Lithuania

Progress report on national activities and projects in the priority areas according to the Directive 2010/40/EU

1. Optimal use of road, traffic and travel data

1.1. Road and traffic data – interurban transport

To ensure more efficient ITS development and data collection on 15 of May 2014 Ministry of Transport and Communications of Republic of Lithuania (according to "Commission Delegated Regulation (EU) No 886/2013 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to data and procedures for the provision, where possible, of road safety-related minimum universal traffic information free of charge to users" and "Commission Delegated Regulation (EU) No 885/2013 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of information services for safe and secure parking places for trucks and commercial vehicles") by the decree of Minister designated Lithuanian Road Administration as a national body to manage national access points for minimum universal traffic information and information services for safe and secure parking places for trucks and commercial vehicles.

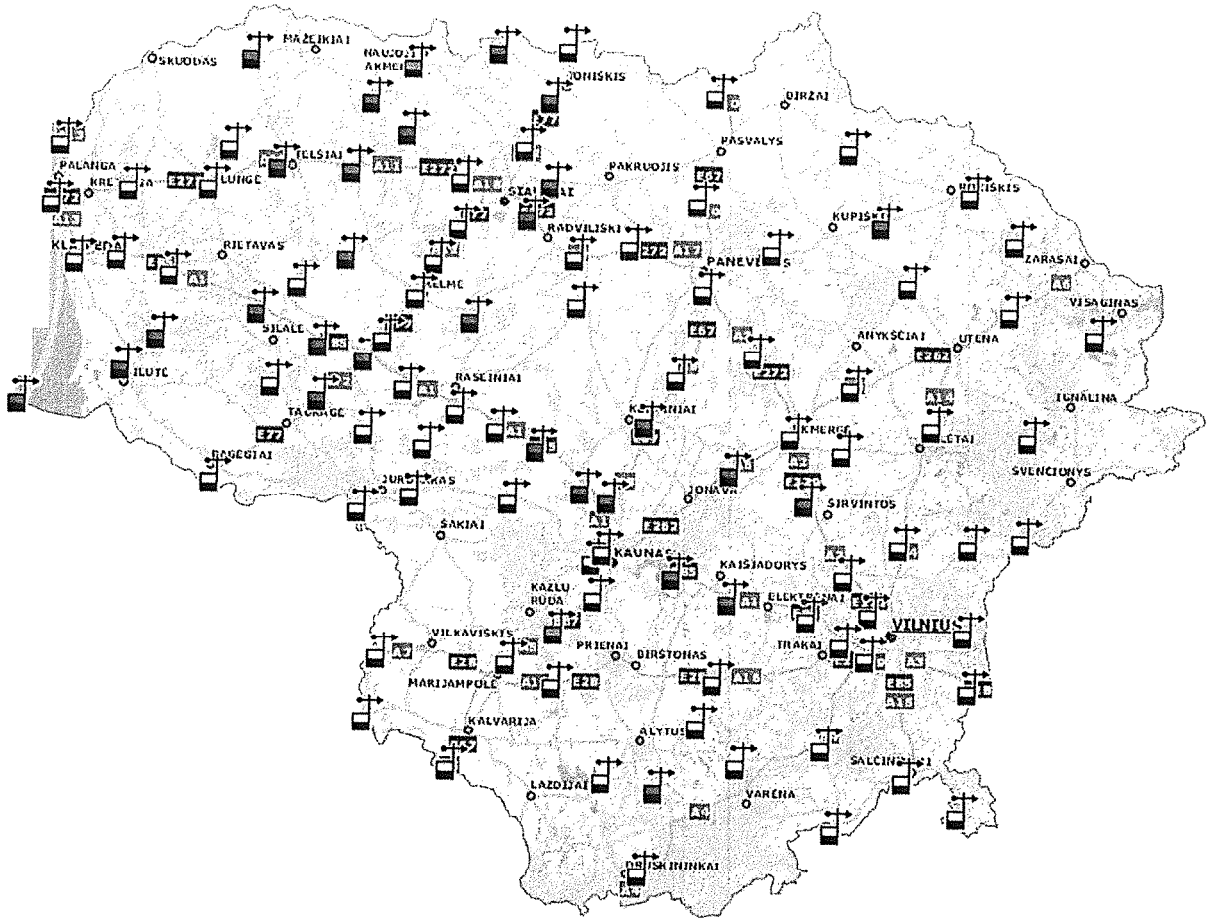
National transport development program for 2014-2022 envisages the optimal use of road, traffic and travel data as one of the top priority areas for ITS development in Lithuania. Lithuanian Road Administration (LRA) in 2011 established a 24/7 National Traffic Information Center, which collects, organizes and makes accessible public traffic information about road and traffic conditions for public and road maintenance personnel. LRA positions the National Traffic Information Center as an access point for collecting, processing, providing road and traffic data.

