Information Society Technologies

TELEBALT WORKSHOP
RIGA, APRIL 4-5. 2002

PROCEEDINGS

Information technologies, tourism and social integration

TELE BALT

RIGA LATVIA 2002

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Workshop

"Information Technologies, Tourism and Social Integration"

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**"Information Technologies,
Tourism and Social Integration"**

Edited by: *Dinnija Mudure (OpenLatvia)*
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Vladimirs Makarovs
Minister of Environment Protection and Regional Development of Latvia

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The Ministry of Environmental Protection and Regional Development of the Republic of Latvia, Head of the Tourism development division.

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Advisor of the Prime Minister of LATVIA

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Ambassador of the European Union in Riga

Jacques Babot
EC, Information Society Directorate – General, Head of Sector and Project officer to TELEBALT project

Foreword

The workshop “Information Technologies, Tourism and Social Integration” was held in Latvia, in Riga from 3 to 6 April 2002. The success of the workshop is estimated by the number of agreements signed between the participants from different EU countries and Baltic ones. Indeed, more than 30 memorandum of understanding have been established. It is a grate success and first step to further cooperation through the joint projects of the approaching 6th framework programmme of the European Union or bilateral EU and NAS co-orporation.

Two days workshop has attracted around 160 participant from different countries of Baltics, Europe and Russia. The main aim of this workshop was to foster the co-orporation in scientific and technological field between Baltic and EU countries in frame of new methods of work tourism and social integration areas.

Sectors of different IT activities was widely represented. Workshop clearly shoved an interest of different organisations and necessity of similar events in the future.

We would like to thank and congratulate all those who participated in the workshop and contributed their presentations to the proceedings. Thanks to everybody who assisted to make this event successful and we look foreward to further co-operation and success in the future.

Jacques Babot
European Commission
Project Officer

Jean Bonnin
EDNES
Project coordinator

Dinnija Mudure
Open Latvia
Project Manager

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16.30-17.30	**Parallel sessions A/2: Presentation of e-Work related projects funded by EU:** Chairman Dr. Jacques BABOT, Head of sector at the European Commission, Brussels ● **Team Work Project (IST):** Mr. Brian FOLEY, Project manager at TecNet Ltd. Ireland, Mr. Jack O'HERLIHY, Professor at Letterkenny Institute of Technology ● **BALTPORTS-IT project: Simulation and IT-solutions: Applications in the Baltic Port Areas of the Newly Associated States** Dr.E.BLUEMEL, Fraunhofer Institute IFF/FhG, Germany ● **E Learning as a tool for E Work,** Dr. Atis KAPENIEKS, Director at Distance Education Study Centre, Riga Technical University, Latvia ● **FlexWork Project (IST),** Mr. Karsten GAREIS Project manager at Gesellschaft fur Kommunikations- und Technologieforschung mbH, Germany
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Friday, April 5

10.00-11.00	**Parallel sessions A/3: E Work activities in Baltic's and CIS countries.** Chairman: Dr. Atis Kapenieks, Director at Distance Education Study Centre, Riga Technical University ● **WISTCIS Project (IST):** Ms Tatiana SHULYAKOVSKAYA, Project manager at EDNES, Russia ● **CLUSTER-PRO project (IST):** Prof. Alexei GVISHIANI, Vice Director of EDNES, France ● **TELEBALT project (IST) in Lithuania** Mr. Zigmas BIGELIS and Mr. Edmundas ZVIRBLIS, Project managers at Infobalt, Lithuania ● **Innovation Relay Centers** Dr. Juris BALODIS, Latvian Technological Centre, Latvia ● **EASYCRAFT project (IST)** Dr. Bruno Martuzans, Institute of Mathematics and Computer Science, University of Latvia
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11.30-12:30	**Parallel sessions A/4: e-Work, employment and social exclusion** Chairman: Prof. Edvins KARNITIS, commissioner at public utilities commission ● **Integration of disabled in labor market** Mr. Ivars BALODIS, President at APEIRONS association, Latvia ● **THINK Project (IST):** Mr. Miguel REYNOLDS Chairman and CEO of "TELEMAN S.A."., Portugal ● **THINK NAS project (IST):** Ms. Egija LAPINA, Project Manager Open Latvia Mr. Alvydas JAUCEVICIOS, Project manager at Vilnius Technical University, Lithuania Mr. Kaido KIKKAS, Project manager at Tallinn Technical University, Estonia
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Welcome address

Being the Minister responsible for tourism development in Latvia, I am very delighted to welcome you all at this seminar in Riga.

Within the last years Latvia has made much efforts to strengthen the tourism development policy – the National Tourism Development Programme for Latvia, Year 2001 – 2010, was elaborated by the Ministry of Environmental Protection and Regional Development and accepted by the Cabinet of Ministers in 2001.

Latvian tourism sector has begun integration into European and global tourism systems. There is a great potential for further development of various tourism types in Latvia.

Modern information technologies have become a very important part of our everyday life. The rapid development of hardware, software, Internet, information and reservation systems, e-commerce and other tools has had a major impact also on the operations of tourism business.

However, the new opportunities in tourism sector that are opened up by advanced IT tools are not fully explored in Latvia. Accordingly, there is a wide field of perspective new business opportunities.

Today we have come together to identify the current situation and to mark possible guidelines for the future.

I would like to thank the organisers for their diligence and hard work for the preparation of the seminar and wish to all of us creative and successful work today.

Vladimirs Makarovs

Minister of Environment Protection and Regional Development of Latvia

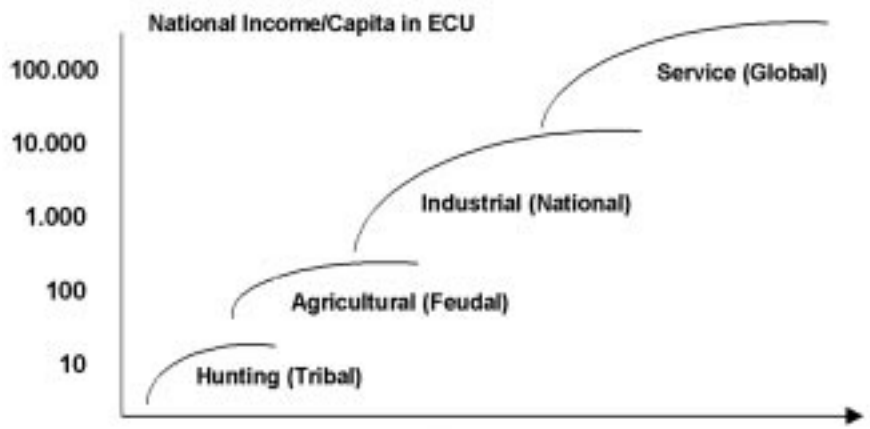
European Commission - DG Information Society

Jacques Babot from a co-edition with Peter Johnston

Dr. Jacques BABOT
Head of sector at the European Commission

The Lisbon Strategy: The changing nature of work in a Knowledge Economy
The future of work and employment in a networked knowledge society must be seen in the context of four inter-related trends - the continued professionalisation of work in a service economy; the trend to higher information -value in all products and services; globalisation of the economy, notably now for services: and the accelerating pace of change.
These trends lead some to great pessimism about the future of employment, as manufacturing industry declines in economic importance and the employment structures associated with it begin to evaporate: in 1900, 60% of jobs in the UK were in farming, mining and manufacturing; by 1950, these sectors provided 40% of jobs; and in 1999, they provide only 16%. Others see reason for great optimism as a "long boom" associated with a transition to a networked global information society spreads prosperity to a much higher proportion of the world population.

In this vision, everyone in this society can have skills, ideas, experience, creativity or time that others are willing to pay for. In fact, the job losses have been more than compensated by new job creation in services: the total UK working population was 20 million in 1950; it is now at a record 27 milllion, with most of the new jobs in education, health-care, finance and food/catering services.
What infrastructures and market mechanisms will mediate this new economy? Will they be accessible to all, or will the knowledge economy be only for the educated elite?



1.1. Professionalisation: Unpaid Activities Become Paid Services

In the western, Christian culture, work is the central feature in life: it determines a person's status in society and provides both the necessities of life and material wealth. During the industrial revolution, largely within the last 200 years, work has also largely become synonymous with employment; it has become a profession for most people (although this trend is far from complete and will continue into an information society), and dependant on organised structures - whether private companies, government administrations or networks of self-employed individuals.
The trend towards the commercialisation of work has accelerated in the last 20 years with increases in overall prosperity; with the complexity of social organisation, and with the continuing shift towards a service economy. This trend currently continues to encroach on the set of previously unpaid activ-

ities done mainly by women in the house, as women are increasingly drawn themselves into paid employment. The recent changes are best illustrated in the areas of core "housework" tasks of cooking, child rearing and cleaning/washing.

1.2. New Value Chains

The fundamental process of adding value by conceiving and producing products and services doesn't change. The ownership and linkage of different parts changes, and the relative "weight" of different parts changes, as we move into an information society.

If the value chain is (artificially) separated into the five phases of design, production, advertising/packaging, retail and after-sales services, the relative "weight" in terms of investment and employment have changed dramatically in the last 20 years from an industrial to a service paradigm. The industrial paradigm was characterised by the dominance of the mass production. Henry Ford's Model T was a triumph of production engineering. However, in today's emerging information society, more than 70% of the retail value of a car is related to immaterial features - only 16% reflects the price of raw materials (steel, plastic and rubber). The informative content (microprocessors and software) is worth more, and the advertising, retailing and after-sales services represent about 40%. The design and retail phases have become both more critical to commercial success and the most expensive.

This trend will continue; the highest value-added will be in immaterial design work; in advertising, retail and after-sales service, with the latter taking the dominant place as "car manufacturers" migrate up the value chain to become "mobility service providers".

1.3. Globalisation

With the completion of the liberalisation of world trade in Uruguay Round; the recent political commitment to further liberalisation for services in Doha; and the shrinking of distance through global communications networks; economic activities are more than ever integrated and interconnected around the world. This has led to fears in Europe that capital, enterprise and jobs will increasingly move to countries where labour is cheap.

These fears are largely unfounded; and the evidence of the last decades is more optimistic: firstly because the idea that there is a fixed volume of work to share around is a fallacy. The more people in employment, the more jobs there will be for others everywhere in the world. Global job creation has been exceptionally high in the last 25 years - in developed countries (the USA, Canada, Japan have seen indigenous job creation of over 65 million jobs) at the same time as over 500 million jobs have been created in the developing countries of Asia.

Secondly, the OECD "job study" of 1998 showed that new job creation has been strongest in those countries which have invested most in information and communication technologies. More jobs were created in the US between 1975 and 1995 than in the 20 previous years: because of the IT revolution. Since 1985, about 50% of new jobs were in the managerial and professional service sectors, and 70% were high-skill, high-pay.

1.4. An Accelerating Pace of Change

We all suffer from this: And perhaps our generation is the one that has had to live through the critical period in which for the first time the lifetime of a "job" has become shorter than our working life. In previous centuries and generations, skills and professions were learned for life: "Apprenticeship", then school education and vocational/professional training, prepared people for a lifetime of work as a carpenter, a miner, a doctor or an accountant. Yet during our working lives some of these professions have almost disappeared in Europe.

This has its effect in the labour market: the average duration of "employment" has become shorter - now about 6 years in the EU - but not by as much as many people feared: "lifetime employment" is not disappearing when organisations are able to re-skill and re-deploy people in a flexible and effective way.

Nevertheless, there is a growing mismatch between skills learnt when young (up to 25) and the skills required for new jobs today: especially with the ageing workforce in the EU.

Life-time learning has therefore become a key priority in the eEurope Action Plan and in European employment policies: "investing in employability and adaptability of people" through a revitalised and advanced education and training system; workplace re-skilling; self-training; new access to training and conversion courses for older workers.
There is already a "skills gap" for IT and e-commerce specialists, especially those with softer "social skills" of team-working, creativity and communications . The private sector is already the major investor in "management-training" and will need to broaden this type of "work management" and "creativity" training to most people in knowledge-related activities.
The faster pace of change also increases stress in work: more than 41 million EU workers are affected by work-related stress each year. The European Week for Safety and Health at Work 2002 will aim at tackling this growing problem by increasing awareness of these and other psychosocial risks as well as promoting and developing preventive measures. At the Stockholm Summit, Heads of State also addressed the "quality of work", both in the life/work balance; and in terms of workplace safety. The Commission has now proposed to develop by 2003 a comprehensive Community strategy to promote health and safety at work, to achieve a substantial reduction in work accidents and professional illness.

2. NEW WORK OPPORTUNITIES FOR ALL?

2.1. What Do We Mean by "All"?

In 1993, the Commission raised the stakes in the "full employment " debate by highlighting the relatively low level of participation in the formal labour market in Europe (60%, compared with 70% in Japan and 75% in the USA), as well as the disparity between jobs and those seeking employment (the traditional "unemployment" figures).
In March 2000, the European Heads of State set a new strategic goal to raise the employment rate to near 70 % and to increase the proportion of working-age women in employment to more that 60 % in 2010. It Stockholm, in March 2001, these goals were reinforced by intermediate targets for women in 2005 and for older workers in 2010.
In March 2001, European Heads of State reviewed progress. Europe enjoyed 3.5% growth in 2000, and unemployment fell to its lowest level since 1991. However, in the current slowdown, renewed efforts must be made to accelerate structural change, notably to get more flexibility and creativity into work.
Innovation and technology change are still driving job creation. Investments in ICT have contributed over 0.5% per year to growth since 1995, and job creation has been particularly strong in the ICT and related business services with over 3.5 million new jobs. In the last 5 years, high-skill non-manual "eWork" has accounted for over 60% of the new jobs: 1.5 million in the high-tech sector itself, and over 5 million with higher education qualifications
In most EU-countries, the same goal of a higher participatory workforce is addressed through policies to re-integrate the "excluded" - whether through racism, lack of skills, disability, homelessness or misfortune.
It is anyway clear that we are going to need much more flexible, part-time, and local work opportunities to get another 10% of the potential workforce into employment (going from 60-70% of the total workforce), especially as an ageing workforce will be more conscious of "quality-of-life" issues and less mobile: we will have 10 million more people over 50 in the workforce by 2010, and the proportion of people with disability is likely to increase from 11% today to 17% in 2020.

2.2. User-Friendly Work-Tools and Work Organisation

Clear choices will have to be made to increase participation in the workforce:
– Do we invest in making work-tools easier to learn and use; or do we invest in re-training everyone in their use every time they change?
– Do we invest in road and public transport systems to allow more people to travel to work, or do we invest in "bringing work opportunities" nearer home?
Of course these choices are not black and white: they are questions of balance in investment. This

has already started to shift: The explicit focus on "user friendly" information society technology development at EU level; and the modest trimming back of road-building programmes in the UK and NL. In its proposal for a sustainable development strategy, the Commission proposed to de-couple transport growth from GDP growth in order to reduce congestion and to promote more balanced regional development by reducing disparities in economic activity; maintaining the viability of rural and urban communities.
There is nevertheless far to go. The average commuting times and distances are greater then ever. The annual public and private investment in IT training for the workforce is greater than ever, and still rising fast.

3. NEW ORGANISATION AND EMPLOYMENT STRUCTURES

The third major question is what social structures will organise this global market for services - one in which most people have to manage their own affairs, or one in which security and stability will be provided by private companies and government organisations?

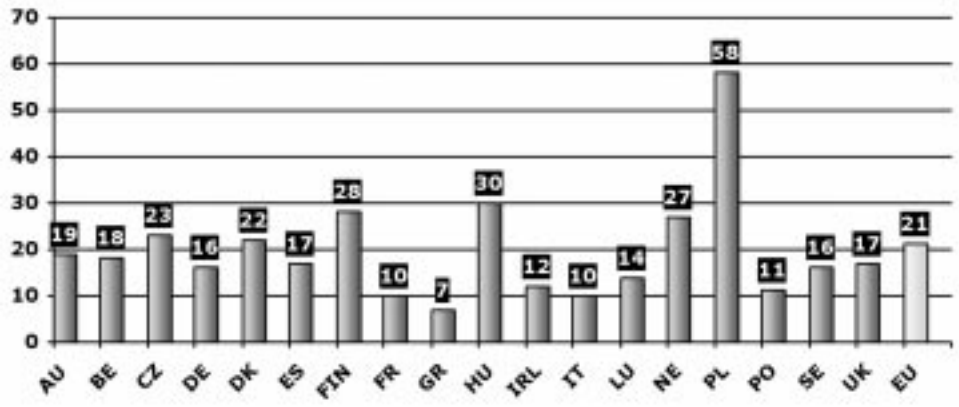
3.1. Effects of Scale

The ability to find customers for a specialist skill depends on a large enough pool of potential clients. This is why the variety of services in cities has always been greater than in small towns or villages: it is why he Internet has a wider variety of services/information than any corporate intranet; it is why bio-diversity is less when habitats are fragmented; and it is why economic growth in an information society is so intimately linked to globalisation of the service sectors in our economies.
But the scale of markets, and the complexity of inter-related services also influences the organisational "ecology" of the economy. For the same reason that you don't get large animals in small habitats, you don't get large companies in small towns. But when you integrate smaller economies, larger economic units become viable. The completion of the single market in Europe allowed companies in some sectors to amalgamate (by merger or acquisition). Similarly the current economic globalisation is producing a new set of global giants in accountancy, banking, media, IT, telecoms, oil and insurance. These grants will be world leaders in technology and service development; they will "set the standards" for price and quality of service; and they will "structure markets", but they will collectively represent a diminishing proportion of world direct employment. They will increasingly dominate the newspapers and stock exchanges, but it is their increasingly wide networks of smaller suppliers and collaborators that will provide employment.
The largest volume of new job creation will remain at the bottom of the business size spectrum: small businesses (<250) represent over 80% of employment in Europe and generate proportionally twice as many new jobs as large companies.
We therefore have the intriguing prospect that a new generation of global giants will set the economic environment for work; they will develop the tools and set the models and expectations for work, but most people will have to use these tools in dramatically different circumstances - of small companies, working near home without the various support services offered by larger organisations.

3.2. Growing Complexity

At the same time, the growing complexity and amount of "embedded knowledge" in products and services, is making all activities more interdependent than ever. Car manufacture now depends on specialist suppliers of machine tools, special materials, chemicals and financial services. The world of business is not therefore being polarised into a few large and many small independent companies; but is re-structuring as fewer global focal points for a large number of interlocking and highly dependent networks of supply and co-operation.
The implications for work and employment are relatively re-assuring: firstly, that this trend is not towards a model of individual and autonomous self-employment in a chaotic free market; but rather towards a model in which even self-employment will be in a framework of "networks of co-operation" which will have some stability over time beyond an immediate "project" or "job".- the proportion of people in self-employment has in fact declined from 15.4% to 14.4% in the EU since 1988 and

is lowest in the most developed knowledge economies (US: 7.7%). The recent results of research in the EU STAR project has confirmed that the myth that "e-lancing" will be the employment model of the future is without foundation. However, in the knowledge economy, integration of people into the culture of the organisation, will depend more on "stakeholder" commitments and benefits, rather than proximity.

