

KAINUU INFORMATION SOCIETY STRATEGY 1999 – 2002

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1. BACKGROUND

1.1 KAINUU – INFORMATION REGION 2005

The information society and the opportunities it offers, such as reducing problems caused by long distances, cutting costs and bringing negative net emigration to a halt, has been widely acknowledged as a significant international trend. Changes like this offer considerable challenges and development opportunities to regions with low population densities such as Kainuu. Opportunities of this kind will also become increasingly visible in regional development work and politics.

A plan for the Kainuu Information Society Strategy, called 'Kainuu – Information Region 2005', was drawn up in the spring of 1996. This work was carried out on the basis of a national information society strategy completed in 1995. In Kainuu the above-mentioned strategy work was conducted by a working group nominated by the Director of the Regional Council. 'Kainuu – Information Region 2005' is part of the region's ongoing development programme covering the sectors of information services and information networks.

The lines of action for the 'Kainuu – Information Region 2005' strategy are as follows:

4. Information technology and information networks to become working tools for reforms in economic activity and the public sector;
5. The information industry to become a major sector of business in Finland in the future;
6. General information about and access to the services of the information society available to everyone;
7. Competitiveness and high-level achievements in information and communications technology;
8. Teleworking;
9. An information infrastructure which is both competitive and service-oriented.

Some proposals for actions were made within the framework of these lines of action, but these were not allotted financial resources.

At the beginning on 1998 Kainuu Regional Council started a two-year project, the objective of which is to promote the realisation of the above-mentioned lines of action within the region. This telematic support project has contributed, among other things, to the creation and co-ordination of projects as well as the provision of information. The central objectives of the project are the promotion of Kainuu's regional network, the definition of new lines of strategy for the EU's new structural funding period and supporting the active participation of the region's telematic-orientated operators in the Commission's special telematic programmes.

1.2 IMPLEMENTING LINES OF ACTION DURING THE PROJECT PERIOD

The priorities and proposals relating to the 'Kainuu – Information Region 2005" programme have proved highly appropriate. Projects have been implemented within all sectors. The development of the information industry (encouraging the setting up of new businesses, promoting the business environment and product development within the sector), however, has been somewhat neglected. Teleworking has received support but perhaps not sufficiently so. Nevertheless, it constitutes a particularly important sector for Kainuu region.

There has been more rapid development within other related sectors, but continuous development work is necessary in order to maintain national and international standards. Several projects have been conducted in order to improve levels of know-how and the information network infrastructure is developing rapidly (network connections between municipal units are developing, new means and methods of communication, not to mention an entirely new working culture, have been created in rural areas, and novel solutions for the region's municipalities are being investigated). Information networks and technologies supporting the public sector, including social and health care, have progressed through the activities of a number of projects.

1.3 GENERAL DEVELOPMENT OF THE SECTOR

During the funding period 1995 – 1999 some 30 information society projects were funded in Kainuu within the framework the Target 6 programme. The total budget for all of these projects amounted to 43 million FIM, 19 million FIM of which comprised EU funding (see attached table of projects). The original EU funding framework for Kainuu's Target 6 programme was only 10 million FIM (measures 1.6 'Development of information network services' and 2.8 'Actions supporting labour resources in the development of the information society and teleworking'), but this amount was already exceeded halfway through the programme. The reason for this was that information society projects have been also financed via other measures (including 1.3, 2.1, 2.2, 3.8, 3.10) and also that the financing framework for 1.6 and 2.8 has been increased. Another five projects with a total expenditure of about 9.5 million FIM have been funded through the Interreg programme. Additionally, two information society projects with a total budget of about 750,000 FIM have been funded through the 'Oulujärvi Leader II' programme.

A number of national projects are being implemented in the sectors of tele-medicine and teaching. No thorough inventory of these, however, has been carried out. In total over 50 million FIM has been committed to Kainuu's information society projects in August 1999, 22 million FIM of which is coming from EU funding. A rough estimate of the resources committed during the period 1995 – 1999 runs to approximately 60 million FIM. In addition, there are a few projects receiving only national funding. These figures do not include business support projects.

