

mClusters conference in Kalmar & Västervik, Sweden, 9-10 September 2007

October 9th, 2007

Transformation of the Kalmar Region

The Kalmar region has since 1997 been a pilot region in reorganising the public sector, through the use of IT and new technologies for collaboration between the public sector and private enterprises to enhance the offerings for citizens in the Kalmar county.

Håkan Brynjolfson of the Kalmar Regional Council underlined the counties strategy to provide 24Mbit fibre-based Internet structure almost everywhere in the country, and 8 Mbits Wimax in the north-eastern part of the country. The digital infrastructure is part of a wider strategy to transform Kalmar county into a leading “digital society”, focusing the resources in the county on how to develop applications and use the existing infrastructure to create a leading environment of high-technology companies to prosper in an area with a high engagement of the public sector and citizens as lead-markets.

In addition to the fixed-line broadband infrastructure, the county has also been developing wireless broadband access. The first attempt to establish WIFI was done in the 3.5 Ghz spectrum, which ran into trouble with coverage based on the spectrum inability to properly traverse natural obstacles. Consequently, the region had to change the strategy from wireless to fibre until it became possible to build a network using the 450 MHz spectrum, which provides better coverage up to 1Mbit.

From 2007, the county has started the next phase in the regional development strategy, focusing on education, training and collaboration with industry and the public sector. It was early in the establishment of the strategy identified that a major requirement for the region was to ensure the necessary competences of the citizens to embrace the digital society. Consequently, e-learning, computer literacy and common technical proficiencies has been prioritised in both urban areas and in smaller, rural communities.

From 2008, the transformation of the region will enter its third phase, focusing on supporting concrete projects in areas such as e-Learning, mobile health care, mobile tourism, e-Democracy, administrative development (such as making the administration more cost effective), and continue making the IT-Infrastructure more advanced.

Harnessing Societal Innovation

The BIT Service / IT Greenhouse in Blankaholm was born out of the

broadband projects in the region which began in 1999. It was originally envisioned as an experimentation site with user-driven innovation in broadband technology for the rural communities. In the wintertime, the computers are used for distance working and education (e-learning), and in the summer, the computers are used by tourists and visitors.

The IT Greenhouse showed the need for models supporting the uptake of technology in society, and consequently, several projects have been pioneered in the context of the Greenhouse and the requirement for computer proficiency in rural communities.

Today, as a result of the projects in the IT Greenhouse, Blekinge, Kroneberg and Kalmar counties are collaborating in the areas of e-learning in “the Learning and Development Project” part of the centre for flexible learning on how to build up learning platforms and learning structure in areas such as the Folkbildningsnet (folkbildning.net) <http://www.webbvideo.folkbildning.net> is part of the Swedish e-learning tools for the Swedish Associations of Folkbildning, focusing on e-learning across Sweden and in international relations with e.g. China. The National Council of Education is responsible for the Folkbildningnet. Other areas are Folk High School and National Study Circle.

In addition, new initiatives under way are distance work (for instance, 60 new houses are being build, and professionals are moving to the rural areas in Kalmar based on the ability use distance working from the service centres), and initiatives such as “Baltic Sea Bridge” are being pioneered to link tourists and learning with local information to provide a basis for new services to tourists.

Learning Centres in Rural Areas

As a consequence of the needs for developing the IT competences and diffuse broad band and new technologies to the rural areas in the Kalmar region, the region has developed learning centres in local communities.

The background for developing the learning centres are that the eneral level of education is low in the rural areas, employers have asked for better IT competences, and the municipalities are bating with high rates of unemployment. Consequently, the municipalities and regional authorities have understood that conditions for learning and development of rural citizens must improve, and thus implemented pilot project in three areas in the region; in Blankaholm it is part of the harbour, in Jamervig in conjunction with the library, and in Loftahammer is together with the mayor’s office.

The learning centres have been supported financially from the European

Union, and from the Living Labs network in the development of the learning processes with links to developing new pilot projects based on user needs and user requirements. Hence, one of the main results is that communities have seen social development in the form of community building for groups of citizens normally left out of new technologies, and that digital technology and knowledge are available to the citizens on a general basis. Consequently, the learning centres have involved diverse groups of citizens, and linked to existing activities in the communities resulting in a unique uptake of technology in areas such as communications, distance learning, distance working and use of software.