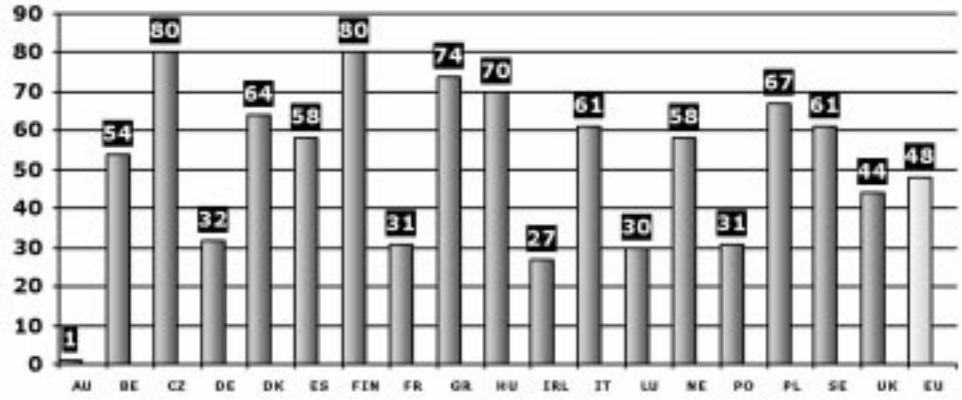


The % of businesses with more that 50 employees supplying eServices in 2000

A key issue will be the degree of stability and "social protection" associated with the employment "networks". Some new models have emerged: temporary employment agencies offering holidays, sickness and maternity leave/benefits to staff "on their books" for a long time; the "big-five" accountancy/business service "partnerships" such as Anderson, PWC, etc. providing a framework for ever-changing teams to move from one project to the next with continuity of employment. These organisation frameworks which allow different skills to be pulled together at short notice in ever changing combinations can not only make more effective use of skills for clients, but can also provide security and continuity for the individuals involved.

4. MOBILITY OF PEOPLE AND WORK

The locatisation of work will also change. With "telework" and "virtual enterprises", the geographic spread of companies will broaden. Companies will develop different activities in different countries, and employees will also disperse. In 2000, there are already about 10 million "teleworkers" in Europe , and over 20 million in the USA . The Gartner Group predicts that 130 million people will telework by 2003. A UK survey indicates that the one million UK teleworkers in 1999 will grow to over 50% of the working population by 2010. A recent IDC survey predicts that there will be 28 million eWorkers in Europe by 2005.



The survey results from the EU EMERGENCE project show that over 50% of businesses in Europe already make use of external services provided over communications networks.

Work and employment for all will require structural change in society; radical change in the way organisations manage their activities, provide service and employ people. eWork is central to these changes, and has a special place in the European model:
– For global competitiveness, European companies will need to maximise efficiency in use of skills because of high wage costs; they will need to minimise "non-wage" costs; and they will need to provide high-quality services by being closer to their customers: eWork contributes to all three goals.
– The geographic mobility of Europe's workforce is substantially less than in the US, and decreasing. Over 25% of Americans move State to work; less than 3% of Europeans move to another country to work - and with the economic convergence of Portugal, Spain and Ireland, the figure is decreasing. The barriers to mobility are no longer regulatory - the Single Market exists in employment market - but people are "culturally anchored" to their regions of birth more strongly in Europe than in the US. eWork can compensate for poor labour force mobility, by greater "virtual" mobility of work.
– People's quality-of-life is increasingly important, and the proximity of home and work is critical to it. As we move towards a shorter working week and to greater involvement in part-time work; proximity will become more important. eWork is part of the solution.
Finally, the European Union is now committed to sustainability as an overall policy goal in the Amsterdam Treaty. Structural change in production and work organisation is crucial

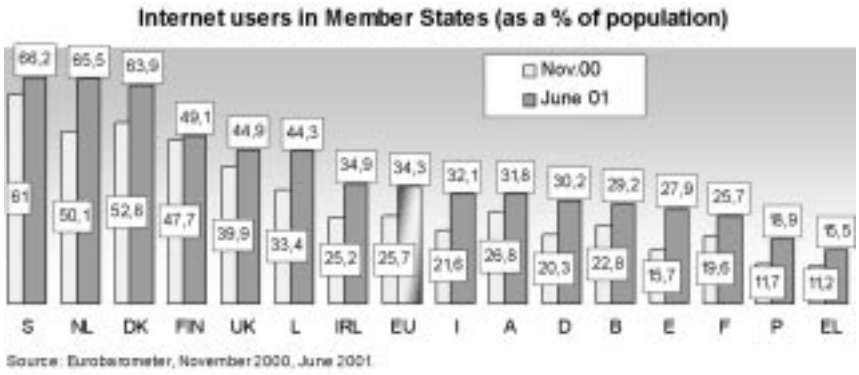
5. THE KNOWLEDGE ECONOMY AND SUSTAINABLE DEVELOPMENT

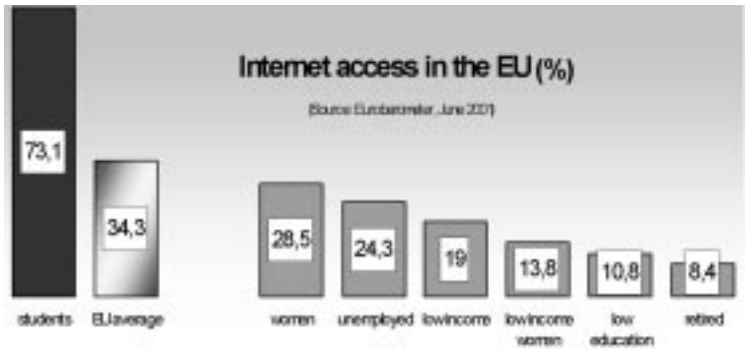
Sustainable development is now a Treaty objective of the European Union. A strategy to achieve it was proposed by the Commission in May 2001 and adopted in Göteborg in June 2001. It will now become the basis for Europe's contribution to the Rio+10 "Earth Summit" in South Africa in 2002 and an integrated part of the social and economic development strategy of the EU.
Growth in immaterial networked services can be without increases in resource use: If the knowledge economy can be both more prosperous and more sustainable, then the best route to global sustainable development may be through accelerated technology development, business innovation and structural change. Sustainable development is then no longer a cost-benefit issue . It becomes a question of improving energy and resource use efficiencies through re-organisation and re-design of work and business processes.
There is no doubt that the revolution in information and communication technologies is accelerating the shift to a service-dominated economy, in which more "value" is associated with immaterial features and knowledge . This offers an opportunity for continued economic growth, with no increase in material use, or even with factors of 4 or 10 reductions in material use. Some industries have, in fact, already made substantial reductions in the "material intensity" of their activities, notably in manufacturing and in their use of the "built environment" . A set of case studies of radical innovation with information and communications technologies shows that substantial positive benefits can be achieved in both efficiency and in reductions of material use and resources. These initiatives are still limited to a few organisations in a few regions, but accelerated deployment of such innovations across most business sectors and in all regions could clearly cut overall material and resource use.

5.1. The Social Dimension

The Lisbon Summit and e-Europe objectives of "digital literacy" for all, increased participation in knowledge work, and increased investment in life-long learning are a valuable step towards social sustainability. The Lisbon Strategy also recognises that sustainable development of social capital in institutions and the social infrastructure of government (education, care and health services) can also be best assured by accelerated development of more efficient and responsive e-Government services.
Digital Divide is rightly of major concern, both within Europe and in International frameworks. Firstly, the "Digital Divide" cannot be separated from inequalities in wealth, income and education. Global income inequalities are worsening: and this is a major cause of public anxiety about the current phase of globalisation.
There is in fact good reason to fear that the superposition of a service-based knowledge economy on

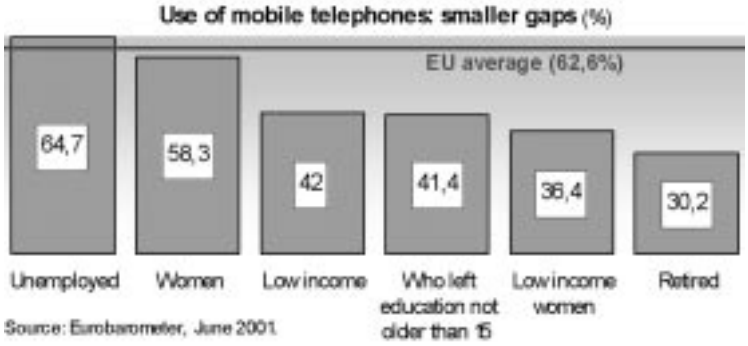
industrial and agriculture-based economies will increase earning differentials - as shown in this illustration from 1993 . These inequalities risk to increase both between countries and within them.
It is equally clear that current inequalities have their origins in the industrial revolution, and in its narrow and uneven geographic spread. These inequalities seem to have worsened in the last 2-3 decades. The analysis of World Bank data indicates that even in the 5 years from 1998 to 1993, the share of income of the poorest 10% in the world fell by 25%, while that of the richest 10% rose by 8%.
In the late 1990s, the rapid and geographically-uneven growth of the networked knowledge economy contributed to this worsening trend; to its visibility and to its social consequences: Faster growth in the OECD countries pulled the top 10% away from median incomes: Wider penetration and equalisation of prices for consumer goods through the growth of world trade and the transparency of world markets made income comparisons at market exchange rates rather than at "Purchasing-power Parity" more pertinent to many people - on the basis of which inequalities are greater.
In addition, the visibility of disparities is increased through world-wide access to television and the Internet - through which many frustrated young people see the extravagant lifestyles of the US and Europe, and migration to these wealthy regions as their only alternative to continued poverty.
Against these concerns, there are nevertheless reasons for optimism:
– The growing disparities in income are more the result of exclusion from global markets than of polarising effects within them. The greatest inequalities are between countries rather than within them: The devastating effect of trade sanctions in recent years well illustrate the dangers. Greater integration of more people (and countries) into world trade can therefore be one of the most effective measures against growing inequality.
– A key "enabler" is that adult literacy has increased from less than 50% of the world's population in 1970 to about 75% in 2000. In addition, and possibly as a result, average incomes in developing countries have almost doubled in real terms (PPP) between 1975 and 1998 .
With these two positive trends, new IT and telecommunications infrastructures are more affordable and of wider social and economic use than almost any other comparable infrastructure : whether of roads, railways or electricity supply. With continued progress in mass-produced micro-electronics and wireless technologies, 2.5 to 3 billion people could have access to global networks by 2010 (nearly half the world's population): Compared with 750 million fixed-line telephone subscribers in 2000.
The transition to a knowledge economy is likely to enable more people to actively participate in creative work activities than in an industrial economy, but the prosperity difference between those that do, and those that are excluded will be greater.
This knowledge society infrastructure cannot substitute for other infrastructures and services, but it can provide an opportunity for local enterpreneurship and wealth-creation, without with the other services could never be affordable or sustainable.
The recent UN Human development report has certainly supported this more optimistic view. It has highlighted the Internet as a "critical technology", and has focused on the new IT and Communications technologies as a tool for growth and development, not just as consumer products for the prosperous. The ways in which ICTs can be an enabler of development are also set out in the Final report of the "Digital Opportunity Initiative" .
The G8 "Digital Opportunity Task Force" has recognised that the "digital Divide" threatens to worsen inequalities between countries and communities, but it also highlights the "poverty reducing" and empowering potential of these new technologies . It concludes that ICTs offer enormous opportunities to narrow social and economic inequalities and to support sustainable local wealth creation. It highlights how they can enable communities to collect and share knowledge; produce more efficiently; access new markets, and improve government services.
The overwhelming current consensus is therefore that development policies must accelerate and widen the deployment of electronic communications infrastructures, with universal and affordable access, and must stimulate both the enterpreneurial and social use of them.
In Europe, progress is encouraging. In just seven months, from November 2000 to June 2001, the number of Internet users grew from one fourth to more than one third of the EU population. In the most advanced Member States almost two thirds of citizens are on-line. Forecasts indicate that EU average will reach this level by the end of 2004. Already 63 % of all Europeans use a mobile phone.





The "digital divide" relates to technologies, as much as to skills and the affordability of access to network services. Current usage rates for networked personal computers show the largest differences - with major differences between countries; between the North and South in Europe; between sexes; between people with disabilities and those without; between age groups and income groups; and between metropolitan and rural areas.

By contrast, usage of digital mobile telephones (GSM) is much higher (65% in January 2001), and show much smaller differences - with Italy the largest market in Europe. Simplicity, familiarity and the immediate personal value of services no doubt account for this greater inclusiveness. We can expect that this greater inclusiveness will carry across into mobile Internet access in the transition to the 3rd generation UMTS system - with faster access speeds allowing all the capabilities of a networked PC to be incorporated into mobile handsets.



Similarly, deployment of digital television, also integrated with Internet access, will benefit from its simplicity and familiarity, and from the probability that as a replacement for analogue televisions, it will reach most homes within about 5 years. 11 % of Europeans - with an extraordinarily high 33 % in the UK - already subscribe, and it may be the most popular means of accessing the Internet in Europe by 2005. However, less than half of European digital TV subscribers are yet offered e-mail capabilities and less than 10 % of them have access to Web services.

5.2. The Environmental Dimension

This is still the most difficult. While the "end products" of economic activity are being de-materialised in the emerging knowledge economy, the overall use of physical resources and materials in production in both Europe and the US continues to grow. The Commission has therefore proposed to break the links between economic growth, the use of resources and the generation of waste and to propose a system of resource productivity measurement to be operational by 2003.

Transport growth is one valuable indicator of resource use: since 1980, the number of air passengers has doubled; car use has increased by 60% and freight traffic has increased by 75%. The Commission has therefore proposed that a priority must be to decouple transport growth from growth in GDP in order to reduce congestion and pollution..

Construction and use of buildings is another key indicator. Since 1980, new building and construction activities have more than doubled. Heating and lighting of buildings now accounts for 50% of the industrialised world's energy consumption: Twice as much as transport and agriculture/industry . In the UK, nearly half of all CO2 emissions result from energy used in buildings. Construction takes up 40% of the total flow of raw materials into the global economy every year - some 3 billion tonnes. This growth in construction is almost entirely associated with the growth in employment in services and with changes in lifestyles, notably the growth of office work, commuting and one-person households.

The result is that employment and work organisation in the "immaterial" service sector now imposes a greater burden on our environment than manufacturing industry. Most is associated with material and energy use in the workplace; inefficient use of workplaces, and inefficient organisation of work. New "e-work" models, flexible in time and place, with greater use of shared workplaces, and more work in local communities can reverse these trends, but only when wide adoption is accompanied by structural change in work organisation by most companies. Some "new economy" companies have shown remarkable improvements. The Commission has therefore proposed to promote teleworking by accelerating investments in next generation communications infrastructure and services, and to reduce energy demand, through, for example, tighter minimum standards and labelling requirements for buildings and appliances to improve energy efficiency.

6. CORPORATE GOVERNANCE

New approaches to "governance", both within the EU and globally, will be essential to progress. Globalisation and network-based activities raise extra-territorial governance issues, some of which can only be handled collaboratively between multi-national businesses and civil society organisations: Structural change in life-styles and business practices throughout the world - will need the commitment of civil society and the business community.

It is European policy to encouraging a greater sense of corporate social responsibility and to establish frameworks for businesses to integrate environmental and social considerations in their activities. Some of the most far sighted businesses have realised that sustainable development offers new opportunities and have begun to adapt their reporting arrangements accordingly. The Union's efforts to achieve sustainable development ultimately depend on widespread "ownership" of the strategy by individual and businesses.

However, we cannot expect that businesses take on the same broad social and environmental responsibilities as Governments. While the three main categories of concern in sustainable development, the economic, social and environmental dimensions are all pertinent to both governments and businesses, their focus is inevitably different.

While governments must concern themselves with the overall stability of the economic environment, and with the sustainability of economic resources for essential public services, businesses must ensure their continued profitability and renewal. Milton Friedman once said "There is only one social responsibility of business - to increase its profits…". He (and more recently Martin Wolf in the FT) have seen meeting this and other responsibilities as a zero-sum game - efforts towards others goals can only be at the expense of profits. Others fortunately now see a more holistic relationship in which businesses constantly evolve to meet society's goals and, in doing so, achieve continued profitability in new

markets. There is good evidence for this is now in the success of ethical investment funds.
For socially sustainable development, European governments have consistently seen their priority as the increase of participation in employment, with more and better job opportunities for a better trained workforce leading to greater social inclusion and cohesion. Businesses must look firstly to the well-being and creativity of their own workforce. These concerns are reflected in the now established provisions for health and safety at work, but also now in the new concerns for the "quality of work" - as highlighted at the Stockholm Summit - and in the requirements for life-long, in-work learning of new skills, and in-work entrepreneurship and creativity.
Over the last century, ensuring workers' health and safety has become recognised as "good business", underpinned by legislation. Increasing the "quality of work" along with skills and creativity is now also increasingly recognised as "good business", especially in the ICT sector where skills are still in short supply and need to be continually renewed.
For environmentally sustainable development, the diversity of business activities presents considerable difficulty - the Global Reporting Initiative has identified 36 potential indicators of environmental impact. However, for the knowledge-based "e-economy", a number of simplifications and priorities can be identified:
– firstly, and because a substantial part of activities and services are knowledge-based and immaterial, a holistic view of a company's activities must be taken, rather than a product-based view . The "office-based" activities of research, design, administration and customer-service have often more impact than manufacturing and product use themselves. This is well illustrated by the Ericsson Report for 2000: twice as much energy and nearly twice as much (585/335 ktons) of CO2 were associated with office work as with production. Opportunities for more efficient use of energy and office space (and for greater creativity and added-value) exist in new office designs, more energy-efficient buildings, and greater use of telework arrangements. Greater value can be added to services with the same resources.
– secondly, a company's impact does not stop at the factory gate or office door. "Office work" includes business travel, by car and air: "Air-miles" can represent a significant contribution total energy use, CO2 emissions and congestion. These can be significantly cut by eWork and video-conferencing. Similarly, the total person car-kms associated with commuting and inter-office travel can be significantly cut by telework arrangements. Supply chains and distribution chains can be rationalised, notably through e-commerce developments: Warehousing and inventories can be minimised, and total transport tonne-kms or "truck-kms" can be cut, cutting costs, improving efficiencies and reducing environmental impact and congestion;

All will impact on "e-work" capabilities and on employment: on participation in employment; on the quality of working life; and on the geographic distribution of work.
These challenges require a better synergy between national and European research efforts; stronger partnerships between the public and private sectors; more investment in research, notably from the private sector; and a tighter focusing of research resources in areas where we must make a strategic impact.
The 6th EU Framework Programme will be a major step towards these goals. It will be the cornerstone of a stronger European Research Area; it will better focus resources - not least in social and economic research, where the focus on the transition to a knowledge society will now dominate; and it will be implemented through a smaller number of much larger integrated projects and networks of excellence.
The final challenge is therefore to the research community in Europe - to organise itself into the larger and more cohesive networks that can make the best use of the new framework.

