EPRI ⟩ watch

ACTS Meets the Regions

Proceedings of a Workshop organised by the EPRI-Watch Project in the Framework of the Concertation Meeting of the Advanced Communication Technologies & Services (ACTS) Programme.
Brussels, Royal Crown Hotel, 6th November 1996.

ACTS

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Brussels

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6th November 1996

Preface

This reader is the result of the workshop "ACTS Meets the Regions" which was organised by the EPRI-Watch Brussels Office on behalf of DG XIII-B (ACTS) during the ACTS Concertation Meeting in November 1996. The horizontal action project EPRI-Watch aims at stimulating information exchange between policy makers on the European, national and regional level and technology developers.

The ACTS Programme was established under the Fourth Framework Programme of European Activities in the Field of Research and Technological Development and Demonstration. It supports a large set of linked trials, experiments and demonstrations of communications services and technologies worldwide. With its user orientation and field trials based on the National Hosts concept it provides a rich source of telecommunications know-how and also an environments that is able to support a widespread dissemination of the foreseen benefits and experiences gained from applying advanced communications.

In order to focus the exploitation of ACTS results towards regional needs, the workshop aimed at stimulating information exchange between those involved with technology development and trials in ACTS, and those involved in the practical implementation and policy debates on Information Society issues at the regional level.

There is a great number of projects and initiatives for the development of the Information Society going on at the regional and the local level. One example is the Inter-Regional Information Society Initiative (I.R.I.S.I) of six European regions which was presented during the workshop. This initiative has led the European Commission to sponsor another 23 regions which have been selected to carry out Regional Information Society Initiatives (RISI) in the next two years. Another example for local initiatives is the Bangemann Challenge where 25 European cities carried out 125 projects in the areas of the Action Plan for 'Europe's Way into the Information Society'.

The number of ACTS projects as well as representatives from the regions present at the Workshop has shown that there is a great interest on both sides in building a bridge between ACTS and the regions in order to facilitate co-operation between ACTS projects and regional initiatives, to exchange information about best practice, and to further promote the development of the Information Society on the regional level.

This workshop reader is a first step for stimulating the exchange between ACTS projects and regional trials through mutual information. Further steps could be outlined in an Action Plan for co-operation, concerted measures and cross-fertilisation.

EPRI-Watch would like to thank all those who contributed to and participated in the workshop and hopes for their interest and participation in further steps.

Magdeburg, January 1997   Joan Schlieker

1 Challenges for the Regions

1.1 TELECOMS LIBERALISATION AND ITS IMPACT ON REGIONAL DEVELOPMENT

Summary

Mr. Luis Lozano, CEC DG XIII

The liberalisation of telecoms has far-reaching implications for regional development. Most notably, liberalisation is seen to reduce strong monopolies and thus can lead to a „national" loss. In this respect telecoms is at its most dynamic with 10% growth. The White Paper on growth highlights the importance of telecoms for industrial growth, a key factor in the stimulation of regional development.

The Road Towards Liberalisation

First stage - 1987 Green Paper

The liberalisation of telecoms can not, of course, be achieved over night, but is a goal that has to be worked towards in a number of stages. The first stage in this process was signalled by the 1987 Green Paper on the Common Market for Telecommunications Service and Equipment[1] which highlighted a number of key issues:

- the large degree of market fragmentation

- inadequacies of the market

- the effects of deregulation in the United States

As a result of these findings the following approach was adopted:

- Subsequent to the consultation process initiated by the Green Paper, a programme of action was set out by the Commission[2] calling for full liberalisation and mutual recognition. In Particular, agreement was reached on the need to establish a European Telecommunications Standards Institute (ETSI), and to define and implement an agreed set of conditions for Open Network Provision (ONP).

- From 1988 onwards, recommendations and proposed directives opened up the scope of the telecommunications policy framework to new areas such as the Integrated Services Digital Network (ISDN) and mobile communications.

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[1] "Towards a Dynamic European Economy". Green Paper on the Development of the Common Market for Telecommunications Services and Equipment. Communication from the Commission of the 30 June. (COM (87) 290 final).

[2] The programme of action set out in the Communication from the Commission, COM (88) 48 of 9 February 1988: "Towards a Competitive Community-wide Telecommunications Market in 1992 - Implementing the Green Paper on the Development of the Common Market for Telecommunications Services and Equipment - State of Discussions and Proposals by the Commission."

Second stage - 1992 Review

The second stage began with the 1992 Review which saw a consensus on the road to liberalisation. The policy process focused on three key issues related to infrastructure:

- liberalisation of the cable TV networks, enabling the provision of near multimedia services

- liberalisation of public voice telephony (full liberalisation scheduled for 1st January 1998)

- application and extension of Open Network Provision (ONP) principles

Subsequently a series of proposals and directives were formulated. Directives proposed between 1994 and 1996

- Licensing

- Mobile and satellite communication

- Interconnection

The Challenge for the Regions

The impact of liberalisation may be seen as a double edged sword, on the one hand offering opportunities (innovation and new services), on the other posing potential risks (increasing regional disparities, reinforcement of competitive advantage, threats to local jobs). The liberalisation of telecoms does indeed present a challenge for the regions, a challenge which the regions must meet head on with a steadfast proactive approach.

1.2 REGIONAL NEEDS AND PRIORITIES

Summary

Mr. Gerhard Bräunling, CEC DG XIII

The Bottlenecks of the Information Society

Several bottlenecks have been identified in respect to the Information Society and its adoption. These bottlenecks include primarily:

Awareness

At present, there is not enough awareness of the radical nature of change that is occurring due to the 'information revolution'. What does the Information Society really mean to companies? What are the implications of the Information Society for the regions? These are questions which need to be addressed. For example, companies may gain from the Information Society, but regions may lose because they have no e-mail addresses.

Attitudes

Change never comes easily. It takes time to change attitudes which have been established over a lifetime. Therefore, the attitude of individuals and organisations towards the Information Society is a key factor. Lack of confidence in the technology and the benefits it will bring, concern about system security and the long-term benefits are all pertinent considerations. Therefore, a representative cross-section of questions raised may include: How good and reliable is the technology? What are the benefits of implementing the technology? Will there be a loss of privacy? Will we loose out against global players?

Strategy

Information Society is often considered as a 'fatality that has come from above'. This presents a serious obstacle to its further development which needs to be overcome.

The Goal - shaping the future in an open society

In order to shape our future in an open society, different scenarios for different regions need to be developed. Each region has its own priorities and goals. To develop these scenarios, the following points have to be considered:

- How can future progress be achieved ?
- Do we have the infrastructure in place to meet the priorities?
- How can institutions such as universities be adapted to support the learning society?
- How can Trade Unions be integrated into this structure in order to develop a framework for new workers and teleworkers ?
- What are the networking capabilities available for regional partnerships of key players?

The Means - what makes a region successful?

The success of a region is dependent on a number of key factors:

- The state of telecommunication networks and services - there are considerable differences in the provision of networks and services between regions. Liberalisation could possibly widen this gap.
- More entrepreneurship in the public sector is needed. Private companies tend to be more entrepereneurial than public administrations. Therefore, more of an integrationalist approach is required.
- The innovative capabilities and flexibility of the regions.

In light of these 3 key factors, regions need to develop strategies and an action programme which include the following:

- analysis of demand and supply,

- development of a vision,

- formulation of a consistent and coherent strategy,

- demand led approach,

- learning from peers instead of from a book.

The development highlighted so far can be represented in the following dimensions:

1st dimension:

The first dimension embraces the push by the economy and by the technology. This dimension is insufficient in effecting the change needed.

2nd dimension:

The second dimension is the social dimension. The social dimension includes the level of awareness, the understanding of the nature of change, the availability and access to training, and consideration of communication needs. All these factors concern the possibility of access and the opportunity to participate in shaping the future.

3rd dimension:

The third dimension consists of a partnership between formally independent companies and services.

DG XIII has created fora in order to help the regions to develop the social dimension and link it to the 1st dimension. New fora and new forms of collaboration need to be put into place.

Discussion - some points to consider:

- The problem of long-term vision versus demand/user-led action programmes.

- There is more than one way to run the Information Society - regions need to be aware of this fact and find appropriate solutions to meets their own needs.

- There are distinct differences between regions in the respective degree of advancement of the private and public sectors. In Scandinavia, for example, the public sector is more advanced than the private.

- In the peripheral regions, the public sector has to take the lead and act as a catalyst to change by providing a platform for new players.

1.3 THE INFORMATION SOCIETY AND EUROPEAN COHESION

Author's Notes

Nicola de Michelis, DG XVI

At present the Commission is preparing a Communication on *Cohesion and the Information Society.*

The document:

- considers that the capacity of regions to access and use the tools offered by the Information Society is an increasingly important factor in determining their competitive position in the European and world markets; for example, information and communication technologies provide firms and industries with a range of locational choices so that they can take advantage of differential costs of operations and/or local market opportunities; they influence their capacity to quickly respond to a continuously changing economic environment through more efficient and flexible forms of organisation, and to take advantage of economies of clustering through networking;

- recognises that, in many aspects, there is still an important gap in terms of access to quality and affordability of information and communication infrastructures both among and within Member States; but, possibly more important, this gap is more significant for those factors whose sphere of influence extends well beyond the telecommunication sector and which constitute a precondition for effective entry into the Information Society such as the literacy and educational level sufficient to support the widespread use of information society services at work and at home; the role played by the private and public sectors in promoting the information society; the organisational and investment capacities to pursue an effective information society strategy; the availability of the technical support needed to facilitate the diffusion of information society activities; and the general public awareness environment - to mention but a few;

- and finally, the Communication argues that the policy approach adopted up to now at the European level is not sufficient alone to bridge those gaps and that a bold policy initiative is needed. In effect, the process of liberalisation improves the responsiveness of telecom operators and service providers to effective demand and makes them more sensitive to the costs of providing service to a given customer group or group of customers. The risk, from a cohesion perspective, is then that territories with concentrations of demand, particularly from large users, will be increasingly favoured with new investment in telecommunication infrastructure. Conversely, territories without such concentration of demand risk being relegated to the "info-deserts" of the Information Society.

Furthermore, a recent analysis of the Information Society "content" of structural interventions suggests that, overall, only a small part (about 2.0%) of the Structural Funds goes to the telecommunications sector.

The document goes on by identifying a number of policy orientations which regions, nations and the Commission itself are invited to explore:

- From a regulatory perspective, the Commission recommends Member States to discuss the liberalisation timetable without delay. Uncertainty in the regulatory environment is likely to deter new investments, precisely in those areas where the profitability of such investments is less well established. It urges Member States to launch a wide debate on the future of Universal Service.

- From an investment standpoint, the Commission invites Member States and the concerned regions to carefully assess investment decisions (also in the framework of the current ERDF programming period) so to ensure true additionality and target investment on projects that optimise the contribution to cohesion and on areas where investment would not otherwise be forthcoming under market conditions.

- Finally, Members States and regions have a major role to play in addressing the "intangible" elements of the Information Society, i.e. the existing economic, managerial and educational barriers. In other words, the Commission urges Member States, regions and localities to take the initiative by stimulating strategy formulation, improving the environment for such learning experiences, creating the adequate structures, devising awareness raising schemes and developing synergies through a better use of different funding sources.

The Commission, in turn, intends to increase the coherence of its actions in the field of the Information Society so to better exploit potential synergies; to fully integrate the cohesion dimension in its legislative initiative in view, particularly, of the report on Universal Service legislation due by January 1st, 1998; and to accompany and support the actions of Member States in the framework of the structural funds.

Discussion -Some points to consider:

- Structural Funds: why 2 % only?

- Information Society is not really defined- most funds go into telecommunication infrastructure.

- When the structural Funds were established, Information Society was only in its beginning stage.

- What directives need to be elaborated for regional development?

- Universal Service versus regulation. While the Commission should give broad orientation, regulation is the job for the European Council and for the European Parliament.

- Do not wait for liberalisation to solve all problems.

- Given limited financial resources, how can today's problems be solved and investments made for the future at the same time. Many regions are trying to solve economic problems now and are not prepared to invest in the future.

- Policies are developed by the parliaments and take time. Therefore, regional operators should get involved now to tackle problems rapidly and directly (e.g. Valencia: cheap provision of use of telecommunication infrastructure for the university).

- Many countries, above all Scandinavian, are already implementing good policies and actions.

1.4 THE INFORMATION SOCIETY AND INDUSTRIAL CHANGE

Author's Notes

Mr. Thomas Wobben

RETI (Association of European Regions of Industrial Technology)

Introduction

The association of European Regions of Industrial Technology (RETI), is an umbrella organisation of regions which have experienced tremendous industrial change over recent years in the European Union. It aims to:

- articulate the common interests of the industrial and technology regions,

- develop ideas and proposals with regard to the main policy areas of the European Union,

- promote a coherent technology and industrial policy in Europe.

RETI was founded in 1984. At present 22 regions of 7 Member States of the European Union are members of RETI.

The centre piece of the RETI work is the debate on the reform of structural policy after 1999 and its importance for industrial change in Europe.

The future aspects and the impact of the IS is seen as one of the key-elements of the ongoing debate about the reform of structural policy in Europe.

The economic and social transformation in the European Union

Currently, Europe and the European Union are in a process of economic and social transformation, faced with the realisation of the information society, globalisation of industrial production and of emerging markets - especially in Asia and Central and Eastern Europe.

Increasing globalisation is most apparent in industrial products and, therefore, the effects are felt most acutely in European Industrial Regions, especially those with relatively low productivity.

It is a major challenge for European Regional Policy to increase the competitiveness of these Industrial Regions to enable them to compete successfully in the global market.

Another aspect of globalisation is the movement towards a more knowledge based economy. Information, knowledge and technology play a crucial role in determining the success of European industry and, therefore, of the Industrial Regions.

Recent research work by the European Commission and in individual Member States suggests that Europe has not been using its excellent fundamental research base effectively in the market place.

Moreover, the budgetary and personnel resources devoted to research and development in the European Union are significantly lower than in the USA and in Japan. In the absence of a strong policy response these factors present a further threat to the economic base of the Industrial Regions.

Added to this the European Union is also contending with change, i.e.

- by realising the European Monetary Union,

- by further institutional reform as a result of the intergovernmental conference,

- by the planned enlargement of the European Union,

These changes will take effect together with a necessary modification of all EU-policy areas after 1999, such as:

- the structural policies of the European Union,

- the industrial policy,

- the R&D and innovation policies,

- the training programmes.

to mention but a few.

It will be decisive in determining the future role and orientation of regional policy and its relation to the economic and social trends in Europe.

The impact of globalisation and of the Information Society on the regional development in industrial regions

Given the excellence of the fundamental scientific research base in these regions, there is significant potential for a positive and cost-effective regional policy response to these changes.

Therefore the European Commission has added the aspect of strengthening the implementation of the Information Society to the guidelines for the Obj. II programmes in 1996. It also seems likely that there will be a recommendation from the Commission to provide more resources for Information Society matters in the operational programmes of the Structural Funds in the mid-term evaluation for the Obj. I programmes in 1997.

Measures, such as support for awareness, training and re-training and for networking between companies, should be much more strongly supported by the structural funds as it is up to now.

The promotion of the Information Society within European structural policy was subject of a conference with all Obj. I and Obj. II industrial regions from France, Germany and the UK in Halle in Saxony-Anhalt , 18 - 19.04.1996.

The aim of the conference was to exchange experiences and to raise awareness of the possibilities for structural funds intervention for Information Society matters.

The lessons learned from the conference were:

- In a number of industrial regions there is a push away from purely technology focused actions to a more comprehensive approach of integrating various aspects of the Information Society such as markets, the needs of specific user groups, etc.

- There is a move away from finding big solutions towards more concrete projects of fundamental importance for key economic players in the regions (SME).

- New mechanisms of co-operation and strategy building with new players are necessary to overcome double work and reservations.

The involvement of RETI

RETI has identified the topic of Information Society development in the regions as one of the key aspects in the debate on the future shape and orientation of regional policy in Europe:

- RETI was involved in the Halle conference and will carry the results of the conference further in its lobbying campaign on the reform of structural policy after 1999.

- RETI is part of the EPRI-Watch project and will provide most of its work on the this matter within the Common Field of Interest on the relation between the Information Society and regional development.

- RETI has devoted a substantial part of its recent draft policy statement to the future of the structural policy for industrial regions and the challenges of the Information Society for industrial regions. RETI will continue to profile the Information Society in the future.

One major aspects of the future work will be to identify the future link between the R&D programmes such as ACTS and its impact in regional development. In order to strengthen the dimension of cohesion within the EU policies it is important to foster a dialogue. Events such as this seminar or the work of RETI are good tools to provide the link between technology development and regional adaptation.

1.5 INFORMATION SOCIETY USER TRIALS AND PILOTS WITH A REGIONAL DEVELOPMENT FOCUS

Christophe Pannetier

Conseil Regional Nord-Pas de Calais, Regional Director of the Information Society Unit, Chairman of IRISI - Inter Regional Information Society Initiative - Network Management Committee

The IRISI Network - an Overview

- The IRISI Network has been established by 6 less favoured regions - Nord-Pas de Calais, Central-Macedonia, Piemonte, Valencia, North West of England and Saxony.

- The IRISI Network aims to enhance regional development through the use of information and communication technologies.

- The IRISI Network endeavours to achieve this aim by working with the people, and thus form a joint commitment to shape the road of regions to the Information Society through common methodology and approaches

Getting Involved - Specific Structures and Mechanisms

IRISI actively encourages participation and the dissemination of information by implementing the following structures:

- regional Information Society steering groups,

- regional and inter-regional work groups,

- a Regional Information Society Unit in each region in charge of carrying out the project..

