

Road Safety and ITS

**- one person killed
is already too much**

**Russia's way in speed
management**

**- how technology
is saving lives**



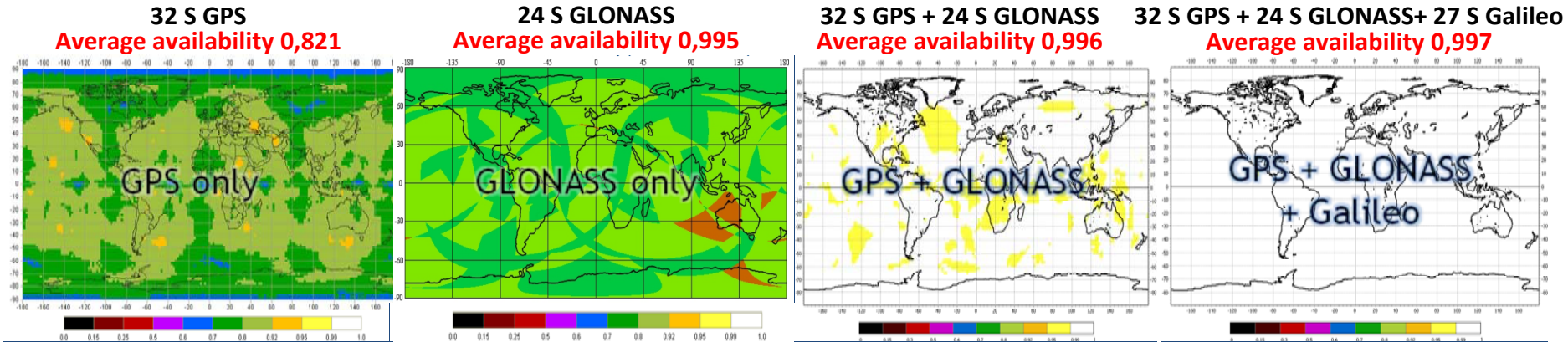


ЭРА СИСТЕМА спасения
ГЛОНАСС

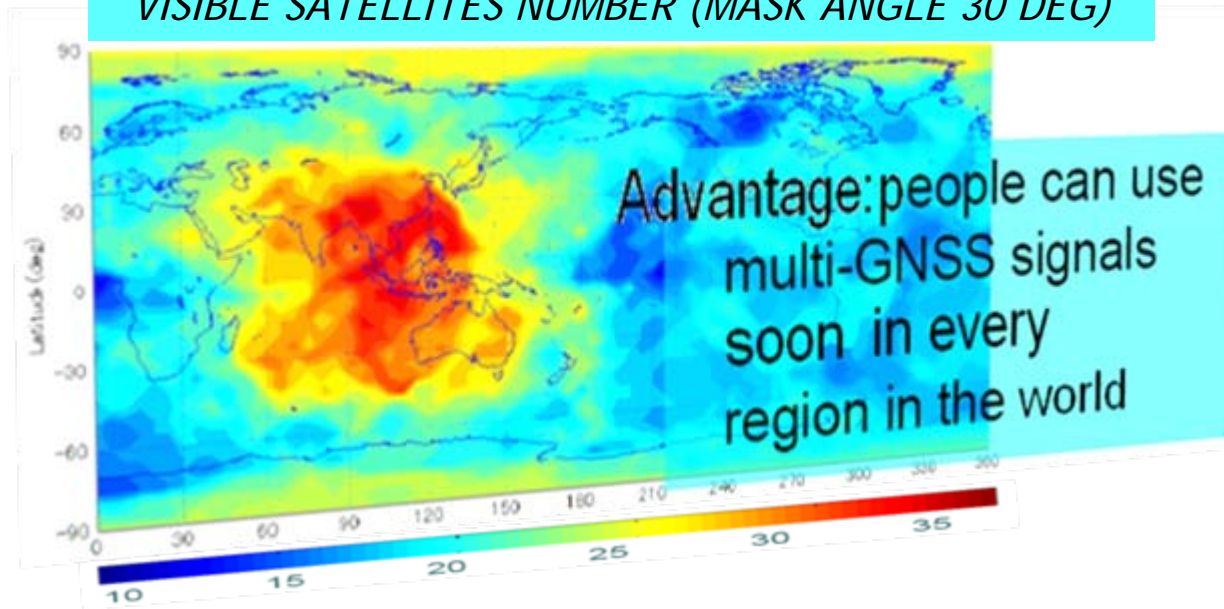


We can profit in future from using multi-GNSS signal

Availability of satellite navigation for users (mask angle ≥ 25 deg)