On the operational level, each learning centre has instructors to handle requests and assist users in interacting with the technology. In addition, the learning centres are collaborating with libraries and with each other to link users and activities in also regional virtual networks. The learning centres have thus become a cornerstone in the development towards the digital society, and are slowly evolving as an integral part of a broader system of education, employment, knowledge and entrepreneurship in different areas.

mStudent at the University Centre of Västervik

The goal of the mStudent (mobile and IT services for students) project was to develop new solutions for IT-based higher education. The project was initiated as part of the EU structural funds financing program in the period 1997-2003 to develop distance-based university education in the northern part of Kalmar region.

Currently, there are 500 students annually at the University Centre, but as a specialty there are no actual teachers / professors at the centre. Hence, the entire learning offering is based on distance learning, through links with five larger Swedish universities.

On the mobile side, mStudent applications have been integrated into the everyday operations. Originally, students in the region were invited to come up with ideas for services for students, including 3G, IP phones on wireless networks etc. 300 students participated in the resulting pilot which was up and running in four months, in which the services were tested by the students.

Services such as administration-type services, mass-communication from teachers to students and chat were very popular and are still a driver for the continued use of the mStudent services. Currently 1,500 persons are using the mStudent services in the Västervik area.

Boundless Communication

The boundless communication is a pilot project for providing language courses based on student-to-student communication, and has been designed through active user involvement in the design process. The project started as a Living Labs project, and has now been integrated into society through the learning centres, university college and other facilities.

In many of the municipalities more than 50% of the budget goes to the learning centre, and hence they want better quality in the education. Also, the businesses want to use the e-learning and online collaboration tools for cultural integration of new employees. Consequently, the boundless communication program serves part of this purpose as students and citizens have access to new language learning, and the possibility to broaden their horizon through collaboration with students and citizens in other European countries.

IT for the Elderly

The IT for the elderly program was pioneered by a need for inclusion of the especially the older generations in the use of IT in the Kalmar region. Consequently, the pilot project "IT for Seniors" at Nynäsgården was designed to provide technology for communication with relatives and information via computer for the elderly citizens in the care centre.

The aim of the project was to identify, test and evaluate new possibilities for seniors to evaluate the use and uptake of IT for the elderly in areas such as contact with relatives, email and communication, online banking, training, planning activities, entertainment and e-meetings.

The focus of the services is put on areas that improve the quality of daily life of seniors including different related other groups such as relatives and visitors. In the pilot, approximately 30 elderly, (aged 70+), 15 staff and a number of relatives participated.

Based on the results of the project, which were improved wellbeing, better health and improved communication between the involved including caretakers and relatives, the project will now be implement in 12 additional areas to test the results on a broader basis, and to investigate the potential for commercialisation and sustainability.

Applications for Elderly with Special Needs

The project "Applications for Elderly with Special Need" was started as an EU project in 1997 between Sweden, Ireland, England and Portugal. However, quickly the project entitled "ACTION Care", led by the University College of Borås was primarily carried forward in Sweden with a focus on services for

the elderly with special needs to enhance quality of life, and make life easier for the families. In 2004 Borås implemented the system together with Telie/Sonera to commercialise the system.

The program is aimed to support elderly couples in which one of the partners suffer from diseases such as Alzheimer's or other ailments requiring care to stay onger in their homes, before they require being moved to special home for the elderly or the hospital. The program involves special computer software and video phones connected to a call centre staffed with nurses and doctors with experience from care taking, as well as a support and education system to provide support for the spouse or care taker. In addition, the program also provides a platform for the creation of a social support network for the elderly through virtual communication as well as physical meetings designed for social as well as earning purposes.

The services were developed on the basis of the feedback from the family care takers using user-driven development, as has been very successful in addressing the challenges of home care. Hence, the family carers and the elderly feel less isolated, as long as the technology is easy to use, and the family caretaker feels more competent and secure in the caretaking role. Other added benefits are that the professional carers experience improved job satisfaction, and that knowledge about caretaking can easily be documented and passed on to caretakers in the home.

For the municipalities, the average savings per year are significant, due to a reduction in the need for help in the home and requirements for expensive services in home for the elderly. The program is currently running in seven municipalities in Sweden on a pilot basis, but due to the success an increasing number of municipalities are showing their interest in the program.