The steering groups facilitate the animation of regional participation in the regions. The work representatives from different levels meet together and thus create discussion fora. At present there are over 800 participants in these groups in Nord-Pas de Calais and this number is rising.

Some Success Stories - IRISI Achievements:

In all the regions:
- There are now public/private partnerships,

- awareness of the Information Society has increased,

- strategies and action plans have been drafted and endorsed by the regional authorities,

- structural funds were obtained,

- private investment was secured,

- ITC-based research and projects were developed (about 200 projects in all IRISI regions).

Examples of Projects

Infoville in Valencia

This project is up and running and has:

- increased the scope of partner relations (i.e. it has created a number of new partnerships),

- achieved large regional coverage,

- created new services including education, public services, tele-banking and shopping,

- contributed to implement a digital site in the region.

Grand Place Project (Nord Pas de Calais)

This project encourages SME participation in a network of electronic exchange to achieve the following aims:

* enhance contact,

* foster new economic projects,

* facilitate new collaboration schemes (tele-cooperation).

At present 350 people are connected to the service. By the end of December 1996 this should be 500.

Next steps - connect the Atelier (Paris), Charleville-Mezieres, Vichy, Parthenay with high capacity links and develop a European platform.

The Crux of the Matter - the Critical Role of the IRISI Network

The IRISI Network provides:

* a platform for the exchange of mutual support,

* an exchange of information and experience,

* a catalyst for change,

* a link to achieve an iterative top-down/bottom-up approach,

* a forum for discussion seeking agreement on common methodologies and approaches.

Lessons learned

Many useful lessons have been learned so far. Some important aspects are:

* strong leadership is essential,

* co-operation is very important,

* raising awareness took more time and more resources than expected - time is needed to show the opportunities and strengths of the regions,

* market opportunities have to be known,

* it is difficult to involve the private sector,

* public funding can reduce the risk for the private sector,

* the public sector has a crucial role as a catalyst - IRSI has helped RTD projects take user needs into consideration.

Issues - a Few Points to Consider

The following points highlight major issues that have arisen during the IRISI exercise:

* Liberalisation as a risk for cohesion,

* the role of the region regarding Universal Service,

* the effects of co-ordination and co-operation - competition between cities, regions, states,

- involving of minorities,

- integration of rural and peripheral regions,

- the need to stimulate demand in areas where it is weak.

In order to face these issues the following areas need to be developed:

- job-intensive and high-skill sustained employment,

- a mechanism to encourage and support SMEs,

- a way of involving a larger number of companies,

- education and training for all.

The Information Society is in effect a means to achieve ends - it can contribute to regional economic development, social cohesion and also improve the quality of life. In essence the Information Society creates a better environment.

The presentation of IRISI

Christophe Pannetier
Chairman
IRISI Network Management Committee

❏ **A collaboration between 6 LFRs with EC support (DG XIII and DG XVI)**

    ❏   **Central Macedonia**
    ❏   **Nord Pas de Calais**
    ❏   **North West England**
    ❏   **Piemonte**
    ❏   **Saxony**
    ❏   **Valencia**

IRIS
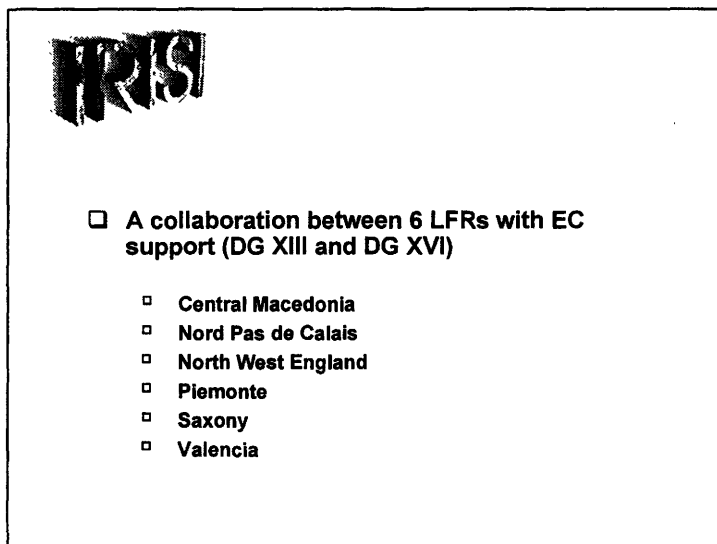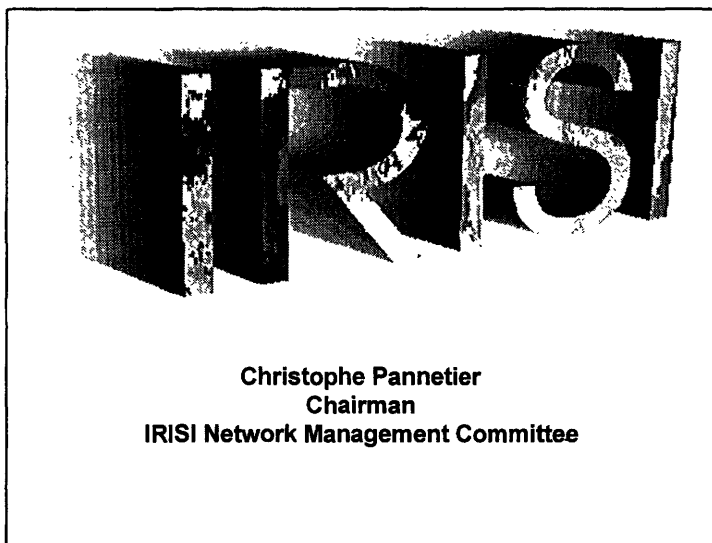
❑ A network focused on regional development/policies and uses of ICT-based applications and services

❑ A network taking into account the social, cultural and human dimension of the Information Society

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IRIS

❑ A joint commitment to shape regions' way to the IS through following a common methodology and approaches :
- ▫ Baseline Audits
- ▫ Assessment of regional strengths & weaknesses
- ▫ Awareness raising
- ▫ Developing relevant new partnerships
- ▫ Consultative strategy formulation
- ▫ Consensus building
- ▫ Embedding strategy in regional economic development plan
- ▫ Identification of priorities & Action Plan
- ▫ Securing IS measures in SPDs
- ▫ Feasibility studies
- ▫ Pilot implementation

IRIS

❑ Structures & Mechanisms
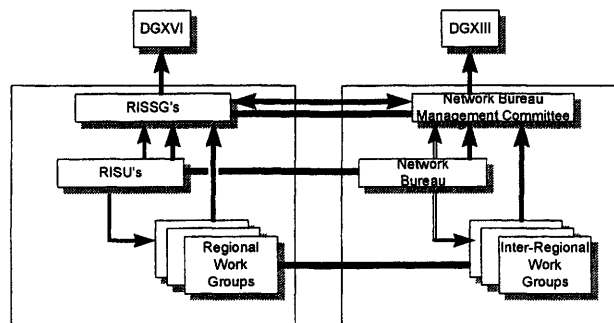
IRISI

□ **Examples of projects in the IRISI regions :**

- □ Infoville (Valencia)
- □ Grand'Place (Nord Pas de Calais)
- □ Torino 2000 (Piemonte)

IRISI

□ **Critical role of the IRISI Network**

- □ A platform for mutual support and exchange of experience and good practice - a "Learning Network".
- □ A catalyst for regional actions.
- □ A critical link in achieving an iterative top-down/bottom-up approach.
- □ A mechanism for developing and agreeing common approaches
- □ A facilitator for inter-regional activities and events (conferences, workshops, work groups, newsletter, demonstrations, visits...)
- □ A useful instrument for developing common thoughts on regional development/policies and Information Society

IRISI

□ **Some of the lessons learned :**

- □ Strong leadership is vital
- □ Strong role of co-ordination of projects, players and actions
- □ Widespread awareness-raising takes longer and more resources than were allocated - need to employ mass media as well as targeting key opinion formers/decision makers
- □ Allowing time and opportunity for participation in strategy building is critical to achieving strong consensus.
- □ Need to understand the region's strengths & weaknesses - to know market & technology trends - to be selective about the priorities and ensure they are realistic - to embed the IS strategy in the regional development plan.

IRISI

- □ Engage the private sector - but not too soon.
- □ Public funding support and commitment can help reduce risks for the private sector.
- □ The public sector has a key role to play as catalyst and driving force.
- □ IRISI has helped RDT projects (ie healthcare, training...) to be more user- and market-oriented.

IRISI

□ **Some of the issues**

- □ Liberalisation - an opportunity for regions ? Risks for regional cohesion ?
- □ Role of the regions regarding Universal Service ?
- □ Cities, regions, states - coordination & cooperation
- □ Participation of disadvantaged and under-represented groups
- □ Integration of and development for rural areas
- □ Demand is sometimes weak and must be stimulated.

IRISI

- □ Ensuring developments are job-intensive and create high-skill sustainable employment
- □ Mechanisms to encourage and support SMEs to adopt ICTs
- □ How to involve a wider number of companies in european projects for developing new user- and market-oriented applications ?
- □ Education & Training (for all) is a big issue - along with simpler interfaces.
- □ Widespread access at affordable prices.

IRIS

❑ **The Information Society is a means to achieve ends :**

  ❑ Regional economic development - wealth creation - competitiveness.
  ❑ Social cohesion and quality of life.
  ❑ A better environment.

IRIS

❑ **The development of the Regional Information Society offers less favoured and peripheral regions new opportunities :**

  ❑ to catch up and become competitive again
  ❑ to overcome peripherality
  ❑ to reduce economic and social deprivation

but the window of opportunity is small.

IRIS

IRIS

2 Building the Bridge - ACTS Projects presentations

A number of ACTS projects gave short presentations illustrating their aims and contributions to the regional initiatives. This section contains speech summaries given at the workshop and presentations.

2.1 BROADBAND AND RURAL BASED OPEN NETWORKS - BOURBON

Mr. Jim Clarke

Summary

The Information Society challenges the supply of broadband services for SMEs in urban and rural regions. Building on the previous work of RACE, BOURBON seeks to address the issue of providing cost-effective, scaleable access to ATM-based services for SMEs. The project focuses on both the technology and users. The convergence allows the project to find scaleable solutions where users can access advanced communications services and applications. To this end BOURBON endeavours to:

- support the telecom infrastructure,
- increase employment,
- boost economic growth,
- favour European Social Cohesion,
- boost rural/remote areas,
- meet social needs,
- operate ATM testbeds.

The testbeds can be divided into three groups:

Group A: ATM trials in Ireland, Finland, France, Austria and Germany

Group B: ISDN trials in the UK, Netherlands, Greece and Italy

Group C: Exploratory stage in Spain and Belgium

It was emphasised that BOURBON does not receive Structural Funds.

BOURBON will be holding a workshop in Edinburgh 26/27 May 1997.

For further information see: *http//:www.uw.connect.ie*

The presentation of BOURBON

BrOadband Urban Rural Based Open Networking

ACTS BOURBON

AC001

Project Managed by :

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Sligo, Ireland.	Email: jclarke@screen.ie
For more information,	
please contact:	Jim Clarke
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6th November 1996   ACTS Meets the Regions

BOURBON Partners

Screenphones Ltd.	IRE	- Project Management, Service Development & User Integration
North West LABS Ltd.	IRE	- Irish National Host - ATM network in Sligo.
Helsinki Telephone Com	FIN	- Finnish ATM network, Service Development
Euroconseils	FIN	- User Integration & Evaluation
K-Net Ltd.	UK	- ATM Kit suppliers
LENTIC Univ. de Liege	BEL	- Project Evaluation, User Requirements
Athens Techn. Ctr	GR	- Application pilot in Greece - News Agency
Octopus	NL	- User Requirements
IDATE	FR	- Application Pilot in France
TELLABS	IRE	- SME Access technology
Datenbahn Salzburg	AUT	- Austrian ATM Test bed
DeTeberkom	D	- German ATM Test bed
Lambda	UK	- Scottish Test bed

6th November 1996   ACTS Meets the Regions

INFORMATION SOCIETY CHALLENGES
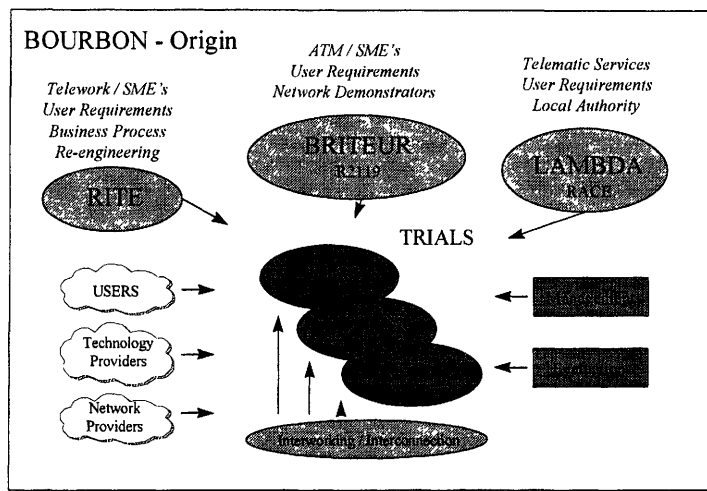## for BOURBON

The Information Society will:
* **Directly support the development of the telecommunications sector**
* **Increase employment**
* **Boost the economic growth**
* **Favour European Social Cohesion**
* **Boost Rural/remote areas Development**
* **Meet Societal needs**

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BOURBON - Origin

*Telework / SME's
User Requirements
Business Process
Re-engineering*

*ATM / SME's
User Requirements
Network Demonstrators*

*Telematic Services
User Requirements
Local Authority*

RITE

BRITEUR
RACE

LAMBDA
RACE

TRIALS

USERS

Technology
Providers

Network
Providers

Interworking / Interconnection

User Focused Objectives:

• *Continue the User requirements research on SME service applications from projects BRITEUR, RITE, SOCTRATES and LAMBDA.*

• *Manage User participation throughout the project by educating and training the participating SME's in application usage.*

• *Actively publicise the results and methodologies used throughout the ACTS community and beyond.*

• *Carry out a thorough evaluation of the experiments in order to determine the commercial viability of the architecture and approach as well as the individual applications.*

• *Emphasis on the small business sector.*

Technology Focused Objectives:

• *Integrate and demonstrate different access methods within BOURBON testbeds for SME users.*

• *Provide network gateway functions between the ATM core and other networks.*

• *Study network protocol issues in terms of application availability.*

• *Specify the necessary terminal issues for Client SME's*

• *Implement new features on existing ATM equipment - interworking, SVC's and LAN emulation.*

• *Look at the feasibility of interconnection of testbed sites.*

Group A - ATM Trials

| Ireland | Finland | France | Germany | Austria |

Group B - ISDN Trials / Results Dissemination

| Holland | Scotland | Greece | Italy |

Group C - User Requirements & Dissemination

| Spain | Other |

Progression

Participating Testbed Groups
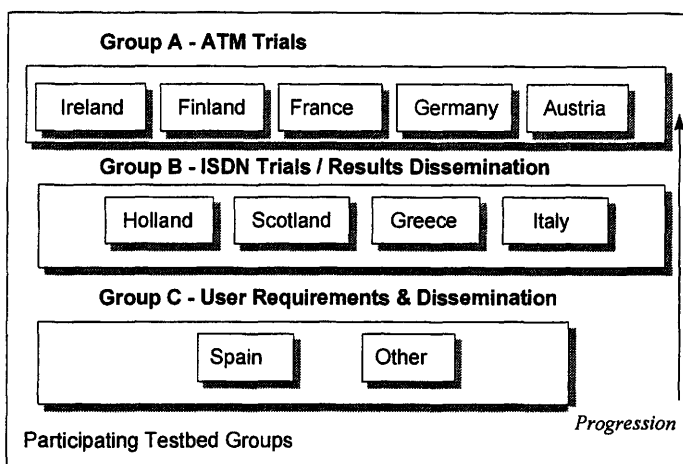
6th November 1996 ACTS Meets the Regions

SME Participants - List of SME's & other Potential Users to date (continued)

Greece
Industry Represented:- Design, Software, Publishing
SMEs:- *Business & Cultural Development centre, IK Vellidis*

Scotland
Industry Represented:- Regional Government
SMEs:- *FIFE Business Enterprise*

Austria
Industry Represented:- Quality Assurance, Software Testing and Development
SMEs:- *Automated Testing Solutions*

Germany
Industry Represented:- Biotechnology, Research, Bioengineering, Software
SMEs:- *Biomedical Research Campus Berlin, Biotools GmbH*

Italy
Industry Represented:- Printing, Publishing, Photographic enhanced development
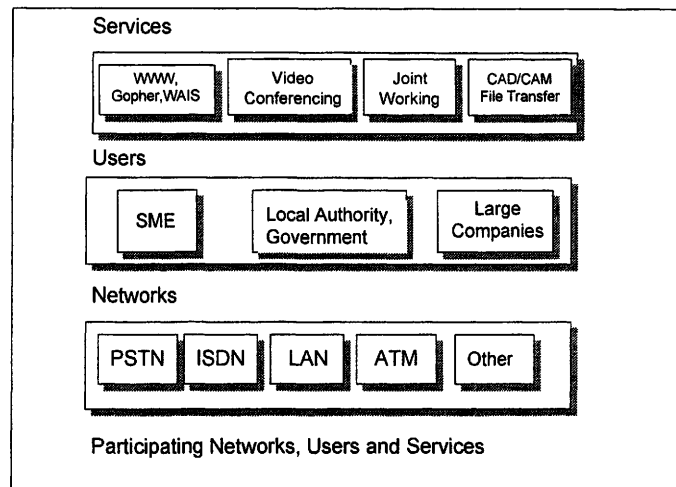SMEs:- *Gruppo Alternativo Tecnoindustriale, Centro Serigrafico*