In relation to other parts of the regional development programme, the telematic sector has received a higher proportion of funding even than some of the priority areas (see attached figure, 'Target areas'). However, the average size of the projects in financial terms in this

sector too has been relatively small. Nevertheless, even some of the smaller projects have been highly innovative, practical and productive and have brought new know-how, enthusiasm, business culture and jobs into the region, while at the same time helping to identify the region's image with the exploitation of the information society. Assessment is difficult because of the problems of finding suitable criteria and indicators to account for such a diversity of projects. Also included are projects which have not fulfilled expectations while at the same time certain projects are yet to be completed. In any case the final results will only be revealed in the longer term.

A range of tools for the assessment of information society projects have been developed within the LOCREGIS project, (which is part funded by the EU Commission's DG XVI). Profiles of Kainuu projects included in the Locregis database assessment (see Diagram 1) indicate that these projects have been rather attractive (in terms of the image of the region) and innovative, and that it has been easy to distribute/update the projects. On the other hand there have been weaknesses in the strategic planning of the projects and in aspects of co-operation (number and quality of project partners, including the participation of both public and private sectors). Furthermore, the multiplier impact of the projects could also be improved in terms of the creation of new projects and/or utilisation of available funding.

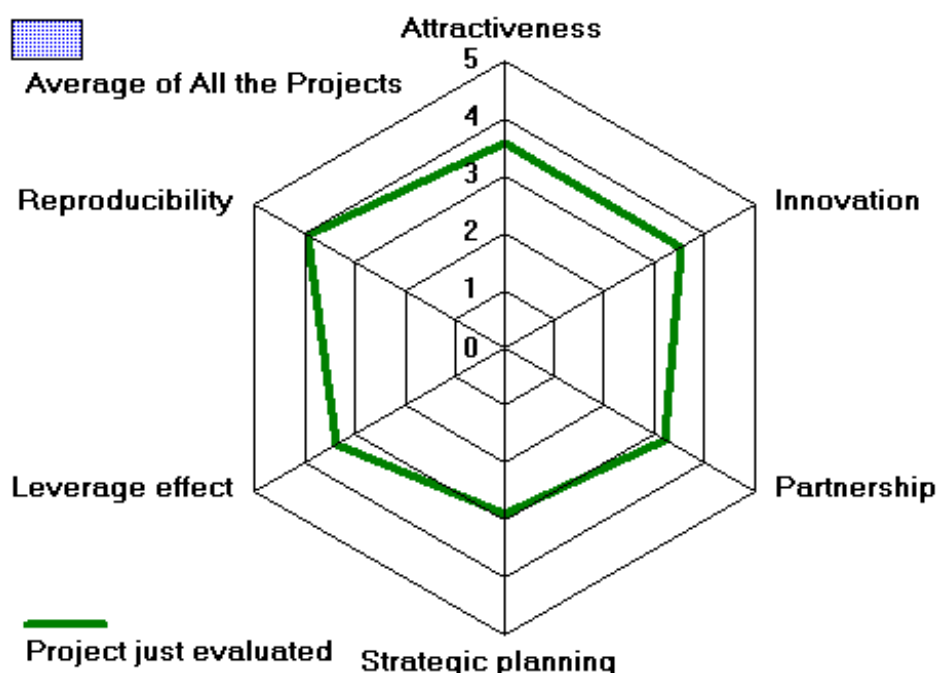


DIAGRAM 1. Profile of Kainuu information society projects according to the LOGREGIS database assessment project.