1) OECD jobs strategy: Technology, productivity and job creation: best policy practices: OECD, 1998.
2) "Career Space": A report by the top European IT and telecoms companies: ICEL, 1999.
3) OECD Statistics 2000.
4) EcaTT survey for the European Commission: www.ecatt.com.
5) Status Report on e-Work Development: European Commission.

6) COM(2001)264 Final: 15/5/01.

7) The Interim Report on the OECD Three-Year Project on Sustainable Development: OECD, May 1999.

8) GDP grew 10-times more than total material use since 1950 in the USA, and increased by 35% with no change in total energy use from 1970 to 1990 (US EIA).

9) Cool-companies.org: eCommerce report 2000.

10) Case Studies of the Information Society and Sustainable Development; Information Society DG-Unit C1, May 2000.

11) Perspectives for Advanced Communications in Europe: PACE 93: DG-XIII, European Commission.

12) By Yuri Dikhanov and Michael Ward: 2001

13) From $1300 to 2500$ at 1985 PPP-US: UNDP Human development report 2001: www.undp.org

14) Creating a development dynamic: Final report of the Digital Opportunity Initiative, July 2001: UNDP, Accenture and the Markle Foundation, with the collaboration of the ITU, OECD and UNESCO.

15) Digital Opportunities for all: Meeting the challenge. Report of the G8 Digital Opportunity Task Force - 11th May 2001

16) The referred Eurobarometer figures on Internet penetration refer to the question "Do you use the Internet?" (sample: population above 15 years). The results of other surveys may deviate according to different definitions.

17) IDC 2001 - http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905356721&rel=true

18) http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905356572&rel=true

19) Understanding the digital divide - OECD 2001.

20) Green Futures May/June 2000.

21) "life-cycle management" and product recycling initiatives, such as in the EU "electronic waste directive" or end-of-life provisions for motor vehicles are important, but concern only the tip of the material/energy-use iceberg associated with end-use products.

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The TELEBALT Project (IST)

Prof. **Alexei GVISHIANI**
Vice-president of EDNES

#1 TELEBALT PROJECT CONSORTIUM

This presentation deals with the present status of TELEBALT project development after the first six months of its functioning. The project is entitled "Teleworking as a Tool for Information Society Technologies Programme Promotion to Baltic States". The project coordinator is EDNES, France. There are the four main project actors. Among them are principal contractors Open Latvia, which organizes and INFOBALT in Vinius, Lithuania. Two other major project actors are Estonian focal point "Inforing AS" and CODATA, Paris, France.

#2 EDNES

The project coordinator is an international association "Earth Data Network for Education and Scientific Exchange", which has its headquarters in Strasbourg, France. EDNES has operating branches in Boulder, Strasbourg, Rabat, Kiev, Baku, Moscow and Tashkent. The one in Yerevan is planned to be opened in the end of 2002. You can get more information on EDNES at www.ednes.org.

#3 OPEN LATVIA

OL is a non profit association which deals with promotion of tourism related activities using telematic and teleworking techniques. Another important field of OL operations is information technologies developments and adaptation in cooperation with similar organizations in Baltic countries and EU member states. You will have more details about OL at www.openlatvia.lv

#4 INFOBALT

INFOBALT is a big non-profit association in Lithuania, which includes 150 member organizations working in the field of information technologies, telecommunications and office equipment. INFOBALT also includes numerous higher education institutions, public organizations and consultancy firms in Lithuania. The detailed information on INFOBALT is available at www.infobalt.lt.

#5 INFORING AS

Estonian TELEBALT focal point is the company INFORING AS. This company is one of the major publishing houses in Estonia. It has quite a long history of implementation of international telematic projects. In particular, INFORING AS has been the main organizer of UNIDO Informatics Dissemination Centre in Tallinn in 1994-95. The information concerning INFORING AS you find at www.mereinfo.com.

#6 CODATA

CODATA is the major international organization in the field of scientific and technological data handling, processing and studies. It is a part of the International Council on Science and, at the same time, an independent international organization. 2" countries and 14 International Scientific Unions are CODATA members. It is well known in scientific community by efficient implementation of numerous projects dealing with high tech promotion in the third countries.

#7 PROJECT COMPONENTS

The work of TELEBALT is divided into six work packages. Deployment of Information Dissemination Centres is the key deliverable of the WP2 "IST information dissemination and information demonstration centres". The three Baltic IDCs will be deployed in Riga in Open Latvia, in Vilnius in INFOBALT and in Tallinn in INFORING AS. The main EU produced telematic products to be implemented in the Baltic states in the framework of TELEBALT are PL@ZA teleworking system, developed by Teamware, Helsinki, Finland and Virtual Presence System VPS/COBROW developed by Ulm University in Germany.

#8 TELEBALT TRAINING COURSES

TELEBALT training course on the European Union, FP5, FP6 and new opportunities for pre-accession countries will consist of five lectures. Three of them "European Union", "Enlarging European Union" and "Fifth and Sixth Framework Programmes" are ready and available at the TELEBALT Web site. www.ednes.org/telebalt.

#9 ENLARGING THE EUROPEAN UNION-1

This lecture focuses at the three Baltic pre-accession states. Elements of history, pre-accession situation and pre-accession strategy for Latvia, Lithuania and Estonia is described in details in this lecture.

#10 ENLARGING THE EUROPEAN UNION-2

The maps clearly show the process of enlarging the European Union from EU-6 in 1952 to EU-15 in 1995.

#11 FIFTH AND SIXTH FRAMEWORK PROGRAMMES

The FP5 constitutes the priorities for the European Union's research, technological development and demostration activities for the period 1998 – 2002. The distribution of the programme budget of 13 700 millions euro is shown on the chart.

#12 SIXTH FRAMEWORK PROGRAMME

The seven priority orientations of the Sixth Framework Programme are listed. Correspondingly, the lecture 4 of the course entitled "Participation in FP6: Opportunities for Pre-accession States" will describe structure, budget and participants, types of programmes available for pre-accession countries participation, rules and conditions of participation in FP6 and contact information.

##13-16 EU DEVELOPED TELEMATIC TOOLS

Colaborative browsing toolkit (COBROW) and Virtual Presence System (VPS), developed by Ulm University along with European Knowledge Platform (EKP) and PL@ZA groupware are the telematic products that TELEBALT project will demonstrate, adapt and implement for teleworking in the three Baltic states.

#17 MASTER-TOUR

MASTER-TOUR is an efficient telematic tool which is used in numerous tourist companies in NIS countries. It has been developed by Russian company MEGATEK in collaboration with European partners.

#18-21 TELEBALT ON THE WEB

The four TELEBALT web sites are launched in EDNES, INFOBALT, Open Latvia and INFORING AS. These site are all linked with each other. You can reach the TELEBALT on the web system visiting one of the addresses given on the slides. The web sites are target oriented. The one in OPEN LATVIA deals with tourism and social integration. Lithuanian TELEBALT web site is devoted to telematics applications in business. Estonian web site focuses on new employment opportunities for the citizens of the Baltic states.

#22 TELEBALT CONFERENCES AND WORKSHOPS

Four major gatherings are planned by TELEBALT. These the Kick-off meeting in Vilnius in December 2001 and the workshop in Riga in April 2002 which have been already successfully implemented. The major TELEBALT conference "TELEWORKING FOR BUSINESS, EDUCATION AND ELECTRONIC COMMERCE" will be held in Vilnius 22-23 October 2002. The outlook workshop"TELEMATICS TO PREVENT UNEMPLOYMENT PROBLEMS3 will be held in Tallinn in September 2003.

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Nicole TURBE-SUETENS
Director of Distance expert Ltd.

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The Policy of Tourism development in Latvia

Aira ANDRIKSONE
Head of the Tourism development division (MEPRD)

After regaining the independence in 1991, Latvian tourism sector has been developing towards integration into European and global tourism systems. Particular attention is paid to incorporation of sustainability factor into the development plans of the sector.

According to the data of the Central Statistical Bureau of Latvia, in 2000, 10,8% of the total export of services were received from travel – related services. The direct income from tourism was 1,8% of the GDP and approximately 5% of the total number of employed people were working in the tourism industry. In 2001 Latvia experienced significant increase of incoming tourism: + 8,1% compared to 2000, which is the highest achievement within last 10 years.

Forecasts of the European Commission indicate a steady growth of tourism in Europe, stronger than the economic growth. Due to the increase of time for leisure activities and global economic growth, the European tourism is expected to double over the next 20 to 25 years with an employment rise by about 15% over the next ten years. According to the prognosis of the World Tourism Organisation, the biggest tourism growth will be in the Baltic Sea region.

Latvia possesses a very favourable geographical position, rich historic and cultural heritage, resort traditions and wonderful, untouched nature, which are good preconditions for creation of an important tourism destination. There is potential for further development of various tourism types.

The main obstacle to a successful tourism development is shortage of financial resources. The state budget for tourism development in 2002 is 340 000 LVL (about 601 000 EUR). Several tourism development activities are financed by other sources, for instance, Environmental Protection Fund and Regional Fund. In 2002, co-financing of the EU SAPARD programme was open for the rural tourism development. Latvian tourism entrepreneurs have also become more active in use of bilateral financial assistance and funding of various EU programmes.

Guidelines of the Tourism Policy

Tourism development policy in Latvia follows the guidelines determined by the European Union, European Council, World Tourism Organisation, World Travel and Tourism Council, Hague Tourism Declaration, Agenda 21 for Travel and Tourism Industry, Baltic 21 for Tourism as well as other international documents. It complies with the priorities and reforms of the general economic policy of Latvia and various ongoing reform processes.

The main task of the sector is to develop Latvia as an attractive destination for foreign tourists and local inhabitants, where tourism is well organised, economically and socially effective, sustainable, safe and raises the international prestige of Latvia.

Institutional System and Main Competence

The Ministry of Environmental Protection and Regional Development is the national tourism administration responsible for drafting the tourism policy. Main responsibilities of the ministry:
Elaboration of the legal framework;
Implementation of the National Tourism Development Programme;
Harmonisation of the national legislation with the EU legal acts;
Drafting and implementation of international agreements on co-operation in the field of tourism;
Management of the state budget;
Co-ordination of regional development programs and international projects for tourism development;
Supervision on activities of the Latvian Tourism Development Agency.

The Latvian Tourism Development Agency is the national tourism organisation responsible for implementation of the tourism policy, mainly in the field of tourism promotion:

Representation of Latvian tourism industry in international tourism fairs,
Attraction of private financing for the tourism development;
Registration of tourism companies for the data base of tourism companies;
Creation and maintenance of the Latvian tourism portal on the Internet;
Establishment of Latvian tourism information offices in Latvia and abroad.

Responsibility for the implementation of national tourism policy lies also with local and regional governments, tourism companies and NGO. There is a strong network of national and regional tourism associations.

Local and regional governments have several responsibilities within the field of tourism:

Elaboration of development plans and spatial plans, determination of tourism development perspectives;
Providing resources and tools for tourism development, as well as for promotion of tourism opportunities in their territories accordingly to the development and spatial plans;
Providing conservation of tourism objects and access to them for tourism purposes;
Participation in establishment and financing of Tourist information centres.

The Latvian Tourism Advisory Council was established in 1997 in order to promote co-operation among ministries, local governments, tourism enterprises and public organisations involved in drafting and implementation of tourism policy.

Main legislation

Tourism Law was adopted in 1998 (amended in 1999 and 2002) in compliance with the Council Directive on Package Travel, Package Holidays and Package Tours (90/314/EEC).

Main legal acts in the field of tourism are:

Regulations of the Cabinet of Ministers “Statutes of the Latvian Tourism Development Agency”, 1999;
Regulations of the Cabinet of Ministers “Statutes of the Latvian Tourism Advisory Council”, 1999;
Regulations of the Cabinet of Ministers “Creation of the Database of Tourist Enterprises”, 1999;
Regulations of the Cabinet of Ministers on Package Travel Services, 2000.

The Ministry of Environmental Protection and Regional Development is participating in drafting legal acts of other sectors related to tourism, such as taxes (Law on Value Added Tax), visa issuing, etc. At the moment there is a VAT refund system for the tourism sector, but starting from 2003 the VAT for

tourist accommodation establishments will be reduced to 9% instead of the present 18%. The MEPRD in collaboration with other public institutions and NGO is now working on amendments to the regulations on package travel services.

Priorities of the tourism development

The National Tourism Development Programme for Latvia, Year 2001 – 2010, accepted by the Cabinet of Ministers in 2001, sets tourism development priorities for the period of year 2001 – 2003:

Further elaboration of legal acts in various areas, e.g. package travel services;
Strengthening of the institutional system:
Establishment of the Latvian Tourism Education Advisory Board;
Organisation of an annual Tourism Forum.

Tourism marketing:

Publishing of tourism materials;
Participation in international tourism fairs;
Co-financing of the Baltic Tourist Information Centre in Munster (Germany) and financing of the Latvian Tourist Information Centre in Helsinki (Finland). Further opening of Tourist Information Bureaux in other important tourism markets (e.g. in London, Stockholm, Moscow) is vital but not financially feasible yet.
Participation in international events, such as annual conference of the European Travel Commission, various workshops, organising visits of journalists etc.

Development of the international co-operation:

Joining the European Travel Commission in 2002;
Drafting and implementation of intergovernmental agreements on co-operation in the field of tourism with an emphasis on the Baltic Sea region;
Close co-operation with international organisations: Baltic 21 Tourism Task Force, EC Tourism Advisory Council, HELCOM, WTO, OECD, etc.;
Partnership in international projects: "Development of Sustainable Tourism Destinations (EU Interreg III B, Phare programmes), "New Hansa Interregions" (EU Interreg III , Phare programmes);
Other activities, such as international workshops, co-operation with foreign mass media and representatives from the tourism industry.

Development of rural tourism:

Workshop on the SAPARD financing for the rural tourism sector;
SAPARD support for rural tourism projects;
Publishing of tourism education material;
Participation of the Latvian Rural Tourism Association "Lauku Ceļotājs" in the EU programme VMART;
The project "Green Certificate" – quality certificate for rural tourism accommodation establishments – implementation and control in rural areas and small towns in Latvia" supported within LIFE program;

Development of eco-tourism:

Activities within the International Year of Eco-tourism;
Implementation of the Strategy of Eco-tourism Development;
Publishing materials on eco-tourism, promotion campaign of eco-tourism in Latvia;
Development of infrastructure (nature trails, watching towers, information centres etc. in protected nature areas);

Implementation of Latvian – Danish project "Establishment of environmental guide network in Latvia" (VITILA).

Implementation of quality management in the tourism sector:

Drafting the Latvian State Standard for tourist coaches and restaurants;
Development of eco-certificates "Blue Flag", "Green Key" and "Green certificate" for rural tourism accommodations;
Organisation of training sessions on the quality management.
Implementation of the State Investment Project "Establishment of a Common Network of Tourist Information Centres", including establishment of a common tourism database and national tourism portal.

Tourism statistics:

Improvement of statistical data in the field of tourism;
Drafting methodology for the National Tourism Satellite Accounts.

Implementation of the project "Establishment of a Common Network of Tourist Information Centres" will result in establishment of the national tourism portal and a common tourism database for all tourist information centres in Latvia. It will also favour use of the modern technologies (new hard-ware and software, connection to Internet) in the tourist information centres.

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The IST program KAI Applications for citizens

Brice LEPAPE
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European Commission

In the context of Key Action Systems and Services for the Citizen,the R&D activities related to Persons with special needs and the Tourism sector will be presented. In particular it highlights, from the vision statement “Ambient Intelligence”, the approach taken to deploy the future generation of IST based applications and systems for the tourism sector.

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The Social and Labor Market Policy Context of e-Work: current European experience

E3Work project (IST)

Mr. **Henri FELIX**
Project manager at Distance Expert Ltd.

The goal of the E3WORK Project is to promote the use of telework in Newly Associated States(NAS) helping them to fill the gap in this area of the Information Society, already well in practice in European Union (EU). In each country after a training phase a Pilot team of teleworkers will be chosen, installed in the frame of an organisation and monitored to formalise specific rules and overpass local obstacles, in relation with industry, local authorities and unions.

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Ethical structures in modern work and business

Dr. **Juhani Pekkola**
Unext

There is lot of discussion around business values related to corporate social responsibility, investment funds and facing international environment. However it is often difficult to make distinction between things that are valuable in general and things that are carrying ethical value. Many things can be valuable but ethical value is related to human beings and their properties. When contemporary economy is increasingly targeted towards non-material production and generation of innovations, social and human aspects in production are of crucial nature.

A fixed or single behavioural context does not exist any more in international co-operation and information networks and social and legal regulation is disappearing. By nature eWork is an activity taking place increasingly in virtual environment. eWork is the spearhead when modelling network alike, international and complex co-operation. Important precondition for exchange and benefit in markets is ethical sensitivity. Companies are facing external challenges too. Shareholders, like customers, investors, employees, media etc. are addressing ethical requirements towards the company and companies must accordingly formulate ethical policy towards them.

It is possible to analyse the nature of business ethics and define its relation with academic tradition. It is interesting to analyse existing ethical codes and structures. New European contributions are needed. Some companies have started a process in order to analyse, formulate and adopt ethical guidelines as an integral element of their business practise. Most important in this respect is long-term work, discussion, willingness and ability to change organisational structures and processes so, that ethical aspects in decision making will come true.

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Emergence Project IST

Ursula HUWS
Project manager at Analytica

Nearly half of all employers in Europe carry out some form of eWork, according to the results of a major survey in 15 EU and 3 NAS states. Individualised forms of eWork, such as telehomeworking, multilocational eWork and eLancing form only a minority of this eWork but nevertheless account for some 10 million workers in the EU in 2000, predicted to rise to 27 million by 2010 according to EMERGENCE forecasts.

