

## 5.4 Intelligent transport systems

### Why invest in intelligent transport systems?

There is a strong interrelation between intelligent transport systems (ITS) and regional development. Smart, sustainable and safe transportation by using ICT addresses many regional policy priorities. They aim at improving liveability, sustainability, economic growth and safety. By ensuring the scale-up and replication of these systems, regions address one major cornerstone in reaching the 20/20/20 energy and climate goals.

Given increasing urbanisation trends, transformations towards knowledge-intensive economies, growing shares of resource consumption and emissions, regions are under big pressure and in global competition. Intelligent transport systems are key to success in this competition. Transforming current transportation infrastructures and systems into intelligent transport systems requires considerable investment and effort, especially in those regions with obsolete infrastructures. In addition, since the debt crisis has hit many regions severely it can be almost impossible for some regions to face those huge investments.

**Sud-Muntenia,**<sup>96</sup> Romania: Sophisticated European railway signalling equipment is to be tested on a short section of rail line in southern Romania. The 4.5-year project will pave the way for country-wide rail modernisation, while ensuring safer, faster and more efficient international railway services and connections.

EU Cohesion Policy can provide support for research and innovation in this area. The participation of the Structural and Investment Funds to the implementation of intelligent transport solution projects can contribute to achieving smart growth in all regions. Given the complexity, size and socio-economic and environmental impact of projects, strict conditions and synergies with other actors and funds are essential for achieving common goals.

### Barriers & challenges

The transformation towards intelligent transport systems is not an easy task. Regions vary greatly because of the historical, geographical and climate characteristics, the socio-economic fabric, the institutional organisation, the geospatial structure, and the state of its infrastructure etc. At the same time, there are several common and recognizable challenges, which can be tackled by joining up the most relevant actors, from the private and the public side, so as to maximise their impact.

Switching to intelligent transport systems requires huge

investment, both to create/renovate the physical and technological infrastructure and to invest in digital systems. Different sets of funding schemes are necessary to implement investments, at both national and European level. In addition, new integrated and sustainable business models are necessary to take the incorporation of innovation into business models into account; a modernisation of public procurement is necessary to fasten the process.

Each region is unique and each country/region has its own institutional setting. Before carrying out any investment, a careful analysis of the specific institutional and regulatory framework must be carried out, to also spot the specific regulatory barriers, preventing innovation and the switch to smart cities.

Intelligent transport systems require huge amounts of data, which are a valuable tool to developing applications. It is important to ensure that data are accessible and trustworthy.

ITS require the interconnection of sectors, essentially transport and ICT but also energy. Therefore, inter- and intra-system interoperability must be a condition for rolling out intelligent transport systems. Finally, data needs to be comparable across regions and countries and KPIs are needed.

Intelligent transport systems require stronger involvement and engagement of citizens in planning processes which should be reflected in decision-making processes and urban planning, based inter-alia on ICT systems.

### How to act?

Regions wishing to invest in the intelligent transport systems should consider the following steps:

**1. Analysis:** (a) to carefully analyse the institutional, regulatory and financial setting of the specific city/region (b) to spot the specific bottlenecks and barriers (c) Estimate the cost of investments to switch to intelligent transport systems, investigate the potential sources of public and private financing and to draw the new sustainable business models necessary to switch to smart cities; (D) to determine the available skills and necessary resources.

**2. Governance/stakeholder involvement:** Public regional and local authorities are the active and passive actors of the process. They are stakeholders and final users at the same time. Public administration should engage with for example:

- iMobility Forum;<sup>97</sup>
- European Technology Platform ERTRAC;<sup>98</sup>

<sup>96</sup> [http://ec.europa.eu/regional\\_policy/projects/stories/details\\_new.cfm?pay=RO&the=60&sto=2138&lan=7&region=ALL&obj=ALL&per=2&defL=EN](http://ec.europa.eu/regional_policy/projects/stories/details_new.cfm?pay=RO&the=60&sto=2138&lan=7&region=ALL&obj=ALL&per=2&defL=EN).

<sup>97</sup> <http://www.icarsupport.eu/esafety-forum>.

<sup>98</sup> <http://www.ertrac.org>.

- European Innovation Partnership Smart Cities and Communities;<sup>99</sup>
- Smart Cities Stakeholder Platform;<sup>100</sup>
- Green Digital Charter;<sup>101</sup>
- Covenant of Mayors.<sup>102</sup>

Also, public administration should consider replicating existing intelligent transport systems, tested, demonstrated, verified in other locations, which can be easily implemented at lower cost.

**3. Priority setting:** (a) Regions/cities, can position their level of ambition *vis-à-vis* the two Communication goals and on the Strategic implementation Plan and set their indicative targets for 2015; (b) to carry out the investments needed for intelligent transport systems, it is important to establish a specific roadmap to reach the defined goals, based on the analysis conducted previously.

**4. Policy mix:** The implementation of innovation transport systems will be done by all the concerned actors at different levels. Regions may consider the White Paper on Transport and the EIP Smart Cities and Communities.

#### Further reading & forthcoming events

<http://s3platform.jrc.ec.europa.eu/intelligent-transport-systems>

99 <http://ec.europa.eu/eip/smartcities>.

100 <http://eu-smartcities.eu>.

101 <http://www.greendigitalcharter.eu>.

102 [http://www.conventiondesmaires.eu/index\\_fr.html](http://www.conventiondesmaires.eu/index_fr.html).