- *Traffic Information System*

Since 2011, 107 road weather stations (RWIS) were installed in national roads. RWIS are equipped with sensors for measuring road and traffic conditions in order to determine the necessary information (the road surface and air temperature, air relative humidity, dew point, wind direction, speed and gusts, precipitation type and intensity, visibility, road conditions, road construction frost depth, etc.). Data from RWIS is automatically collected and analyzed in Traffic Information Center. Data is also provided from more than 400 cameras, 65 traffic counters, 35 mobile road condition sensors and more than 800 winter road maintenance vehicles. Also traffic monitoring equipment network will be expanded by adding new cameras, traffic counters and other ITS devices. Modernization implies a more effective dissemination of traffic information. Fully developed RWIS network will enable Road weather forecasting option.

Traffic information system (TIS) is designed for automated collection, analysis and dissemination of traffic data in order to inform road maintenance services and road users (drivers) about road and traffic conditions, traffic problems, ongoing road repairs, traffic control measures on

national roads. Data providers use Datex II standard. Further development of TIS should contribute even to better exchange of more reliable traffic and travel date.



RWIS network in Lithuania

- *National road network database (road cadaster)*

In order to increase the accuracy of digital maps, Lithuania is planning to launch a national database for national road network (road cadaster), which will include all information on existing road transport and related infrastructure, traffic signs etc. Main challenges are: timely updating of the information by relevant authorities (municipalities in particular); data exchange with digital maps producers.

Until now information about road works and traffic restrictions is provided only on national roads, but Lithuanian Road Administration from November of 2014 became official data provider for all Lithuanian road network, including local roads and urban areas). Accordingly, Traffic Information Centre will be expanded to be able to provide traffic information about traffic conditions on state and local roads. Access point for national road data will be established until 2020.

1.2. <u>Road and traffic data – urban transport</u>

Since 2011 Lithuanian capital city Vilnius has constantly been expanding its Automated traffic light management system, by establishing 4 "green corridors" in addition to the existing 6 ones. With a very positive experience in developing the network of cameras, there are plans to expand its current network, as well as expanding the network of speed cameras.

1.3. Travel data

Lithuania is developing Multimodal Journey Planning system VINTRA. With a view to prepare and implement this project, Law of Basic Transport Activities was amended - local municipalities and transport operators were entitled to provide travel data related with schedules, cost rates and routings. Information will be published online (web page - www.visimarsrutai.lt) and it will be widely accessible (Open data) for everyone (companies, institutions, individuals) and for various purposes (to use, reuse, and redistribute). This system is designed for automated collection, analysis and dissemination of public transport data in order to provide optimized and aggregated data for private and public transport service providers. System is in a final stage of development, it is already operational and will be open for public use later this autumn of 2015.

Further development of VINTRA system is planned as well. LRA has future plans to adjust VINTRA for the EU-wide real-time traffic and travel information services and become national access point for public transport information (according to Commission "Delegated Regulation (EU) 2015/962 of 18 December 2014 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide real-time traffic information services") untill 2020. Furthermore, e.ticketing option will be integrated into VINTRA as well.

2. Traffic and freight management ITS services

Multimodal interoperable ticketing

The largest municipalities such as Vilnius, Kaunas and Klaipėda, as well as resort city Druskininkai, introduced electronic ticketing systems. Klaipėda has integrated its ticketing system into pre-urban zoning system alongside two other regions (Kretinga and Gargždai), making the first integrated zoning and ticketing system.

On national level, on 24 of February 2014 by decree of Minister of Transport and Communications of the Republic of Lithuania was adopted the conception of installation of elektronic tickets of passanger transport systems, which serves as a guidelines and recomendations for municipalities to develop its electronic ticketing solutions. The conception defines electronic passenger transport ticket as the main technological solution of development of interoperable single ticketing aimed at intergating different modes of transport into single system.

Freight traffic management across the borders with the third countries

At its border with the third countries, Lithuania is developing and expanding internet-based system of lorries queue management. In 2012 the public procurement of the electronic queue

management system was completed, and the process of the creation of the system started. The electronic queue management system allows clients to electronically prie-register for the border crossing by way of choosing the most convenient time and the checkpoint of border crossing.

Currently this system is being introduced at the Kybartai border check point on the border of the Lithuanian Republic and Kaliningrad region of the Russian Federation and at the Medininkai, Lavoriskes and Salcininkai border check points on the border of the Lithuanian Republic and the Republic of Belarus. The electronic queue management system is undergoing the process of improvement at the three check points with Belorus and still does not operate on the full scale (no cars are allowed to register, only a limited number of trucks).