6th November 1996 ACTS Meets the Regions

Key Messages from SMEs:-

• *SMEs are very sensitive to the costs of services offered.*

• *Quality of Service is important but could suffer to keep costs lower.*

• *National & International interconnection with other sites is considered very important especially with multi-national participants.*

• *Training is important.Publicity (general) is very important.*

• *Fearful of equipment costs (for an upgrade). Prefer PC usage, use of own equipment for the trials.*

• *Want scaleable access to advanced services. Would prefer transparency ie. let the application decide the bandwidth necessary.*

• *Time is precious for SMEs. In the beginning, difficult to get time from SMEs busy schedule but after seeing services offered, more willing to make time and effort for the project.*
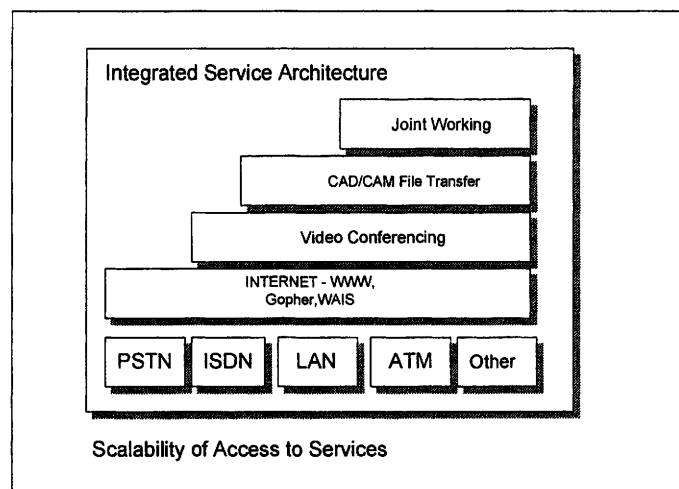
6th November 1996 ACTS Meets the Regions

Services

| WWW, Gopher,WAIS | Video Conferencing | Joint Working | CAD/CAM File Transfer |

Users

| SME | Local Authority, Government | Large Companies |

Networks

| PSTN | ISDN | LAN | ATM | Other |

Participating Networks, Users and Services

6th November 1996   ACTS Meets the Regions

Integrated Service Architecture

Joint Working

CAD/CAM File Transfer

Video Conferencing

INTERNET - WWW, Gopher,WAIS

| PSTN | ISDN | LAN | ATM | Other |

Scalability of Access to Services

6th November 1996   ACTS Meets the Regions

Scaleable Access to Networks in Bourbon

- Bourbon is determining how new technology is being adapted by SMEs
- Interworking aspects of Technical objectives
- Cost structure analysis and reference model of ATM and non-ATM testbeds
- Following market place which is a stepped approach

6th November 1996   ACTS Meets the Regions

2.2 MULTIMEDIA INFORMATION WINDOW FOR NATIONAL HOSTS - INFOWIN

Mr. Serge Soudoplatoff

Summary

InfoWin is the window between ACTS projects and between ACTS to other projects.

In particular, InfoWin:

- facilitates the flow of information from the ACTS projects to the outside world and vice versa,
- makes sure that ACTS projects keep to schedule and to task,
- ensures that project work is viable and that it responds to the development of the market and its needs,
- creates contacts between ACTS and regional partners - there are 9 regions covered by one or more regional representatives.
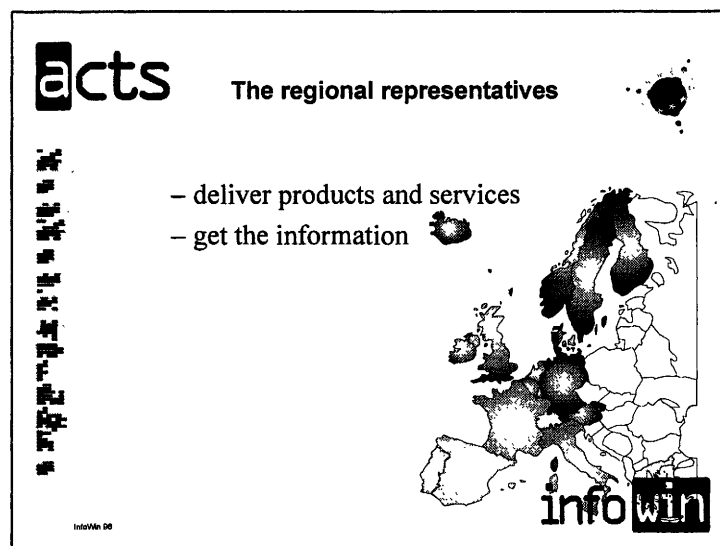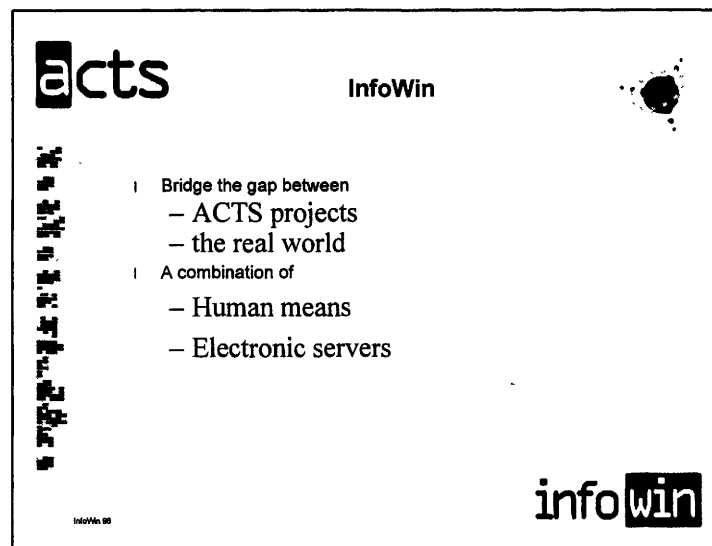
Issues raised were:

- the need to define the common interests and differences of the various projects
- the need for the regions to be more proactive.

For further information see:

http://www.uk.infowin.org/ACTS/ANALYSIS/PROJECTS/ONFOWIN/PUBLIC/
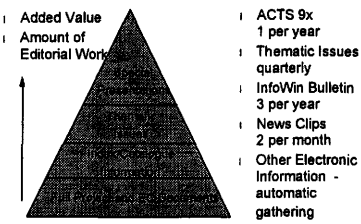
The presentation of InfoWin

InfoWin

ACTS information window

info win

InfoWin

I Bridge the gap between
  – ACTS projects
  – the real world
I A combination of
  – Human means
  – Electronic servers

info win

The regional representatives

– deliver products and services
– get the information

info win

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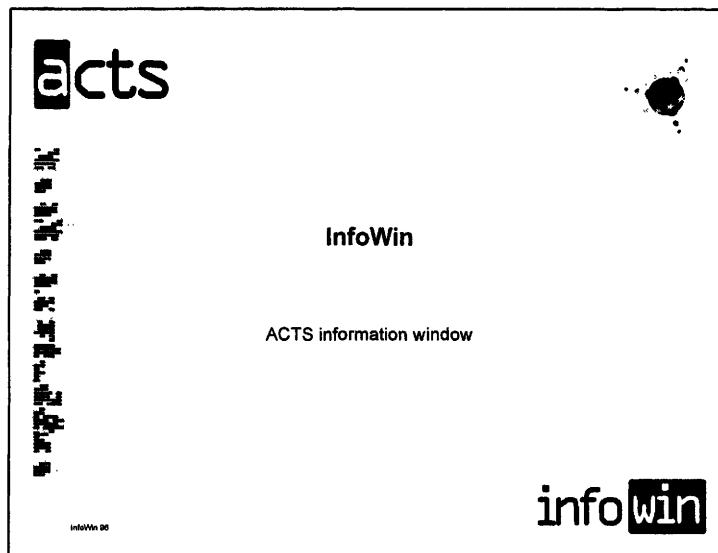
acts — Publication oriented approach

- Added Value
- Amount of Editorial Work

- ACTS 9x
  1 per year
- Thematic Issues
  quarterly
- InfoWin Bulletin
  3 per year
- News Clips
  2 per month
- Other Electronic
  Information -
  automatic
  gathering

info**win**

acts — Target groups per needs

Newcomers
  - General info about ACTS, NH, etc.
Contact Multipliers
  - more specific info about ACTS Projects, Technos
ACTS Projects
  - info about the life of ACTS
General Public
  - Regular Production

info**win**

acts — On line Content

- Official ACTS Material
  - Programme documentation
  - ACTS bulletin
  - Project descriptions
  - ACTS 96 online (coming soon)
- National Hosts Forum

info**win**

acts　　　Concertation Support

- Meeting schedules and agendas
- Hosting of pages for Domains and Chains
- Mailing lists (with web-based archive)
- Calendar of Events (to come)

info**win**

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acts　　　Email Adresses

General information:　　info@InfoWin.org
Helpdesk:　　　　　　support@InfoWin.org
Webmaster:　　　　　webmaster@InfoWin.org

info**win**

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acts　　　InfoWin Bulletin

- Issue 1 (May 1996) online
  <http://www.at.infowin.org/ACTS/IENM/Bulletin/05-1996/>
- Issue 2 (November 1996) online and printed Newsletter
- next Issues 3-4 times a year - in time for Concertation Meetings,
  on-line (and printed Newsletters - depending on budget for text, editing, layout, printing and distribution)

info**win**

acts — Thematic Issues

- ACTS-CEE Workshop June 5th 1996, Brussels (leading partner: DeTeBerkom)
- Multimedia (leading partner: Analysys) on-line and CD-ROM
- Communication within and between companies (leading partner: Telenor) on-line ("Living Document") and Bulletin Style printed version and High quality printing
- Mobile Communications (leading partner: Intracom) on-line

info**win**

InfoWin 96

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acts — Planned/Proposed Thematic Issues

- Multimedia Broadcasting (leading partner: DeTeBerkom) in February '97
- ATM-TenIBC (leading partner: DIT-UPM) in March '97
- Tele-Teaching (Fraunhofer-IGD) in June '97 on-line and CD-ROM
- *Electronic Commerce (possibly September '97)*
- *Electronic Publishing*
- *Intranet/Groupware*
- *Telework*
- *Highband (non-Multimedia)*

info**win**

InfoWin 96

2.3 FORECAST AND ASSESSMENT OF SOCIO-ECONOMIC IMPACT OF ADVANCED COMMUNICATIONS AND RECOMMENDATIONS - FAIR

Author's Notes

Ms. Gabriella Cattaneo

FAIR's main objective is to support the ongoing impact assessment and forecasting of global developments which affect the development of advanced communications in Europe. This encompasses political, regulatory, strategic, industrial, service provision, application, tariffs and technical issues.

FAIR investigates the socio-economic impact of Information Society. The Project presents data on infrastructure, however it is extremely difficult to get information at the regional level. The Project asks for input from regions and then will communicate back the results.

The Project FAIR focuses on the analysis of the socio-economic and policy issues interacting with technological developments in the evolution towards the Information Society. One of the issues under investigation is the impact of advanced communication technologies and services on less favoured regions in Europe and, more generally, on regional development patterns in "core" and "peripheral" areas (and relationship between them).

After reviewing the academic and policy literature on these matters and the empirical evidence of both favourable and adverse trends in the bridging of regional gaps, our current research effort is focused on producing a more systematic picture of the patterns of construction of the Information Society across Europe.

The empirical evidence which is available about advanced communications infrastructure development, terminals diffusion, new services production, experimentation and adoption across Europe, continues to confirm the impression that countries and regions are moving at different "speeds" and along different "paths" towards the Information Society.

To better substantiate and articulate these impressions, we intend:

- to provide as much as possible, in a systematic way, evidence of this phenomenon ("hard" facts), at aggregate supra-national, national and, when possible, sub-national levels;

- to integrate the above quantitative picture with a parallel, qualitative/descriptive picture of Information Society programmes /strategies by national and regional authorities. The role of ACTS and other EU programmes (especially Telematics Applications) will be included here;

- to provide some explanations of the emerging patterns on the ground both of current theoretical understanding of the spatial/regional structuring mechanisms in the emerging Information Society, and of socio-cultural and historical factors;

- to comment on the likelihood that the current trends in Nordic countries (which seem further ahead in the transition towards the Information Society) will expand to the rest

of Europe or rather represent an early manifestation of a structurally diverse European Information Society.

For further information see: *http://www.analysis.co.uk./ACTS/fair*

2.4 EUROPEAN PARLIAMENTS RESEARCH INITIATIVE - WATCH EPRI-WATCH

Mr. Joan Schlieker

Introduction

Using state-of-the-art technology, EPRI-Watch has as its objective the stimulation and testing of the use of advanced communications services by parliamentarians and those supporting their policy initiatives. EPRI-Watch has a dedicated user group consisting of Members of the European Parliament, National Parliamentarians, Regional Politicians and Local Authorities.

To this end EPRI-Watch:

- produces an action line, bulletins, an Info Point including: CD-ROMs and the provision of services such as video conferencing, mail services, on-line joint editing,

- oversees application trials, information and dissemination for the ACTS programme,

- supports the European Parliament and Members of the European Parliament in their uptake of advanced communications technologies and services.

For further information see : *http://www.epri.org*

EPRI-Watch Project Office
Boulevard Clovis 39
B-1000 Brussels
e-mail: epri-watch@epri.org

The presentation of EPRI-Watch

EPRI > watch

EPRI-Watch
A Service Trial for Politicians

Presentation at the ACTS Concertation Meeting

Brussels, November, 5th

Information and Communication Services for Parliamentarians in Europe

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EPRI > watch

* Project Overview
* Status of the Project
* Project Outlook 1996-1997

Information and Communication Services for Parliamentarians in Europe

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EPRI > watch

Project Overview:
Goals of the Project

* EPRI-Watch is a project
  * ... which is an Application Trial fostering the usage of Advanced Communication Technologies and Services
  * ... for Information and Dissemination Support for the ACTS Programme
  * ... using State of the Art Technology for a dedicated user group

Information and Communication Services for Parliamentarians in Europe

EPRI ' watch

EPRI-Watch - a Usage Trial

*   EPRI-Watch stimulates the usage of advanced communications technologies and services through
    *   ... connecting a very special interest group and
    *   ... providing it with dedicated tools and services
    *   ... offering a concept for Europe-wide service provision

Information and Communication Services for Parliamentarians in Europe

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EPRI ' watch

EPRI-Watch State-of-the-Art technology

*   Communication Protocols and Services
    *   ... local PSTN and ISDN Dial-in in Brussels
    *   ... TCP/IP based access via InfoLAN, Internet and On-line Service Providers
    *   ... mobile access via GSM
    *   ... trials with wireless MAN (12/96)
    *   ... Eastern Europe connections and server mirroring via VSAT-Satellite

Information and Communication Services for Parliamentarians in Europe

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EPRI ' watch

Services for the ACTS community

*   EPRI-Watch On-line service: www.epri.org
*   EPRI-Watch Political Readers
*   EPRI-Watch Action Line
*   EPRI-Watch Bulletins
*   EPRI-Watch's ACTS Info Point

Information and Communication Services for Parliamentarians in Europe

EPRI ' watch   Co-operation with other
                              Horizontal Projects

• Joint activities with INFOWIN
  • ACTS Events Calendar
  • EPRI-Watch visibility in INFOWIN and vice versa
  • Co-operation in planning further actions
• Joint activities with SMARTS
  • joint events
  • co-operation in planning further joint activities

Information and Communication Services for Parliamentarians in Europe

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EPRI ' watch

                              Status of the Project

• First Results:

  • starting service provision seven months early
  • 181 users
  • 26 presentations on the European, national and regional
    level (5 planned until December '96)
  • 14 events on the European, national and regional level
    (10 planned until December '96)

Information and Communication Services for Parliamentarians in Europe

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EPRI ' watch   EPRI-Watch Users in
                              Committees of the EP

• Economic & Monetary Affairs
  • 10 MEPs, 14 Assistants
• Research, technological Development and Energy
  • 12 MEPs, 14 Assistants
• Culture, Youth, Education and Media
  • 7 MEPs, 8 Assistants

Information and Communication Services for Parliamentarians in Europe

EPRI ' watch

Users

1   former Prime-Minister
2   Members of the Bureau of the PSE - Socialists
4   Members of the Bureau of the EPPConservatives
1   Chairman of an EP-Committee
7   Vice Chairmen of EP-Committees
2   Chairmen of EP-Delegations
1   Vice Chairman of an EP-Delegation

Information and Communication Services for Parliamentarians in Europe

EPRI ' watch

Project outlook

• Potential new user groups
    • IS Forum
    • ARE / Overture
    • Committee of the Regions
    • Municipalities and County Municipalities
    • Co-operation with parliamentarians linked to NAA (North Atlantic Assembly)
    • Request from the private sector
• Events
    • Telework '96 (Vienna / Bonn)
    • FTK/ISPO Conference on the Development of the Information Society
      Development in January, 30th 1997

Information and Communication Services for Parliamentarians in Europe

2.5 EUROPEAN TELEWORK DEVELOPMENT - ETD

Author's Notes

Jeremy Millard

Introduction

European Telework Development (1996 - 1999) is influenced by the following factors:

- the economy is becoming global,

- advanced technology is available and affordable,

- within organisations there is a great deal of restructuring - the internal processes have become digitised and can integrate external contacts,

- individuals would like a better quality of life and are becoming more flexible,

- tele-trade and tele-cooperation in terms of regional co-operation can lead to locally-based work and a viable teleworking environment.