Kainuu organisations have not sought to participate in the EU's information society theme programmes although opportunities have been numerous. Within the 4th Research and Technology framework programme, the Telematic Applications Programme has probably been the most significant, with other opportunities offered by ACTS, ESPRIT, INFO 2000/MLIS, TEN-TELECOM, Cordis and ISPO. Within the 5th framework programme the IST (Information Society Technology) programme is the most important for utilising the opportunities offered by the information society. Its budget for 1999 – 2002 is approximately 20 billion FIM. One of the main objectives of Kainuu Regional Council's telematic support project is to help organisations

in the region to participate in the above mentioned programmes. A general requirement of research projects is that they involve at least two foreign partners. EU funding normally covers 50% of project expenditure.

2. THE SITRA NATIONAL INFORMATION SOCIETY STRATEGY

The publication of the Finnish Independence Anniversary Fund (SITRA) 'Quality of life, know-how and competitiveness' is a refining/updating document on the national information society strategy published three years ago. From the point of view of regional information strategy the national strategy provides a good foundation and a mirror for the sensible assessment of regional targets. The vision and objectives of the work have been defined as follows:

2.1 VISION

Finnish society will develop and apply in an exemplary, comprehensive and sustainable manner the opportunities offered by the information society for improving the quality of life and levels of know-how as well as international competitiveness and interaction.

2.2 OBJECTIVES

The following objectives and goals have been set:

- to promote welfare and to offer employment opportunities and income,
- to offer equal opportunities for acquiring and managing information and for developing know-how.
- to improve conditions for enterprise, competitiveness and quality of working life,
- to increase opportunities for interaction and co-operation between all citizens,
- to strengthen democracy and the possibilities of individual citizens to exert an influence in society,
- to improve the security and privacy of individuals and their positions as consumers,
- to develop services and cultural offerings and to promote international interaction,
- to increase the attractiveness of Finland as a location for innovative businesses,
- to decrease regional inequality,
- to support objectives for sustainable development.

SITRA's strategy is made up of components illustrated in diagram 2. Its foundation consists of technology, infrastructure and the development of the information society at a local level.

These provide the basis for the various electronic services, associated levels of know-how, a networked economy and the public sector.



DIAGRAM 2. Framework of SITRA's information society strategy

The above diagram also provides an excellent frame of reference for the information society at the local level and can be applied to different locations in this form. The infrastructure and technologies indicated at the bottom enable the provision of services and form a basis on which new private and public sector services, education and networking can be built.

National pilot projects are highlighted in SITRA's strategy work and provide the basis for the implementation of the strategy. The Planning of pilot projects began in spring 1999 and will continue until the end of the year. Regional attention should be paid to the planning and implementation of such pioneer projects which are of significant scale and can both benefit regional operators and bring added value to their host regions.

Pilot projects appropriate for Kainuu participants in the future include the 'Business Networking and Telework' and 'Local Information Society' projects. In the regional implementation of programmes these pilot projects should receive particular attention.

2.3 NATIONAL PILOT PROJECTS

SITRA's national information society strategy has listed seven areas (sectors of activity) in which new pilot projects should be initiated. The purpose of these projects is to try to use

concrete examples to promote information society development in our country. SITRA itself will not finance such pilot projects (except to a limited extent during the planning stage) but will participate actively in their implementation and also help to identify sources of finance.

Preparation for at least the following pilot projects should be instigated: (SITRA: Quality of life, know-how and competitiveness, pages 22 – 23):

1. Cultural and information-related products and services

The objective of the project is to promote the conversion of centralised information, particularly that held in archives and museums, into digital form and to extend and diversify the utilisation of information material produced by the authorities within society. At the same time the aim is to develop content-based commerce and to increase its international competitiveness. Within the scope of the project, the public and private sectors must in mutual co-operation develop and distribute information-based solutions and describe, refine and actualise them for the purposes of information services and for use by the general public, including pricing and copyright management.

2. Electronic services and service processes

The purpose of the project is to bring together development projects involving electronic services and trade, and to increase the level of synergy between them and the unity of the resulting services. In the project The project's governing body and participating research institutions, businesses and organisations must jointly examine service requirements from the user's point of view in order to develop processes for producing services as well as secure and reliable systems of electronic services and trade. Simultaneously, efforts must be made to remove obstacles to electronic commerce, and to develop the protection of private data and the position of the consumer.

