

International Transport Forum 2010 Transport and Innovation: Unleashing the Potential

CASE STUDY - JAPAN

The following information is based on a response to a survey carried out by the International Transport Forum on innovative policy initiatives within member countries, and countries' efforts to promote innovation.

Briefly describe innovative policy initiatives that your government has succeeded in implementing in the transport sector in recent years. Please take the widest possible definition of innovation, including innovative technologies (e.g. ITS), policies, practices (e.g. new pricing mechanisms), etc.

Promotion of Intelligent Transport Systems (ITS)

Widespread use of car navigation, ETC and VICS:

- ITS technologies have become widespread in Japan through the government's promotion policies. As of June 2009, the number of ITS on-board units that have been installed into vehicles are:
- Car navigation systems: about 35 million;
- ETC (Electronic toll collection system): about 26 million;
- VICS¹ (Vehicle Information and Communication System): about 24 million.

Smartway:

The Japanese government, in co-operation with the private sector, promotes what we call "Smartway," the next-generation ITS system that can provide a wide range of information and communication services on the basis of a standardised platform.

Large-scale field tests for new services have been held on the Metropolitan Expressway in 2007 and in the "ITS-Safety 2010" campaign in 2008. Since 2009, roadside units for the Smartway will be installed along expressways and major highways in Japan, offering new services, including the provision of regional traffic information, in addition to trial provision of tourist information in some rest areas on expressways and highways.

1. VICS: the system that can provide drivers with road traffic information such as congestion on the route, travel time required, etc.

Top-runner Approach for Fuel Efficiency Regulations

Japan introduced in 1999 a “top-runner approach” into motor vehicle regulations to further encourage the improvement of fuel efficiency. The top-runner approach requires setting fuel efficiency standards at an ambitious level higher than the performance of the best vehicles currently available in the market, taking future technological improvements into account.

Through the top-runner standards, the average fuel efficiency of new gasoline vehicles in Japan improved by 26% from 1995 through 2006. The 2007 new standards are expected to realise about a 50% improvement in fuel efficiency by 2015, compared with that in 1995. Japan also introduced in 2006 the world’s first standards for heavy-duty vehicles.

What initiative(s) does your country have to promote innovation in the transport sector? Are these initiatives part of a larger effort to promote innovation across the economy? Please provide any additional material you have regarding these initiatives, including web sites, reports, etc.

The current economy-wide initiative is “Long-term Strategic Guidelines ‘Innovation 25’” decided by the cabinet on June 1, 2007 (English version is available on http://www.cao.go.jp/innovation/en/pdf/innovation_final.pdf).

Other information on government-wide innovation policies is available on the website of the Council for Science and Technology Policy (<http://www8.cao.go.jp/cstp/english/index.html>).

Based on the “Innovation 25”, several government-initiated pioneering projects are designated as the “Projects for Accelerating the Transfer to Society.” One of the projects is the “Realisation of a safe and effective road and traffic system using information and telecommunications technology,” which aims to accelerate the development and diffusion of ITS technologies to realise further improvement of road transport safety, innovation of urban transport systems and advanced logistics systems. The task force for this project, consisting of academic and business experts as well as government officials, formulated the roadmap in June 2008. As for innovation of urban transport systems, for example, the roadmap exemplifies the sharing of data collected by probe cars, the implementation of pilot projects for ITS use in some model cities, etc.

More emphasis on the transport sector is put in the “Outline of Innovation Promotion Policies in the Field of Land, Infrastructure, Transport and Tourism”, formulated by the MLIT Japan on May 25, 2007 (no English version is available). The “Outline” places an importance on establishing standardised platforms, including geographical and location information infrastructure as well as information and telecommunications networks. On the basis of the platforms, the “Outline” identifies six prioritised areas, such as counterterrorism measures and supply chain improvements.

What are the specific objectives of these initiatives? (e.g. Do they focus on certain challenges, such as climate change or safety, or on certain modes? Do they take a wider approach focusing on all of the challenges faced by transport?)

The “Innovation 25” focuses on the promotion of innovation in Japan’s whole economy in the globalised world, while the “Outline” by MLIT aims to facilitate innovation in transport and in other sectors to solve various problems through use of ICT.

Please describe the funding arrangements associated with your efforts to promote innovation in transport:

A variety of public subsidies and grants are provided.

What is the lead ministry or agency for your efforts to promote innovation in transport?

The Ministry of Land, Infrastructure, Transport and Tourism (MLIT).

What other public entities are involved and what are their roles?

The Council for Science and Technology Policy of the Cabinet Office is responsible for planning and coordinating comprehensive policies for science and technology. Other ministries, such as the Ministry of Education, Culture, Sports, Science and Technology as well as the Ministry of Economy, Trade and Industry, also contribute to innovation in transport from their policy areas.

What other partners are involved (e.g. the private sector, universities, states/provinces, etc.)?

A variety of partners are involved, from the private sector to universities and research institutes.

What are the principal means by which your agency keeps track of new innovations and trends in transport?

Close and continuous exchanges of information with businesses and academic experts.