However, the majority of eWork involves the development of remote back offices or outsourcing work to remote office-based locations.
EMERGENCE has carried out 62 pioneering case studies of trans-regional or international relocation by European companies, and is currently carrying out further case studies in North America, Australia and Asia.
The results of these studies demonstrate that the simple stereotype of a job lost in one location and gained in another is very far from the truth. Large-scale eWork relocation throws up many challenges for managers and employees and result in qualitative and quantitative changes in employment at both locations, in some cases producing a synergistic 'win-win' scenario.
The presentation will highlight these findings, as well as other results from the multifaceted EMERGENCE project, bringing out their implications for regional development, education and training and employment policy in the EU and Accession States.

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Presentation of e-Work related projects funded by EU

TEAMwork project (IST) - European e-working solution

Brian FOLEY
Project manager at TecNet Ltd. Ireland
Jack O'HERLIHY
Professor at Letterkenny Institute of Technology

TEAMwork (IST-2000-28162) (Technology Exploitation and Adaptable Methodologies offering new organisational models and practices for e-Working Teams)
TEAMwork sets out to provide a novel, 'complete' solution (integrating Technology, Methodology and Skills) for e-working teams operating in a distributed, multi-cultural environment. The TEAMwork solution is being trialed in three diverse distributed end-user domains:- Software Engineering SME's, Public Service Organisations and Research Networks. TEAMwork offers these organisations the 'complete solution' for managing dispersed 'narrow-competence' teams and for effective decision-making in a virtual, multi-cultural environment. The TEAMwork solution represents a major advance on currently-available solutions because it can be enhanced, adapted and influenced by the end-user (a non-technician) to suit their particular operational requirements. The results of the trials will be disseminated widely to 20,000 IT managers and Exploitation is also foreseen.

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BALTPORTS-IT project: Simulation and IT-solutions:

Applications in the Baltic Port Areas of the Newly Associated States

Dr.E.BLUEMEL
Fraunhofer Institute IFF/FhG

After the political changes in the former Soviet Union, the ports in East European harbours faced and are facing a lot of problems. Since 1995, the EU-funded projects like AMCAI and DAMAC-HP try to improve this situation. In 2001, a new project has been started which is called BALTPORTS-IT.

The BALTPORTS-IT project has many international partners: Fraunhofer IFF (co-ordinator) and University of Magdeburg (Germany), University of Ulster (UK), Port of Gdansk and Warsaw University of Technology (Poland), Klaipeda State Seaport Authority and Kaunas University of Technology (Lithuania), Baltic Container Terminal, Ventamonjaks, IDC Information Technologies, Latvian Intelligent Systems and Riga Technical University (Latvia), Institute of Cybernetics (Estonia). Their goal is to reorganise the Baltic Ports in the Newly Associated States.
The economic changes often. So it is very important to integrate these ports in European logistic chains. Necessary as well is an improvement of the ports competitiveness. Furthermore, Free Port Areas need to be developed in contrast to the now existing central control systems. Those Free Port Areas should be composed of port authorities, agencies, forwarders, trucking companies, stevedoring and insurance companies, customs authorities, banks, railway and warehousing companies.
The infrastructure must be improved so that a fast and steady flow of goods can be guaranteed.
In order to reach these goals, the partners want to re-design IT-processes and give simulation based decision support.

ACKNOWLEDGEMENT
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E Learning as a tool for E Work

Dr. **Atis KAPENIEKS**
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The creation of new multimedia study materials are among the development priorities of university of tomorrow.
The presentation will aim to formulate procedures, processes and best practice guidelines - focused on areas such as courseware development management, decision-making processes, course quality assessment and course development. These procedures, processes and best practice guidelines are going to be embedded into a series of IT software applications - built within an advanced groupware and multimedia environment operating that operates over the Internet.
The experience of recently completed Lithuanian-Latvian-Estonian Phare project on E-COMERC study materials development will be presented.

OBJECTIVES
The initial idea is to use the emerging IST (information and communications technologies) to encourage university staff to redefine the development objectives in the changing university environment. Initial success stories could provide the momentum to instigate major changes.

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FlexWork Project (IST)

Mr. **Karsten GAREIS**
Project manager at Gesellschaft fur Kommunikations- und Technologieforschung GmbH

Flexible working (or eWorking) is being able to work with customers, suppliers and employees independently of distance and time barriers. Small and Medium Enterprises (SMEs), especially those in rural or remote regions, could gain enormous benefits from flexible working. Some have already done so, overcoming problems of isolation and becoming 'smart' organisations that can instantaneously combine the knowledge of all the individual members and respond dynamically to customers' requests or new business opportunities.

However many small businesses are intimidated by the technology and find it difficult to obtain good advice on what tools and techniques would suit them best. Small Business Advisers, working for Regional Development Authorities or Chambers of Commerce, have an important role to play in helping local businesses adopt flexible working techniques. However the technology is evolving rapidly and these Business Advisers need a structured approach to selecting and implementing a package of flexible working tools and techniques that will progressively improve an SME's competitiveness and speed of response. This includes monitoring the effectiveness of the package and refining its contents in the light of experience.

FlexWork offers them such an approach, together with access to an extensive range of back up materials on all aspects of flexible working.

This paper presents the FlexWork project funded by the IST Programme (IST-2000-26367) and the package of resources to help small businesses and their advisors to implement different forms of flexible working.

For further details see: http://www.flexwork.eu.com or mail to: info@flexwork.eu.com.

The FlexWork resources are being promoted to all of Europe's RDAs through EURADA, the European Association of Development Authorities, @risa and TeleRegions. The service is free but users are encouraged to register so that feedback can be gathered about the usefulness of the material provided.

Currently the following services are offered in different languages on a one-stop website:

Publications

Handbook of Flexible Working

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E Work activities in Baltic's and CIS countries

WISTCIS Project (IST)

Tatiana SHULYAKOVSKAYA
Project manager at EDNES

I am pleased to present an accompanying measures IST project entitled WISTCIS. WISTCIS stands for "New methods of working for Information Society Technologies Programme Promotion to Commonwealth of Independent States».
You will find the complete information on the project at the following Internet address: www.ednes.org/wistcis.
The project has started on the 1 November 2000.

The promotion is realized by implementing dissemination and awareness actions. The actions are targeted on European CIS countries.

WISTCIS encourage submission of new project proposals to IST Programme with participation of EU member states and CIS countries. It contributes in this way to development of huge CIS potential market for EU Information Society Technologies products;

WISTCIS do teleworking technology studies in European Union and the CIS countries. The project disseminates results of these studies through WISTCIS Web-sites, Newsletters, conferences and workshops.

WISTCIS selects, adapts to Russian language and demonstrates in the seven WISTCIS IDCs selected EU telematics tools.

WISTCIS coordinator is international non-profit association « Earth Data Network for Education and Scientific exchange» (EDNES). EDNES has its legal seat and headquarters in Strasbourg, France.
EDNES Russian branch in Moscow is actively involved in the project implementation.
Two WISTCIS partners are the company PricewaterhouseCoopers (PwC), the Hage, the Netherlands, and University of Ulm, Germany.

PricewaterhouseCoopers (PwC) provides major contribution to preparation of the WISTCIS training courses.
University of Ulm, is well known for its research in the field of collaborative browsing. It implements these tools in the CIS countries, participating in the project.

The following organizations from the CIS countries are the project focal points:

ARMINCO Global Telecommunications Company, Armenia;
Baku Scientific and Training Centre ,Azerbaijan;
Information Technologies Centre of Academy of Sciences of Belarus;
Informatics Department of Government of Georgia
RENAM Association, Moldova;
Centre of Geophysical Data Studies and Telematics Applications of Russian Academy of Sciences;
National Technical University of Ukraine

WISTCIS workplan is divided into 6 WPs which are closely connected to each other. Each WP produces project DELIVERABLES, listed on this chart.
The most important WISTCIS deliverables are " Evaluation report on WISTCIS Information Dissemination Centers, information servers and Web-sites",
"Training courses on the FFP and IST Programme",
"Adaptation of CobRow toolkit for EU-CIS team work",
" Evaluation reports on WISTCIS conferences and workshops".

WISTCIS develops further the system of Information Demonstration Centres deployed in the seven CIS countries by EU TAP project STACCIS "Support for Telematics Application Cooperation with the Commonwealth of Independent States" .
STACCIS was implemented by UNESCO and EDNES in the same seven CIS countries in 1996-99.

The IDCs system ensures the "physical base" for WISTCIS project gatherings and the project smooth functioning.
Basing on this system each CIS country builds a focal center capable to operate in joint work with partners from Europian Union using teleworking methods and technologies.

Each of the IDCs has:

local area network (LAN) with high capacity Internet connection;
regularly updated library of books and CD-ROMs on teleworking;
demonstration software library;
services to provide telematics documentation and demonstration software;
Web-site with mirrors at high-speed connection Web-server;
facilities to organize WISTCIS demonstration workshops.

WISTCIS project focuses on the development of a community in European CIS countries capable to operate efficiently in modern information society. One of the components of such development is adaptation and implementation of collaborative browsing for EU-CIS team working.
The toolkit is developed by TAP projects CoBrow CoBrow/D and IST project SHOPEAWARE. The University of Ulm is the major producer of this product. WISTCIS adaptes CobRow for use in the CIS countries.
The next step in this direction is "Virtual awareness". It is a new form of Web-based communication centered around the notion of "virtual vicinity". The idea is to add typical human interaction patterns to Web-surfing. This tool will also be implemented by WISTCIS in CIS countries.

Training courses is the main tool to encourage submission of new proposals on teleworking to European Countries.
The first course concerning the European Union and its Fifth Framework Programme covers EU history, organization and objectives. Special attention is given to the content of the Fifth Framework Programme , which is discussed more in detail.

The second course concerning IST Programme includes: priorities, goals, objectives, structure, key actions and action lines of IST. The IST Programme is a thematic programme of FFP. It also informed how to find potential EU partners, how to prepare a proposal and how to execute an awarded proposal.
Special attention is paid to the role and opportunities for CIS countries.

Both courses consist include 4 lectures. The lectures are available in English and Russian versions on the WISTCIS main Web-site.
WISTCIS is supposed to two conferences and four workshops in Ukraine, Moldova, Azerbaijan, Armenia, Georgia and Russia. Three of them have been already implemented.

WISTCIS Kick-off Conference "Teleworking in Research, Medicine and Business" was held last April in Kiev, Ukraine.
WISTCIS Workshop "Telematics and Network Support in Environmental and Natural Hazard Research and Monitoring", was held in June 2001 in Kishinev, Moldova.
WISTCIS Workshop "E-working, Distant Training and Environmental Monitoring: New Opportunities took place in December 2001 " in Baku, Azerbaijan.

More then 600 participants attended these events.
The conference and workshops were promoted the following IST projects: SHOPEAWARE, TELESOL, TELEBALT, TeleinVIVO , TEAMwork, THINK, StarMate, UNITE. Aadditionally Louis Dreifus, EUR-OPA Telematic System for Natural Disaster Consequences have been .
The next workshop"New Methods of Work for Business". is planned on 20-24 November in Armenia, Yerevan.
WISTCIS Workshop "New Methods of Work for Administrative Institutions and Commercial Companies", will take place in Tbilisi, Georgia, from 6 to 9 April 2003.
As a final event, WISTCIS Outlook Conference "New Opportunities for EU-CIS Teleworking in Business, Research and Education" will be held in Moscow, Russia in July 2003

WISTCIS Manual "New Methods of Work for EU-CIS Teleworking" has been prepared by J-C. Marot, France.
The manual was introduced at the special seminar held at WISTCIS kick-off conference in Kiev. The seminar was chaired by the manual author J-C.Marot.
Thank you for your kind attention.

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CLUSTER-PRO project (IST)

Prof. **Alexei GVISHIANI**
Vice Director of EDNES

COMMENTS TO THE SLIDES

#1 COLLABORATION in WITH EUROPEAN UNION

Collaboration between EU and NIS countries in the field of telematics has been initiated by UNESCO in 1994. In early 1995 John Rose from UNESCO and myself visited Brussels and discussed a possibility to launch an EU telematics promotion project which dealt with seven European CIS countries. In 1995 the STACCIS project proposal has been prepared, submitted and accepted by the Commission. Jacques Babot has become STACCIS project officer and established efficient collaboration in the field of teleworking between EC, UNESCO, EDNES, Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russia and Ukraine.

WISTCIS project entitled "New methods of working for Information Society Technologies Programme promotion to Commonwealth of Independent States" follows STACCIS dealing with the same seven European CIS countries. The WISTCIS project started in 2000 and will last up to October 2003.

TELEBALT project "Teleworking as a tool for Information Society Technologies Programme promotion to Baltic States" is focused on the three Baltic NIS states: Latvia, Lithuania and Estonia.
EDNES and CODATA are the main EU "actors" in this project.

TELESOL project "Telework solutions for promotion of EU cooperation in business and research with the Commonwealth of Independent States" works with Armenia, Azerbaijan, Georgia, Kazakhstan, Russia, Ukraine, Uzbekistan. This project is just started on 1 March 2002 and will be in force up to February 2004

WISTCIS, TELEBALT and TELESOL took an initiative to form a cluster project entitled "Cluster of IST projects for Information Society Technologies Programme promotion to Eastern European and Former Soviet Union countries". CLUSTER-PRO deals with the IST promotion to 17 Eastern European and CIS countries. The cluster has been submitted to IST last February.

#2 TAP, IST: SCHEME OF CLUSTERING

CLUSTER-PRO project proposal incorporates three above projects dealing with CIS countries, which are WISTCIS, TELESOL and TELEBALT. The cluster project integrates them with two other IST projects E3WORK (accompanying measure) and TEAMwork (best partice) focusing on IST promotion to Eastern European countries.

#3 WISTCIS PROJECT CONSORTIUM

WISTCIS project is represented in CLUSTER-PRO consortium by PricewaterhouseCoopers, The Hage, The Neherlands and the seven partners (subcontractors) from CIS countries: ARMINCO, Armenia, Baku Scientific and Training Centre, Azerbaijan, Information Technologies Centre of National Academy of Sciences of Belarus, Business Communication centre, Georgia, Association RENAM, Moldova, Centre of Geophysical Data Studies and Telematics Applications, Russia, National Technical University of Ukraine "KPI".

#4 TELEBALT PROJECT CONSORTIUM

TELEBALT project is represented in CLUSTER-PRO consortium by Open Latvia, Riga, INFOBALT, Lithuania and CODATA, France. The latter serves as the CLUSTER-PRO coordinator.

#5 TELESOL PROJECT CONSORTIUM

TELESOL project is represented in CLUSTER-PRO consortium by CIS participants (subcontractors) Kazinformtelecom, Kazkhstan, World Health Organization Information Centre, Kyrghistan, Institute of Cybernetics of National Academy, Uzbekistan

#6 E3WORK PROJECT CONSORTIUM

E3WORK project is represented in CLUSTER-PRO by Distance Expert, France, which is E3WORK coordinator, Western IQ, Romania, Center for Advancement of Women, Poland and St. Stephen University, Hungary.
TEAMwork project is represented by APS, Austria and Maribor University, Slovenia. In total CLUSTER-PRO consortium consists of 11 potential principal contractors.

#7 CLUSTER-PRO COUNTRIES

This is the map of the countries participating in CLUSTER-PRO. The cluster project will reinforce and focus ongoing activities of the five projects in the countries that form a huge geographical cluster. The cluster participants from EU member states are Austria, France, Germany and the Netherlands. The other countries is the field for IST promotion by the CLUSTER-PRO. These seventeen states are called by CLUSTER-PRO countries. In Eastern Europe there are three E3WORK countries Poland, Hungary and Romania and Slovenia, which participates in TEAMwork project. In Baltia there are Latvia and Lithuania that came to CLUSTER-PRO from TELEBALT. The CIS partners in the cluster have been already listed before. They participate in WISTCIS and TELESOL projects.

#8 CLUSTER-PRO COMPONENTS

CLUSTER-PRO is divided into seven work packages. There two types of actions in the project: cross-project activities between the five clustered projects and original actions for CLUSTER-PRO itself. Classical cross-project activities are concentrated in the WP4 “Teleworking tools for European-CIS team work” and WP5 “Cross-project training”. In the WP3, along with cross-project participation in conferences and workshops of the five clustered projects, CLUSTER-PRO will organize its own conference in Kiev and workshop in Bucharest.

#9 CLUSTER-PRO IDCs and TUs

CLUSTER-PRO will develop so called Teleworking Units (Tus) on the basis of WISTCIS-TELEBALT-TELESOL Information Dissemination Centres (IDCs). The two Baltic states IDC in Riga and Vilnius will be transferred into high-efficiency TUs with logical and technical facilities close to ones existing in collaborating EU member states. Other Tus will be tentatively deployed in Graz, Austria, Bucharest, Romania, Moscow, Russia, Kiev, Ukraine, Baku, Azerbaijan and Alma-Ati, Kazakhstan.

#10 INFORMATION PORTAL

One of the most important original CLUSTER-PRO actions is creation of information portal “New opportunities for EU-CLUSTER-PRO countries teleworking”. The portal will include four sections, each of which has its own significant value in integration process of the five project into one cluster.
These sections are: database of contacts for EU-CLUSTER-PRO countries teleworking, Web site of

funding opportunities to launch teleworking projects in science, education and culture, Technology Watch section and Directory for EU teleworking with CLUSTER-PRO countries. The portal will accessible for the clustered projects. Its significant part will be available for FP5 and FP6 participants and other relevant European initiatives.

#11 PARTNERINFORM

Work on some parts of the portal has already started in the framework of the ongoing WISTCIS and TELEBALT projects. A big deal of information for database of contacts has already collected by STACCIS and WISTCIS projects. PARTNERINFORM project has started to develop a web site devoted to funding opportunities to launch teleworking projects in science, education and culture.

#12 CLUSTER-PRO CROSS-PROJECT ACTIONS

One of the CLUSTER-PRO focuses is cross-project training actions. TELEBALT training courses will be adapted and disseminated in the Eastern European countries. E3WORK e-learning system oriented towards pre-accession countries will be expanded onto to all the CLUSTER-PRO countries. TELESOL training course on business teleworking systems will be expanded to WISTCIS countries.

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TELEBALT project (IST) in Lithuania

Zigmas BIGELIS
Edmundas ZVIRBLIS
Project managers at Infobalt

Abstract. Main information of the Lithuanian website should include IST Programme promotion information and a few services including one for discussion on website content and structure. The website structure and content will consists of periodically updated information, project information, Lithuanian business information including investments, communication information (Lithuanian contact information on project, public institutions, business, academia and research related to Information Society Technologies).
The national websites of a project TELEBALT should be developed to meet requirements of the project TELEBALT. Any website should focus on concrete application area and the Lithuanian website should be the main website of the project and will consists links to Latvian and Estonian websites.