The presentation of ETD - Advance communications and regional development: overview of European experience

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Advanced communications and regional development:

overview of European experience

ACTS meets the Regions Workshop

Brussels, 6 November 1996

Presentation by European Telework Development Project

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Contents

1. Popular images

2. European experience concerning telecoms/telematics and regional development

3. Context 1: global drivers

4. Lesson 1: myths debunked

5. Myth: geographical space is being replaced by cyberspace

6. Myth: telematics causes regional development

7. Lesson 2: telematics are different

8. Lesson 3: the changing comparative advantages of regions

9. Context 2: the effects of de-regulation and liberalisation

10. Lesson 4: what is regional development, anyway, and what are the best practice lessons for success?

11. Lesson 5: regional, geographical and cultural differences do matter

12. Lesson 6: exogenous or indigenous development?

13. Lesson 7: telematics and jobs

14. Lesson 8: phases of the information society

15. Policy recommendations for regional authorities

16. Selected references

1.Popular images

There is a lot of media and popular attention being paid to the Information Society and the affects telematics (information technology and telecommunications) are having on our societies. Much of this attention is headline grabbing and either tends towards extreme optimistic or extreme pessimistic positions. For example, even the well-respected British weekly *The Economist* tends to play with eye-catching headlines like:

Suddenly...distance no longer mattered!

The death of distance

(*The Economist*, September 30 to October 6 1995, on the eve of the telecommunications big event, the ITU's Telecom '95 Exhibition held every four years in Geneva)

In a similar manner, the accompanying articles attached to these headlines often throw up sweeping statements like:

....one of the most important limits imposed by geography on human activities will eventually vanish...

....it will be possible to site any screen-based activity anywhere...

....the further a country or town is from the main centres of economic activity, the more it will gain...

....it will no longer necessarily be the case that the productivity and wealth of cities will be vastly greater than that of the countryside...

Can all this really be caused by telematics?

2. European experience concerning telecoms/telematics and regional development

In order to examine some of the sweeping claims made by even some of our most serious media sources, there is at least ten years of experience to draw upon at a European level. This includes:

- STAR (1987-91): focused on Objective 1 regions with a budget of about 750 MECU mainly for investment in the infrastructure, although about 10% was directed to so-called market stimulation activities.

- TELEMATIQUE (1992-94): focused on services and applications for Objective 1 regions, especially SMEs and the public sector.

- ORA (1992-94): part of the Third Framework Programme of Research and Technology Development (RTD) which focused on rural areas, the first programme to be specifically concerned with how telematics can be put to the service of socio-economic development goals in a specific regional context.

- PACE (1994-95): teleworking and socio-economic studies, part of the Telework Stimulation programme acting as a bridge between the Third and the Forth Framework Programmes.

- TURA (1996-98): telematics in urban and rural areas, part of the Telematics Applications Programme within the Fourth framework Programme, and a follow-up to ORA though urban areas are now included. TURA is an attempt to address some of the so-called "disadvantaged" target areas and groups, which can include communities within both urban and rural environments, as well as the elderly, the disabled, the unemployed, etc. The focus here is on attempting to provide real solutions for such users and to do so within a long-term commercially-viable context.

- ERDF Article 10 (1996-98): regional pilot projects in the field of the information society: the first structural funds administered by DGXVI (Regional Policy) to be specifically directed within a coherent action at the so-called information society in a regional context.

3. Context 1: global drivers

Before examining some of this experience in detail it would be useful to sketch out the general background context against which the affects of telematics on rural and regional development needs to be assessed. It is important to see both telematics and the development of regions in the context of global *drivers* (i.e. widespread trends and forces which are shaping the way our societies are changing):

- de-regulation of institutions and markets and growing competition: especially in financial sectors, but in many others as well, including telematics.

- globalisation of trade and investment: we are moving rapidly towards one global economic system, evidenced by the influx of imports from Third World countries and low-wage areas generally, and as recognised by the new World Trade Organisation regime, and the recent completion of the GATT Uruguay Round.

- transnational industrial and marketing processes: for example, head-quarters functions (such as top management, finance and research and development) can take place in Japan, components can be manufactured in Taiwan, assembled in Wales, marketed from the US and sold in Germany.

- innovations in all areas of technology: including, and perhaps especially, in telecommunications and information technology.

- changes in the spatial economy: new growing and declining areas. For example, old *smokestake* industrial spatial patterns are changing in response to the distributional forces of the newer information society (see section 8 below) in which there is growing competition between cities, as well as with and between rural areas, and where some previously prosperous areas seem to be declining whilst previously depressed areas seem to be growing. For example, the Henley Centre (UK) published their *Local Futures* report in 1994 which showed that the previously all-pervasive north-south divide in Britain, with a prosperous south and a generally less well-off north, gave way in the late 1980s and early 1990s to a patchwork of so-called boom and bust areas, often cheek-by-jowl with each other. The study identified two major characteristics of boom areas which bust areas generally lacked: the ability to attract inward investment, and concerted investment in and prioritising of communications (especially telecommunications) infrastructures.

- changing political structures: for example, the formation and expansion of the European Union, the break-up of the USSR and accompanying changes in Eastern Europe, the rise of the Pacific Rim, etc.

4. Lesson 1: myths debunked

The citations from *The Economist* illustrate a number of the myths that have grown up around telematics and regional development which European research is helping to debunk. For example, it is often popularly supposed that telematics:

1. are inherently decentralising. There is no evidence for this, nor for telematics being inherently centralising for that matter.

2. can overcome distance in a straightforward way. However, telematics are used to cope with complexity and extend spatial contacts.

3. are destroying geographical space in favour of cyber space. See section 5 below.

4. are causally related to regional development. There are no *perfect* telematics applications which can do this. See section 6 below.

5. substitute directly for transport. This is certainly not the case in any simple sense. Telematics can, however, assist in reducing concentrated commuting patterns (for example through tele-commuting schemes), and thus can contribute to changing overall transport patterns so that they are less deleterious to the environment. The evidence is mixed, however, as the rapid adoption of mobile personal telematics applications could also increase physical transport as they enable individuals to be in touch wherever they are and whatever they're doing. This releases them from staying in one place and gives them the possibility to work at home but also the ability to travel around visiting clients and partners, to travel more for recreation, etc., and generally to live and work in many different places depending on factors other than communication constraints. This increased personal mobility will, other things being equal, inevitably lead to more personal transport and less use of collective, public transport (which is more suitable to regular commuting movements). However, other things are, of course, never equal, and overall the affect on transport all depends on what traffic, anti-pollution, taxation and other regulations are set in place and how individuals' life styles change and respond to these.

6. automatically destroy jobs, as well as lead to boring, push-button jobs. See section 13 below.

5. Myth: geographical space is being replaced by cyberspace

In order to understand why this is not true, it is necessary to separate two concepts; what happens *between* regions and what happens *within* regions:

1. Telematics mean that constraints on accessibility and interaction *between* regions (typically related to distance and physical infrastructures) are becoming much less important as factors determining the location of many activities.

2. But, telematics do not reduce the importance of characteristics *within* a given region to the location of activities (although they may change the characteristics themselves), so that these internal characteristics remain important, and in fact probably become relatively more important given that questions concerning accessibility and interaction are now less so.

Thus, because telematics remove accessibility and interaction constraints between regions on what happens where, they *thereby* increase the importance of other factors, especially within-region factors, many of which are very location dependent and difficult, if not impossible, to move around.

Given that scarce resources mean that all activities cannot be located everywhere at the same time (even supposing this was desirable), choices must be made between competing regions. Now that telematics have removed accessibility and interaction factors as constraints, other factors, typically internal regional characteristics, are looked at much more closely in this decision-making process. Thus, the application of telematics leads to the re-prioritising of the specific uniqueness of regions. It does not lead to the removal of regional differences, but rather makes these differences into competitive advantages (or disadvantages) susceptible to manipulation by decision-makers. This, potentially, gives more power to regional decision-makers.

Geography is thus far from dead, but is instead alive and well and living in the information society, although it will be a very different type of geography compared to that we have seen before (cf. Henley Centre study referred to in section 3 above). Telematics may shrink distances and increase accessibility and interaction, but they are also helping to accentuate geographical variation.

Looked at another way, telematics can be a force of integration *between* people, firms/organisations, and locations, but it can also be a force for disintegration *within* people (e.g. blurring of work and family life), *within* firms/organisations (e.g. downsizing, de-layering, out-sourcing) and *within* locations (e.g. islands of prosperity within a region of poverty as the island is disconnected from the region but connected to the global economy).

6. Myth: telematics causes regional development

According to the ACCORDE Project (1995, PACE action), the successful use of using telematics in regional development in a given region seems to go hand-in-hand with:

- high level skills, education, attitudes of workforce and management
- well-developed organisational capacity of firms
- well-developed institutional capacity of the region
- widespread availability of high quality services (both public and private)

Interestingly, this list is just as relevant for regional development without telematics as it is with! The list could constitute the necessary conditions for successful use of technology, as well as successful regional development. The proposition that telematics causes regional development thus rapidly becomes a circular argument.

7. Lesson 2: telematics are different

Having argued that telematics are not a panacea for regional development and can, in many ways, constitute a double edged sword, they do, however, possess unique characteristics and a great potential for positive regional development. Telematics, especially when compared to previous infrastructures:

- are potentially ubiquitous; especially with the development of mobile and personal communications systems. Telematics are not restricted to specific routes and nodes.

- not only increase accessibility and interaction, but also dramatically change the organisation of economic and social life; for example, down-sizing, de-layering, decentralisation, virtual organisations, changes to culture, family life, teleworking, etc.

- directly contribute to innovation and knowledge capacity; in firms, organisations, institutions, economic sectors, etc., by building on easy access to, and manipulation of, information.

- are cheaper than traditional infrastructures; and getting cheaper still because of de-regulation, liberalisation and privatisation in telecommunications and IT sectors, although there are also dangers here for rural areas given the concomitant weakening of the Universal Service Obligation.

- produce few negative environment effects, in themselves, although other activities which are more or less environmentally damaging (such as transport, see section 4 above) may be stimulated by telematics.

- can contribute to personal development, education and democracy, if policies are implemented to this end. It should also be noted that telematics can also lead to the opposite, i.e. control and surveillance in a *Big Brother, Nineteen Eighty Four* syndrome. Telematics technology is, in itself, neutral and much depends upon how it is used. But, given that it seems increasingly to be used as a tool for the individual (as well as for the organisation), which was not the case ten years ago, it has the potential to become a force for decentralisation and democratisation, though this also has a possible down-side in telematics' potential for atomisation, breaking up of communities, isolation, etc. Clearly, there are competing tensions here; cf. the note on integration versus disintegration in section 5 above.

8. Lesson 3: the changing comparative advantages of regions

Telematics, in the context of the global drivers discussed in section 3 above are helping to shift the development of regions away from a focus on the old, traditional comparative advantages (based on earlier socio-economic revolutions: industrial, electric power, managerial) to a focus on new, or re-emphasised, comparative advantages (based upon an information revolution scenario).

"Old" comparative advantages:

- location of raw materials

- agricultural potential

- industrial complexes

- transportation infrastructures

- most important: geographical proximity to economic centres, large markets and population concentrations

"New" (or re-emphasised) comparative advantages:

- human capital; skills, competence, qualifications, flexibility, etc., possessed by both employees and management.

- levels of local services; both public and private

- environment: both physical and man-made; for example, attractive scenery, landscapes, townscapes, leisure facilities, golf courses, coastlines, etc.

- quality of life; cultural and social networks, lack of stress, congestion, crime, etc.

- telematics; the information society's infrastructure!

- well-functioning regional economic networks and firms (organisational capacity); promoting creativity and innovation.

- pro-active local authorities and partnerships (institutional capacity); promoting public-private partnerships (including so-called third sector organisations). It is now recognised that actors in telematics and development scenarios are typically, and with advantage, constantly changing roles vis à vis one another between competitors, collaborators, customers, suppliers, sub-contractors, partners, etc.

In relation to the discussion in section 5 above, it is clear that both old *and* new comparative advantages cannot easily be moved around. Both take a long time to build up. The changing regional comparative advantages are thus providing new opportunities for rural areas because they typically have:

- lower wage costs and more flexibility

- good environments, both physical and man-made

- high amenity values and quality of life

However, rural areas still suffer comparative disadvantages:

- low levels of services

- poor physical infrastructures

- workforce have fewer skills

- less dynamic economic, social and cultural life

Nevertheless, many rural areas are now overall much better placed than before. Certainly the opportunities are there. The question is can they be recognised and grasped in specific situations?

9. Context 2: the effects of de-regulation and liberalisation

Telematics, like many other sectors, is undergoing increasingly radical rounds of de-regulation and liberalisation, and in the EU is in fact subject to a political timetable with 1998 marking the date for full competition in telecommunications throughout most of Europe. These developments are making significant changes to the supply and demand structures of telematics, so that:

- there is no longer a homogeneous market: segmented and dynamic markets are rapidly developing. Very specific market solutions are now looking for very specific needs, and customers (users) are finding it much easier to make comparisons, acquire relevant information, by-pass gatekeepers, cross borders, etc. Much *cream skimming* of the most lucrative markets by well positioned suppliers is commonplace.

- market power (whether on the supply or demand side) is shifting from governments and monopoly PTTs to other players. Thus, governments and monopoly PTTs can no longer *protect* (as they have often claimed to do) rural and peripheral areas and weaker user groups from trends like *cream skimming* and the weakening of the USO.

- there are now large number of players in a variety of roles (supply, demand and intermediary). In such a situation, power is taken easiest by the larger and more dynamic core areas and the politically most important constituencies.

Power is often waiting to be used! Power in telematics, to use a metaphor, is said to be *lying in the gutter, waiting to be picked up by those with sufficient nerve.* This phrase was originally used in the context of the Russian Revolution, in which power was picked out of the gutter by the Bolsheviks and rapidly turned into a monopoly. This is also possible in telematics. Perhaps it has already happened, as the following example could be thought to show! Ten years of de-regulation in the UK (the European country arguably furthest down the de-regulated road) has led to:

1. *hot-spots* of intense competition, where regional cream skimming is taking place in the core and most lucrative areas of the major cities and the South East and especially London. Here there seems to be genuine competition with many suppliers for business customers.

2. *warm halos* of duopoly, where BT and Mercury compete after a fashion in the UK's other cities and major economic centres.

3. *cold shadows* of de facto monopoly in the rest of the country and certainly in rural and peripheral areas where there is no effective challenge to BT's monopoly after ten years of de-regulation, and where the situation could be getting worse because of the erosion of the USO (Universal Service Obligation).

It should also be clearly stated that, although prices and quality of service levels have improved most in the core areas, they have also improved significantly in all areas (for those services which are available there).

The result of all this for regional players, is that there is a *paradox of power*, as they now have both more and less power:

- there are more opportunities and more to gain

- there are more threats and more to lose.

This means that rural areas must be pro-active, otherwise they will lose out to stronger but also to more determined regions. Determination and strong leadership is an important element of power in the telematics and regional development equation.

10. Lesson 4: what is regional development, anyway, and what are the best practice lessons for success?

The ANAGO project (1992-95, part of the ORA Programme) conducted an in-depth investigation into best practice lessons for rural development using telematics based upon 60 in-depth case studies and over 1,000 postal questionnaires, from throughout Western Europe, and collected both quantitative and qualitative evidence. The investigation was, from the beginning, faced with an almost intractable conundrum: what is rural (or regional development) anyway? One of the most significant results of the project is that it is very difficult to get consensus around this issue and that it depends very much upon whom is asked. The approach ANAGO adopted in order to cater for this diversity of views was to investigate success, and the characteristics of projects which seemed to produce this success, in two distinctive ways:

subjective measures, i.e. eliciting the views and attitudes of project participants (staff, stakeholders and users) concerning the success or otherwise of their rural development projects through semantic differential analysis as well as qualitative assessment of answers to open-ended questions during in-depth interviews.

objective measures based on the actual achievement of stated rural development objectives, including the creation of new jobs, increasing income, increasing investment, improving services, extending and improving infrastructure, and increasing skills and qualifications.

In brief, the results of the subjective measures placed most emphasis on (in order of importance, see also Table 1 below):

- project operation,

- planning and leadership

- staff characteristics

- user needs

As can be seen, these characteristics of projects are mainly *process* as opposed to *outcome* oriented, despite respondents being given both types to choose from, and tends to indicate that those closely involved in a particular project may not necessarily be the best judges if a verdict on development *outcomes* is desired. It is interesting that efficiency is considered to be more important than whether or not user needs are being met.

Moreover, there were significant differences between staff, stakeholders and user views (see Table 1) as well as between countries (see Table 2).

Table 1: Subjective attitudes of successful projects using telematics in rural development, by project participant

The 3 most important factors for all respondents (staff, stakeholders and users)		
factor 1: *operation, planning and leadership*	factor 2: *staff*	factor 3: *user needs*
% explanation: 18.7%	% explanation: 5.4%	% explanation: 4.7%
a17 Working well a44 Well planned a8 Well led	a46 Professionally staffed a50 Qualified personnel a33 Helpful personnel	a23 Meeting user needs

The 3 most important factors for project staff		
factor 1: *efficiency and productivity*	factor 2: *project staff*	factor 3: *publicity and marketing*
% explanation: 19.7%	% explanation: 6.1%	% explanation: 5.5%
a26 Efficient a15 Effective a35 Productive a17 Working well	a50 Qualified personnel a46 Professionally staffed	a11 Well publicised a22 Well marketed

The 3 most important factors for project stakeholders		
factor 1: *staff, organisation and planning*	factor 2: *technology and efficiency*	factor 3: *physical aspects*
% explanation: 20.1%	% explanation: 8.7%	% explanation: 6.8%
a50 Qualified personnel a44 Well planned a47 Well organised a17 Working well a8 Well led a46 Professionally staffed	a37 Rewarding a20 Well provided with technical applications a15 Effective a26 Efficient	a29 Agreeably housed a27 Housed in sufficient space

The 3 most important factors for project users		
factor 1: *efficiency, facilities and user orientated*	factor 2: *staff and organisation*	factor 3: *innovation and ambition*
% explanation: 19.5%	% explanation: 6.8%	% explanation: 6.0%
a26 Efficient a20 Well provided with technical applications a15 Effective a24 Well equipped a23 Meeting user needs a41 User friendly	a46 Professionally staffed a50 Qualified personnel a47 Well organised	a9 Innovative a48 Ambitious

For project staff, efficiency and the working of the project constitute the first and most important dimension, which in some ways is similar to the overall result, reflecting the relative weight of the staff respondents in the overall analysis. Factor 2 is a very clear staff quality dimension, whilst factor 3 is related to the outward marketing and publicity of the project. The question of meeting user needs seems to play little role in the subjective assessment of the staff.