3. Personal navigation

The project objective is to develop a personal navigation service which supports all forms of mobility. This is to be implemented in stages in accordance with the development of, among other things, data display and data transfer technologies. Any required mapping, address, route, price, or timetable services etc. required for mobility, as well as various business and trade related services, must be established on a commercial basis applying the most technically advanced services available. At the same time the transmission of location information concerning the emergency services must be developed.

4. Information network learning environments

The project objective is to bring together existing projects and to develop and implement measures for utilising information and communication technologies which are at the same time complementary to the traditional education system. The arrangement so established has to support independent and lifelong learning, including that of specialised groups, and also encourage the passing of examinations. The project must include the development and publishing of electronic learning materials. Initially it must offer a senior high school syllabus and tutoring. Later on a wider choice must be available to cover both university and other areas of higher education as well as vocational education.

5. Information-rich work

The project objective is to develop alternative methods of organising information-intensive work and know-how requirements at individual, working group and network levels as well as methods of transmitting know-how. Assessment must be carried out concerning the demands that human psychophysical welfare makes upon information-rich working environment. The project is to develop, implement and test various functional models and tools for the management of electronic interaction and the growing information flood, and also to assess strain caused by work in order to prevent accidents and ill health caused by work-related exhaustion and stress.

6. Business networks and teleworking

The project objective is to bring together, develop and test a range of services which promote small business entrepreneurship and networking, best practice and business models, and to remove obstacles which prevent networking. The project is to develop and establish electronic services for promoting the international marketing of manufactured products as well as services relating to electronic business transactions and interaction. The project must also both develop opportunities and as intermediary for teleworking. Development of the necessary services must be carried out in close co-operation with businesses. Supporting services must, as far as possible, create new enterprises.

7. The local information society

The project objective is to bring together and develop regional and local best practices in order to implement those opportunities offered by the information society, increase regional co-operation and interaction so as to improve services, and strengthen democracy. Through the project resources must be collated to develop everyday general solutions and products, attention also being paid to international markets. At the same time, a uniform handbook of best practices should be compiled and a support service established so as to assist municipal and regional decision making.

3. STRATEGY OBJECTIVES

3.1 VISION

The 'Kainuu – Information Region 2005' strategy defined its vision as follows: *Kainuu is a highly networked information region whose skilled workforce leads the world in the development and application of state-of-art information and communication technologies.*

This description is still valid and there is no reason to change it. Practical targets and measures for achieving such a vision will be examined more closely in Section 4 (Lines of action within the Kainuu Information Society Strategy).

3.2 SWOT ANALYSIS

The following illustration of the operational environment for the development of the information society in Kainuu is a summary of both opportunities for and hindrances to

development. The four sectors below include, as an outlined synthesis, visions and current views on the strategy of 'Kainuu - Information Region 2005'.

| STRENGTHS | WEAKNESSES |
|---|--|
| <ul style="list-style-type: none"> + developing co-operation + units of Oulu University situated in Kajaani; Kajaani Polytechnic + distance learning opportunities + closeness to nature, unspoilt, peaceful and safe environment + existing entrepreneurship within the high-technology sector + several projects already in progress | <ul style="list-style-type: none"> - population development (negative migration) - low level of education - lack of economic resources - attitudes, opposition to change - narrow occupational and business structure - lack of co-operation between businesses, educational institutions and public sector (poor networking) - lack of active operators - shortage of skilled labour - operational environment not attractive to businesses or young educated people |
| OPPORTUNITIES | THREATS |
| <ul style="list-style-type: none"> ! opportunities created by technical development/telematics ! rapid growth in the telematic sector ! remigration ! content-oriented production (in broad terms), a significant opportunity – not affected on distances ! teleworking ! regional network ! availability of educational services ! availability of public services /electronic services ! co-operation between Eastern and Northern Finland regions | <ul style="list-style-type: none"> ? decreasing numbers and changes in the population structure ? businesses relocating elsewhere to more favourable environments ? labour force educated in the region moves elsewhere ? Kainuu is not self-sufficient in electronic know-how ? the credibility of Kainuu credibility will not improve |