1.The main PRINCIPLES for developing Lithuanian website

In the beginning of the project the Lithuanian website will include only the core information. Later it will be enhanced to meet full requirements of projects,
Content of the website should be targeted to business-research-public institutions partnership both in Lithuanian dimension and in Baltic countries and in EU-Baltic countries partnership dimension,
a drafts of new websites should be developed and linked to the initial website. A service for feedback concerning content of website should be included. An archive of all previous versions should be stored, the website should provide collaboration and teleworking services as project concerns team work, main national focus of TELEBALT Lithuanian website should deal with telematics for business, website should promote IST Programme in all possible means (providing of information both in EC and Lithuania, providing information on training, workshops, seminars and other events, consulting, providing of features for enabling EU and Lithuanian partnership in business and research including support of Lithuanian public institutions
The training information should be used for distance (remote) learning and training both of businessmen and researchers and other citizens of Baltic countries. Enhancement of accumulated information, methods of teleworking and collaborative browsing and transforming it for distance learning goals should be discussed as a one new project proposal.
A lot information will not be stored on the website but system of continuously updated links to relevant information sources will be used. We should pay attention that links should be periodically checked as a lot of new websites are developed in Lithuania all the time.

2.Website STRUCTURE and CONTENT

Website structure should promote easy understanding and monitoring goals achievement, provide communication (including contacts) information, inform on IST business in Lithuania and provide the news of IST community in Lithuania.

Website consists of the following main types of information
project goals description and related information that is enabling promotion of implementing goals
communication information
news
business information
ebsite attributes (data of creation, updating, webmaster, etc)

Website structure should be dynamic and provide both previous versions and the new versions.
The previous versions should serve as an archive and using them for reporting should be discusses.
The new version should be developed and discussed to meet requirements both of project goals and of potential partners willing to participate in developing new project proposals.
The new versions should include the prototypes of new proposals if possible.

2.1.Project GOALS

The information on project goals are provided. In the process of project developing the new information should be added
methods and means for IST Programme promotion
information on activities of Information Demonstration Centres
description of new methods of team work (at first PL@ZA, CoBrow, VPS, etc)
technology study of current IST situation in Lithuania
methods and means for EU-Baltic States Partnership
training measures
The information on goals monitoring should be used as a reporting information. The system of automated or semi-automated generating of reporting information should be discussed a one of new project proposals.

2.2.COMMUNICATION information

Contacts information (on project TELEBALT, Lithuanian public institutions, business, education and research, NGO related to IST Programme) Questions and answers (FAQ in future). The relevant persons and their email addresses will be provided . Questions and answers should be provided on project TELEBALT, on public institutions, business and research related to IST Programme. FAQ transforming to knowledge base should be discussed as a proposal for new project Proposals should be collected concerning new projects, new products, services, new methods of work. The proposals could be prepared both by project TELEBALT members and any business, education, research or NGO institution Services will be developed after implementing of main TELEBALT products and will concern mainly products for Teleworking Subscribe information. The interested persons will be able to subscribe project TELEBALT and report on CD-ROM. The newsletters and report will be displayed on website as well. The question of payment for these services should be discussed Discussion group. The discussion group will be one of the communication services of project. The discussion group will deal with project information. The discussion group will be an additional service as concerning FAQ and Proposals information

2.3.NEWS and BUSINESS in Lithuania information

News in Lithuania deals with news of Lithuanian European Committee, news on IST provided by Lithuanian company “5Continents”, information on new laws related to IST, information on new IST companies and other organizations (both public and non-profit). The information concerning new information on website should enable easy track updated information on website Business information deals with different types of information provided by Lithuanian Development Agency, ministry of Economy, Custom Department and State Tax Inspectorate. Lithuanian Development Agency’s website is one of the best over the world and provides systemized and comprehensive information related to business interested in partnership with Lithuania.
Information on Lithuania deals with general information on Lithuania as for successful business it is important to get full information about history, culture, geographic situation of the country. Information on tourism is provided as well. More information will be provided to meet requirements and proposals of partners in EU.
Currency and weather information will be provided on April 2002.Curency will deal with Lithuanian currency related to Euro, Latvian and Estonian currency. The weather information will provide links to weather in Vilnius provided by a few information sources.

2.4. Information on the top of webpage

Infobalt logo provides link to Infobalt (Lithuanian information technologies, telecommunications and office equipment companies-Association) website
IST Programme logo provides links both to IST Programme and to Fifth Framework Programme National Focal Point that is providing all main information in Lithuanian language
TELEBALT logo provides link to a brochure on TELEBALT project . The brochure contains summarized information on project
Home provides a link for return to the main web page
News will provide links to news group when you will be browsing other web pages lower in website hierarchy
Products will provides links to products promoted by TELEBALT project
Search provide a link to website search engine
Latvian TELEBALT provides a link to Latvian TELEBALT national website. A link to Estonian TELEBALT national web site will be provided as soon as the website will be developed.
New version of the website will provide a link to draft of new TELEBALT website version. We suppose that it would be useful to enhance a few times a website after more careful evaluation of project members and partners proposals

2.5. Targeted information

A targeted information should be developed for different groups of website users
Project members
Potential partners
Registered users

2.6. Website information

A typical information on website will be provided
Copyright information
Date of last updated information
Date of creation of website
Webmaster email address
Archive of previous website versions

3.FUTURE vision of the website

A future vision should be discussed with the project members and proposals of interested and potential partners should be evaluated as well.

The possible future vision for discussion :
Knowledge management principles and technologies should be proposed for creating some prototypes, e.g. FAQ, comparing and evaluating of projects proposals, etc
Next Web generation – Semantic Web- principles and technologies should be evaluated for developing some new project proposals. E.g. developing of ontology of project terms and using the ontology for developing prototype for intelligent search on the web TELEBALT
Collecting and storing on the web information on evaluating of psychological demands of team work
Developing of the prototype of a shortened version of the website TELEBALT for the mobile users

The structure and content of the website should be dynamic and easy enable developing and promoting of new methods of work that should increase effectiveness of e-business.

Innovation Relay Centers

Dr. Juris BALODIS
Latvian Technological Centre

The mission of the Network of Innovation Relay Centres (IRC) is to promote technology transfer over the borders all round the Europe. The Network consists of 68 centres including 230 organisations, employing ~1000 people in EU Member States, Associated Countries and Central and Eastern European Countries. It is the largest technology export and import network in the world.
The activities are mainly oriented on Small and Mediate Enterprises (SMEs). The main task of IRC's is the improvement of SMEs competitiveness by development of new products in a new quality. IRCs offers:
Trans-national Inward technology transfer services - by using IRC Network assistance to local companies in identifying their technological needs and searching partners who can provide the needed technologies for improvement of the companies' competitiveness.
Trans-national Outward technology transfer services - by using IRC Network assistance to local companies, which have developed innovative technologies, in searching foreign partners which may be interested to exploit these technologies.
Support in exploitation and dissemination of RTD results - identification of RTD results in Europe, relevant to the needs of Latvian industries, and promotion of using these results in local region as well as assistance to Latvian research institutions in promoting their RTD results in other countries.
Innovation advice - consulting in intellectual property rights, licensing strategies, innovation financing, venture capital, on creating international joint ventures, etc.
The service is largely free of charge, confidential and rapid.

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EASYCRAFT project (IST)

Dr. Bruno Martuzāns
Institute of Mathematics and Computer Science,
University of Latvia

The presentation deals with the project EASYCRAFT (IST-2001-35030 KAII, Action Line 2.1.6) that started work at Jaunuary 1, 2001. The main objective of the project is to support the competitiveness and quality of work of European craft SMEs in the global marketplace by developing a technological platform that fosters the provision of an organisational, legal and technological collaboration ambient. It aims to develop a flexible working environment that exploiting ideas and developments of e-commerce will support collaborative work between all players of the value chain of the craft sector.
EASYCRAFT aims to integrate all actors that are involved in the craft supply chain and to develop a trans-national network of co-operation among local craft economies. It will also serve as a communication forum where particular needs of the craft SMEs can be identified and support can be provided. 6 partners are participating in the project from the beginning, but 3 partners from Newly Associated States Latvia, Slovenia, and Romania joined the project in 2002. The EASYCRAFT Consortium is following the strategy of early prototyping, based on research on current business and technological practices and trends and analysis of the user requirements, and successive development through evaluation of the prototypes. It is important that the consortium provides expertise in crafts, management of craftsmen, design, information technology and education. The leader of the consortium is the World Craft Council.
The technical objectives of the project, system specifications and evaluation, user training and marketing problems are discussed in the presentation. The contents of the main workprogrammes are also presented. Ideas and Proposals are touched concerning the mutual co-operation of craft sector with tourism and social integration.

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e-Work, employment and social exclusion

THINK Project (IST)

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Chairman and CEO of "TELEMAN S.A.".

THINK - Towards Handicap Integration Negotiating Knowledge - is a project that will professionally integrate 300 disabled people, as teleworkers, in five European countries, up to July 2002. Professional integration implies transfer of skills in different areas so that they become productive, lucrative and self-sufficient using information and communication technologies for telework. The THINK project is already a technological, organisational and social model, recognised in Europe as an innovative solution for disabled people .

The success achieved by the previous PORCIDE project (1997-2000), now called PORCIDE I, with the integration of 20 disabled people from all over the country into services such as Help Desk, Programming, Webdesign, Creation of Templates and Audio Transcription, has not only given rise to its re-launching in Portugal, now designated PORCIDE II/THINK, but also to the export of this innovative socio-economic model to another eight countries. There are 60 vacancies in Portugal, 60 in Spain, 60 in Italy, 40 in Greece, 20 in Scotland, 20 in Latvia, 20 in Lithuania and 20 in Estonia . In the medium term, the project will be extended to Brazil, the USA and New Zealand.

As in the case of PORCIDE I, THINK is led by TELEMANutenēćo. PORCIDE II/THINK - the Portuguese "arm" of THINK - is set up in a consortium with PT Comunicaēões, MICROSOFT, TELEPAC, HP, EDSON/FCB, DIĮRIO DE NOTĶCIAS, PRICEWATERHOUSE COOPERS, RUMOS, Desktop Streaming, 3C, Alcatel and ServerArts.

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THINK NAS project (IST)

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Kaido KIKKAS
Project manager at Tallinn Technical University, Estonia

Objectives

Enables people with disabilities to work as a team across different countries in Europe;
Diminish discrimination in labour market;
Develop the labour market of teleworkers;
Create the virtual community – uses telecommunication for exchange of experience;
Implement new management model for companies involved in project;
Create the possibility for handicaped people to use the new information and communication technologies.

Tasks

Promote the linking and integration of heterogeneous workplaces – deal with difficulties in organizations and individuals with special needs;
Create a network of companies using disabled teleworkers
Defining competence profiles for teleworkers;
Develop a training and organizational model for managing teleworkers;
Modify the THINK model according to business environment in Latvia;
Provide with software the companies for automatization of routine work and control mechanism;

THINK model description

The THINK project's main goal is the professional integration of people with disabilities – promote them to become productive, profitable and self-sufficient by using information and communication technologies.
THINK project is based on pilot project PORCIDE, implemented in Portugal 1997-1999.
The project will contribute for creating guidelines on the implementation, development and organisation of telework in Europe and create the virtual community for promoting the effectiveness of telework. In the first stage, the privilage will be given to people with disabilities, but later the project can be spread to other job situations.
The project is centred on companies within Information and Communication Technologies.
Participant companies will increase competitiveness by developing

Scientific Benefits

Project shall deliver the necessary information for:
Creating training model for teleworkers – including management, technological, social and cultural aspects;
Creating management model for telework;
Creating telework profession list;
Creating recruitment and selection methods.

Contribution to Community and social objectives

12% of European Union population suffers from disability and 37 millions of people are handicaped;
THINK model synthesise experience of different branches – there are no limitation of telework fields;
THINK contributes to EU policies " A new Employment Strategy for Europe";
Experience of pilot project PORCDE in Portugale will be transferred to other European countries;
Empirical approach of data – project integrates 240 individuals in the labour market (average pension for handicapped – 200 EUR); Savings: 200EUR*12month*240indviduals = 576 000 EUR (the number increases with the taxes they will begin to pay);
Europe has a deficit of half a million individuals with knowledge in information technology;

Needs and benefits

Hardware:
ISDN communication available to all teleworkers
Internet access
Software:
Management
Communication and remote work
Collaboration
Teleconference
Training

Workplan

The THINK Baltic extension will run parallel to the original but will start 12 month later;
The THINK model is developed and improved model of PORCIDE pilot project;
The THINK model will differ in each participant country according to environment; The structurplan and guidelines are constant;
To modify the structurplan each country manage the environment analyse;
Each participating country will present the modified THINK model and co-ordinate it according to requirements;
Each participating country build a consortium of companies and organisations; Consortium develop a business and marketing plan of project;
Recruitment and selection of teleworkers;
Training of teleworkers;
Examination of teleworkers during first 5 month of employment;
Signing up the labour contract;
Status report – include experience, proposals and analyses.

Problems to deal with

Lack of social contacts;
Difficulties with control and co-ordination mechanism of teleworkers – requirement for high self discipline level.
Issuficient knowledges about teleworking.

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PORCIDE – Projecto Original de Capacidades Integrando Deficientes na Economia – Pilot project implemented in Portugale, 1997 - 1999. THINK project is developed PORCIDE model;

TELEMAN – coordinator of THINK project. Pilot project implementatiopn company in Portugale.

THINK in Estonia: Caveats and promises

Abstract

Estonia, like many other countries belonging to the former Eastern bloc, has past history of largely ignoring people with disabilities. During the Soviet period, these people were keenly kept out of public sight, and although re-gaining independence brought in fresh thinking from the west, people with disabilities still remain an underrepresented group in Estonian society.

At the same time, Estonia has enjoyed quick and quite successful transition into a Western-type society. Also, due to its smallness and good position near well-developed Nordic countries, the infrastructure and communications have developed in quick pace. This has created a good starting points for projects like THINK which will combine private initiative with favourable results to the whole society. While the social security system is still weak, initiatives which strive towards self-management and self-sufficiency should be highly valued.

Starting to implement the project, the most probable problems to face are a) public image of all disability-related projects as "charity"-type activity - THINK definitely is not this one, but it will be difficult to manifest. This will also influence potential partners in business sector.
b) low level of education and small language skills of people with disabilities - while the project will provide some vocational training, it will demand a certain educational base.

To overcome this, we should enhance our contact besides immediate business partnership also to local administration (i.e. Tallinn City Government) and different disability related organizations. The work in this sector has already been started.

1. The steep uphill journey

After the re-establishment of independence, Estonia was in a situation that left little to covet. The economy was based on Soviet model, much of it was outdated and the former ties with other parts of the USSR severed. The process of building up the market economy began.

Along with the undoubtedly positive developments, also the negative sides of market economy became evident. Rat-race, corruption and crime surfaced, being earlier quite effectively hidden from the public by Soviet authorities. According to many, the Estonia of the 90s and the US of the 20s have much in common. The UNDP report from 1995 states:

"Another illusion was that democracy would usher in a market economy and make everybody better off, because almost all the developed (and rich) countries are political democracies, and they all have market economies. From this, the conclusion was easily made that democracy would automatically entail a richer life for everybody. Instead, differences in income and wealth began to obtrusively manifest themselves in former allegedly egalitarian socialist societies. As a result, intolerance, interpersonal distrust, suspicion and alienation began to appear."

2. Social development, or a day at the races?

The remarkable development of Estonian economy has featured many unusual phenomena. Among the most notable is the fact that many stages of development that were gone through in the West were partially or fully omitted in Estonia. With rapid development in mobile communication, Estonians rarely used the NMT standard, jumping straight onto the GSM. In banking, cheques were omitted – the old methods were replaced with credit cards and online banking.

This has created the situation where some aspects of society are hyper-developed and some others are seriously lagging behind. ICT, financial and business sectors typically belong to the former, while education and social services tend to fall into the second category. Social workers, teachers and nurses are seriously underpaid, while the salaries are near the Western level in business sector.

This process has also had a deep influence on Estonian people with disabilities. The Soviet-style total denial has metamorphosed into nominal recognition and practical neglect. There are sharp contrasts between the general high level of ICT and all but non-existence of assistive technology, availability of mobile phones and total lack of text phones, between modern transport and lack of access. In general, the following figure can be used to describe the situation.

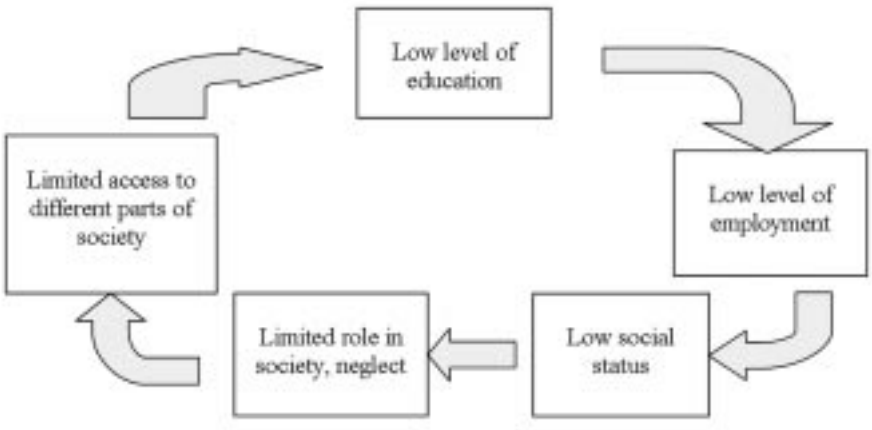

Figure 1. The closed circle of disability-related problems (Kikkas 1999)

3. Great, but not hopeless

Estonia (and to a large extent, all three Baltic countries) still has some potential strong points that, when made proper use of, may well turn the tide and bring on decisive changes into the extensive developments prevalent up to now.
Nordic (or West European) type of democratic government with basic rights guaranteed. This means that there is a large field of political activities, which is still relatively unused by people with disabilities. The generally accepted future vision of Estonia as a part of Europe, increasing integration with other countries. With the official line stressing the European integration, there are ample opportunities to promote the much stricter disability legislation of the EU.
Small country with up-to-date communication networks, including the rapid spread of Internet all over the country during recent years. Although there are serious economical obstacles (a 1999 survey indicated that for 3 of every 4 respondents, a computer is something they cannot afford), the level of computer literacy is rapidly rising among Estonian people with disabilities. One of the visions of the possible roles of Internet for people with disabilities is shown on the Figure 2 (as opposed to Figure 1).