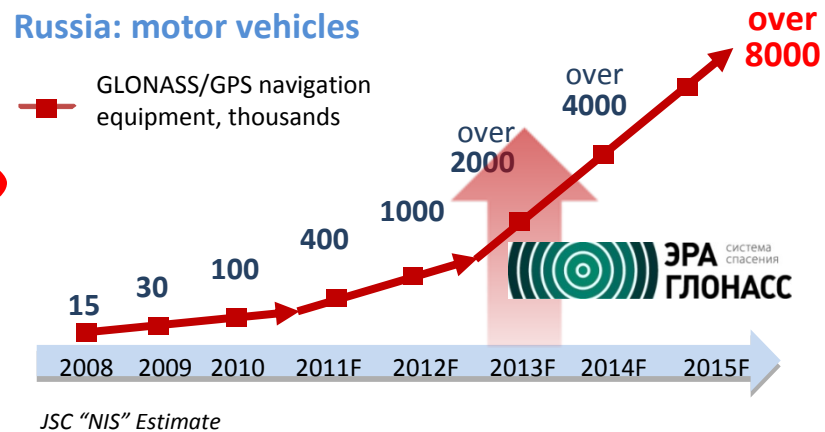
GPS + GLONASS + GALILEO + COMPASS + IRNSS + QZSS
 VISIBLE SATELLITES NUMBER (MASK ANGLE 30 DEG)



Government driven projects create a critical mass of consumers on national markets

NG 9-1-1		Emergency communication service. All mobile devices	from 2011
eCall		Emergency Response System. All vehicles	from 2014
ERA-GLONASS		Emergency Response System. All vehicles	from 2013
SIMRAV		Security and recovery. All vehicles	from 2012
LKW-Maut		Road tolling. Heavy trucks	from 2005
EDR		Event Data Recorders. All vehicles	from 2015

Russia: motor vehicles



GLONASS/GPS satellite navigation technologies are used for improving efficiency and increasing safety of the national transportation system

ERA-GLONASS – Russian initiative to increase safety on the roads

GLONASS/GPS Systems



JSC "NIS" designated the sole executing agency for the Government contract

Project launched in May 2010

Full-scale operation will start in December 2013



ERA-GLONASS Vehicle Terminal

Mobile communications networks

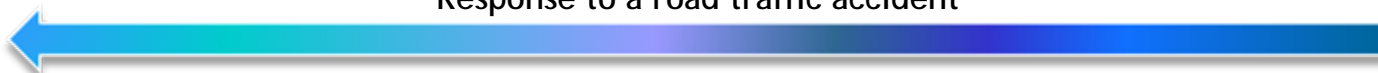
ERA-GLONASS operator

Regional EMERCOM center (1-1-2 service)

