the free exchange of information about national and interna-tional initiatives relating to the Information Society (electronic forum),

3To promote and gain understanding of the impact of the Information Society activity on the economy, industry and society as a whole,

4To foster international alliance building and multinational projects and investments.

The Global Inventory Project was launched in 1995 as a G7 Information Society pilot project, un-der the leadership of the European Commission (chair) and Japan (co-chair).

2. Accomplishments

The members of the G8-GIP Steering Committee agreed that the pilot service has reached the objectives and expectations: it provides a single multilingual window to a large number of projects related to the Information Society providing clear interfaces and ways to welcome further contri-butions and partners. Its success was achieved by a cooperative effort of the participating G8 and non-G8 countries.

The resulting Global Inventory is accessible at http://www. gip. int. Its original and transferable solutions add value to similar initiatives carried out by other countries. It is of interest and of use to businesses, in particular SMEs; it illustrates innovative information technologies and best prac-tices; it is significant from an educational and training point of view; and it fosters

research and development geared towards the advancement of the Information Society.

The Global Inventory is a real working system, using advanced state-of-the-art technology. It uses standard World Wide Web browsers, making it easily accessible. The GIP is designed to be a de-centralised inventory; participating countries use their own national servers for their national in-ventories, although the GIP server is also available as an offshore host. Each inventory is a self-contained unit with indexing and search capabilities. All indexes are combined on the GIP host to create a global master search index of all national entries based on a multilingual keyword search. Data entry is based on a common Minimum Data Set. The central server is hosted by ISAC (Information Society Activity Centre) of the European Commission, to which the individual, na-tional inventories are linked.

The Global Inventory makes information accessible to all in several languages. At the moment, Arabic, French, German, Italian, English, Japanese, Spanish, and Portuguese are supported.

An electronic forum provides an opportunity for the creation of partnership, and for sharing of experiences. This constitutes opportunities for creating alliances for the development of Informa-tion Society applications.

The number of GIP database entries, including national inventory links, off-shore links, NGO links and a number of R&D and other programm-based links, totals currently 3. 760 entries and the number of GIP website customer hits amounts to 14. 000 hits per day in February 1999. Approxi-mately eighty-five country domains contacted the GIP servers.

The visibility of the GIP has been promoted by all partners in several international conferences. Special GIP Awareness days were organised, leading to an increase of customers. Technical sup-port as well as public relations materials were provided. In this way, the GIP has envolved beyond its G8 boundaries and now welcomes the participation of all countries, international institutions, non-governmental organizations, initiatives of the private sector etc., having interest in developing a strategy towards the deployment of the Global Information Society and wishing to share in this experience.

The participating countries include the original G7 countries (Canada, Germany, France, Italy, Japan, United Kingdom, United States), and also the Republic of Korea, Switzerland, Egypt, Po-land, as well as South Africa. Other entities include the European Commission, Global Bange-mann Challenge, AGIP (African Global Inventory Project) and PICTA (Partnership for ICT in Africa), The World Bank, and the Internet Fiesta initiative.

All partners have contributed to the success of the GIP. Its achievements and its impact are:

? The coordination of physically distributed inventories through a simple and robust data struc-ture and a simple management structure (GIP Steering Committee),

? The integration of various independently developed databases, expanding out of the initial ker-nel of the few founding IS inventories,

? The provision of a multilingual interface, easily extensible to new language interfaces,

? The rapid and efficient handling of initiatives through an off-shore service,

? The potential of the software to monitor the development of the Global Information So-ciety and to provide on-line services (catalogue, newsletter, posted requests, forum, etc).

The GIP has had a positive impact on implementing the G7 initial goal to demonstrate the poten-tial of the Global Information Society and to promote its deployment. It is a true example of in-ternationalization of efforts.

The Global Inventory Project has had an enormous success in attracting, through its national in-ventories, a lot of individual sites of various sectors, also in countries outside the G8 area. It al-lows to identify Information Society related activities world-wide, in many national languages. This led to a strong interest, and the number of visitors to the GIP site has enormously increased, confirming the usefulness of the Global Inventory Project, and the need for such an inventory.

3. Conclusions and Perspectives

The Global Inventory has the potential to become an important global reference point for the Global Information Society. Relevant information can be exchanged world-wide. The end of the pilot phase is now the opportunity to define its definite operational structure.

A number of proposals concerning further development of the GIP as a service have been made. For instance, the content should be increased to achieve more added value, editing should be given more attention, and the multilingual functionality should be further promoted. However, only a strong international multilateral commitment to invest in the service would lead to success.

ISAC, the Information Society Activity Centre of the European Commission, will run the main GIP server up to the end of 1999 with internal resources. The national inventories of the partners will be maintained in the same way. The G8 partners are establishing a plan for the continued ser-vice of the GIP, depending on the commitment and the willingness of the partners to its con-tinua-tion. This might include a clear definition of the mission of the GIP for the future, its opera-tional structure, and the benefits to users, like citizens, government or industry. Part of the plan will be the further extension of the GIP to countries outside the G8 environment.

In late 1999, a workshop will be arranged to review the role, the achievements and the impact of the GIP, and to pave the way for its continuation.

Further information: http://www. gip. int

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Multimedia Access To World Cultural Heritage

G8 Pilot Project Theme 5

Final Report

1. Purpose and Objectives of the Pilot Project

The pilot project Multimedia Access to World Cultural Heritage, whose leadership has been as-signed to Italy, was based on a combined experience gained by each country in the field of infor-ma-tion exchange on cultural heritage and information products, thus operating within a long-term stra-tegic cooperation.

The main objective of the pilot project was to encourage the development of new applications and the identification of themes in the multimedia sector, in particular considering both the fruition of the artistic heritage through the use of infrastructures of information networks and the standardi-sation of the access ways by multimedia products.

The key objectives of the project could be identified in the following themes:

? Interoperability among databases of the cultural heritage;

? Availability of the software products and services in telecommunications networks in view of the multimedia access to the world cultural heritage

? Intellectual property and copyright protection, information storage and security.

As to the specific aims of the G8 programme, priority has been given to the identification and en-hancement of the achievements made by the initiative. The lack of adequate funds to develop new projects pursuing the programmed objectives encouraged such a choice. Therefore, especially in the preliminary stages attention was devoted to coordination and identification of those activities and projects that started being completed nationally and internationally, according to the goals of the pi-lot project.

This orientation brought about an immediate operating impetus involving institutions and compa-nies responsible for such projects and allowed to encourage and further develop activities and projects on well identified aims and objectives, thus avoiding the risk of losing resources and fa-vouring a single orientation so as to add value to the single contributions.

By doing so initiatives offering the opportunity of establishing and creating multimedia databases have been identified and fostered, the aim being a greater dissemination of information on the cul-tural heritage.

Particularly four operating areas have been identified and given top priority for the pilot project:

1. Presentation of the cultural heritage and dissemination of information – qualitative standards for the utilisation of the cultural heritage, standard for the cataloguing and digitalisation sy-stems as well as for multi-language communication (dictionaries, thesauri).

2. Legal aspects relating to the correct use – intellectual and property rights, information storage and security.

3. Research and technological developments – standards for systems interoperability, multimedia technological applications, telecommunications networks, user interfaces, networked research and surfing engines.

4. Testing and application – application in the field of storage and management of the cultural heri-tage, including the priority based identification of data entry, applications in education and train-ing within the cultural tourism and entertainment, requirements induced by a number of users.

2. Accomplishments

For the objectives to be achieved, the project has been in close contact both with initiatives aimed at comparing standards to ease the interoperability among netwo