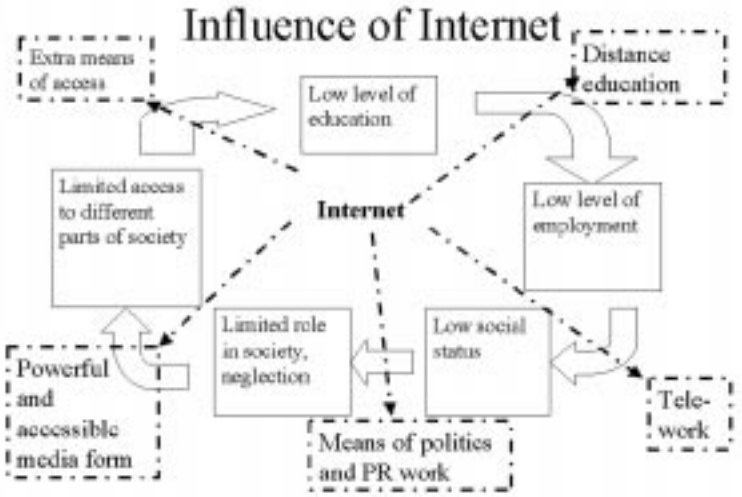

Figure 2. Influence of Internet for people with disabilities (Kikkas 1999)

Besides, Estonian government has declared the development of Internet in Estonia among its top priorities. There have been a number of ambitious projects (like the E-government system described by Ibrus) and the developments may prove very valuable also for people with disabilities, partially (and temporarily) compensating the lack of physical access.

Existing network of non-governmental organizations of people with disabilities (although most of them are suffering serious economical setback).
There is one seemingly negative factor, which may well have got a positive aspect – namely, the lack of established, adequately funded, medically based social care system (the current remainder from the Soviet times is small and weak, waiting for reprofiling). Often it is easier to build from scratch than to demolish and rebuild.

4. Emergence of THINK Baltic

Resulting from the rapid social processes describe above, all projects involving people with disabilities have more than often been automatically labelled as “charity cases”. These were (and in many places, still are) considered as something that might be taken on in case of ample resources and need for positive publicity – but they were almost never viewed as economically viable. Until recently, most

businessmen probably considered the terms “people with disabilities” and “profit” impossible to use in a single grammatical sentence. In this aspect, THINK Baltic is indeed a pioneer. This means two things that must be taken into account when implementing the project.

4.1. To give a fish, or to teach how to fish?

At the beginning stages, public image should be of prime concern. As said above, all levels of society should recognize the difference – using the well-known parable of helping a person by teaching him to fish instead of giving him a fish, THINK is definitely in the former category. Therefore, it should be made clear early on. Success in this has two benefits.

First of all, many of the potential participants among people with disabilities still retain the mindset of past times - “the right to receive”. Substituting this attitudc by treatment as an equal and also equally responsible partner will not only result in better participation but also the improvement of the person’s general competitive abilities in the labour market.

For the second and equally important matter, potential partners among the business sector will also treat the project as a partner of equal importance and not just someone in need of money. This will result in stronger consortium as well as a healthy work atmosphere.

4.2. Unprepared grounds

As seen from above, people with disabilities are still wrestling with access to the educational system. Among other difficulties resulting from inadequate education, poor language skills are probably most urgent. In a heavily communication-oriented project like THINK, this means that many people who would otherwise qualify as participants shall be dismissed due to language problems. This means not only foreign (in THINK, mostly English) language – the phenomenon includcs also the command of the mother tongue.

Granted, THINK in its initial stage only involves 20 persons, making it easier to find suitable people. On the other hand, however, any similar but wider-scale program would probably demand closer cooperation with general education system to ensure better base education that the THINK model of vocational training can be successfully built upon. It would also be desirable to include local administration – especially in Tallinn where the city government has shown quite good results in promoting the integration of people with disabilities during the recent years.

Conclusion

The THINK project has a good chance to continue the success of its initial West European phase also in its continuation in the Baltic countries. However, care must be taken to dissolve the old prejudices and barriers which may undermine the cooperation. Inclusion of not only business but also administrative instances should be aimed at.

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Globalisation of Tourism Information Systems

Tourism information in the context of IT

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- Importance and effect of tourism information approachability on the tourism field development in Latvia.
- Development of local Tourism Information Centre network and creation of Tourism Information Bureau system abroad.
- Elaboration of Unified Tourism Information System, development of network tourism information database and tourism portal www.latviatourism.lv

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Latvian experience, Globalisation of tourism information systems

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Outlines of globalization process in structures of tourism information systems.
In case of tourism information system development, term globalisation can't be perceived as monopolization backing. Ongoing process of globalization is our chance to unite and combine the best accomplishments in IT and features of local tourism market organization. Three main steps of development process can be marked:
- Merging of individual projects and companies within associative databases including tourism information
- Creative combination of individual databases in united online module
- Functional compatibility of regional modules creates a leading case of tourism information system globalization process in the region
Workings of Baltic region on unification of united tourism information system isn't just a case in process, but a significant achievement representing us a real pattern structure that insures inner-outer functional compability in accordance to the EU guidelines concerning development of information society structures.
Promotion of standartization in field of IT tourism aplications can be analized as a most pozitive feature of globalization process.
Following these outlines creation of united tourism information space was started basing on tourism aplication software package IOTS (Intelligent Open Tourism Systems) developed by "OpenLatvia".

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Rising confidence and security of tourism information systems

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Tere is international need for more customer confidence and security of tourism information systems. Protection of technical infrastructure is main security cornerstone for tourism information systems. Some practical examples of technology solutions for making tourism information systems more secure. Trust and confidence programs for tourism information providers on the Internet as means of rising customer confidence.

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Geographical Information System

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Report shortly describes:

GIS place and significance in the structure of the tourism information system
trends of the GIS development in the light of the enforcement the new hardware and software in the IT field
the tourism objects and related places existing GIS review, their development trends in the country
the State integrated tourism GIS development advantages and shortcomings
the data acquisition possibilities for the tourism GIS.

1. GIS place and significance in the structure of the tourism information system.

the tourism information system includes (at the physical level):
the database server,
the application server,
the web server;
the tourism information system's database objects can be distributed in basic groups, selected by their functional features:
the objects interfaced with database structure and administration, for example, data glossary, users,administrators, etc.;
the tourism objects (enumeration according classification, for example, culture monuments, specially environment protected territories and objects, etc.);
the tourism objects and their related places GIS;
the tourism objects data (for example, descriptions, accessibility, lodging, etc.);
the supplemental data (economics, statistics, government, money, transport, etc.).
It can be seen that the GIS takes comparatively small, but stable place in the whole tourism information system and is vary essential information carrier, specially in the most significant part of the tourism: in the individual cross-country tourism, in the acting and special interests tourism, whose role groves up with every year, by groving urbanization in our country as well in our neighbour countries.

2. Trends of the GIS development in the light of the enforcement the new hardware and software in the IT field

The tourism GIS rapidly develops accordingly with IT development and with the existing corporate GIS, quickly developing GIS for stand alone applications.
The essential technologies, which affect the new GIS development are:
the GPS;
handheld PC (palmtop);
GSM.
The exploitation of the mentioned above technologies in different ways essential qualitative changes the tourism industry - replacing organized group tourism leaded by guide to individual tourism, specially developing:
the vehicular transport tourism,
the acting and special interests tourism.

The development of the mentioned above technologies put on essential conditions on the GIS quality and force them to turn of from “picture” to “coordinate” systems.
The swift PC development gives possibilities for the GIS developers to proceed to completely new electronic map technologies: 3D and even to refuse from the maps, replacing them by the filtered ortophoto plots.

3. The tourism objects and places existing GIS review, their development trends in the country

there is no any restrictions in acquiring, maintaining and copying of geographical (geodetic) data and information system developing and emploing the appropriate hardware in our country, therefor any government or municipal institution, private company or individual user can develop and use some GIS;
produced in this way GIS quality and its possibilities depends on the used database (quality of the objects coordinates), the best belong to the State Land Service (SLS), mainly based on aerial photogrammetric data on the scales till 1/10 000 on the whole country, till scale 1/2 000 on cities and urban territories;
till now SLS was not able to build up the tourism GIS, even tourism maps, but had produced on the new database mapping products for government administrative management (scale 1/200 000) and based on the aerial photogrammetric data and satellite imaging map (scale 1/50 000), which can be used as mapping background for the tourism map and GIS;
this niche in our country has fulfilled with episodic produced and distributed by private busyness companies (5 – 6) thematic maps (the road, cities, regional, etc.), which straight can not be used in the new electronic mapping technologies;
there are accessible electronic map technologies GIS (2) for the vehicular transport tourism produced and distributed by private busyness companies which work with the GPS receivers on PC, but in the future there will be no new technologies able to work with handheld type PC; the next shortcomings are absence of the large scale mapping possibilities in these GIS, limiting the application only with the vehicular transport;
there are accessible electronic map technologies GIS (5 -6) for the special application: for defence and AVL systems, which are the corporate systems and hard to integrate for tourism needs.

4. The State integrated tourism GIS development advantages and disadvantages

There is proposed question for discussion about development the State integrated tourism GIS, which can be governed by some government or some other institution and would be accordingly developed, supplemented and maintained and can be accessible from certain web portal.
there is enough quantity of qualified personal and adequate hardware to produce such integrated tourism GIS; the question is only finansial sources;
the development of integrated tourism GIS has odd advantages:
more qualitative and essential vast tourism GIS,
essential more and regular capitalizing,
regular new data obtaining,
better new technologies integration possibilities;
4.3. there are some disadvantages:
complicated system’s legal and financial organization,
it is hard to determine the work priorities because development of this GIS is a long process.

5. The data acquisition possibilities for the tourism GIS.

The data acquisition available for the electronic map technologies GIS is specially actual , because there are a shortage of these data, in specially – a large scale data.
the SLS scale 1/10 000 aerial photogrammetric data (1996) for the whole country territory has not processed jet; only on this year are planned aerial photogrammetric works in the scale 1/2 000 for country urban territories, the tourism objects these flights will not concern;
just this is the minimal scale, that can be used for the acting and special interests tourism GIS (cross-country traveller and tourism objects tracking);
till now for a incoming data are used large scale 1/10 000 topographical maps of the General Staff of the Soviet Army; it is worth to admit that the last expedition for these maps were made in 1985/6 seasons and they are very outdated;
practically are obtainable fresh data from satellite maps (aerophotos), but the scale till 1/10 000 are rare and hard to use for the tourism GIS;
for the tourism objects are useful to make aerial photogrammetric works in the scale not less then 1/2 000, developing the tourism objects flight routing;
the aerial photogrammetric works in the scale 1/2 000 and more can be done by local company ("JVK" SIA), which have appropriate installed airplane and metric digital photocamera for the aerial photogrammetric works, developing digital photoshots for further processing for GIS mapping with different software in the different institutions.
There are enough intellectual and hardware resources in the country for developing, maintaining and delivering in the public use tourism GIS with adequate financial support, fitting IT level and its future development.

Tourism information and services on the Internet. Lithuanian experience

(based on 2 years running of Travel.lt and LithuanianHotels.com services)

Ilja Laurs
Director Midas Baltics UAB

The presentation will focus on 2 tourism-related IT projects of Tourism Fund of Lithuania - Travel.lt (tourism portal) and LithuanianHotels.com (online hotel reservation service). Travel.lt project includes tourism portal and twin CD-ROM which is published on a yearly basis. Travel.lt was started in 1999 and to date it's the biggest Lithuanian tourism portal, which contains more than 2000 pages of text and more than 2500 pictures. LithuaniaHotels.com was launched in early 2001 and today is the biggest Lithuanian online hotel reservation service, with more than 100 hotels and covering about 60% of all hotel beds.
Both services were started from scratch and today are considered the most successful Lithuanian tourism-related IT projects. The biggest part in project' success was administrative activity of projects' administrator, Tourism Fund of Lithuania, rather than programming solutions. By date, lot of experience has been collected on how to start, built and run tourism-related IT projects.
The presentation is aiming to share with the experience of building and running IT solutions in tourism sphere, based on the two projects as well as to introduce further development paths, strategies and performance expectations.

The presentation will be structured in the following way:

1. Travel.lt project.
1.1. Overview of Travel.lt
1.2. 3 years performance analysis. Traffic statistics.
1.3. Content analysis - strengths and weaknesses.
1.4. Problems on getting started and running the services and solutions found.
1.5. Further development
2. LithuanianHotels.com project:
2.1. Overview of LithuanianHotels.com service
2.2. Performance analysis. Traffic statistics.
2.3. Financial analysis. Figures, trends, seasonality, correlation with traffic figures.
2.4. Problems in running online hotel reservation service and solutions.
2.5. Further development.
3. Generalization of IT projects.
3.1. Quality content and service
3.2. Importance of constant updating
3.3. Marketing
3.4. Administration
3.5. Human factor and relationships
4. Conclusions
5. Questions and answers

Experience of tourism & IT in EU

SmartUp project (IST)

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Small and Medium Sized Enterprises Alliance through Research in Tourism (SMART-UP)

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Abstract

SMART-UP, an IST financed Take-up project, provides small and medium sized tourism enterprises (SMTEs) with up-to-date tourism management know-how through modern information technologies. Initially, 4 participating know-how providing universities, in 4 different European countries, together with the SME end users have identified main knowledge gaps and designed learning modules which will be integrated into a virtual learning company. The contents are complemented by constantly updated benchmarking solutions and chat facilities. The use of an information technology system as a learning tool ensures a fast and cheap know-how exchange among SMTEs and know-how providers. Employing intelligent agent technology for this learning system also facilitates know-how transfer amongst tourism SMEs and know-how producers throughout Europe.
Keywords: Small and Medium Sized Enterprises, elearning, know-how transfer

Introduction

Competitiveness of tourism enterprises and tourism destinations has become the most dominant issue of the tourism industry in the past decade (Werthner 1996:70). As a corollary, management excellence and flexibility in adjusting to changing environments remain the most important challenge for competitive tourism enterprises (Horrillo 2001:39). Typical constraints or barriers blocking organisational changes in small and medium sized enterprises in the tourism industry result from sub-optimal sized configurations with respect to economies of scale and scope, low level of professional competence, combined with a high ratio of owner managed firms (Weiermair, 1998; Weiermair and Peters, 1998). As a consequence, the diffusion of information and communication technologies (ICT) is more difficult (Buhalis 1998). Based on the notion that market imperfections, market externalities, and myopic behavior of owner managed firms prevent an optimal diffusion and use of up-to-date management practices, particularly with respect to ICT, intervention instruments are needed which will help overcome these hurdles. SMART-UP is an initiative that aims at improving the know-how and qualifications in small and medium sized tourism enterprises, however, without omitting the integration of the entrepreneurs' own initiatives. Fundamentally the learn-motivating network component is forced on a global internet platform that comprises 4 countries initially. SMART-UP equips SMEs first with the

economical and technological knowledge for the use of ICT and later promotes the exchange of experience between the members, based on the use of learning modules and the execution of benchmarking analysis by the tourism entrepreneur. This paper presents the requirements of SMEs in tourism, the learning modules as well as the technological framework of SMART-UP.

1.1 Small and Medium Sized Tourism Enterprises

During the past two decades the hospitality industry has developed in a somewhat different manner than the rest of the European economies. In Austria for example on the one hand tourism enterprises registered only a 5% growth in relation to a 28% growth rate in general, on the other hand an Austrian-wide headcount recorded only a 9% increase in the number of people employed, whereas in this sector the increase amounted to as much as 27%! However, this development did not change anything about the significantly small size of hospitality enterprises in general (Tschurtschenthaler 1998).

In the European Union 94.4% of all hospitality enterprises are small companies with 9 employees or less. Large companies with more than 250 employees account for 17.2% of all of the employees of this branch of the tourism industry. In Europe, these small and medium-sized businesses (SMEs) employ 83% of the entire workforce in the restaurant business, whereas in other industries they account for only 66% of the workforce (Eurostat 2000). In central and south Europe the average number of beds in hotels only showed a marginal increase from 35.3 beds in 1994 to 37 beds in 1998. An overview of the situation in a few European countries is shown in table 1.

Table 1. Average Number of beds/hotel 1994-1998
source: Eurostat 2000

Country	Number of Beds 1994	Number of Beds 1998	Growth
EU	46.0	48.8	6.0%
Austria	35.0	37.0	4.8%
Italy	49.9	52.4	5.0%
France	70.2	74.2	5.6%
Spain	104.6	130.0	24.3%

Given the small and medium sized enterprises' strengths and weaknesses information technologies don't seem to present a threat, but rather offer them new chances in a number of ways:

Table 2. Small and medium sized tourism enterprises and the SWOT analysis
source: based on Buhalis 1999:240

STRENGTHS	*WEAKNESSES*
FLEXIBILITY **TAILOR MADE PRODUCT DELIVERY** **ENTREPRENEURIAL ACTIVITY** **FAMILY INVOLVEMENT** **STRONG LOCAL CHARACTER** **PERSONALISED RELATIONSHIPS**	QUALITY MANAGEMENT (=SMART-UP MODULE) CAPACITY MANAGEMENT (=SMART-UP MODULE) PRODUCT DEVELOPMENT (=SMART-UP MODULE) HUMAN RESOURCE MANAGEMENT (=SMART-UP MODULE) **INFORMATION TECHNOLOGIES ILLITERACY** **DEPENDENCE ON TOUR OPERATORS** **SUPPORTING MARKETS/NETWORKING** **LACK OF ECONOMIES OF SCALE** **TRANSPORTATION AND ACCESSIBILITY** **FINANCIAL MANAGEMENT AND RESOURCES** **LACK OF STANDARDISATION** **LABOUR LOYALTY AND LOW TURNOVER**
OPPORTUNITIES	*THREATS*
EUROPEAN UNION AND GOVERNMENT SUPPORT **INCREASE IN TOURISM DEMAND SIZE** **TRENDS IN TOURISM DEMANDS** **LOW COST OF LIVING IN THE SUBURBS** INFORMATION TECHNOLOGY (SMART-UP MODULE ECOMMERCE)	**LACK OF VISIBILITY IN CRSS** **ENVIRONMENTAL DEGRADATION** **CONCENTRATION AND GLOBALISATION** **OVERSUPPLY** **INFRASTRUCTURE** **TRENDS IN TOURISM DEMANDS**

The pilot project SMART-UP cuts in on the weaknesses of the SMTEs and offers an internet learning and know-how transfer platform for (owner) managers in the tourism industry. The first four out of five modules are Quality Management, Yield Management, Human Resource Management and Product Development (see table 2). After the take-up phase they will be adapted to the needs of SMTE users. SMART users are offered an IT training program to help them overcome qualification barriers.