The webpage for the registration is www.lithuanianborder.eu. At the moment the registration is free of charge, however, in the future charges would apply.

In 2015 the electronic queue management system will be introduced at the Raigardas border checkpoint on the border of the Republic of Lithuania and the Republic of Belarus. Starting from the year 2016, this system will be expanded involving management of the traffic inside border checkpoints untill the crossing of the border.

3. ITS road safety and security application

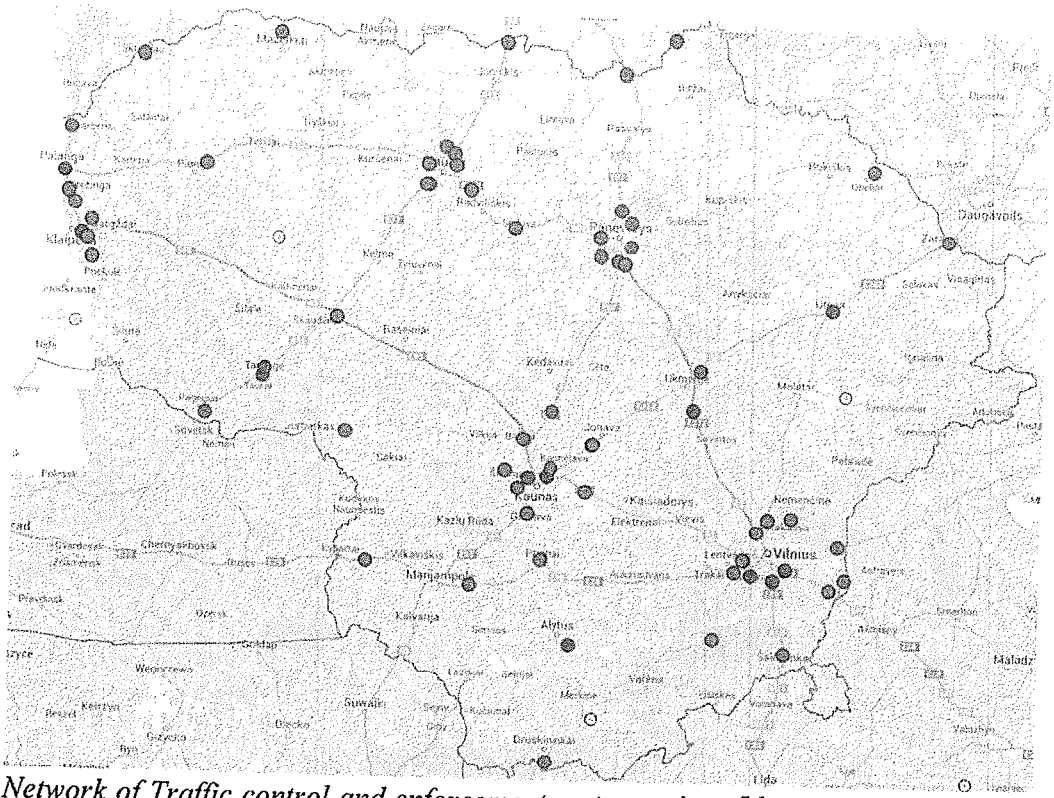
- *EU-wide eCall*

In a Decision of European Parliament and the Council Nr. 585/2014/EC on on the deployment of the interoperable EU-wide eCall service it is envisaged that „Member States shall deploy on their territory, at least six months before the date of application of the Regulation of the European Parliament and of the Council concerning the type-approval requirements for the deployment of the eCall in-vehicle system and amending Directive 2007/46/EC and in any case no later than 1 October 2017, the eCall PSAP infrastructure required for the proper receipt and handling of all eCalls, if necessary purged of non-emergency calls, in accordance with the specifications laid down in Delegated Regulation (EU) No 305/2013, in order to ensure the full functionality, compatibility, interoperability, continuity and conformity of the interoperable EU-wide eCall service.“ With a view to implement this provision, agreement between various stakeholders was finalized, which envisages that network operators and national Emergency Response Centre until 31 January of 2015 ensure technical specifications of final eCall installation. Also, no later than 1 October 2017 network operators will ensure that networks are ready to recieve and trasmit eCall data according to the standards. National Emergency Response Centre until 1 October of 2017 will ensure that emergency call response centers in Lithuanian territory are equiped with adequate hardware and software to be able to recieve cCall data.

- *Enforcement systems*

Project "Traffic control and enforcement system" based on Automatic Number Plate Recognition (ANPR) cameras is under consideration and preparation. Direct Enforcement WIM (weight in motion) is considered to be as a part of the system. Currently a pilot project of this

system is under implementation (with three gates to be installed by the end of 2015), lessons from this pilot will impact the final modalities of the project.