3.3 OBJECTIVES

The objectives of the Kainuu Information Society Strategy can be traced back to the above analysis. On the other hand, the basic objectives are already in line with the aims of the Kainuu development programme and the coming structural funding programme. Supporting and strengthening business activities through telematics will create a basis for improving the economy of the region by strengthening the private sector. Efforts to achieve this include the creation of new businesses through the provision of a diverse and attractive environment. In addition to new businesses special efforts must be made to attract already existing businesses (mainly in the communications sector) to relocate in Kainuu.

Another objective is to increase Kainuu's credibility as a suitable region and business environment for the exploitation of telematics as well as to aim at self-sufficiency as far as know-how and operations are concerned. Buying know-how from elsewhere is rarely a good or profitable solution, especially not in the long term. The remigration of highly educated people constitutes both a resource and an opportunity.

We must create a sufficiently business-friendly environment in the telematic sector and prepare in general for the information society to such an extent level that those considering remigration can clearly perceive the commitment to telematics within Kainuu region. The earlier background information (see Section 1) concerning implementation in the telematic sector during the funding period 1995 – 1999 indicates a growing need to set aside development funding for telematics. This again sends out a message about Kainuu's interest in developing the information society and about its choices and priorities for the new funding period.

It is difficult to improve co-operation between organisations through the imposition of imperatives, but the texts of the development programmes (Regional Development Programme, Target 1 programme for Eastern Finland) should make it a condition that projects have a wider implementation base. This means that better co-operation must be achieved between businesses, educational institutions and the public sector.

Efforts will be made to affect the building of the region's image through a regional communications plan. However, this Information Society Strategy, being a part of the region's development programme, also describes investment in the rapidly growing telematic sector for promoting the development of the information society. Resource allocation, based on programme-specific evaluation (in Finnish marks/Euros) for different activities is most likely to be forthcoming from the Kainuu share of the Eastern Finland target programme, which tries to comply with the measures of the regional development programme.

The emphasis of the Kainuu Information Society Strategy is on the most central development requirements existing both now and in the near future. In the development of the information society the following elements will be emphasised.

- **content production for the new media within various sectors**
- **support for applications of telemedicine**
- **implementation and development of applications of electronic commerce and electronic identification (private and public sector)**

- implementation and supporting of new ways of working and studying
- networking through information networks (municipal authorities, businesses and regional government)

The main lines of action are based on the Eastern Finland Target 1 programme. Each line of action (business activities, know-how, development of rural areas and structures) embraces a range of more detailed goals and measures relating to the Kainuu Information Society Strategy. The lines of action presented below (Section 4) aim at achieving the above mentioned objectives and at developing activities within each heading. They all aspire to contribute towards the creation of a region with a business environment and business opportunities which are more attractive than before.

4. LINES OF ACTION WITHIN THE KAINUU INFORMATION SOCIETY STRATEGY

The Information Society Strategy is made up of development work within various sectors using a range of methods and tools. The most powerful unifying factor among most services offered by information society offers is the use of the internet (*"The Internet is the foundation of a new industrial order!"*). When the national information society strategy was published in 1995 the rapidly growing importance of the internet did not receive enough attention. This is one of the factors supporting a dynamic strategy process involving, for example, annual strategy adjustments.

4.1 CONNECTIONS WITH THE EASTERN FINLAND TARGET 1 PROGRAMME

The following lines of action are based on the Eastern Finland Target 1 programme (European Union structural funding programme for 2000 – 2006). Lines of action and their subsections are mentioned here only in as far as they concern the information society. Sources of funding are also outlined.