Emergency Response Services

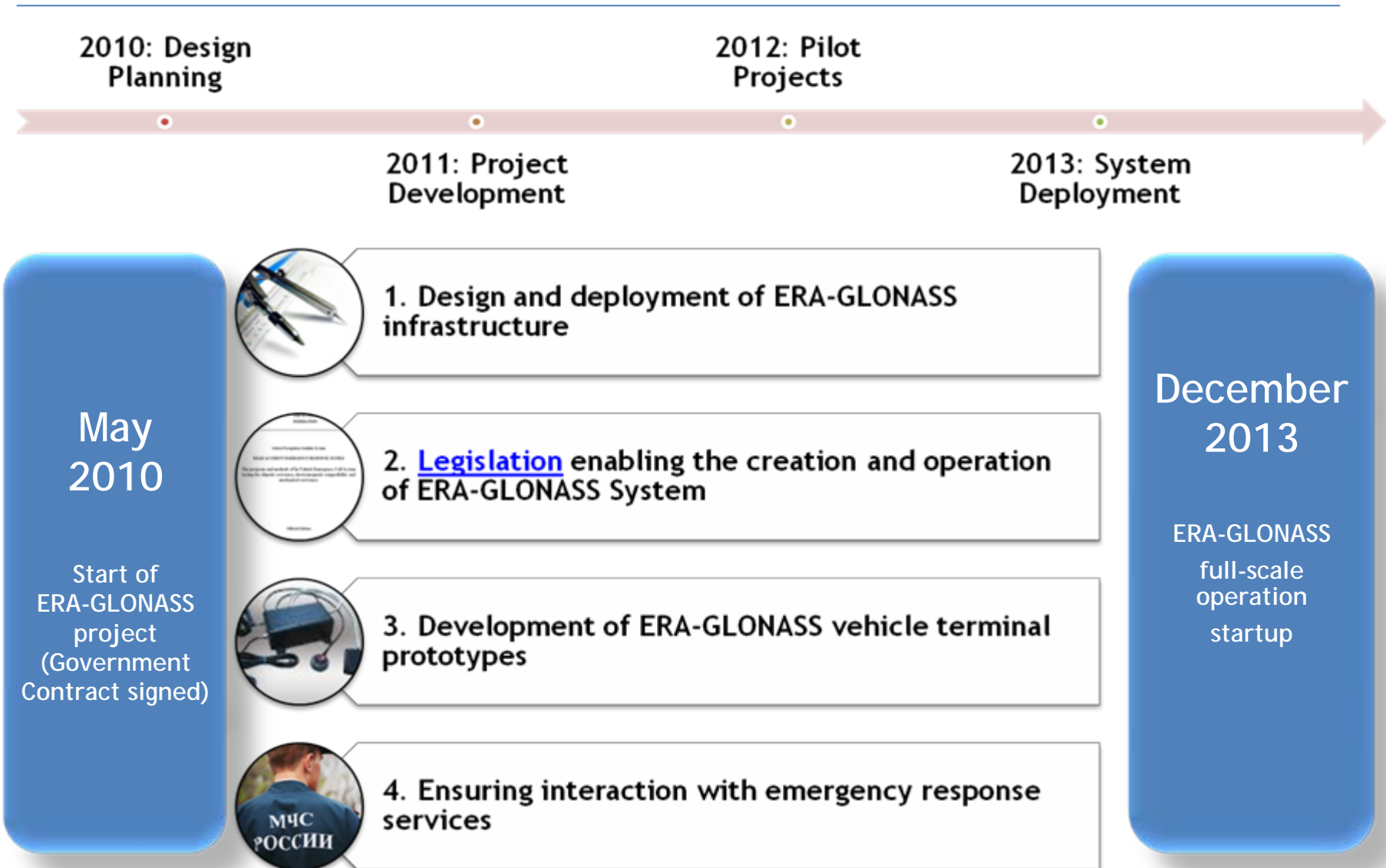


Response to a road traffic accident

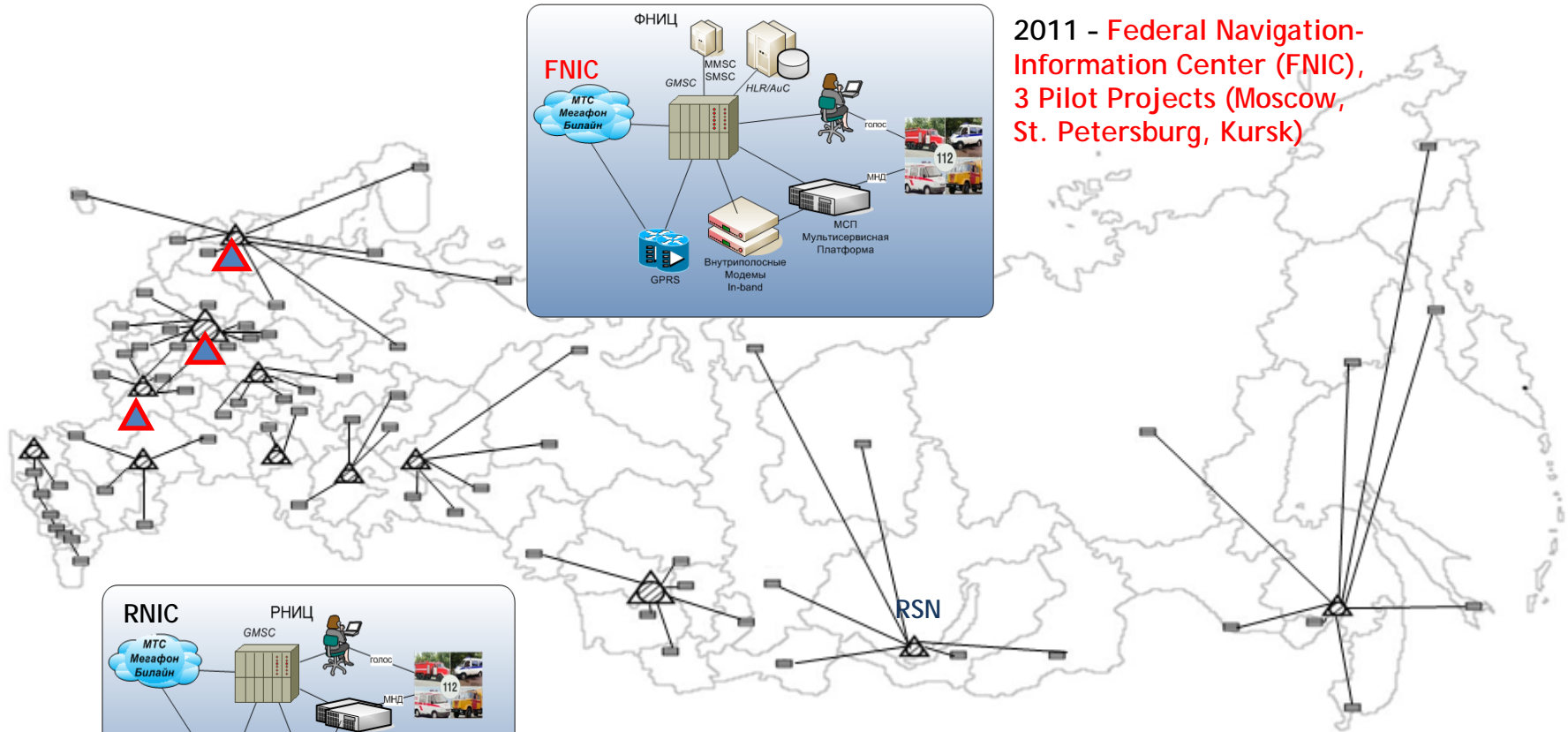


Fully deployed ERA GLONASS system could save up to 4,000 lives every year. In Russia annual economic effect could be up to 8 billion rubles from the reduction in number of fatalities, not including savings due to reduction in number of heavy injuries.

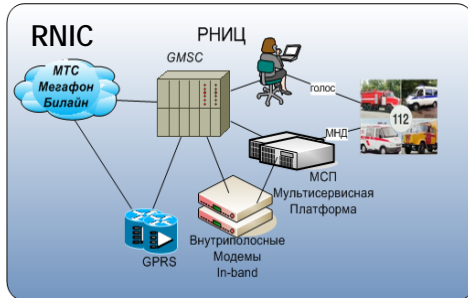
ERA-GLONASS design milestones and activities



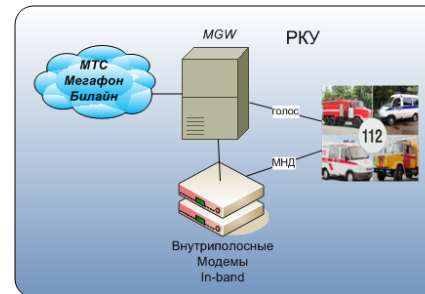
ERA-GLONASS infrastructure deployment



2011 - Federal Navigation Information Center (FNIC), 3 Pilot Projects (Moscow, St. Petersburg, Kursk)



2012 - 7 Macro-regional NIC in major cities



2013 - 72 Regional Switching Nodes, start of operations in all 83 regions of Russia

ERA-GLONASS serves as the open platform for several infrastructure transport projects

- Pilot projects to test ERA-GLONASS - eCall interplay (Finland, Romania, Croatia)
- Internationally harmonised standards
- Global satellite positioning system



**ERA-GLONASS
as
Platform**



Multimodal transportation of people & goods monitoring and control



Usage-based insurance programs



Toll systems & Heavy trucks road tolling: 1.5 mln. vehicles



Urban transportation management (Sochi, Moscow, St-Petersburg)