The results for stakeholders show that they are the group with the clearest and strongest dimensions. Here, good planning, organisation, leadership and staffing is important as factor 1, and efficiency appears in the second factor, along with provision with technical applications, representing perhaps, in part, a commercial interest. Factor 3 appears to be associated with the physical surroundings of the project, which perhaps again reflects a commercial or prestige-related interest to do with the image of the project.

As may be expected, users evaluate projects rather differently from staff and stakeholders. The first factor is more composite, containing considerations concerning efficiency, facilities and, importantly, meeting user needs. This may reflect the fact that users are more likely to be a much more heterogeneous group across all projects than staff or stakeholders. Factor 2 reflects users' interests in the quality of staffing, whilst factor 3 shows that users also discriminate on the question of innovation and ambition, i.e. how innovative the project is, seems to be an important consideration for users.

Overall, whilst it can be seen that efficiency, organisation and staff are recurrent themes, it does appear that the basis of subjective evaluations of staff, stakeholders and users does differ somewhat. What is perhaps surprising is that user issues do not appear in the basic attitudes of staff and stakeholders.

Table 2: Subjective attitudes of successful projects using telematics in rural development, by country

Subjective attitudes: the 3 most important factors by country		
factor 1	factor 2	factor 3

<u>Ireland</u> 28.0%
a43 Friendly personnel
a31 Supportive
a41 User friendly
a8   Well led
a23 Meeting user needs
a38 Clearly targeted
a33 Helpful personnel
a42 Open to all
a29 Agreeably housed
a37 Rewarding
a35 Productive
a26 Efficient
	<u>Ireland</u> 14.1%
	a15 Effective
	a20 Well provided with
	       technical applications
	a4 Strongly participative
	a18 Contributing to local life
	a32 Unbureaucratic
	a9 Innovative
	a19 Rural/urban
	a10 Increasing your income
		<u>Ireland</u> 11.9%
		a40 Improving
		       qualifications
		a21 Improving the quality of life
		a47 Well organised
		a17 Working well
		a45 Creating employment

<u>United Kingdom</u> 22.6% a24 Well equipped a33 Helpful personnel a44 Well planned a28 Good for public services	<u>United Kingdom</u> 10.2% a17 Working well a15 Effective a45 Creating employment	<u>United Kingdom</u> 8.8% a40 Improving qualifications a4 Strongly participative a12 User-orientated

<u>Germany</u> 25.0%
a26 Efficient
a20 Well provided with
       technical applications
a47 Well organised
a38 Clearly targeted
a27 Housed in sufficient
       space
a6   Sufficient staff
a17 Working well
a41 User friendly
a15 Effective
	<u>Germany</u> 17.7%
	a29 Agreeably housed
	a40 Improving
	       qualifications
	a4 Strongly participative
	a32 Unbureaucratic
	a28 Good for public services
	a48 Ambitious
		<u>Germany</u> 13.8%
		a18 Contributing to local
		       life
		a30 Good for local
		       telematics
		a34 Good for the local
		       community
		a19 Rural/urban
		a7 Making life easier

(continued over)		

factor 1		factor 2		factor 3	
<u>Greece</u>	<u>30.6%</u>	<u>Greece</u>	<u>12.4%</u>	<u>Greece</u>	<u>10.7%</u>
a37	Rewarding	a31	Supportive	a41	User friendly
a4	Strongly participative	a30	Good for local	a40	Improving
a15	Effective		telematics		qualifications
a23	Meeting user needs	a18	Contributing to local	a43	Friendly personnel
a5	Prestigious		life	a21	Improving the quality of
a6	Sufficient staff	a25	Democratic		life
a35	Productive	a20	Well provided with		
a17	Working well		technical applications		
a45	Creating employment				
a36	Influenced by users				
a29	Agreeably housed				
a14	Non-hierarchical				
<u>Switzerland</u>	<u>22.6%</u>	<u>Switzerland</u>	<u>11.0%</u>	<u>Switzerland</u>	<u>7.9%</u>
a44	Well planned	a35	Productive	a14	Non-hierarchical
a50	Qualified personnel	a37	Rewarding	a32	Unbureaucratic
a47	Well organised	a26	Efficient	a17	Working well
a46	Professionally staffed				
<u>Norway</u>	<u>34.2%</u>	<u>Norway</u>	<u>10.6%</u>	<u>Norway</u>	<u>9.9%</u>
a38	Clearly targeted	a46	Professionally staffed	a23	Meeting user needs
a49	Well financed	a29	Agreeably housed	a21	Improving the quality of
a35	Productive	a48	Ambitious		life
a39	Well supported from	a33	Helpful personnel	a26	Efficient
	outside	a43	Friendly personnel	a8	Well led
a31	Supportive	a22	Well marketed		
a41	User friendly				
a24	Well equipped				
<u>Denmark</u>	<u>20.5%</u>	<u>Denmark</u>	<u>20.5%</u>	<u>Denmark</u>	<u>6.6%</u>
a20	Well provided wit	a5	Prestigious	a18	Contributing to local
	technical	a8	Well led		life
applications		a44	Well planned	a4	Strongly participative
a24	Well equipped	a11	Well publicised	a50	Qualified personnel
a26	Efficient				
a15	Effective				
a17	Working well				
<u>Finland</u>	<u>19.9%</u>	<u>Finland</u>	<u>11.6%</u>	<u>Finland</u>	<u>9.6%</u>
a46	Professionally staffed	a42	Open to all	a23	Meeting user needs
a50	Qualified personnel	a25	Democratic	a28	Good for public
a47	Well organised	a18	Contributing to local life	services	
a16	Realistically targeted			a32	Unbureaucratic
a44	Well planned			a30	Good for local
					telematics
<u>Italy</u>	<u>25.0%</u>	<u>Italy</u>	<u>15.3%</u>	<u>Italy</u>	<u>11.6%</u>
a22	Well marketed	a9	Innovative	a42	Open to all
a40	Improving	a7	Making life easier	a19	Rural/urban
	qualifications	a16	Realistically targeted	a28	Good for public
a6	Sufficient staff	a46	Professionally staffed	services	
a47	Well organised	a15	Effective	a32	Unbureaucratic
a31	Supportive	a23	Meeting user needs		
a43	Friendly personnel	a18	Contributing to local		
a11	Well publicised		life		
a50	Qualified personnel	a33	Helpful personnel		
a24	Well equipped				

When examining attitudinal differences between countries, the first factor in most cases seems often to be concerned with staffing and organisation. Again, process as opposed to outcome is being stressed. However, clear cultural differences also appear to emerge, especially between northern and southern Europe. For example, the southern European countries (i.e. Greece and Italy here) plus Ireland often appear to prioritise features such as friendliness, supportive, rewarding, and participative. Most northern countries tend to concentrate upon issues such as well equipped, well planned, working well, well organised, and efficiency. This is especially the case with Germany, Switzerland, Finland and Denmark.

Other detailed differences can also be discerned on the second and third factors. For example, in Ireland, Greece, Finland and Italy, contribution to local life appears, all these countries having a reasonably large rural population. Efficiency and productivity appear again in countries such as Switzerland, UK and Denmark. Participation, unbureaucratic and democratic appear as important elements in Germany, Greece and Ireland. The third factor compensates in some ways for the second factor, as participatory, unbureaucratic and democratic appear in Denmark, Switzerland, UK and Italy. Likewise contribution to local life appears, again in third place, in Denmark and Germany. Norway has rather different factors from other countries, with a clear staff dimension emerging as factor 2.

National differences should be treated with caution as there is in some cases only a small number of projects in each country and they are spread over all applications types. Nevertheless, the differences identified above do say something about differences in underlying national attitudes and cultures to these types of rural development project, and this is important to bear in mind when trying to generalise good practice across the whole of Europe. Further, other results show that differences between countries are greater than differences between application types which tends to indicate that people perceive culture as being more important than technology.

ANAGO's objective measures of success tended to produce a very different set of criteria, although there were also some points of agreement with the subjective analysis:

- project management, internal communications and quality leadership
- clear, fixed, realistic, consensual objectives
- simple, user-friendly technology
- technology exploitation more important than technology experimentation, for rural development

These areas of agreement tend to focus around the need for high level management and the role of technology, about which there can be little doubt as to the importance of both. There are, however, substantial and important areas of disagreement. Characteristics of successful projects measured by the objective criteria and which are in disagreement with the subjective criteria are the importance of:

- project pre-planning; the need for careful preparation
- extending project life; i.e. need for long term effort
- external (to region) involvement in project; i.e. top-down, exogenous
- the project's changing needs for relevant staff are more important than staff continuity, as the project goes through its life cycle
- business as opposed to community goals and users

- public sector funding and stakeholders as opposed to business funding

- size of financial resources not important

- low number of objectives and functions; i.e. focus the project

- low numbers of staff and stakeholders; i.e. restrict project-internal jobs and the range of stakeholder interests

- high usage intensity but low numbers of users; i.e. again focus the project.

Some general lessons and advice can be given, which will not be applicable in every case to new projects contemplating exploiting the potential of telematics, but which needs to be seriously considered within the context of each project's specific aims, resources and characteristics. Any project must fully take account of local private sector initiatives (by single firms or groups of companies), and attempt to support or supplement these, especially where they involve SMEs (Small and Medium-Sized Enterprises). In addition, it is almost always essential that fully or partially public-funded programmes should be considered, especially if these are part of wider national or international programmes so that exogenous know-how, resources and coordination can be added. Strong attempts should be made to focus telematics promotion upon specific economic sectors, specific groups or specific services. This is for two reasons. Firstly, investment and other resources are scarce, and secondly, the research shows that such a focused policy is more likely to result in real development in terms of jobs, income, improved services and opportunities, etc. In general terms, such a policy should attempt to develop programmes and projects which *individually* are able to *focus* their efforts and activities The cumulative impact of such individual initiatives will, of course, be much broader, but the best effects are more likely to be achieved by a step-by-step, focused approach.

A significant conclusion of ANAGO is that, in general terms, local bottom-up initiatives and commitment, although important, are rarely sufficient on their own to enhance real development. They need to be intelligently coupled with external (regional, national or international) resources, ideas and momentum. One of the biggest barriers to achievements which do more than employ staff and users for the life of the project but which also lead to sustainable, long-term development, building up wider connections, is the failure by local leaders to realise this.

It is important, also, to get the telematics right. Experience has shown that many telematics initiatives fail to achieve real development objectives, at least in the time scale expected. One of the major difficulties is balancing the need to select technology related to specific users and tasks without sacrificing long-term goals of introducing more advanced systems. On the whole, *experimenting* with new types of technology (whether this be new systems as such or new configurations and usage modes) is not a good idea, unless the objective specifically is to experiment and not to achieve short to medium term rural development gains. For the latter, it is preferable to *exploit* already tried and tested technology, i.e. more or less standardized products and services which are readily available.

This does not mean, of course, that technology experimentation is not necessary, on the contrary, but that it requires long lead times and stages of adaptation and re-design before rural areas can fully exploit the technology for development purposes. Technology experimentation should be undertaken as part of specific private and/or public sector technology development programmes where long-term payback periods are built into the scenario.

11. Lesson 5: Regional, geographical and cultural differences do matter

Overall, results from the ANAGO project show that there are, at a generalised level, two groupings of regional types where the most successful projects using telematics to promote rural development are most likely to have a distinctive set of characteristics:

1. regions in southern Europe, more remote from urban centres and more extensive geographical coverage

The most successful projects are those which:

- have strong top-down, exogenous initiation and support

- are in a co-operative as opposed to a competitive milieu

- are reliant on single funding agencies where flexibility of usage is curtailed

- have a relatively large number of staff who are not necessarily full-time and/or paid,

- have greater staff continuity; familiarity is more important than efficiency

- are very reliant on user-friendly and simple or progressive telematics technology

2. regions in northern Europe, closer to urban centres and less extensive geographical coverage

The most successful projects are those which:

- have weaker top-down, exogenous initiation and support

- are in a competitive and commercial local environment

- have a greater number of funding sources and more funding flexibility

- have fewer staff but a higher ratio of full-time and/or paid staff, and more specialist staff (especially in management, marketing and consultancy)

- have low staff continuity because of the need to adapt to changing circumstances throughout the project lifecycle; efficiency is more important than familiarity

- are less reliant on user-friendly and simple or progressive telematics technology

Overall, there is a need for telematics initiatives wherever they are to adapt to local, regional and cultural environments, in addition to using exogenous resources and stimuli.

12. Lesson 6: Exogenous or indigenous development?

The evidence points very strongly to the fact that exogenous development (i.e. being driven or coming from outside) is more successful than indigenous development (i.e. being driven or coming from inside). For example, in the Scottish Highlands and Islands, which have experienced significant investments in telematics infrastructures (such as ISDN) over the last 5-10 years through co-operation programmes between the regional authorities and British Telecom, relatively important contributions have been made to local growth, employment and prosperity. However, these gains have generally not been driven by local enterprise taking advantage of the opportunities offered by ICTs but by external companies investing in new enterprises or in setting up branch offices and plant. In other words, the growth has come from mobile enterprise and multi-site inter-regional firms as newcomers to the region.

One reason why such inward investment has taken place is the new telematics infrastructures, largely financed by exogenous resources, and other reasons include the so-called new comparative advantages discussed in section 8 above.

Such exogenous development seems to be successful because:

- inward investment, by definition, draws upon potentially greater financial resources than can be found within the region

- economies of scale and scope are thereby gained

- outside expertise, know-how, organisational strengths, etc., are considerable

- inward investment brings with it existing market and supply contacts, thus making it more likely that regionally based firms will link into the global networked economy.

As described above, these observations point to the great importance of top-down development initiatives and resources for rural and regional development. However, indigenous efforts and resources can also be important, especially if they can support the exogenous efforts, as they can:

- help focus and target

- offer regional public subsidy and pro-activity

- deliver social and community benefits

- work in partnership with exogenous resources!

The beneficial role of indigenous development thus seems to be that it can aim to improve the quality of life, local services and networks, increase local dynamism, foster sustainable development concerning environment and amenity, etc.; i.e. it can nurture many of the new comparative advantages mentioned above in section 8. These advantages can then be used to "attract" exogenous (inward) investment which is then able to promote real development in terms of growth, jobs, income, services, etc.

The results of ANAGO here echo the results obtained by Castro and Jensen-Butler (1991) when examining the regional affects of two types of knowledge and innovation:

- embodied in the technology itself, such as in the hardware and software. This can be easily moved around between regions. Such embodied knowledge and innovation provides added value, though this is limited.

- disembodied in the technology as it is embodied in people as individuals or in organisations/networks. This can only be moved around between regions to the extent that people as individuals, groups or organisations can be moved around, i.e. much less easily than the technology itself. Such disembodied knowledge and innovation provides a great deal of value added.

13. Lesson 7: Telematics and jobs

One of the crucial tests of regional development is whether or not it can produce job-intensive growth. The AD-EMPLOY project (1995) showed that:

1. investment in on-site only IT equipment (hardware and software) by firms and organisation tends to lead to loss of jobs through *process innovation*, i.e. improving existing processes by speeding them up, making them more efficient and effective, cutting their cost, etc. Thus the same goods and services are produced but more efficiently, typically meaning fewer employees, in a process where machines tend to replace people. Overall activity is not increased but it is done more efficiently. This produces a stand-alone economy where labour productivity increases faster than GDP.

2. investment in inter-site telematics services (traffic on networks) by firms and organisations tends to lead to a gain of jobs through *product innovation*, i.e. the production of new types of goods and services because of greater connectivity to markets, customers, suppliers and partners leading to improved awareness, creativity and innovation. This produces a networked economy where labour productivity increases less than GDP.

The distinction made above between process and product innovation is very useful conceptually but can be difficult to make in practice as they are really two sides of the same coin and typically go hand-in-hand by mutually reinforcing each other. However, the results described above typically occur where either process innovation or product innovation predominates.

In the networked economy scenario there is an overall increase in activity (i.e. growth and GDP) which more than offsets the labour productivity increases due to telematics. This results from inter-working between firms, organisations and regions where both product and services markets and labour markets are markedly extended in spatial extent and variety, thus making them both larger and more efficient. The challenge is, of course, to achieve such growth sustainably so that it is not environmentally destructive.

Most new jobs in the Information Society will not be in telematics industries, however important this sector may be in itself, but in other sectors which can innovatively achieve growth using telematics services and applications.

Such sectors include:

- high-tech and high value-added manufacturing

- material, physical and human services (the latter including public services like education, health and the caring professions)

- business and financial services.

Note, that telematics related development in rural areas will tend to mean an acceleration in the loss of traditional rural area jobs in the primary sector (agriculture, forestry, extraction, etc.), although some highly specialised high value products can be given a new lease of life by telematics through the extended marketing range afforded by the new technology. For example, specialised food products, specialised knitwear products, etc.

Overall, how jobs are affected by telematics depends very much on how telematics is used (whether as part of a mainly process innovation or product innovation scenario), and this is primarily determined by managers and decision-makers.