Line of action 1: Development of business activities and improvements to the business environment

PRODUCTION OF SERVICES IN THE INFORMATION SOCIETY (CULTURAL AND MEDIA-RELATED IN PARTICULAR)

Sources of funding: European Regional Development Fund, KTM, OPM, Ministry of the Interior/Regional Councils, STM, YM

Line of Action 2: Strengthening of know-how and promoting the skills of the workforce

ATTAINING LEVELS OF COMPETENCE REQUIRED BY THE INFORMATION SOCIETY

Sources of funding: European Social Fund, TM, OPM, Ministry of the Interior, Regional Councils, STM, ...

Line of Action 3: Rural development

DEVELOPMENT OF A NEW WORK AND BUSINESS CULTURE IN RURAL AREAS

Sources of funding: European Agricultural Guidance and Guarantee Fund, MMM, Ministry of the Interior/Regional Councils, YM, ...

Line of Action 4: Structural development

SECURING AND IMPROVING THE EFFICIENCY AND COMPETITIVENESS OF INFORMATION NETWORKS

Sources of funding: European Regional Development Fund, Ministry of the Interior/Regional Councils, LM, TM, YM, STM, ...

4.2 LINES OF ACTION AND PRACTICAL MEASURES

Based on the above analysis the following lines of action and measures will form the foundation for the Kainuu Information Society Strategy:

1. PRODUCTION OF SERVICES IN THE INFORMATION SOCIETY (CULTURAL AND MEDIA-RELATED IN PARTICULAR)

1.1 New media content production within various sectors

1.2 Supporting telemedicine/telecare applications

1.3 Introduction and development of electronic commerce and electronic identification

2. ATTAINING LEVELS OF COMPETENCE REQUIRED BY THE

INFORMATION SOCIETY

2.1 Securing and developing information technology and media-related basic and further education

2.2 Introduction of and support for new ways of working and studying

2.3 Increasing public awareness regarding the opportunities offered by an information society operating according to democratic principles

3. DEVELOPMENT OF A NEW WORK AND BUSINESS CULTURE IN RURAL AREAS

3.1 Support for rural entrepreneurship using telematic solutions

3.2 Support for a new work and business culture as well as for the establishment and development of educational services

4. SECURING AND IMPROVING THE EFFICIENCY AND COMPETITIVENESS OF INFORMATION NETWORKS

4.1 Support for networking through the creation of information networks

4.2 Introduction of new technologies within the sectors of communications and information network technology

4.3 THE KAINUU INFORMATION SOCIETY STRATEGY: MEASURES AND JUSTIFICATIONS

PRODUCTION OF SERVICES, ESPECIALLY CULTURAL AND MEDIA-RELATED, WITHIN THE INFORMATION SOCIETY

LA 1.1 New media content production

Multimedia and new media are new concepts which principally mean new combined means and methods of presentation in the information technology and communications sectors. The combination of voice with pictures or moving pictures, in conjunction with electronic communication channels (e-mail, videophone, mobile phone, digital TV) and the application of new technologies open opportunities for the provision of new and alternative forms of teaching materials, entertainment, news dissemination and procedures for placing orders and making reservations. Significant opportunities are available to all irrespective of physical location –

distance is no problem. This constitutes a special challenge and opportunity to businesses. Therefore, more new media businesses are needed in Kainuu.

Electronic recording and the development of the whole of the so-called cultural industry using new tools is a sector of rapidly growing importance, in which new opportunities must be identified. Developing the region's film industry is another area closely related to the theme of content production.

LA 1.2 Supporting telemedicine/telecare applications

Telecare/telemedicine forms a sector of its own, the applications of which, however, embrace areas ranging from image transfer (still images, X-rays, electronic graphs) to the communication of moving on-line videos (for example, telepsychiatry, specialist consultancy) and onwards to the establishment of systems of electronic referrals. Electronic picture archives are an essential means of accessing modern patient records. A seamless chain of care is one of the STM telematic macropilot areas of development. Such systems will eventually be utilised throughout Finland. From the point of view of municipal financing, telecare is the only medium-term option for coping with the growing cost of healthcare. More development projects and service organisations are needed in the telecare sector.