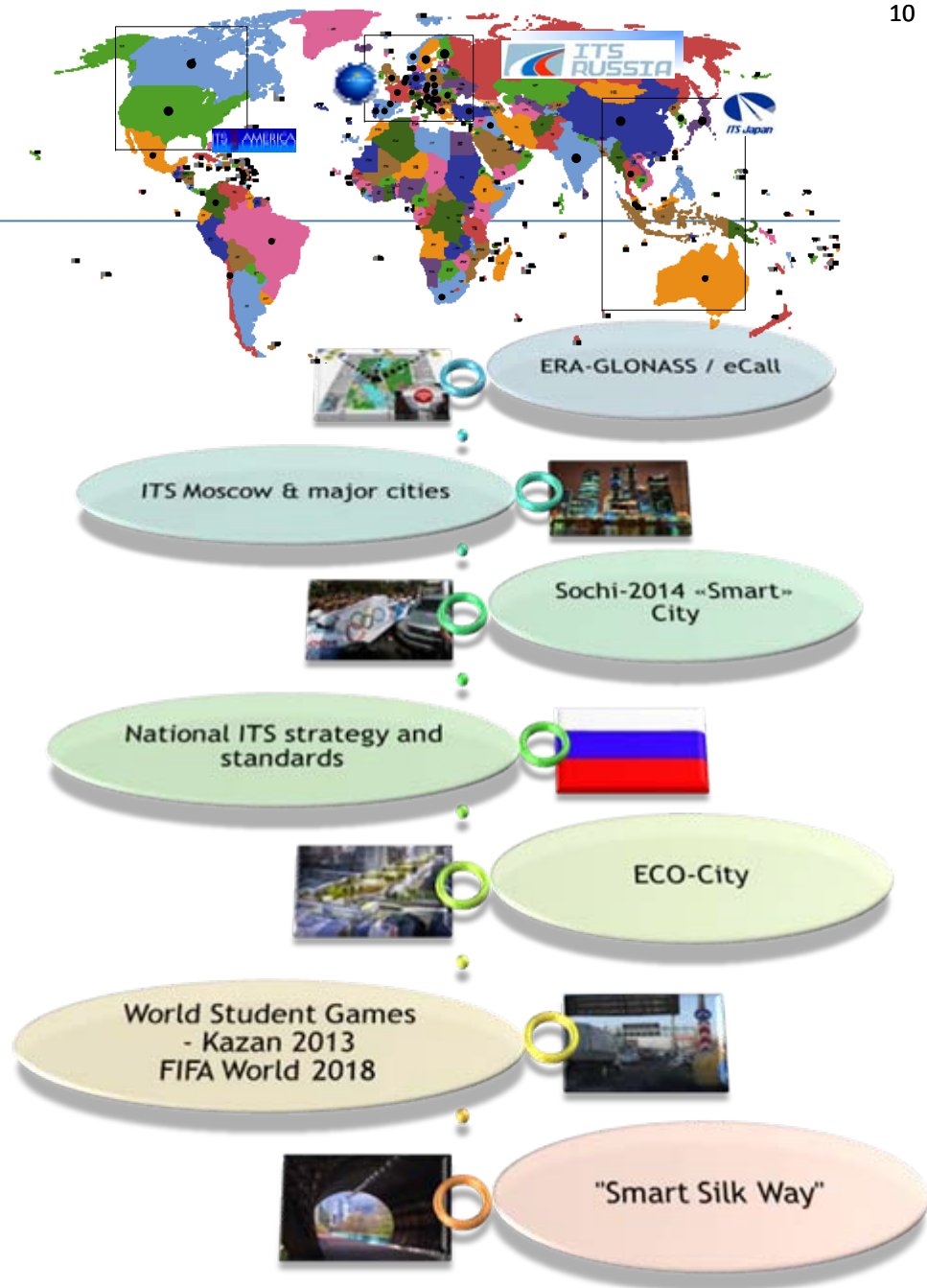


ERA GLONASS – Russian technological platform has wide export potential



ITS Russia

- ITS Russia is a Partnership, which unites political, intellectual, technical, financial and administrative resources in order to develop secure, safe, efficient, environmentally friendly and comfortable movement of people and goods
- ITS Russia consolidates scientific and professional community and together with public authorities engages the best practices and research activities to develop and implement innovative ITS and road Infrastructure technologies to contribute to the quality of life of citizens of the Russian Federation