14. Lesson 8: Phases of the Information Society

The information revolution, like previous revolutions before it (industrial, electrical, managerial) will inevitably pass through a number of phases. At a simple level, perhaps three can presently be discerned:

Phase 1: society changes how it does *existing* things. This is mainly process innovation, i.e. doing existing things faster, better, cheaper because of the new techniques, but not yet realising, yet alone understanding, the completely new things such techniques can enable. As we have seen, this leads to a focus on cost cutting, loss of jobs as machines replace people, etc.

Phase 2: society starts to do completely *new* things. This is mainly product innovation in which the new possibilities opened up by the new techniques are understood and realised. This can lead to creativity, innovation, growth, more jobs, more satisfying jobs, etc.

Phase 3: society starts to transform its world view. If telematics development really does lead to a situation where very powerful communications capabilities are very inexpensive, then this will fundamentally change our ways of living, working, relaxing, being educated, etc. A new world view and a new culture will have dawned.

Where are we now? My guess is somewhere in the awkward and painful transition between phases 1 and 2, with some burgeoning examples of phase 3. in other words, we have experienced a lot of the pain associated with phase 1 (such as loss of jobs), but the question is can we afford to be optimists and expect the benefits of phases 2 and 3?

To draw an analogy, our societies eventually experienced the benefits of Phases 2 and 3 of the industrial revolution, after having been sorely damaged by the pain of Phase 1 of that revolution. In the throes of the information revolution we must surely do better than last time and limit the damage. We have both the resources and the understanding to do so. We must ease the pain and speed the benefits.

15. Policy recommendations for regional authorities

It is useful, when considering telematics in regional development, to think in terms of three steps:

1. Forget telematics! Telematics, or the lack of it, may be part of the solution to the problem but it is not part of the problem, so first understand the problem, i.e.:

2. What is the regional/rural development problem? Understand the issues, including the region's strengths, weaknesses, opportunities and threats.

3. How can telematics *help* to solve the problem? Telematics may be an important part of the answer, but it needs to be properly integrated with other initiatives within an overall strategic framework.

A variety of scenarios for regional development and telematics have been explored (e.g. as part of the IRISI intitiative in Pas de Calais):

1. do-nothing, laissez-faire

2. incentive policy

3. several projects but no co-ordination

4. several projects with co-ordination

5. focused policy (i.e. on specific sectors, functions)

6. comprehensive interventionist

In terms of overall effectiveness and success in regional development terms:

- 4) and 5) together give the best value for money

- 1), 2) and 3) are too weak and ineffective

- 6) costs too much

These conclusions very strongly support the ANAGO findings (noted in section 10 above) that strong public policy initiatives and resources (working together with, and focused on, the private sector) and using a focused and co-ordinated step-by-step approach, give the most effective results.

In conclusion, some simple initial steps can be recommended for regional authorities wishing to exploit the power they have available and become pro-active with regard to telematics:

Learn more about telematics, both in terms of its technical capabilities and what this means for different types of users and different types of local or regional development strategies.

Use existing (including non-telematic) networks and sources, and start building new partnerships and alliances, both locally, nationally and internationally, and of all types.

1) Consider:

- What is distinctive about the region? What are the things the region could do and could not do?

- What can telematics do for the region: now as well as in the longer term?

- How can a telematics strategy be integrated into the overall development strategy for the region? Perhaps this overall strategy needs to be adapted to exploit telematics?

- Who is going to pay?

2) Be ambitious, but realistic; think long-term, but act step-by-step. And never forget that the issue is not about the technology, but how the technology can be used to promote and develop the region.

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2.6 SME AND REGIONAL TELECOM SUPPORT - SMARTS

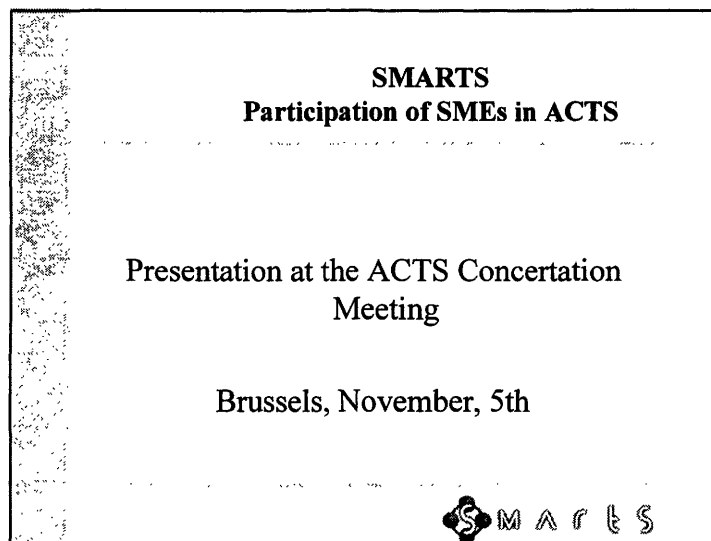<div align="right">Mr. Marco Langhof</div>

Introduction

SMARTS aims to increase the participation of SMEs (Small- and Medium-sized Enterprises) in the work of and exploitation of results from ACTS. The SMARTS trial implements and tests the "Participation Broker" which will offer E-mail, video conferencing, joint-editing, tele-translation, a multimedia catalogue and a multi-lingual user interface via a European network of 50 points of presence (Pops) which involve the current 300 SMEs as users.

The Project needs information from other projects on European, national and regional levels.

For further information see: *http:// www.smarts.org*

The presentation of SMARTS

SMARTS
Participation of SMEs in ACTS

Presentation at the ACTS Concertation
Meeting

Brussels, November, 5th

Goals of the SMARTS project

- Improve the participation of SMEs in the ACTS Programme

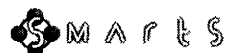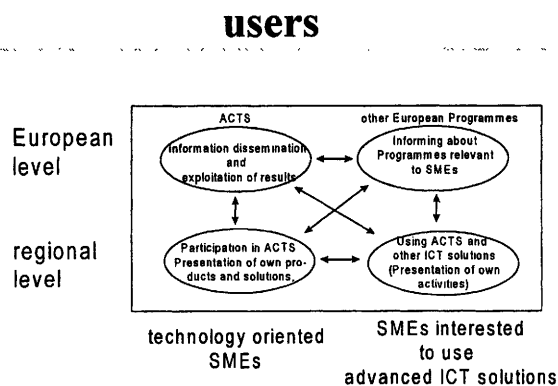- ... but how can this be done without a call for proposals?

SMARTS
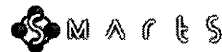
Types of participation of SMEs in ACTS

- participating in projects and user trials
- participating in ACTS Events and Demonstrations
- exploiting ACTS technology for own ICT products (for technology oriented SMEs)
- exploiting ACTS technology in the daily business (for non-technology oriented SMEs)
- using the ACTS 'Secondment of a visiting Scientist' Scheme

SMARTS

Fields of interest of SMARTS users

European level

regional level

ACTS	other European Programmes
Information dissemination and exploitation of results	Informing about Programmes relevant to SMEs
Participation in ACTS Presentation of own products and solutions	Using ACTS and other ICT solutions (Presentation of own activities)

technology oriented SMEs

SMEs interested to use advanced ICT solutions

SMARTS

Structure of the SMARTS service

- Four different areas
  - INFO
  - SOLUTION
  - MARKET
  - CONTACT

$\diamondsuit$M A r t S

SMARTS INFO AREA

- Information about ACTS
- Information about other European Programmes relevant for SMEs
- Information about national and regional Programmes
- Useful information for the daily business

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SMARTS MARKET AREA

- Key focus: Information and Communication Technology Products and Services
- Goal: attract SMEs as users (both searching for and offering solutions)

$\diamondsuit$M A r t S

SMARTS SOLUTION AREA

- Complete solutions for non-technology oriented SMEs
- ... based on state-of-the-art technology
- ... based on 'Generic Applications' for a 'Virtual SME'
- ... pointing to concrete products within the MARKET AREA
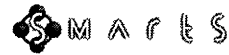
SMARTS CONTACT AREA

- Address book of institutions relevant to SMEs
- Contact to those who offer a technology (e.g. ACTS Projects)

Service structure - goals

- ACTS (Info) level
  - ACTS participation support
  - foster the exploitation of ACTS results
- Market level
  - encourage participation in an European Electronic Market
  - foster European co-operation between SMEs

Service structure - means

- awareness activities
  - seminars, workshops, mailings, newsletter
  - encourage participation in ACTS events
- active participation support
  - consulting, helpdesks, hotlines
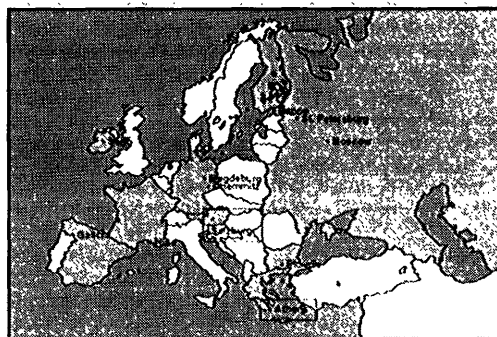 - 'marriage brokering services'

Status of the SMARTS Project

- Info Server on-line: www.smarts.org
- Initial user group of 300 SMEs
- Second (actual) step: 100 SMEs per Partner
- Establishing a network of 12 SMARTS PoPs throughout Europe
- Co-operation with similar activities of other European Programmes
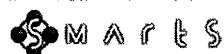
The SMARTS Network

2.7 GUIDELINES FOR INTEROPERABILITY IN NETWORKS AND ATM DEPLOYMENT - GINA

Author's Notes

Mr. Roger Delit

Introduction

GINA's primary goal is to create and disseminate guidelines about Network Interoperability and ATM deployment, reflecting both the latest findings from ACTS trials and world-wide evolutionary trends.

To this end GINA supports ACTS project in the consultation process. It was undermined that ACTS should generate guidelines for technical as well as for non technical persons.

A workshop in Rennes in March 1997 with discuss such guidelines.

For more information see: *http://gina.iihe.ac.be*

The presentation of GINA

Introduction

During the EPRI-Watch workshop "ACTS meets the Regions" of 6 November 1996, Project GINA (AC220) was briefly presented. The purpose of the presentation was to announce a workshop held in Rennes, France on 25 March 1997, whose objectives of this event are largely convergent to those of EPRI-Watch. GINA would like to establish contact with persons who could contribute to this event or help identify such contributors. Potentially, all members of the EPRI-Watch mailing list are concerned.

Although the Rennes event also contains a technical component, contact with EPRI-Watch is sought mainly for non technical issues, such as social, economical and regulatory issues related to the deployment of broadband communication infrastructures and services.

In order to provide the audience with some general information on GINA, the objectives of the project were presented and a brochure was distributed. A summary of this brochure is given in the following sections.

The ACTS concertation and the production of guidelines

The ACTS programme represents the European Commission's major effort to support pre-competitive research and technologies development in the field of telecommunications during the Fourth Framework Programme (1994 - 1998).

Currently the Programme contains about 120 projects covering all areas of broadband telecommunications, the final goal being the implementation of a trans-European integrated Concertation is the key process which ensures that the value of the ACTS Programme exceeds that of the individual projects taken individually.

Concertation is the key process which ensures that the value of the ACTS Programme exceeds that of the projects taken individually.

In ACTS, concertation is structured around two orthogonal sets of concurrent activities : the Domains and the Chains.

Domains support concertation between projects working within the defined technical area. Six Domains have been defined :

1. Interactive Multimedia Services

2. Photonic Technologies

3. High speed Networking

4. Mobility, Personal & Wireless communication

5. Intelligence in Networks, Service Engineering, Security & Communications Management

6. Horizontal actions.

Chains transcend the boundaries of and bridge the gap between the individual technical areas or Domains, establishing a continuous chain between projects of various domains, **from enabling technology to end-applications and social impact, by addressing objectives having strategic importance outside the Programme** and therefore having a broad constituency of interest.

Chain concertation will lead to the **establishment of guidelines** for technology development and deployment, for IBC management and exploitation and to be relevant to **a wide range of roles and responsibilities** within organisations.

The GINA project, objectives and strategy

In order to facilitate Interoperability of heterogeneous Networks and Network Integration in Broadband communications, a general need exists to bring easily accessible information to various interested sector actors, many of them presently unfamiliar with the complexity in the Telecom / IT environment.

Guidelines are needed by users, by telecom and computer vendors, by PNOs and service providers, by SMEs, but also by regulators, social and legal advisors, by the Parliament, the Council and other politicians.

For these reasons, GINA has defined three major goals:

The primary goal of GINA is :

> **to create and disseminate guidelines** about Network Evolution, Network Interoperability and ATM Deployment, reflecting the latest findings and results of trials within ACTS, run on a "chain-basis" by Projects in the Network Interoperability Chain Group, and also reflecting the findings about world-wide evolutionary trends in Network Interoperability and ATM development and deployment.

The second goal of GINA is :

> **to provide logistic and administrative support**, coordination and assistance in the concertation process within the Network Interoperability Chain Group, in order to achieve high quality during the production of the guidelines.

The third goal of GINA is :

> **to document the guidelines** in a frequently reviewed and upgraded structured comprehensible form supported where necessary by short but basic clarification of the Telecom/IT technology to a non-technical audience.

GINA will serve as a focal point for the production of guidelines by the projects of the Network Interoperability Chain Group.

- Internal and external information will be transformed into guidelines by GINA-researchers, in coordination and cooperation with the concerned projects in the NI chain group. The draft guidelines will be permanently accessible on-line on the GINA-server by GINA participants to facilitate teleworking.

- **Continuous internal and external feedback** will allow continuous upgrading of the guidelines.

- Consolidated guidelines, permanently available on the GINA-server with pointers to other servers such as INFOWIN, will finally be made available in CD-ROM and book-form, after a final discussion and review by an external panel of Telecom/ IT experts and top executives.

It is expected that the quality of common output **derived from a multiplicity of sources**, internal and external to the ACTS Programme, **and adapted to specific target audiences** will have a catalysing effect on the interactions between the ACTS programme and the key-actors of Broadband deployment in Europe.

The GINA server

For teleworking purposes and to allow for feedback on the guidelines by internal and external researchers, GINA needs an efficient way to collect, store, share, retrieve and collaboratively manage electronic documents.

GINA elected the Basic Support for Cooperative Work (BSCW) shared workspace system, developed by the German National Research centre for Information Technology, GMD, as its cooperative working environment.

This system integrates simple facilities found in FTP with sophisticated features such as group and member administration, check in/out facilities and access to information regarding documents and project-members.

The system consists of a server maintaining a number of workspaces, accessible from different platforms using standard, unmodified WWW client software such as Netscape or Mosaic.

Users can access the BSCW environment through a standard username and password scheme; the server responds with a list of accessible workspaces.

The GINA workspace System is available since 1 September 1996. The URL of the home page is

http://gina.iihe.ac.be

Events in Preparation

GINA Workshop

- Rennes, France, 25 March 1997

- in association with the Conference "ATM development 1997". (26 & 27 March)

NI Conference

- 16 to 18 June 1997

- Madeira, Portugal for presentations

- Basel, Switzerland for demonstrations

- in association with the ITS/ICCC conference "Global Networking '97" in Calgary, Canada (15 to 18 June '97)

Information on GINA events can be obtained from:

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Telscom AG
Morgenstr. 129
CH-3018 Bern
Tel   : +41 31 998 4183
Fax   : +41 31 998 4185
e-mail : rao@telscom.ch

2.8 Co-operation in Advanced Communications in Europe - DOLPHIN

Dr. Rene Bach

Introduction

The main purpose of Dolphin is to support the objectives of ACTS in the area of Horizontal Actions as they relate to Domain V Projects. This is done by maximising synergy and the exchange of key information. The key issues are the dissemination and promotion of Domain V project results, promoting internal harmonisation between projects and acceleration of implementation and exploitation of IBC in the Domain V.
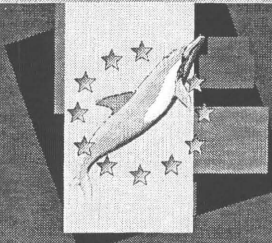
Issues of particular importance were

- Trumpet: interdomain ATM management, with strong emphasis on security,
- the question of ACTS guidelinesgeneration,
- increased accessibility and interaction between regions in the Information Society,
- the increasing importance of internal characteristics of regions and consequently their need to be more proactive.

For further information see: *http:// www.telscom.ch*

The presentation of DOLPHIN

3 "Bridge to the Regions" - Round Table Discussion

The round table discussion was chaired by Mr. Peter Johnston, Commission of the European Communities, Head of Unit DG XIII B/1.

3.1 SUMMARY

Below follows a summary of the "Building the Bridge" discussion. The discussion centred principally on two points:

- What can ACTS offer the regions?
- What can the Regional Initiatives offer ACTS?

Some suggestions were made as to how the bridge to the regions could be built more smoothly:

- discuss ideas with which to build a bridge from ACTS to the regions,
- foster meetings between political and technical partners and interconnect the regional, national and European Members of Parliaments. Create a network using ACTS support,
- consider Central and Eastern European regions for transferring project outputs,
- make local communities aware of the opportunities and risks of the regions (increase awareness),
- catalogue the needs- of projects, of SME's work among others,
- promote exchanges among regions,
- provide a catalogue of action plans on the Web,
- the Commission will issue a document on the basis of comments sent in,
- check out the Fifth Framework Programme,
- produce a catalogue of good practises (especially from Scandinavian countries),
- produce a resource pack for regional actors and politicians.

