

BROADBAND CITIES 2008
SUMMARY OF ‘DIGITAL SOCIETIES’ SESSION (MORNING 22-10-2008)

In this introductory ‘Digital Societies’ session of the ‘BROADBAND CITIES 2008’ Conference (in the morning of 22-10-2008) all speakers emphasized that in many cities are constructed extensive broadband network infrastructures, which offer to public organizations, businesses and houses high speed connectivity, and on top of them are developed highly useful applications/e-services. These e-services aim at both economic objectives (such as new business models, enhanced competitiveness and growth) and social objectives (such as higher quality of life, better services to various groups, social networking and inclusion, environmental protection, etc.). Many broadband FttH (Fiber to the Home) projects are started, aiming to provide not only the ‘classical triple play’ services (telephone, Internet, movies), but also other useful e-services as well in the domains of education, health, entertainment, security, liveability, social cohesion, culture, sports, business, local government, etc.

The experiences of several cities in implementing the above concepts were presented and discussed. The City of Manchester (UK) has adopted a ‘4 ACES’ approach focusing on Access (advanced e-infrastructure), Content (characterized by creativity and innovation), Engagement (social networking) and Sustainability (new business models). One of their most important strategic directions is ‘Widening Engagement’, focusing on services in the community, economic development, quality of life, open innovation and research, intelligent energy, telecare-health promotion, flexible working and e-Learning. Another strategic direction is ‘Digital Equality & Inclusion’, focusing on tackling worklessness, increasing social capital, new opportunities for enterprises, more people on-line, more people with competences, confidence and aspirations, increased demand for e-services, transformation of service delivery and supporting EU’s i2010 ‘e-Inclusion’ initiative. A third interesting environment-oriented direction is ‘Inclusive Sustainability’, aiming to enable and support a “Green Shift”, lower carbon emissions, energy efficiency, sustainable energy communities, personal and collective carbon trading and micro-energy production and innovation projects.

Quite interesting is the Dutch experience. While initially the main services provided through the broadband networking infrastructures were the ‘triple play’ ones, gradually some new useful e-services are being developed. In the province of Noord-Brabant are developed the AltijdThuis (‘AlwaysHome’) services: ‘Looking after your mother’, ‘Babysitting’, ‘Burglar alarm’ and ‘SMS when the neighbors house is on fire’; planned future developments include ‘Videophone via home control panel’, ‘Energy management’ and ‘Remote monitoring and control’. In the Amsterdam area four housing corporations have taken an initiative for constructing FttH and on top of it launching the ‘buurtleven.nl’ e-services, which aim to improve liveability and social cohesion in the neighborhood. It is a website, where information about the neighborhood is presented via a map, citizens can contact each other digitally (enabling e-mailing ‘a home address’ to contact a neighbor, a street, a neighborhood and also organizing a digital group) and ‘neighborhood’ directors (e.g. housing corporation, city, etc.) can cooperate with citizens digitally; furthermore, capabilities for ‘Videochat’ and ‘Uploading and downloading of HD quality video’ are also offered.

A very interesting model for implementing these ideas in the context of smaller cities is provided by the ‘e-trikala’ initiative implemented by the Municipality

of Trikala (Greece) with a population of only about 60000 citizens. It has developed a number of highly useful and widely used e-services, such as:

- Free Wireless Internet Access for every Citizen (20 Mbit of bandwidth distributed over 15 nodes and facilitating access for the over 9000 users who, on a daily basis, are served by the 'e-trikala' wifi).
- Intelligent Transportation ('real time' digital information boards installed at all public transport stations (e.g. showing the exact time and destination of next buses), information about parking spaces, monitoring of the municipal vehicle fleet, and state-of-the-art inductive loops for the study of the city's traffic data).
- MobiPARK (an integrated controlled parking system, which allows controlling the parking in the main streets of Trikala, and also charging by verification of the times of arrival and departure through text messages by mobile phone or conventional means).
- e-Health (a 'tele-care medical application, which has been implemented in collaboration with the Prefectural Hospital in Trikala, and has improved significantly the quality of daily life of heart patients).
- "Dimosthenis" Citizens Reporting System (enabling citizens to report various types of problems they encounter in the city and complaints, which are then electronically directed to the competent municipal services)
- "E-dialogos" (an 'electronic democracy' service, which offers citizens the opportunity to actively participate in the decision-making of the Municipal Council through e-deliberation and e-voting on important issues).

Also, relevant experience from the other side of the Atlantic Ocean was presented and discussed. The City of Corpus Christi, a coastal city in the South Texas region of the USA, has developed broadband infrastructure, while the private sector has provided network management and services. Their main current e-services are 'Automated Meter Reading' (AMR), 'Traffic Video', 'Security Video', 'Restaurant Inspections', 'Water pipe and pressure monitoring', 'Public Hot Zones' and 'International Boat Show Support'. A number of interesting municipal e-services have been planned for the future, such as 'Automated Vehicle Location' (AVL), 'Mobile Inspectors', 'Mobile Work Management', 'Automated Parking Meters', 'Remote Monitoring', 'In-car Video Upload', 'Voice Applications' and 'Asset Tracking'. Some additional community-oriented e-services planned for the future are 'Community Portal', 'Digital Inclusion', 'Tourism & Recreation' and 'Emergency Communications'. The main lessons learnt from the 'Digital City' implementations in the USA have also been summarized: the most important element are applications and content, not simply networks; society needs connectivity for supporting urban services, economic development and democratic processes. Their main challenges are technical feasibility, constructions (both wireless and in the ground), users education, business sustainability and pricing. However, very often government is unable to reap the same benefits from information and communication technologies as business, which uses technology to lower costs, please customers and raise profits, for three main reasons: lack of competitive pressure, a tendency to reinvent the wheel and a focus on technology rather than organization.

Finally it has been emphasized that the construction of broadband infrastructures is followed by the development of highly innovative e-Services, which have to be thoroughly analyzed as to their interference and interaction with the activities sphere they are supporting (e.g. commercial activity, government operation, elderly care, etc.), their positive and negative impacts and finally the value they really produce for the various stakeholders and the factors affecting it. This analysis should be scientifically sound and be based on existing frameworks and methods, both

generic ones (from the areas of information systems evaluation, technology acceptance models, theories of innovation (e.g. Roger's), etc.) and specific ones to the particular domain each e-service deals with (e.g. appropriate frameworks and methods from the political, social and administrative sciences). Such an analysis can significantly contribute to the identification of strengths and weaknesses of each new e-service and the improvement of its practices, so that a higher level of maturity can be achieved in this domain and finally more value is generated for all stakeholders (e.g. citizens, businesses, city authorities, etc.)