LA 1.3 Introduction and development of electronic commerce and electronic identification

Electronic commerce and the electronic identity card have been the subjects of intensive development over the last few years. Electronic commerce has not started off quite as quickly as was expected, but its share of overall trade is, however, gradually increasing. Electronic identification has been one of the obstacles. Finnish pilot projects concerning the development of an electronic identity card by the Population Register Centre (the official certification authority) will be completed this year and electronic identification will also be tested out as through a macropilot project conducted by STM.

Central and Regional Government services through information networks are largely dependent on electronic identification. This is especially true concerning the 'depth' of services, i.e. how far-reaching the services to the public are from the point of view of interaction and genuine electronic service. By genuine electronic service we mean that the service includes two-way interaction and may even involve direct access to the service supplier's operational systems.

Though the growth of electronic commerce may not have been quite as rapid as has been forecasted, its proportional share of trade will grow significantly over the next few years. Kainuu has both the space and the opportunities (i.e. those capable of realising the technical side of the service) for new entrepreneurs and, in particular, for expanding the activities of existing businesses into the sector.

ATTAINING LEVELS OF COMPETENCE REQUIRED BY THE INFORMATION SOCIETY

LA 2.1 Securing and developing information technology and media-related basic and further education

Sufficient training in the areas of information technology, communications, information networking and programming, together with a technologically oriented education will secure the school age and adult education requirements of our region. New educational models and methods in adult education must be introduced. Practices such as 'conversion' training and 'precision' training to meet business requirements provide a reasonably quick response to the demands of employers. The roles of distance teaching and learning are growing rapidly. In national terms the teaching of technology in Kainuu has attained an exemplary position. The provision of higher (university) level technological education in the region is necessary in order to ensure a qualified and competent workforce. Education is a central tool for positively affecting net migration to and from the region.

LA 2.2 Introduction of and support for new ways of working and studying

The importance of teleworking in Kainuu receives special attention because of the long distances and low population density characteristic of the region. New working methods are of great importance to the region both now and in the foreseeable future. New ways of working and new tools are making this possible and they are rapidly becoming readily available. Several projects relating to telework have already been conducted in the region and recruitment for teleworking is possible through the public employment authority.

The application of new information technology tools must be supported and training must be arranged. Teleworking as a phenomenon must be developed further in order to exploit research and the information it produces with a view to supporting employees and employers and discovering new operational models.

Teleworking and other new working methods make it possible to work more flexibly and allow for work practices independent of time and location. Research indicates that teleworking has a positive effect on work effectiveness, enjoyment and motivation. There is increasing interest in part-time teleworking and opportunities should be open to more people.

The education sector is significantly reorienting its practices towards the utilisation of distance educational materials and information networks. This trend must be supported at all levels from primary education up to higher and, in particular, adult education.

LA 2.3 Increasing public awareness regarding opportunities offered by an information society operating according to democratic principles

Pensioners and the older sectors of the population as well as a large number of people in employment are still relatively unfamiliar with information technology and phenomena and opportunities provided by the information society. The dissemination of information and education together with the organising of events aimed at these sections of the population constitute important means of ensuring an information society of equal opportunities.

Adherence to democratic principles on a wider scale embraces the above mentioned aspect of equality, In specific terms, however, it means securing and developing the opportunities of every citizen exert an influence on societal matters. It is mainly the responsibility of the municipalities and the government to decide to what extent citizens be allowed to participate through information networks in discussions affecting decision making as well as to the kind of channels available for feed-back. Similarly, practical decisions, which allow everyone access to the discussion forum should they so wish it, are largely the responsibility of the municipalities.