Important points to be considered for building the bridge were:

- how to forward information to those needing it,
- using Infowin and EPRI-Watch facilities,
- look at social "regions" and not only at geographical regions,
- in order to increase regional ACTS awareness, short descriptions of the ACTS projects should be distributed in the regions and disseminated, for example, in the Chamber of Commerce newsletters.

3.2 ACTION PLAN

Recommendations / Agreements for Action

A number of recommendations were made to facilitate co-operation and specific action initiatives between ACTS projects, chains & domains and relevant regional initiatives. Certain ACTS projects developing technologies and/or services, or running trials associated with certain regions will contact the appropriate authorities in the regions to ensure that the region is aware of the activity and potential exploitation of results in terms of the region's plans and strategies for the Information Society. The main areas for the first stage of the action plan are indicated below.

Project and Chain Related Initiatives

- The projects: BOURBON, GINA, DOLPHIN and ETD are developing services or trials which could be of importance to the region's plans and strategies for Information Society developments and potential resources. A number of these projects such as BOURBON and ETD already have strong links to certain regions and will look at extension of these links to other regions to which the projects have links. GINA is planning a workshop in March 1997 on Broadband Deployment and its Impact on the Information Society. This is relevant to the regions and also includes the social and regulatory impact.

Action: BOURBON, GINA, DOLPHIN, ETD

- The projects FAIR and SMARTS will provide information on socio-economic factors on SMEs and electronic commerce.

Action: FAIR, SMARTS

- EPRI-Watch will provide specific information on its regional initiatives and INFOWIN and EPRI-Watch will ensure dissemination, including information and networks for best practice.

Action: INFOWIN, EPRI-Watch

- The Generic Applications (GA) and Network Interoperability (NI) Chains are highly relevant to regional Information Society strategies. The GA and NI chains will contact specific regions and report back.

Action: F. Wilson, GA chain, and NI chain

Best Practice

- There are many interesting initiatives and examples of "best practice": possible examples could come from IRISI, innovative applications in the Scandinavian countries such as Sweden & Finland, and others.

Action: EPRI-Watch

Updates on Liberalisation, De-regulation and Structural Fund Proposals

- The overview on current and impending measures for liberalisation and de-regulation is summarised in the enclosed presentation by Mr. L. Lozano.

Action: EPRI-Watch and INFOWIN to provide updates

- The Commission is preparing a Communication containing recommendations relating to the Structural Funds and infrastructure as well as to the Information Society. This Communication will be made available, as well as the information on the related conference.

Action: EPRI-Watch / INFOWIN.

Further Developments in the Regions:

Dissemination, Participation, Exploitation of ACTS

EPRI-Watch will report on developments resulting from the above and will ensure with INFOWIN the dissemination of good practice.

4 Regional Contributions - IT Initiatives

4.1 GEMISIS 2000

Government, Education, Medical, Industrial and Social Information Superhighway

Introduction to GEMISIS 2000

GEMISIS 2000 is a partnership between the University of Salford, NYNEX CableComms, the City of Salford, the City of Manchester and Manchester Training and Enterprise Council. GEMISIS 2000 aims to develop user driven applications that exploit the sociological, economic and technological benefits of the information superhighway in order to assist in the regeneration of the North West of England. This will be achieved initially through pilot projects to be developed and implemented in Greater Manchester although the longer term vision sees the potential of these projects in both national and international terms.

In terms of project areas, GEMISIS 2000 focuses on the development of new applications in:

- Education

- Training & Research

- Business Development

- Community Services

- Health Care & Crime Prevention

Test-bed Sites

All pilot projects to be implemented under GEMISIS 2000 will take place within what are called test-bed sites, which, while within the Greater Manchester boundaries, are not necessarily in a restricted geographical area. These test-bed sites are:

Campus Site: The University of Salford;

Business Site: Major business areas in the City Pride (Salford, Manchester, Trafford);

Community Sites: Schools, public services and local authorities within City Pride;

Health Site: Based on Salford Royal Hospital and linked to the University of Salford and other healthcare providers.

Overview of the GEMISIS (Phase 1) Projects

In Phase 1, the emphasis has been on the development of the campus and business test-bed sites, with the help of funding from the European Regional Development Fund and the Single Regeneration Budget. Funding is currently being sought to develop the Community and Health Sites.

The Campus Test-Bed Site - the University of Salford

The optical cable infrastructure to provide the broadband network which is to underpin GEMISIS within the University of Salford campus will provide a large, concentrated ATM environment. This will enable a highly flexible, configurable and functional test bed on which the 'Virtual Education and Research Campus' will develop. The NYNEX network will create connectivity from the campus to the business test-bed site. From the perspective of the University of Salford, the linking of these two test-bed sites will enable the development of pilot projects which promote new partnerships that link the University science base, facilitate technology transfer, develop training, stimulate R&D and innovation.

The Business Test Bed Site (The Virtual Chamber of Commerce)

This is a major project which has been developed under the GEMISIS "umbrella" by a separate partnership consisting of NYNEX CablComms, the Manchester Training and Enterprise Council, Manchester Chamber of Commerce and Industry (MCCI) and the University of Salford. The focus of the project is on delivering effective services to over 450 businesses using the range of expertise and resources possessed by the partners. It proposes a series of targeted pilot initiatives utilising broadband and multi-media technologies alongside the large scale introduction of narrowband and mediumband services to business. The two activities are both complementary and integrated in order to develop a 'ladder of opportunity' for companies to progress from narrowband through mediumband up to broadband services. Companies will be linked to seven delivery sites. The delivery sites will consist of a hub of three core sites (the University of Salford, Manchester TEC/MCCI and NYNEX CableComms) all linked at 155 Mbps. There will be four peripheral sites linked to the hub at 2Mbps.

The project features the delivery of the types of services which have traditionally been demanded by businesses and delivered by agencies such as Chambers of Commerce, Training and Enterprise Councils (in respect of services) and Universities (in respect technology transfer, R & D support etc.). This project is aimed at enabling the development of an infrastructure to deliver information, access to expertise, technology transfer, training and facilitate building contacts between businesses via both narrowband and broadband networks.
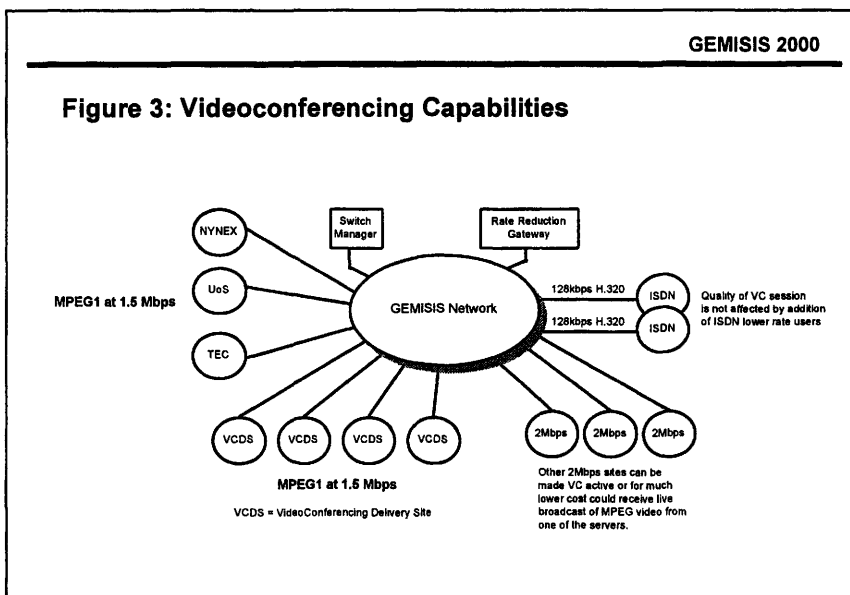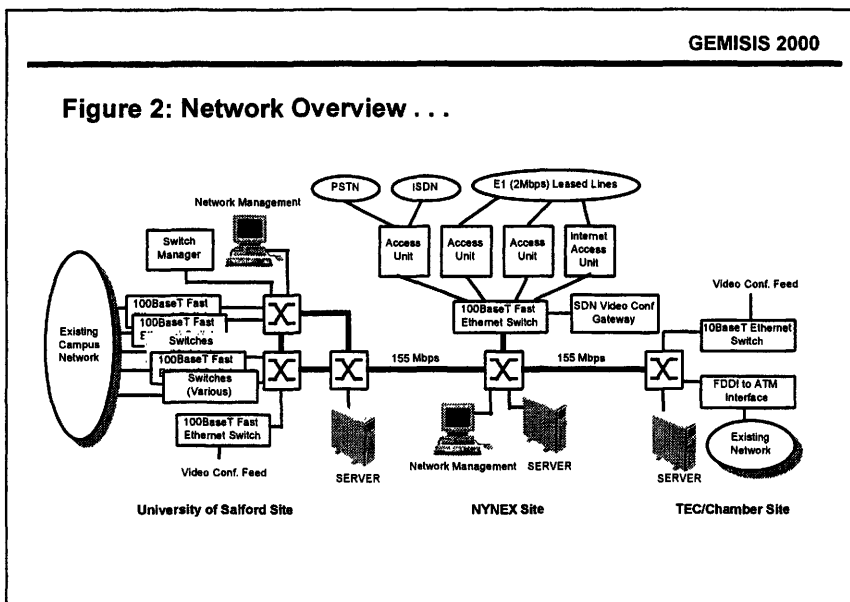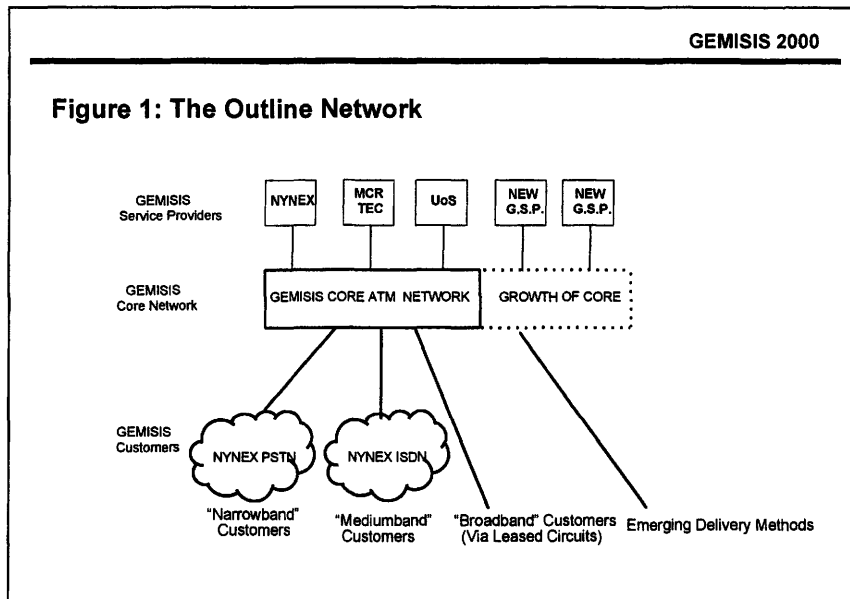
Overview of the GEMISIS Phase 1 Network

The GEMISIS campus and business test-bed sites which collectively form the Phase 1 development, are concerned with the delivery of services to users by the project partners, acting in a capacity as service providers. The users gain access to the services by means of an access network which varies in capability from simple PSTN dial-up through to broadband access. This is shown in Figure 1, which also demonstrates the aim to make the network expandable and future-proof to allow for the introduction of new service prviders (GSPs) and new delivery methods.

Figure 2 gives a network overview showing how the three core delivery sites are linked to the outdies world (including the Internet). The implementation of this network has been contracted to Newbridge Networks and ICL, who are also entering GEMISIS on a partnership basis. In addition, a videoconferencing overlay network is provided to support a number of fixed location videoconferencing delivery sites (see Figure 3).

For further information contact:
Keith Lawrence   **Email:k.lawrence@university-**
Faraday House Salford M5 4WT   **management.salford.ac.uk**
England

GEMISIS 2000

Figure 1: The Outline Network

GEMISIS 2000

Figure 2: Network Overview . . .

GEMISIS 2000

Figure 3: Videoconferencing Capabilities

4.2 NORTH LANARKSHIRE COUNCIL

Information and Communications Technology Network

Project Outline & Background

The European Commission's Action Plan on the Information Society highlights the core role of information and communications technology networks (ICTNs) in the promotion of Community economic, social and cultural development. Funding is available to support feasibility studies and demonstration actions to develop information and communications technology networks, particularly where such networks can offer benefit to small communities and to social groups excluded from the labour market.

The decline of steelmaking in the North Lanarkshire area and consequent restructuring of the local economy has rendered many traditional skills obsolete while inward investments have supported growth in jobs which require knowledge of Information Technology. In addition to introducing measures which meet this "skills gap", the local authority is seeking to address wider social and economic development issues through Information Technology applications and is keen to develop support services to meet gaps in the network of provision to communities and individuals.

Aim

To develop an Information and Communication Technology Network (ICTN) strategy in North Lanarkshire which will initiate pilot projects to:

- enable social groups currently excluded from the labour market to enhance their employment and training opportunities

- empower local communities by providing access to the Information Society

- support local business development

- develop information and communication technologies as a growing economic sector in North Lanarkshire

North Lanarkshire Council wishes to involve a wide range of partners in its development, implementation and monitoring, including local economic development agencies and educational institutions.

Proposal

A prerequisite of many sources of EU funding, including that available for technology related projects, is a transnational partnership of two or more members states. North Lanarkshire Council is keen to learn if other member regions of UK RETI are investigating similar project areas and to facilitate useful exchange of experience between partners in this field.

For further information contact:

Ms. Heather Koronka,
European Co-ordination Officer,
North Lanarkshire Council,
PO Box 14, Civic Centre,

Motherwell, ML1 1TW
Tel: + 44 1698 302270
Fax: + 44 1698 275125

4.3 BREMEN REGIONAL INFORMATION STRATEGY DEVELOPMENT (BRISE)

Initiated by the Senator of Ports, Transport and Foreign Trade in cooperation with other departments of the Senate, Bremen has been increasingly engaged since 1994 in developing and implementing concepts and projects in connection with introducing modern communication and information technologies in the region. Reference is made explicitly to the so-called Bangemann Report, Korfu 1994, which lists under Chapter IV the following applications, amongst others: telematics for small and medium-size enterprises (SME), networks in support of health precautions and city information systems.

As a matter of course, Bremen also participates in the so-called Stockholm Challenge (Bangemann Challenge).

The conversion of the Bremen port into an electronic port for members of the traffic & transport community and government agencies alike has brought about the introduction of the Bremen Port Telematics (BHT). In the fields of telematics in traffic, broad band communication and tele applications a number of R&D projects are being implemented jointly by the scientific and economic communities as well as government agencies.

The growing number of developments in this area (telematic services, Internet etc.) calls for coordination of all projects dealing with information and communication technologies in the Federal State of Bremen and joint evaluation of such projects by all participating groups as regards their relevance for the information society. To this end, the Senator of Ports, Transport and Foreign Trade submitted the comprehensive BRISE project (Bremen Regional Information Society Strategy Development) to the European Commission, GD XVI. A strategy and action plan which will enable Bremen to cope with the challenges involved in introducing the information society are to be developed in collaboration with the relevant governmental agencies, the service sector, the private sector, the various user groups, the trade unions, the scientific community and the institutions engaged in further education.

To begin with, all current actions and projects will be assembled within the framework of BRISE and fitted as modules into the pattern towards an information society in the region. Then, further projects and actions required are to be identified and assessed as to their implementation and introduction.

An information technology perspective will be elaborated for a maritime region with structural deficiencies, taking into account user requirements. The strategy and action plans are to be effective in that they combine hitherto fragmentary approaches so that they become economically stimulating in the Bremen region. Furthermore, it is expected

that further economic and political interests will be mobilised. In the maritime area, in particular, it is obvious that technical innovations will reinforce competitiveness.

The initiative is aimed at combining applications for the ATM centre Bremen strengthening Bremen as maritime production and logistic centre promoting public-private partnership in the area of training and further education to begin with making available new means of communication for the citizens using new means of communication in the area of small and medium-size enterprises (SME). The expected results are improved access to and utilisation of new media better embodiment of the principles of the information society in the economic sector and the population improved knowledge about the changes occurring in the employment structures in the course of change consolidation of the employment situation improved knowledge about inter-regional network structures.

The project starts with the above-mentioned modules in the area of information technology and develops them to form a complete concept designed to strengthen the costal region. Acitve cooperation of companies is a condition sine qua non in order to bring about the envisaged employment effects.

A steering committee which will be comprised of all social groups in the economic and scientific as well as social (trade unions and empoyers) fields is to ensure that the introduction of the information society will be accepted and can be.

For further information contact:

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Kirchenstrasse 4/5a   **Email: kemmer@hva.uni.bremen.de**
D-28195 Bremen

4.4 LANDESSTRATEGIE TELEMATIK DES MINISTERIUM FÜR WIRTSCHAFT UND TECHNOLOGIE DES LANDES SACHSEN ANHALT

Die Telekommunikation hat sich zum wirtschaftlichen Standortfaktor herausgebildet und bietet Möglichkeiten für Wirtschaftswachstum und zur Schaffung zukunftsträchtiger Arbeitsplätze. Mit der Landesstrategie Telematik werden vorrangig Informations- und Kommunikationstechniken gefördert.

Die Initiative dient dazu, die im Land bereits vorhandenen Ansätze zusammenzuführen und strategisch aufeinander abgestimmte Projekte noch wirksamer als bisher in die Aktivitäten und Förderprogramme von Bund und Land einzubinden.

Die Laufzeit der Landesstrategie umfaßt den Zeitraum von 1995 bis 1999

Realisierungsstudie zur Landesinitiative Telematik

Das Ministerium für Wirtschaft und Technologie hat eine Realisierungsstudie zur "Landesinitiative Telekommunikation Sachsen Anhalt" beim Verein zur Förderung der Infrastruktur der Telekommunikation in Sachsen Anhalt in Auftrag gegeben.