IT generates differentiating advantages relevant to competition within almost all areas of the tourism value chain (see table 3) and creates barriers to market entry. Especially those areas prone to SMTE weaknesses such as lack of quality assurance can profit from targeted usage of information technologies. The fifth module, "eCommerce in tourism", will offer experienced SMART-UP users the newest IT applications for SME management. Fitzsimmons and Fitzsimmons (2000:93) provide a framework for the strategic focus of information technologies in service enterprises:

Table 3. Strategic role of information in tourism
source: Fitzsimmons and Fitzsimmons 2000:93

COMPETITIVE USE OF INFORMATION			
		ONLINE (REAL TIME)	**OFFLINE (ANALYSIS)**
STRATEGIC FOCUS	**EXTERNAL** (CUSTOMER)	CREATION OF BARRIERS TO ENTRY RESERVATION SYSTEMS FREQUENT USER CLUB SWITCHING COSTS	DATABASE ASSET: SELLING INFORMATION DEVELOPMENT OF TOURISM SERVICES MICROMARKETING IN TOURISM
	INTERNAL (OPERATIONS)	REVENUE GENERATION: YIELD MANAGEMENT POINT OF SALES MANAGEMENT EXPERT SYSTEMS	PRODUCTIVITY ENHANCEMENT: INVENTORY STATUS DATA ENVELOPMENT ANALYSIS

In reality, however, the use of information technologies in small and medium sized enterprises is still inadequate. The reasons are mainly entrepreneurial short term orientation, high investment costs (as perceived by the entrepreneur) and ignorance of IT advantages. Variables that promote IT diffusion in specific branches of industry are either market variables or internal resources such as the quality of employee education, the competence of its top management or the SME entrepreneur (P□rez, Llaudes 2001:232). What other prerequisites need to be established to ensure a wide distribution and acceptance of IT supported learning modules like SMART-UP?

1.2 Requirements for the diffusion of IT in small and medium sized industries

The basic goal is subsequently to achieve broader use of information technologies, in SMEs in the tourism sector. The SMART-UP platform is based on the Internet, which is a substantial pull-factor for the diffusion of IT among tourism businesses (Main 2001:223). The bundled offer for small and medium sized enterprises comprises real enterprise problems of international (European) hotel businesses and ideal enterprise management benchmarks. Typical co-operation barriers that mainly result from the oneness of co-operation partner and competitor within a region can be avoided in the international context, since here no direct danger of imitation is assumed (Rumer 1994:42). Finally, the quality of the services for consumers is improved, which again clearly leads to higher customer satisfaction as a consequence of increased professionalism and competitive ability.

Thus, SMART-UP aims at:
promoting increased co-operation between tourism SMEs in Europe
establishing a pan European know-how and experience network in the tourism industry
promoting innovations and thereby product developments via international benchmarking
obtaining better and broader use and a higher acceptance of IT in SMEs

The main prerequisites for the success of SMART-UP are:
Selection of leader-enterprises in various countries. These enterprises shows high levels of motivation and act as leaders and benchmarks in their regional/local market. In addition the entrepreneurs already have positive attitudes towards new international co-operation in the area of IT as well as high willingness to learn.

To acquire small and medium-sized tourism enterprises already established SMEs networks market SMART-UP: SME experienced hotel associations are going to distribute SMART-UP in their countries. Up-to-dateness, type of data and updating methods. One of the main items governing the demand of SMTEs for SMART-UP problem solutions is how up-to-date the data and benchmarks are.

The quality of provided information and benchmarking cases will be evaluated by the end users of SMART-UP and the know-how providers.
The technological framework is able to support a growing number of SMTEs.

Know-How Areas for SMEs in Tourism

Know-how providers developed teaching/learning modules which represent the user friendly ideal type decision tools adapted to local user needs. A major aspect in this context is that elearning modules focus on contents relevant for practical work. A pre-selection has already been made for five learning modules. Within the scope of a project carried out at the University of Innsbruck (Austria), in 1999 specific know-how deficits in SMEs of the Austrian market were identified (Weiermair 1999). The first modules and their corresponding know-how providers (universities) were selected on the basis on these results. The modules are as follows:

The Human Resource Management related know-how transfer module includes such subjects as standards for recruitment methods used to meet market qualification requirements, motivation and empowerment tools in tourism, management of the contact personnel in the service encounter; innovative forms of work organisations in tourism enterprises, etc..
The Quality Management in tourism know-how transfer module includes service and quality management analysis, measuring quality in tourism, understanding and influencing tourists' decisions, quality strategies in tourism management, the implementation of quality measurement, control and management instruments in small and medium-sized tourism enterprises, etc..
The third module, the Capacity Management learning module covers a variety of actions to ease demands. For example, Yield Management covers a range of management and marketing activities in service industries - particularly in the airline and hotel industry. The goal of Yield Management is the maximisation of revenue through appropriate market segmentation and the optimal allocation of perishable assets. Yield Management is suitable for application within the small and medium-sized structured tourism and hospitality sector. Its overall aim is to develop an understanding of capacity and yield management and illustrate applications in the tourism and hospitality sector:
to help operators to develop an understanding of capacity and yield management and how to apply it to an SME in the tourism and hospitality sector.
to get an overview of the area, origins and reasons for using capacity management techniques (e.g. overbooking, inventory control, price discrimination, forecasting, and modelling)

The fourth module deals with Product Development: It is necessary to understand and to be able to manage the complexity of the tourism product. Furthermore, there are several stages in the process of product development in tourism, which require different types of management know-how (e.g. the development of new products/services, the generation and screening of ideas, which requires the capability of preliminary evaluation and volumetric estimation). Other stages in product development processes, such as concept testing and commercialisation require management techniques/methods like customer surveys, focus group interviews, product-use tests and the collection/evaluation of information.

The eCommerce in Tourism learning module introduces the entrepreneurs into the opportunities of eCommerce for the tourism and hospitality industry. The module takes an organisational approach, as opposed to a technological approach, focusing upon the interdependence between the demands of the enterprise and information technologies. Tourism SMEs gain critical awareness of the main cur-

rent and emerging issues/challenges when planning their eCommerce strategy. Thus, the module provides a framework for making strategic and tactical decisions about the use and deployment of IT for SME networks, as well as guidelines required to improve IT enabled business performance and to avoid potential pitfalls. SMEs will be encouraged to apply eCommerce tools and new eTourism applications in their daily business. So this learning module can disseminate eSolutions for tourism.

For each learning module corresponding benchmarking scenarios will be developed by the participating universities in order to showcase the ideal management solution for each topic area.

In the tourism industry the technical system must fulfil specific requirements. The following chapter describes the technical framework of SMART-UP.

Technologies to be deployed

In this chapter the authors describe their approach of the implementation of SMART-UP from the software point of view.

Web-Portal

The following technologies are necessary to create a Web portal:

Architectural Positioning: The portal's functionality must be located in a central position within the application's architecture. This architecture offers a broad variety of business resources and presentation devices, as shown in Fig. 1.

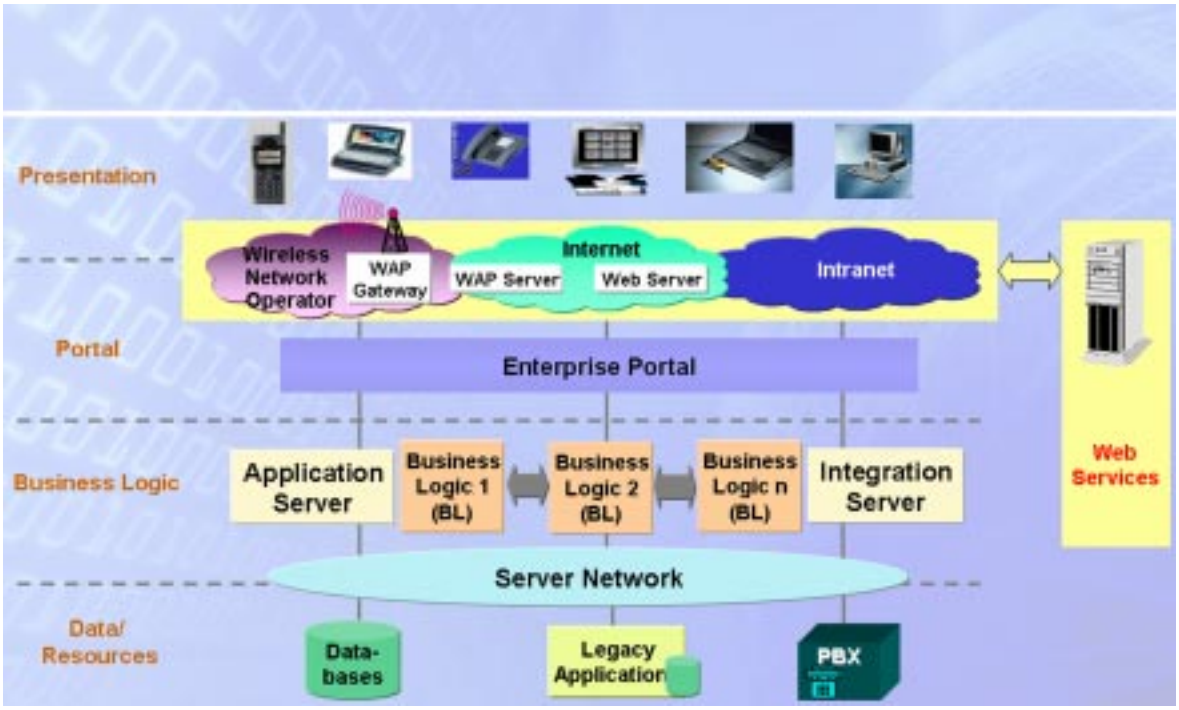

Fig. 1. ebusiness architecture

Portal Technology Directions: Portal applications are means of controlling and optimising communication with all kinds of web (Internet or Intranet) services. Portals come in two varieties, enterprise portals that improve business processes and consumer portals that offer customer relationship management support.

Portal technologies provide advantages for many different types of business goals.

Some of them and their enabling portal technologies are:

Business goal: multiple device support
Portal technologies:
content rendering for different page sizes
device templates
content code transformation

Business goal: communication efficiency
Portal technologies:
message channel management
notification services

Business goal: personalised content presentation
Portal technologies:
user management: profile/preference and role directories
user interaction analysis and recommendations

Business goal: location dependent content presentation
Portal technologies:
interfaces for location recognition services
user scenario descriptions and their continuos update
location oriented content databases
navigational and tracking services

Business goal: bill-processing support
Portal technologies:
collecting billing data
processing commissions for transaction payments
processing flat rate charges for advertisements

Business Goal: collaboration support
Portal technologies:
integration technology
workflow technology

Emerging portal technologies must be provided as common services on a portal server. Together with other platform services they help to build extendable and re-usable solutions.

Therefore portal solutions should be built as follows:
by designing a layered architecture of component services
by selecting one of the evaluated products that offers the services required for the various component layers
by using one of these alternative components:
EJBeans of J2EE
COM-components of COM+/.NET
by using XML as the main format for all local messaging or for web service access
by using an adjusted development framework for Java or Windows

Product Evaluation

The statements made here are open for adaptations on the basis of experiences made by SBS or major vendor announcements. The actual list of products is short but still open to additions; the selection will be made in accordance with that of the providers.
The B2E oriented portal "mySAP.com Workplace" has been introduced, but still needs to undergo more intensive investigation.

Before the project evaluations were started, technical experts on the vendor side were interviewed as to their opinion about important criteria. The topics of criteria mentioned cover e.g. open standards, scalability, performance, mobile clients, operating systems, integration support, development and administration tools, content management, basic portal services, horizontal portal services, e-business services, provider's market strength, and price categories.

Agents

Why Agent Technology: In the SMART-UP project it is very important that learning contents (described in Part 2) are always kept up to date. For this reason intelligent agents (see Fig. 2) are implemented to search the Web for the latest information on topics of SME user interest.

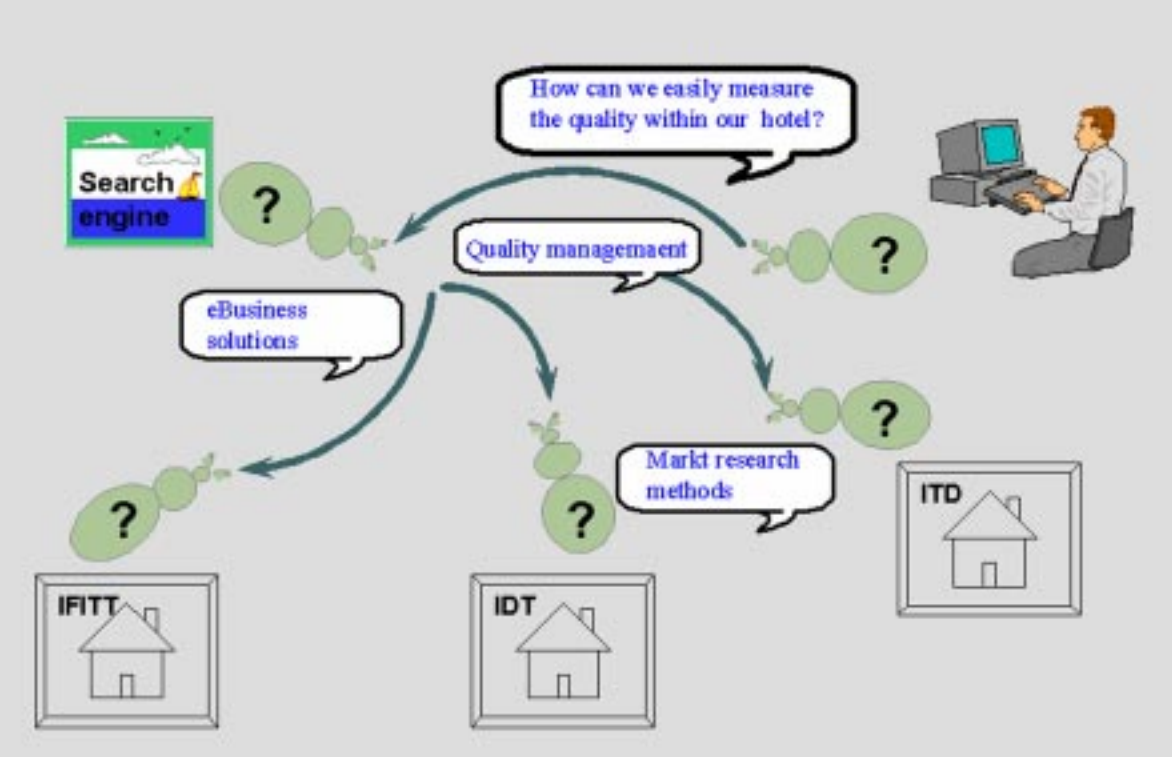

Fig. 2: How intelligent agents work
(IFITT, IDT and ITD represent tourism industry databases in Europe.)

Definition:
Software agent: a computing entity that automatically performs user developing tasks

Therefore software agents must provide the following attributes:

delegation	(the user hands over the responsibility to the agent)
ability to communicate	(enhanced and more complex future tasks possible)
autonomy	(working in the background, authorisation to negotiate)

monitoring	(ability to orient itself within its own neighbourhood)
actuation	(neighbourhood is changed by an action)
intelligence	(ability to interpret and make decisions)
mobility	(able to transport itself from one machine to another)
security	(implemented in JAVA, sandbox)
personality	(encapsulation of its own identity)

The following model skills are necessary:

task level skills: typical tasks are information retrieval, information filtering and coaching
knowledge
communication skills

Knowledge: Two main categories apply:
a-priori knowledge: developer, user or system specified knowledge
learning: dialogue, case based, or using neuronal nets

Agent Communication: Here two main categories also apply:
with the user: in order to be able to learn, the user has to communicate with the agent via interface, speech (voice agents) or via social interaction
with other agents: via interagent communication languages (XML, ACL)

XML

The XML (eXtensible Markup Language) uses markups to give text special attributes. The main characteristic of XML is its separation of content and style. Word processing applications use visual markups that define the form of text documents ("bold" or "Times New Roman"). Being able to use generic markups means giving semantic information to connected letters ("heading") that makes it possible to use semantics for searching and exchanging content.

ACL

The ACL (Agent Communication Language) is part of the FIPA specifications The Foundation for Intelligent Physical Agents (FIPA) is an open international collaboration of member organisations and published the FIPA97 specifications that maximise interoperability across agent-based applications. The syntax and semantics for many domains (tourism) are defined in that reference model. This ACL, will soon make it possible for service providers to be able to create their own agents themselves or they have them created by someone else. Either way, the hotel can then offer its services to the electronic market place via these agents. ACL extends electronic business possibilities by allowing a hotel's agents to sign contracts with booking agents met at the electronic market place.

SITOS

SITOS® LMS network application offers possibilities for
the administration of learning contents, students and trainers
communication between these groups

Open Configuration: One of the strengths of the system is its nearly complete adaptability and multilingual capability. A normal web browser is implemented as the user interface. This web browser will be designed according to the guidelines described in 3.1.
Simple Listing of Courses: The training courses offered are listed in the "Course Catalogue" as well as in the course and lesson level of the application itself. The lists include short descriptions of the

content of each course along with its price, language and availability.
Course Administration via Registraion: The user data and profile are queried during "Registration"; after which the courses and lessons can be booked from the course catalogue. Finally under "Visit Course", the booked contents can be accessed and worked through.
Technical Requirements: Lotus Domino R 5 Server
Server Operating System: MS NT 4.0, Linux, AS/400, OS/390
Minimum 256 MB RAM, Pentium III Class processor and sufficient HD capacity for both courses and user administration.

The e-business-typical specialisation of the Siemens Systems Engineering Method (SEM) described in this chapter were used to implement SMART-UP. SEM ensures that all of the phase results are planned and that their quality is assured through validating and verifying steps. The following chapter describes how the SMART-UP system will be marketed and how it ensures profitable operation.

Outlook

In the long term SMART-UP operations will become profitable and classical dissemination of this platform will take place through presentations at national/international specialised tourism conferences/symposiums. It is also planned to promote SMART-UP at tourism fairs, such as the ITB. SMART-UP will be presented everywhere where you can expect SMEs to become potential SMART-UP participants (e.g., OHV congress).