DEVELOPMENT OF A NEW WORK AND BUSINESS CULTURE IN RURAL AREAS

LA 3.1 Support for rural entrepreneurship using telematic solutions

There are several structural factors which are responsible for the present depopulation of rural regions. However, in addition to agriculture the existence or otherwise of small-scale entrepreneurial activity providing major or additional sources of livelihood contributes significantly to the population's decision as to whether to stay in rural areas. Here the importance of information technology as a tool and supplier of services is obvious and at its best it constitutes an irreplaceable facility for running a business. Support projects aiming at the development of and preservation of vitality in rural areas will be of fundamental importance.

LA 3.2 Support for a new work and business culture as well as for the establishment and development of educational services

A new work and business culture for remote areas mean new opportunities for recruiting employees and for attracting new businesses as subcontracting-type work becomes more general. A precondition for this, however, is that correct information is disseminated regarding new methods of working as well as the removal of unproductive suspicion and prejudice. Both employees and employers require information while at the same time teleworking at its best improves productivity.

Tasks at work are becoming more and more information intensive and, increasingly, they can be carried out using information technology. The important point is often to be able to adapt to a totally new type of work culture. In areas with scattered population such new working methods will lead to the creation of new jobs and, for example, during holiday periods, a larger consumer base owing to people being able to extend their stay in the region.

SECURING AND IMPROVING THE EFFICIENCY AND COMPETITIVENESS OF INFORMATION NETWORKS, PARTICULARLY FROM THE BUSINESS POINT OF VIEW

LA 4.1 Support for networking the creation of information networks

Co-operation between municipal authorities by using information networks makes it possible for them to rationalise their activities within different sectors. There are numerous technological solutions as well as forms of co-operation.

Municipal/regional authorities' networking solutions are never similar, as each region has to define solutions from its own point of view. Technical solutions are dictated by services and content required.

Networking and networks between companies (information networks, internet and e-mail solutions, electronic commerce etc.) should be made as easy as possible through tailor-made solutions which take into account the type of business involved. This would encourage small and medium size businesses to take full advantage of the opportunities offered by the information society. Also public sector services (even government services) can in the future be made available as part of regional municipal and business networks.

OL 4.2 Introduction of new technologies within the sectors of communications and information network technology

To secure our region's competitiveness communications and information network technologies must also be developed. This also applies to our state-of-art electronic industry. New technologies, such as the rapidly changing mobile phone, information network and location information systems, will continue to present new challenges and demand the ability to develop new solutions. High quality high-tech companies are needed in Kainuu. Therefore, the terms and conditions for their operation within the region should be made more favourable.

Some of the new technological developments due to appear over the next few years include the third generation mobile phone technology, new faster data transfer technologies for various cable networks and satellite technology for data transfer.

5. PROJECT CREATION AND PRACTICAL WORK

This element of the strategy does not include any specific plan of detailed actions. The lines of action provide guidance for future projects in sectors that are found to be of importance. Certain pilot projects already exist within each line of action. On the basis of these guidelines project will be planned within the Eastern Finland Target 1 programme during the new structural fund period and in conjunction with other development work.

In the revision of the regional development programme refinement to take place at the end of 1999 and the beginning of 2000, the Information Society Strategy will be applied in certain key sectors. Progression to a practical level will not be aimed at in this work either; the operational plan will possibly be drawn up in terms of a pilot project. The operational plan will be outlined through the Telematic support project of Kainuu Regional Council.

Follow-up and assessment of the strategy will mainly take place through the Telematic Support Project. A dynamic strategy process with almost annual adjustments is highly appropriate for

the evaluation of the strategy and the planning of future practical work. The next strategy revision in 2000 is likely to include a rough evaluation of working practices. When the Eastern Finland Target 1 programme is initiated next year project integration with respect to the whole structural funding period will be more clearly discernible. The scheduling of a more precise evaluation for the end of the year 2000 is more suitable as the Telematic Support Project will then also have reached its conclusion.

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