Im rahmen dieser Untersuchung wurden 8 Arbeitsgruppen gebildet, die zusammen mit den betroffenen Ressorts, den Forschungseinrichtungen, Sozialpartnern und Unternehmen eine Bestandsaufnahme bereits vorhandener, im Aufbau befindlicher Vorhaben vorstellen. Neue Projektideen sowie deren Rahmenbedingungen und Umsetzungsmöglichkeiten werden ebenfalls dargestellt.

Auswahl und Realisierung der Pilotprojekte soll im Rahmen eines Schwerpunktprogramms erfolgen. Die administrativen Strukturen sollen schlank sein und sich weitgehend auf vorhanden Einrichtungen und auf Bordpersonal stützen.

Weiterführung des Projekts "Modulare Datenbank innovativer Produkte und Technologien - Sachsen Anhalt"

Mit dem Datenbanksystem sollen kleine und mittlere Unternehmen, FuE Dienstleistungsunternehmen sowie den universitären und außeruniversitären Forschungseinrichtungen umfassende Möglichkeiten geboten werden:

- ihr Leistungsprofil darzustellen
- notwendige Kooperationspartner zu finden und
- einen Gesamtüberblick über das F/E Leistungsangebot in Sachsen Anhalt zu erhalten.

Förderung von Entwicklungsvorhaben auf dem Gebiet der IuK Technik über Richtlinien

In Vorbereitung befindet sich eine Richtlinie zur Förderung von Telearbeit (Richtlinie über die Gewährung von Zuwendungen zur Förderung von Modellvorhaben zur Telearbeit und Telekooperation im Rahmen des Operationellen Programms des Landes) und Informationsbeschaffung aus Datenbanken.

Teleport im Innovations- und Gründerzentrum Magdeburg/Barleben

Der Teleport hat vor allem die Aufgabe, Ausstattung und Dienstleistungen der Telekommunikation für die im IGZ untergebrachten Unternehmen preisgünstig zur Verfügung zu stellen.

EPRI-NET- satellitengestütztes Projekt zur Förderung der stärkeren Beteiligung von KMU an EU-Projekten sowie Folgeprogrammen EPRI-Watch.

Durch diese Vorhaben soll die Anmeldung von Forschungsvorschlägen (Telematik) im EU - Bereich durch technologieorientierte KMU und Forschungseinrichtungen aus strukturschwachen Regionen angeregt und durch Beratung unterstützt werden.

DAB

Entwicklung von Dienstleistungen für digitalen Hörfunk

Organisation von Workshops auf dem Gebiet der Telematik

Die Landesstrategie Teklematik richtet sich an kleine und mittlere Unternehmen sowie Forschungseinrichtungen.

Auswahlkriterien werden durch die Zielgruppe und Innovationsgehalt des jeweiligen Projektes bestimmt. Die Organisation und das Management für die Landesstrategie werden durch Infratel unterstützt.:

Um den industriepolitischen Dialog anzuregen und die Akteure des Telekommunikationssektors in Sachsen Anhalt zusammenzubringen wurde auf Initiative des Wirtschaftsministeriums der Verein Infratel e.V. gegründet. Infratel steht für "Verein zur Förderung der Infrastruktur der Telekommunikation in Sachsen Anhalt".

Die breitgefächerte Mitgliederstruktur, bietet eine sehr gute Grundlage, Wirtschaftsförderungskonzepte für diesen Technologiesektor zu entwerfen, zu beraten, Konsens herbeizuführen und ihre Umsetzung in Sachsen Anhalt zu unterstützen.

Die Förderung der Telematik bezieht sich auf Unternehmen und Organisationen in Sachsen Anhalt. Die überregionale und nationale Wirksamkeit wird angestrebt.

Im Haushaltsplan 1996 sind für die Telematikinitiative Mittel eingestellt.

Folgende Unterstützung steht zur Verfügung:

- Zuschüsse für Telematikprojekte

- Vorbereitung von Projekten zur Beteiligung an europäischen Forschungsprogrammen

- Bereitstellung von Wagniskapital

Das Ministerium für Wirtschaft und Technologie steht unmittelbar vor der Einrichtung einer "Technologie-Stiftung" für Existenzgründer. Das Stiftungsvermögen wird vorläufig aus Landesmitteln kumuliert. Das Ministerium für Wirtschaft wird sich darüber hinaus bemühen Privatkapital für diese Stiftung einzuwerben.

For further information:

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MWT Ref.: 52　　　　　　　　　　**Fax.++49.391.567.472**
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4.5 PROJECT PROMOTIECAMPAGNE INTERNET GELDERLAND.

Projectnamen:

- Projectplan promotiecampagne Internet Doelstelling 2-gebied.
- Projectplan promotiecampagne Internet Midden- en Kleinbedrijf.

Initiatiefnemer: Stichting Telematica Gelderland

Planning: uitvoering vanaf najaar 1996 tot eind 1997

Beschrijving:

Doel van de internetpromotiecampagne is bedrijven in Gelderland aan te reiken hoe zij de beschikbare kennis, informatie en toepassingen in hun individuele bedrijfssituatie kunnen gebruiken. Eindresultaat is dat ieder bedrijf zelf in staat is een programma van eisen te formuleren inzake het individuele internetgebruik. De voorlichtingscampagne wordt gezien als noodzakelijke voorwaarde om tot andere projecten te komen.

De campagne bestaat uit:

1. Voorlichting: de benadering van het bedrijfsleven gebeurt via industriële kringen die een bijeenkomst organiseren met Internet als thema. De voordelen van Internet worden behandeld en er worden succesvolle voorbeelden gegeven van ondernemen met Internet. Na afloop wordt een praktijkdag aangeboden. Tevens wordt aangesloten bij de inmiddels landelijk gestarte campagne van het min. van Economische Zaken, VNO-NCW en MKB-Nederland.

2. Praktijkdag: de deelnemer werkt zelf aan een personal computer, leert informatie te zoeken en krijgt inzicht in relevante informatiebronnen. Tevens wordt instructie gegeven over het installeren van een Internetabonnement.

IT-experimenten: nee.

Netwerken.

Benadering van bedrijven gebeurt zoveel mogelijk via bestaande circuits zoals ondernemersverenigignen, industriële kringen e.d. in Gelderland.

Regionale partners.

Leden van de stichting Telematica:

Samenwerkende Kamers van Koophandel, PTT Telecom, ESKAN (regionaal economische stumuleringsorganisatie), NUON Telekabel, BDO Accountants, provincie Gelderland.

Financiering en investeringen.

Financiering door bedrijven, EFRO (doelstelling 2), stichting Telematica, provincie Gelderland.

Hoe worden de resultaten verspreid?

Nog onbekend.

Contactpersoon.

Drs. J.W Ludwig, Samenwerkende Kamers van Koophandel Gelderland, Postbus 9292, 6800 KZ Arnhem, Nederland Tel 026-3516767 Fax 026-34459612.

4.6 INTERREGIONAL DEVELOPMENT AGENCIES FOR SMALL AND MEDIUM-SIZED ENTERPRISES (IDAN).

Initiatiefnemer/coördinator: Ministry or Economic Affairs, Technology and Transport of the Federal State of Northrhine-Westphalia.

Planning: september 1996 en tot en met augustus 1998.

Beschrijving.

Met IDAN beoogt de Europese Commissie de samenwerking tussen regio's te stimuleren. Doelen:

-opbouwen van een netwerk van bestaande projecten van regionale ontwikkelingsmaatschappijen en MKB. In het kader van deze kennisuitwisseling/overdracht heeft de GOM 3 projecten voorgedragen namelijk: Homepage Gelderland, International Centre for Foothold Services, Multimodal Transport Centre;

-stimuleren van het gebruik van telematica door het MKB;

-toegang tot projecten creëren door middel van een Interregional Business Interface (IBI);

Vernieuwende elementen zijn onder andere:

-technische en organisatorische ondersteuning bij de implementatie van teleservices bij het MKB;

-totstandkoming van een elektronisch platform voor MKB om producten en diensten te promoten;

-stimuleren van interegionale samenwerking door middel van bedrijfsprofielen.

IT-experimenten:

zie bij beschrijving.

Netwerken.

zie partners.

Regionale Partners.

Voor het Gelderse deelproject is de Gelderse Ontwikkelingsmaatschappij projectleider en zijn onder andere de provincie Gelderland en de stichting Telematica Gelderland partners.

Financiering.

Totale kosten bedragen 3.120.000 ECU voor 9 regio's. De begroting voor Gelderland bedraagt 300.464 ECU (ca. □630.000,-) waarvan 50% zijnde 150.232 door de Europese Commissie wordt bijgedragen. Voor het restantbedrag van ca. □315.000,-- dient cofinanciering gevonden te worden.

Verspreiding resultaten.

Via het netwerk.

Contactpersoon.

Gedlers deelproject: GOM: drs. s. van Hoof, Postbus 5215, 6802 EE Arnhem, Nederland, tel 026-3844222 fax: 026-3844244.

Totale projectleiding: Forschungsinstitut für Telekommunikation, drs. A. Koll, Martin Schmeisser-Weg 4, D-44227 Dortmund, tel 49 231 9759560 fax: 49 231 97505610.

4.7 PROJECTVOORSTEL IINTERNET ADAPT-BIS (IN ONTWIKKELING).

Initiatiefnemers: Innovatiecentra Midden- en Zuid-Gelderland en Noord & Oost Gelderland.

Planning: medio 1997 tot en met 1998.

Beschrijving.

Project wil een hoogwaardig aanbod voor MKB ontwikkelen met demonstraties die de praktische toepassing van Internet laten zien. Diverse activiteiten worden voorzien:

* werving doelgroep;
* branche-gerichte bijeenkomsten met benchmarking;
* individuele trajecten;
* implementatietrajecten.

Regionale partners:

Provincie Gelderland, specifieke deskundigen, transnationale partners.

Contactpersoon.

drs. Ed Auée, Innovatiecentrum Midden- en Zuid-Gelderland, Postbus 44, 6800 AA Arnhem, Nederland, tel. 026-4458948 fax. 026-4459311.

4.8 STICHTING TELEWERKCENTRUM LOCHEM

Projectnaam/initiatiefnemer/planning:

Projectnaam: Stichting Telewerkcentrum Lochem

Initiatiefnemers: Heidemij N.V. en Centrale van Plattelandsvrouwen Organisaties.

Planning: gestart in 1994: doelstelling commercieel bedrijf in 1997.

Korte omschrijving:

Schaalvergroting en extensivering van de landbouw en het omzetten van landbouwgebieden leiden tot vermindering van de directe en indirecte werkgelegenheid op het platteland.

De plattelandsbevolking is voor nieuw werk voornamelijk aangewezen op stedelijke gebieden. De bereikbaarheid van de stedelijke gebieden laat meestal te wensen over; vooral vrouwen die in deeltijd willen werken hebben hier problemen mee.

De gevolgen zijn:

* een trek naar de stad en leegloop van veel landelijke gebieden. Hierdoor komt de leefbaarheid van het platteland in gevaar;

* veel (verborgen) werkloosheid onder de vrouwen die op het platteland blijven.

Het Telewerkcentrum zorgt voor nieuwe toekomstgerichte werkgelegenheid op het platteland. Met behulp van de moderne informatie- en communicatietechnologie wordt door ervaren mensen gewerkt voor opdrachtgevers op afstand (data-entry, -bewerking, telemarketing, tekstbewerking, vertalingen, telefoniste/secretaresse op afstand etc.).

In het centrum worden ook vrouwen opgeleid die nog niet voldoende kennis en ervaring hebben.

IT-experimenten:

nee

Netwerken:

Telewerkcentrum Amsterdam, Telewerkcentrum De Peel (hiermee heeft de Stichting een strategische samenwerking vooral op het gebied van acquisitie en publiciteit).

Bedrijven worden benaderd via bestaande kanalen, circuits.

Regionale partners:

Stichting Telewerkcentrum Lochem, Centrale van Plattelandsvrouwen Organisaties, Regionale Landbouw Federatie, Arbeidsvoorziening, Koninklijke Nederlandse Heidemaatschappij, Provincie Gelderland en diverse personen op persoonlijke titel.

Financiering en investeringen:

De Stichting Telewerkcentrum Lochem is in 1994 van start gegaan. In 1994 was het inkomstenaandeel uit omzet ca. 10% en het subsidie-aandeel ca. 90%. In 1997 is de verwachting dat het omzetaandeel 100% zal zijn.

1994: subsidies: Arbeidsvoorziening, Europees Sociaal Fonds, Provincie Gelderland.

1995: subsidies: Europees Sociaal Fonds, Provincie Gelderland en Nationale Overheid.

Verspreiding resultaten:

De Stichting Telewerkcentrum Lochem heeft De Nationale Telewerk Prijs 1996 ontvangen.

Free publicity (regionale en (inter)nationale pers en radio en de regionale TV).

netwerken van de Stichting.

Naar aanleiding van de voorbeeldfunctie zijn andere regio's gevolgd o.a. Telewerkcentrum De Peel (start 1997).

Contacten met (inter)nationale delegaties o.a. België, Duitsland en Spanje.

Contactpersoon

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Fax: 0573-441903
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5 Annex

5.1 SPEAKERS

Bach, Dr. Rene - DOLPHIN   TELSCOM AG, Bern, Switzerland

Bräunling, Gerhard   CEC DGXIII, Brussels, Belgium

Cattaneo, Gabriella - FAIR   Databank Consulting spa, Milan, Italy

Clarke, Jim - BOURBON   Screenphones Ltd, County Sligo, Ireland

De Michelis, Nicola   CEC DGXVI, Brussels, Belgium

Delit, Roger - GINA   COMINFO, Brussels, Belgium

Langhof, Marco - SMARTS   Teleport Sachsen-Anhalt GmbH , Barleben, Germany

Lozano, Luis   CEC DGXIII, Brussels, Belgium

Millard, Jeremy - ETD   TeleDanmark Consult A/S, Viby J, Denmark

Pannetier, Christophe - IRISI Conseil Régional du Nord-Pas de Calais, Regional Director of the Information Society Unit, Chairman of IRISI - Inter Regional Information Society Initiative - Committee

Schlieker, Joan - EPRI-Watch   Teleport Sachsen-Anhalt GmbH, Barleben, Germany

Soudoplatoff, Serge - InfoWin CP2i, Paris, France

Wobben, Thomas - RETI   Saxony-Anhalt EU Liason Office, Brussels, Belgium

5.2 PARTICIPANTS A-Z

A

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B

Bach, Rene	TELSCOM AG; NDIT/FPIT, Bern, Switzerland
Bail, Angelika	The Rheinland-Pfalz Liaison Office, Brussels, Belgium
Böhling, Hermann	Produtec Ingenieurgesellschaft mbH, Bremen, Germany
Bräunling, Gerhard	CEC DGXIII, Brussels, Belgium
Breslin, W.F.	Telecom Ireland, Dublin, Ireland
Brier, Tomas Salaz	Canary Islands EU Office, Brussels, Belgium
Bull, Tony	ERA Technology, Leatherhead, Surrey, UK
Burr, B.	The Computer Centre, Stuttgart University, Stuttgart, Germany
Burrel, Joanna	Local Government International Office, Brussels, Belgium

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Cannegieter, Hein	East Netherlands Provinces Brussels Liaison Office, Brussels, Belgium
Cattaneo, Gabriella	Databank Consulting spa, Milan, Italy
Clarke, Jim	Screenphones Ltd, County Sligo, Ireland
Culpin, Ian	CEC DGXIII, Brussels, Belgium

D

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De Michelis, Nicola	CEC DG XVI, Brussels, Belgium
Delit, Roger	COMINFO, Brussels, Belgium
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G

Gaggini, Manuela	EPRI-Watch Project Office
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Groth, Thorsten	Bremen Office, Brussels, Belgium
Giles, Sarah	Cornwall and Devon Office, Brussels, Belgium

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Hilber	Tirol EU Office, Brussels, Belgium
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J

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Jacobsen, Pal	Stavanger EU Office, Brussels, Belgium
Jensen, Pia Ronnov	Amstrad-Foreningen, Brussels, Belgium
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N

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Nielsen, Dorte	Association of County Councils, Brussels, Belgium
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O

Olsen, B.	Telenor Foll, Kjeller, Norway

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Plagemann, Stephen	SHP System Services, County Clare, Ireland
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Raw, S.	Telescom AG, Bern, Switzerland

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Schim van der Loeff, Regina	Region Randstad Holland and Utrecht Office, Brussels, Belgium
Schlieker, Joan	Teleport Sachsen-Anhalt GmbH, Barleben, Germany
Simmons, Stephen	Addico Cornix Ltd, Penzance, Cornwall, UK
Sjodén, Staffen	West Sweden Office, Brussels, Belgium
Soudoplatoff, Serge	InfoWin, CP2i, Paris, France
Stewart, Hill	Management of Technological Innovation, Impington, Cambridge, UK

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Treiber, Helga	EPRI-Watch Project Office
Tuddenham, Emma	Local Government International Bureau, Brussels, Belgium

V

Venchiarutti, Elisabeth	France Telecom, Paris Cedex 2, France
Verstraete, Christine	Delegation du Nord-Pas de Calais, Brussels, Belgium
Völpel, Renate	The Governing Mayor of Berlin

W

Weiler, Michel	Teleport Bruxelles, Brussels, Belgium
Whyte, A.	Dublin EU Office, Brussels, Belgium
Wilson, Frank	Interaction Design Ltd, Welwyn Garden City, Hertfordshire, UK
Wobben, Thomas	Saxony-Anhalt EU Office, Brussels, Belgium
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