Вокзалы
Гостиницы
Деньги

Центральный телеграф

Vlad

JUT

Мил100

Друзья

Культура

Link 300

MTS 3D 19:30

Авто	Быт	Вокзалы	Гостиницы	Деньги
Магазины	Медицина	Еда	Связь	Спорт
← Назад	Источники	Область	Поиск	

SHTURMANN



ITS RUSSIA

12-2, Pyatnitskaya str., Moscow 17997 Russia

T/F: +7 (495) 729-4111

Vladimir Kryuchkov
Chief Executive Officer

Email: vladimir.kruchkov@ingos.ru

T.: +7 (495) 543-1346

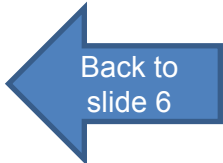
Anna Tikhomirova
Project Manager

Email: anna.tikhomirova@ingos.ru

T.: +7 (495) 729-4111

Legislation

Legislative acts to be developed to support ERA-GLONASS project



Title	Contents	Expected date
Technical Regulation EURASEC "On safety of wheeled vehicles", Customs Union Technical Regulations	Establishment of vehicle equipment requirements and facilitating conditions required for utilization of Russian technologies and implementation of comparable systems in Belarus, Kazakhstan, and other countries	1st quarter of 2012
Federal Law "On amending the Federal Law 'On road traffic safety'"	Designation of implementation of comprehensive measures for support of response to accidents by emergency services as one of priorities for ensuring the safety of road traffic and assigning establishment and operation of ERA-GLONASS system to competence of the Russian Federation. Establishment of a requirement for use of SAS ERA-GLONASS in vehicle operation, establishment of requirements for vehicle owners	4th quarter of 2012
Federal Law "On state automated system of emergency response to accidents "ERA-GLONASS" of the Russian Federation	Establishment of a comprehensive system of salutatory regulation of legal relationships, arising as a consequence of implementation and operation of the System	4th quarter of 2012
Interagency legal acts pertaining to ensuring interoperability of ERA-GLONASS system with departmental systems	Regulation of departmental systems interaction for ensuring effective response	4th quarter of 2012

Standardisation

Requirements and GOSTs published or undergoing public discussion

Requirements	GOSTs
<ul style="list-style-type: none"> - IVS/back end communication protocol specifications - IVS/back end communication protocol reference implementation in C programming language - IVS/back end communication protocol validation tools 	
<ul style="list-style-type: none"> - IVS certification test procedure to check audio quality in vehicle cabin 	<ul style="list-style-type: none"> - National standard draft for IVS certification test procedure to check audio quality in vehicle cabin
<ul style="list-style-type: none"> - Aftermarket IVS crash detection algorithm requirements and recommended crash detection algorithm 	
<ul style="list-style-type: none"> - IVS certification test procedure to check GSM, UMTS and in-band compliance 	<ul style="list-style-type: none"> - National standard draft for IVS certification test procedure to check GSM, UMTS and in-band compliance
<ul style="list-style-type: none"> - IVS certification test procedure to check functional requirements and communication protocol compliance 	<ul style="list-style-type: none"> - National standard draft for IVS certification test procedure to check functional requirements and communication protocol compliance
<ul style="list-style-type: none"> - Aftermarket systems installation recommended methods and procedures 	



Pilots and tests conducted

Tests and pilots	
<ul style="list-style-type: none"> - Improvement of the system demonstrator in the area of vehicle simulation - Improvement of the system demonstrator to add System-112 agent and to demonstrate ERA-GLONASS and System-112 integration - Creation of the test lab to test IVS 	<ul style="list-style-type: none"> - Prototypes IVS development -IVS prototypes from 9 companies - Laboratory prototype IVS test and prototype IVS tests in three NIS pilot regions - Prototype IVS tests for audio quality in vehicle cabin - Prototype IVS tests for GSM, UMTS and in-band modem compliance - Prototype IVS tests for mechanical, environmental and electromagnetic compliance - Prototype IVS tests for crash detection algorithm