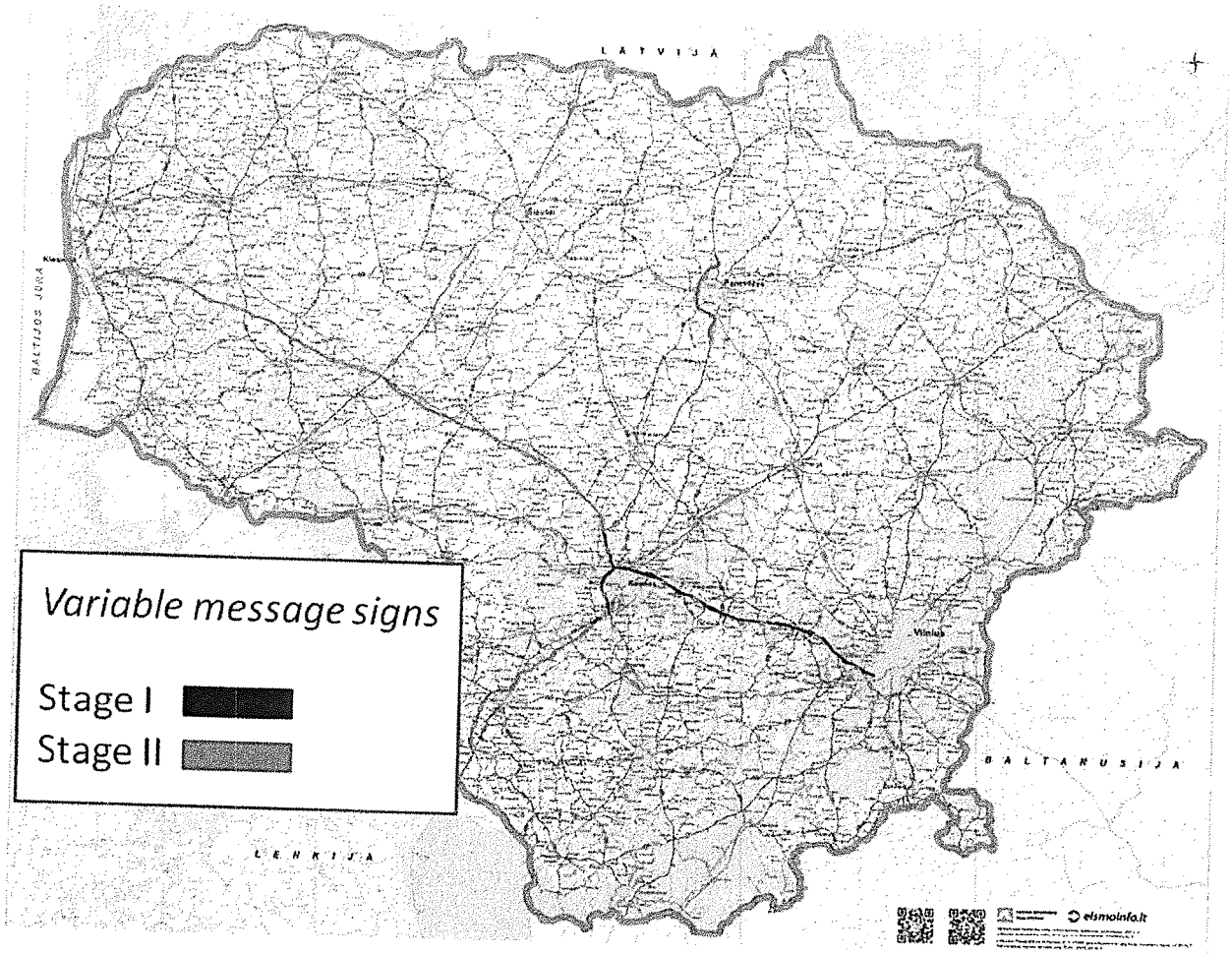
Network of Traffic control and enforcement system points (blue points – with weigh in motion equipment, red ones – only ANPR cameras).

- *Variable message signs*

Variable Speed Limit (VSL) signs, as a first stage, is planned to be installed on the main motorway between Kaunas and Vilnius, with a second stage installing VSL in the Via Baltica corridor from Polish border up to Latvian border, as well as extending from Kaunas to Klaipėda till 2020.

Variable-message signs provide information for drivers about traffic distractions and adjust speed limits according to road and weather conditions.

VSL will be incorporated into Traffic information system. It will create better conditions for dissemination of information and will increase the number of informed road users. Open date and Datex II will open wide possibilities for better data re-use and provides private initiatives to create additional services for road uses as well.



4. Linking the vehicle with the transport infrastructure

There are no actions foreseen in this area.