The Austrian Hotel Association (OHV) will motivate its peer organisations in European countries to participate in SMART-UP and to promote the system to their member enterprises. After completion of the initial Take-up project, a clearly specified dissemination plan will ensure that tourism SMEs throughout Europe will benefit from the SMART learning system:

In the first year, the hotel associations of Germany, Switzerland, and Ireland will recruit tourism SMEs. In the second year the Hotel Associations of Finland, France, Greece and Spain will promote SMART-UP to their member SMEs. In the third year, the Netherlands, Poland, and Sweden will introduce SMART-UP in their countries. The SMART-UP project team is currently negotiating with the National Hotel Associations of the remaining EU member states, which will hopefully help to make the benefits of SMART-UP accessible to all European tourism SMEs after the initial EU-funded project is completed.

OHV is setting up a business plan for SMART operation. Running costs for server, maintenance, license fees, communications etc. will have to be balanced by corresponding revenues. Such revenues will be raised through the amounts charged for using the elearning courses on the one hand, and through web page advertisement on the other hand. SMART-UP will be operated by OHV peer organisations in other countries. This implies that such providers will have to pay license fees, especially for the know-how transfer system. Once the project has been completed, it is planned that the consortium will design agreements to that effect; the latter will be part of the OHV business plan. The consortium also includes software manufacturers. All of them, whose interest has been raised by the above-mentioned dissemination measures, will be given the opportunity to develop software tools for SMEs. In this context license fees will also be charged for specifications.

The Austrian Hotel Association stands to benefit from the project in two ways: The OHV will develop a marketing and dissemination plan, for both the project lifecycle as well as the time after project deletion. OHV as an SME interest group will be able to market SMART-UP modules/services to its members. The Hotel Association will organise SMART-UP operations to become cost-effective and profitable. Revenues will be raised from all direct charges for using SMART-UP training programmes. On the other hand, advertisements on the web portal are also expected to yield revenues.

The know-how providing university institutes will in the long run benefit from the SMART-UP network by improving research in the area of small and medium sized enterprises in tourism. SMART-Up provides tourism researchers with specific data of tourism SMEs that is impossible to gather otherwise. The data samples will open new strands of SME research and improve existing knowledge about their entrepreneurial behaviour as well as the success factors of growth.

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VMART project (IST)

Paul Richardson
Scientific project coordinator

VMART aims to serve the European Rural Tourism sector by creating a virtual RT development and marketing community. The key strategy is to improve the quality, quantity and accessibility of information on the sector. Its support services, like promotion, on-line feasibility study and quality definition applications all serve a dual purpose. They also collect data that will be used to extend the body of knowledge on RT at a European level.

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ONTOUR project (IST)

Gundars ANDŽĀNS
Project manager at Dati Ltd., Latvia

DATI – one of the leading software development companies in the Baltic States

Currently JSC DATI is one of the largest private software development companies in the Baltic States and the leading Eastern European provider of IT services in Germany and German speaking countries. In 10 years time we have grown from a small company with some 30 specialists to one of the largest software providers in the Baltics, with more than 400 employees. DATI competitive advantage is accumulated experience in developing large scale IT projects combined with specific knowledge in particular business spheres.

DATI are recognized as competent, experienced and highly qualified IT specialists in Europe. The success is based on deep understanding and appropriate knowledge, which is required not only in the IT sector but also in other business spheres. The value of services depends on how professionally, in terms of time and quality, problems in specific business fields can be solved. IT sphere specialists need non-stop professional upgrading, therefore DATI have their own training center and independent testing laboratory.

DATI are focused on IT project development in the following business spheres in Latvia and Western Europe:

Telecommunications
Banking and Insurance
Tourism and Transportation
Logistics
Public Sector

Currently, in Western Europe, DATI have more than 10 clients with whom long-term co-operation has been established. Altogether, DATI have 25 ongoing projects in Germany, the U.K. and Scandinavia.

DATI experience in Tourism & Transportation sector

One of the spheres where DATI have been operating for almost 10 years is the Tourism & Transportation sector. The largest DATI customer in this sector is the German tourism and charter company LTU Group.

DATI have developed several significant projects for LTU:
Reservation system for travel agencies and tour operators
Route planning and controlling system
Board sales accounting system

Other important projects in the Tourism & Transportation sector include the Ticketing and Accounting System for Hungarian State Railway, the Travel Reservation System based on Internet technologies, which was developed in co-operation with the German consulting company CONET Consulting AG.

OnTour - EU financed project for SMEs operating in tourism sector

The latest DATI project in the Tourism & Transportation sector is EU financed project OnTour Tourism Information System. OnTour was developed by the joint efforts of German, Austrian, Spanish, Greek and Latvian companies, in which DATI developed the application software. The main users of OnTour system are planned to be SMEs – tourism companies, which would have an opportunity to offer their services through the Internet.

The tour business is based on co-operation among companies with different activities (suppliers, destination agencies, tour operators and travel agencies) and their co-operation ensures the value chain for tourists. The efficiency of services provided very much depends on the ability to provide up-to-date information to the interested parties, and on the immediate adaptation of offers, according to changes in the market.

At the moment OnTour software is being implemented as a prototype, and being tested in the OnTour pilot project network used by several tourism companies - Global Tour Media (Canary Islands), Moser Reisen GmbH (Austria) and Zeus of Crete (Greece).

The advantages for SMEs using OnTour system are the following:

- Easy access to the services worldwide
- Cost efficiency
- Optimised Workflow
- Opportunity to work as equals to large companies
- Independence from Internet providers
- Standardized application for all users

Almost all tour companies in Latvia are SMEs, therefore the OnTour system is a very good opportunity for them to increase competitiveness in the EU market.

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IT Solutions in Tourism

"How International Program "Eureka" can Help to Develop Innovative Solutions in Tourism?"

Dr.sc.ing. **Ilze BEVERTE**
Latvian National project consultant
of International program "Eureka"

"EUREKA!" is a European program (1985) that was started as a political initiative to encourage and facilitate international co-operation for elaboration and implementation of market oriented research in civil technologies ("know-how!"). There is 31 full member country and European Union in "EUREKA!" today. Latvia is a ''Eureka'' member since 2000.

The initiative of a project usually comes from small and medium size companies and researchers (the ''bottom-up'' principle). There are several ways, how to become a "EUREKA!" project partner:
1 Joining an already active project. (Search for relevant projects in the home page of Eureka Secretariat www.eureka.be) 2 Initiation of a new project. 2.1 Find a partner among the "EUREKA!" countries. 2.2 Companies and research institutions turn in their new project ideas in the Latvian National project coordination centre (NPC). 2.3 Technology request/offer (in local IRC).

The main project fields are the following: 1 Biotechnology and medical technologies, 2 Communication, 3 Energetics, 4 Protection of environment, 5 Information technologies, 6 Tourism services, 7 Laser technology, 8 New materials, 9 Automatization of production, 10 Transport, 11 Cultural heritage. The potential project can deal with any non-military branch of economy and social life.

There are several evaluation criteria of a "Eureka" project: 1 At least one more partner from a "Eureka" member country has to participate in the project. 2 The final product of a project has to be market oriented. 3 The project has to ensure technological innovation in products, processes and services in the range of Latvia and Europe as well.

"Eureka!" member countries are the following: 1 Austria, 2 Belgium, 3 Czechia, 4 Denmark, 5 France, 6 Greece, 7 Croatia, 8 Estonia, 9 Iceland, 10 Italy, 11 Israel, 12 Ireland, 13 Russia, 14 Great Britain, 15 Latvia, 16 Lithuania, 17 Luxembourg, 18 Netherlands, 19 Norway, 20 Poland, 21 Portugal, 22 Romania, 23 Slovakia, 24 Slovenia, 25 Finland, 26 Spain, 27 Turkey, 28 Hungary, 29 Switzerland, 30 Germany, 31 Sweden. Each partner has to start a "Eureka!" project in it's country (get a "Eureka!" status).

There are eight active "E!" Projects in Latvia now.

1 E! 1489 EUROTRAC-2 "The Transport and Transformation of Environmentally Relevant Trace Constituents in the Troposphere over Europe"; the 2-nd Phase. Institute of Atom Physics and Spectroscopy LU.
2 E! 1841 EUROBOGIE "Advanced Rail Suspension Using Fibre-Reinforced Plastics". Institute of Polymer Mechanics LU.
3 E! 2522 EUROENVIRON OPTI-SOILCLEAN "Optimised Complex Technology of Clean Up of Soil, Contaminated by Oil Pollutants". LS Institute of Wood Chemistry.
4 E! 2618 RENEWFOAMS "Production of Polyurethane Foams from Renewable Raw Materials". LS Institute of Wood Chemistry, Institute of Polymer Mechanics LU.
5 E! 2619 FERM-PUMP "Programmable Peristaltic Dosage Pump for Time-Dependent Dosage in Fermentation". "Biotehniskais centrs", JSC.
6 E! 2622 FOREST SOIL EROSION "Prevention and Control of Forest Soil Erosion on Coastal Strip of the Baltic Sea using lignin-based Polymers". LS Institute of Wood Chemistry.
7 E! 2623 OPTPAPER "Optimisation of Energy Resource Consumption in the Paper Production". Institute of Mathematics LU.
E! 2713 ELEARN "Eureka Elearning Umbrella". Contact person in Latvia - A.Kapenieks.

Procedure of Starting a "Eureka!" Project consists of two stages. I International stage - getting a "Eureka" project status. The application form can be downloaded from the site: www.eureka.be
II Latvian stage - a competition for funding. The necessary documents can be found at: www.innovation.lv/top Project documents have to be turned in the Ministry of Education and Science. Project application has to include the following information: 1 Company data, 2 Title of the project, 3 Short description of the project, 4 The expected final results, 5 Material base, 6 Costs of the project, 7 Funds, invested by owners, 8 Finansing, requested from the State budget. Business plan includes:
1 Conception, 2 The main aims, 3 Production planning, 4 Market analysis, 5 Marketing, 6 Production, 7 Organization and workers, 8 Property relationships. An independent expertise is performed by experts from Council of Science.

What does Participation in a "EUREKA!" Project can Provide? The main advantages are the following: 1 A grant from the State budget (Market Oriented Research program), 2 International recognition, 3 Partners in European countries, 4 International contacts, 5 Technological innovation in the relevant field, 6 Potential foreign investments, 7 A chance to prolong the project in case of successful activities.

Information and other many-sided help can be found at "EUREKA!" Latvian NPC centre:
"Bureau for Consulting and Information BIK", Ltd.

Address: Aizkraukles St. 21 - 328, Riga, LV - 1006
Phone: +371 7 558 744 ; Fax: +371 7 550 127
e-mail: eureka@edi.lv
The relevant home pages:
http://www.eureka.be
http://www.innovation.lv/eureka
http://www.innovation.lv/top

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Latvian segment in Tellmaris project (IST)

Egons BERZIŅŠ
Andis KUBLAČOVS
Project managers at Regional Studies Centre Ltd., Latvia

TellMaris is one of the most successful follow-up projects of the latest (1999-2001) biggest international yachting related projects in the Baltic Sea Region area, and it was entitled as Sustainable Spatial Development with a Network of Ports for Boat Tourism in the Baltic Sea Region (SuPortNet). Altogether there were participating 55 different partners from which 10 were from Latvia representing the coastal municipalities. One of the main achievements of this project in Latvia was the statement of the basic principles for further development of the Latvian yachting network, its information system development and also the physical improvement in the very harbours for yachting purposes. During the SuPortNet project a specific threshold coordinate concept and high quality visual information components (aero photographs, "live maps") were made and applied to achieve the best results. On this basis TellMaris might be considered as a more specific follow-up project of SuPortNet stage I. TellMaris is a research and development project within the 5th EC Framework Programme and IST-Information Society Technologies. TellMaris project is an international IT consortium for creation of 3 dimensional cartographical tourism information system using wireless technologies for yachting tourism. One of the main consortium partners is the famous Finnish company "Nokia" and the database system is elaborated by Tellus IT, Norway. Latvian part in the project officially is represented by the Town Council of Pavilosta, which has authorized the Regional Studies Centre Ltd. To work on the project practically, as this company has been the main Latvian part consultants in SuPortNet project and has been the one elaborating the TellMaris project from the Latvian side.
The user objective in the project is to improve the capabilities of the European tourist to receive relevant high quality updated tourist information anytime and anywhere during their journey. The objectives will be achieved by using experts in the field representing the whole value chain, as well as integrate the new applications into TELLUS, an existing Destination Management System. It is expected that the majority of the DMOs in the Baltic Sea Region will implement this system with the result of getting a more competitive product, increasing the value for the businesses in the region.

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Renaissance project (IST)

Dr.Ing. **David Luigi FUSCHI**
Senior Project Manager
at GIUNTI Multimedia, Italy

Cultural heritage is a relevant business sector. There is a growing demand, both at national and international level, for the promotion and conservation of cultural heritage.
Technology can be a viable solution to grant proper preservation and access to most of it. There are even possibilities to exploit present day technologies to foster wider access to cultural heritage and even to enhance young people involvement towards it, especially if it is possible to capture their attention through a proper fascination. In all this there are also risks related to adopted standards and techniques.
The author presents both the overall perspective and the results of an experimentation made possible by European co-funded initiatives in the IST environment.

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Co-operation in Tourism Industry through IT

Business to business

Pauls GUSTS
Marketing manager
at tourism agency VIA Riga

By evaluating resources available on the Internet and clarifying its target groups Via Riga has used the existing information sources on the Latvian net to achieve cost effective business solutions. During the last years Via Riga has minimized its IT costs, achieved higher credibility and maximized customer satisfaction by sharing the information and cooperating within industry. The most successful projects have been carried out on full mutual trust and transparency.
Uniting IT resources to achieve maximum efficiency

Clarifying targets and sharing information.

Partnership on the net among different players of tourism industry with clear business targets will increase the available information volume and lower the IT costs of particular website.

Integrating existing business information sources into web-sites

Use of already existing business tools and information sources instead of creating new unique booking, search, wizard etc. tools will allow more efficient customer service at less costs.

Achieving maximum through cooperation.

Unified and objective information obtained form trustful and genuine source is the key to customer satisfaction. Mutual cooperation will lead to extended marketing possibilities, higher credibility and larger target audience

Successful cooperation projects.

Distribution of information to the end consumers - unique products, special offers, calendars of events etc. Direct sales of tourism product. Effective and simple organization of events.

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IT Solution in airBaltic

Andis DRENGERS
Administrator business systems at Air Baltic

Our presentation will display types of communication with pasangers and functions of reservation system in three working periods: Past, Present and Future - starting from its origins and continuing with present situation and planned development actions.

- Functional presentment of AirBaltic reservation system
  (our working side that is hidden from client)
- Advantages of Internet as communication tool with AirBaltic
- Future mobile phone reservation system WAP and its preferences.

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The usage of an integrated IT system in car rental business

Kaspars SPRŪDŽS
Sales manager AVIS Rent a car

To promote AVIS Rent A Car accessibility, reconcilability and AVIS brand recognizability; AVIS has introduced a centralized reservation system - Wizard. What is Wizard? Wizard is an on line, real time rental, reservation and billing system with more than 12 000 terminals worldwide in more than 2 600 Wizard Locations.
- In Wizard ~300 000 000 instructions are processed per second.
- Wizard data travels through ~170 000 miles of data cable
- There are created ~120 000 reservations per day.

Wizard is available to everybody in three professionally different levels:
- With the advances in technology the Customer has many ways of contacting AVIS to make a reservation. One of these methods is the World Wide Web where AVIS have two sites available to enable customers to book online direct from their own PCs. In addition to the normal access via a PC - customers may also be able to access these sites via their televisions or mobile phones. The AVIS web sites have a slightly different look and feel. The European site is designed for customers accessing from Europe and the US web site is designed for customers accessing from the US - but there is no way to stop a US customer accessing the European site or vice versa. The Internet address for the European Web site is www.avisworld.com The US Site may be accessed by typing www.avis.com
- Wizard is linked to Global Distribution Systems used by Travel Agencies, which allows Travel Agents to be fully informed about AVIS car availability and equipment in any AVIS station worldwide. It allows Travel Agents in no time to receive confirmation number for any car with the necessary equipment.
- AVIS people have access to Wizard in different levels enabling them to get information about the fleet in any AVIS station, statistics, financial information, etc., which helps planning utilization of the cars and other useful things. Wizard system enables AVIS to constantly update both Travel Agency and customer database available worldwide. This enables employees in any AVIS station worldwide to momentarily recognize the regular AVIS Customer as a valuable partner.

With making use of the above-mentioned points, AVIS provides implementation of the slogan We Try Harder, which also responds to AVIS everyday work, when the Customer with the help of IT is put through directly to AVIS Rent A Car. Parallel to this are AVIS human resources - maintaining the functioning of Wizard system and linking it to the three levels: professional - for AVIS people, GDS - for Travel Agencies, and in the Internet - for the use of any Customer.

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Using IT to support culture tourism

Laima LUPIĶE
Executive director at
Association of Latvian Castles and Manors

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Role of Municipality in development of IT in Tourism Industry

Armands MUIŽNIEKS
Chief tourism executive Latvian YHA, Jurmala City Council

"The present situation of tourism infrastructure in Jurmala"

1. Jurmala has an outstanding history as a spa and recreation city.
2. There is a great potential for development of tourism industry in Jurmala.
3. The tourism infrastructure should be improved in order to be competitive with other tourism destinations.

"Use of IT for daily management and marketing purposes in Jurmala's hotels"

1. The largest barrier for tourists - lack of information and imperfect exchange of information.
2. Re-establishment of information exchange - a key to success.

"An analysis of Jurmala's Internet links"

1. Information technologies should be improved in order to provide on-line services of high quality.
2. Globalisation of the links and containing information is necessary to enlarge target group.

"What does Jurmala City Council do in order to improve IT and tourism?"

1. Local authority has a limited opportunities to improve business environment - this is why we have to activate cooperation with national government.
2. Jurmala City Council is open for various projects in IT and tourism.
3. Local authority should be a representative of the local tourism businesses in national and international level.

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AFTERWORD

Information about this workshop issues is available on http:/www.telebalt.lv/workshop. Those who are interested to obtain PowerPoint presentations can do it on Internet.

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GALLERY

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Discussions.
Vladimirs Makarovs, Jacques Babot, Egils Grikis

Egils Grikis

Dinnija Mudure

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Registration desk

Plenary session

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Juhani Pekkola

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Kaspars Sprudzs, Pauls Gusts, Diana Albina, Laima Lupike

Henri Felix

Paul Richardson

Ursula Huws

Exhibition stand.
Andrew Rasbash, Jacques Babot, Andris Berzins

Coffe break

Welcome coktail