

***“Digital InfoTourism. ICT tools and Future Internet based smart services, infrastructures and devices applied for strengthening a strategic sector for Europe.”***

During the last decade the Tourism sector has been one of the main economical activities in Europe, having Europeans visiting within regional, national and international boundaries in Europe, but also bringing to the old continent visitors from every corner of the world.

The strength of Europe in tourism is remarkable, six of the top eight most visited countries in the world during 2009 are in Europe, polling together more than 247 millions of visitors. Translating this into figures, seven out of the top ten earners are in Europe. The volume of the tourism market of these seven countries together is bigger than 248 billions of Euro<sup>1</sup>.

In the last fifteen year this sector has just grow, except for 2009, due to the world economical struggle. However since last quarter of 2009 the growth is turning positive. Based on the economical figures, tourism in Europe claims itself as one of the engines to put back the economy into the positive trend.

National governments see tourism as one of the strategic activities to encourage the economy, and reduce unemployment. Therefore there is a clear bet for improving the sector. As competitive strategy to attract visitors, governments and tourism stakeholders are investing to enhance the capabilities of the offered services, or to research new <http://www.segittur.es/ones>. The main tools been used to reach such a goal are the Information and Communication Technologies, due to the possibility they offer to interchange information in a quick, custom and accurate way.

Internet enters into the scene providing an excellent framework to develop new services, smarter services taking advantage of the unexplored possibilities that the global interconnection, combined with the appearance of new devices, offer.

During the next years, a new way of doing tourism will appear, “Digital InfoTourism” as a new concept that is already entering the market. This will imply connecting every part of the city with each other through the Internet of the Future; Accommodation, gastronomy, transportation, spectacles, entertainment, shopping, administration converging in new smart services, enhancing the experience of visitors, strengthening this strategic sector in Europe.

A use case having this economical potential ensures that any advance made in this environment will bring almost instantaneous payback. Nowadays the investment in ICT applied to Tourism is well considered, and supported by public administrations and the sector stakeholders, the infrastructures are numerous can be found in every city, there are regional, national and international initiatives in this sense. All this factors together, make this use case an attractive candidate for large-scale experimentation test-beds of the Future Internet, bringing together to the scenario services and areas till now isolated, like transportation (air, ground and waterborne), education, public administration, enterprises, cultural, leisure

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<sup>1</sup> Sorcuc: The World Tourism Organization <http://www.unwto.org>

activities, gastronomical, etc. The whole city together to create a new economical environment.

In any case the researching perspective mustn't be lost, and the use case needs to provide a scenario useful as a base for technological requirement, which requirements can be extrapolated to as many other use cases as possible. In this sense, Tourism offers a wide variety of activities that can very well represent, at technological necessities level, to many other. In essence the development of "Digital InfoTourism" goes after the integration of the Future Internet in cities themselves, ending up with connected cities that we can call e-Cities and e-Citizen. Many human activities are performed in the cities, therefore upgrading or adding value to them, is to do the same with most of the activities performed within them.

ICT has the potential to serve the special characteristics of the tourism in Europe, as an example, the sea surrounding our continent is a main attractive, having just the cruise business an impact of more than 1,800 million of Euro in direct expenditures, and added value of more than 1,300 million of Euro<sup>2</sup>. And intensive application of the Future Internet features will bring completely new services to the European ports and marinas, enabling smart processes to the service of leisure navigation making possible an effective management of the operation with the ports and with tourist activity around them.

If considering this more concrete scenario, main functionalities can be identified. The travel to the Port of the Future has already begun. Today there have been preliminary R&D projects, foreseen part of this functionalities, that having like framework the Internet of the Future, require high capacity of creating networks (ad hoc) when there isn't a central infrastructure available, the port and the boats as part of the Internet of the Things through network of sensors, broadband content consumer and producer, in marinas as in other touristic contexts it exist the need of efficient multimedia delivery, etc. In this scenario, except the specific marina content, every other functionality applies to other use cases, since it is a Touristic activity where services present many common faces with other environments.

The only make the "Digital InfoTourism" concept a really, is to leverage and achieve a collaborative architecture definition. Our organization will support standardized cross platform solutions that can be deployed internationally. In this sense, having a common ground with regional and national initiatives is necessary. Working on this basis, we are fostering the cross use cases applications and services creations.

This proposal is supported by the Spanish SEGITTUR (The Spanish Secretary of State for Management of Tourism) and AETIC (The Spanish Association for Telecom, Electronic and Information Society Technologies). Our Organizations are committed to support and promote collaborative work towards enhanced virtual ubiquitous connected tourist.

AETIC is ready to lead this initiative with the support of SEGITTIR and calls other European interested players to join this initiative.

*"AETIC plays a central role in policy relating to the sector [ICT], the major decisions concerning our business future and the development of the information society in Spain. Its organisation*

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<sup>2</sup> Source: EC Policy Research Corporation [http://ec.europa.eu/maritimeaffairs/tourist\\_facilities\\_en.html](http://ec.europa.eu/maritimeaffairs/tourist_facilities_en.html)

*and working structure ensure its members an active presence in all the fields of business in which they operate. This makes AETIC the benchmark and undisputed forum of representation for the analysis and generation of initiatives benefiting both the sector it represents and Spanish society as a whole<sup>3</sup>*

In the same sense, AETIC performs as secretariat of several Spanish Technological Platforms, some of them Spanish mirror of their European pair. eMOV, eNEM, eISI, (the Spanish eMobility, NEM and ISI), and a specific TP for the Future Internet initiatives, es.Internet. AETIC is in the position to foster the development of a efficient research politic in the field of the FI, not only in Spain, but through the participation in the European forums like the FI Usage Workshop.

In conclusion, Tourism sector is a very wide use case, were most of the functionalities can be tested, and in the perfect economical environment of the technological developments. Therefore it needs to be a driver in the vision of the Internet of the Future, which development needs, as well, to have very into account the new necessities of this important sector in Europe that every day demands higher rates of competitiveness to success.

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<sup>3</sup> Source: [http://www.aetic.es/CLI\\_AETIC/ftpportalweb/documentos/AETIC\\_INGL%C3%89S.pdf](http://www.aetic.es/CLI_AETIC/ftpportalweb/documentos/AETIC_INGL%C3%89S.pdf)