JSC GLONASS

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STATUS QUO ERA-GLONASS

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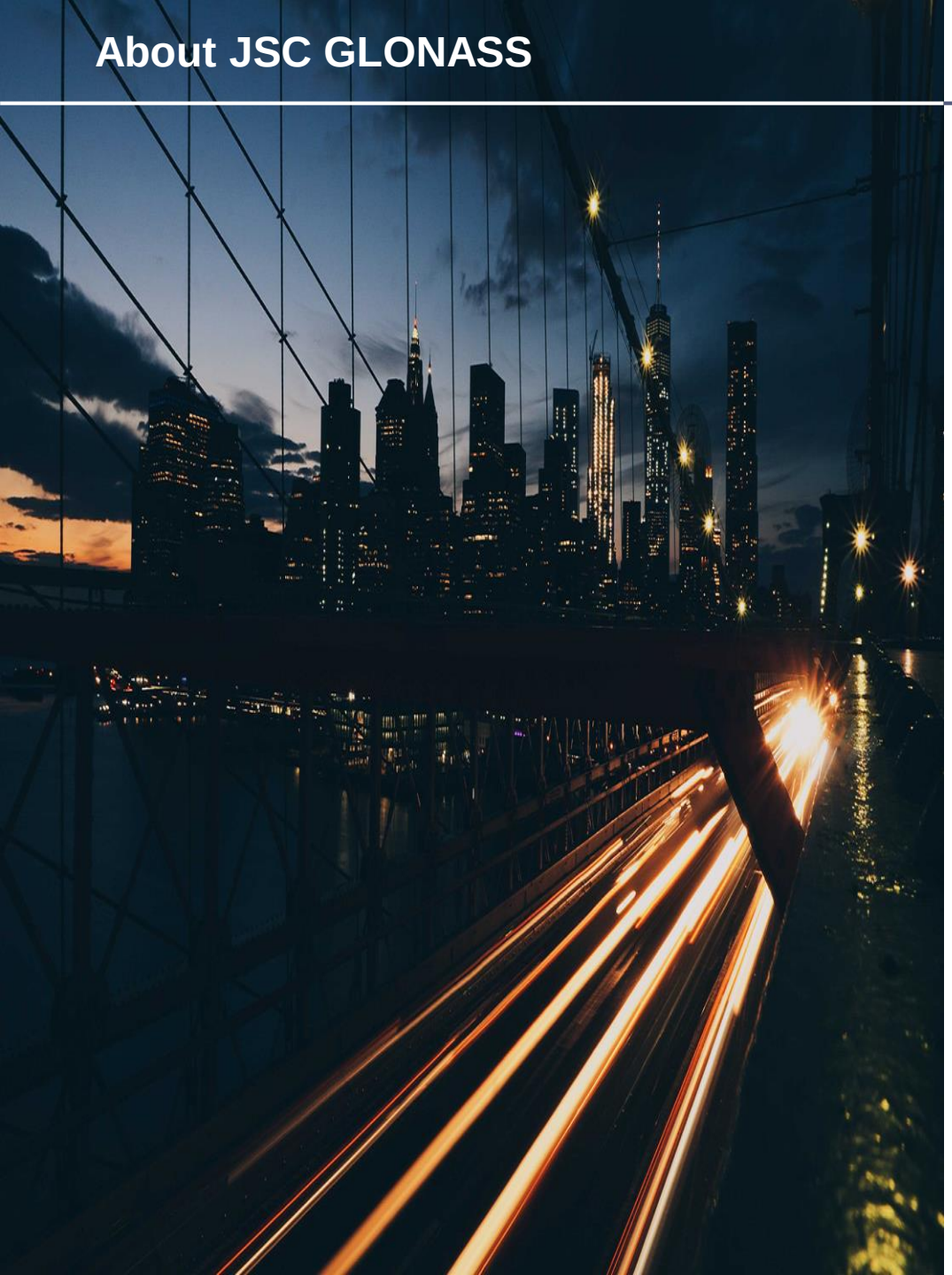
Director on product development and sales

October 14, 2020



JSC GLONASS

- Operator of State Automated Information System ERA-GLONASS - national emergency response system for road accidents in Russia
- 100% State owned
- Provider of advanced solutions in the field of civil satellite navigation
- Developer of the Intellectual Platform for ITS implementations
- Operator of the State Automated Information System for monitoring and tracking of vehicles, goods, employees and other moving objects
- Operator of trusted mobile communication network based on a full-MVNO model
- Compliant to ISO 9001:2015

Legal basis for ERA-GLONASS OBDS in vehicles

New vehicles (imported or locally manufactured) are equipped at the manufacturing facility

All car manufacturers install OBDs on their vehicles

Imported used vehicles should be equipped at the authorized service centers

On-board equipment is subject to certification for compliance with the established requirements (all harmonized in basic functionality):

- **Global UN Regulation No.144**

sets international requirements for equipment and solutions for Accident Emergency Call Systems (AECS)

- **Customs Union Technical Regulation on vehicle safety**

standard for Euro-Asian Economic Union member-countries

- **Set of 11 interstate standards**

insuring the usage of Customs Union Technical Regulation on vehicle safety

General algorithm of ERA-GLONASS System workflow

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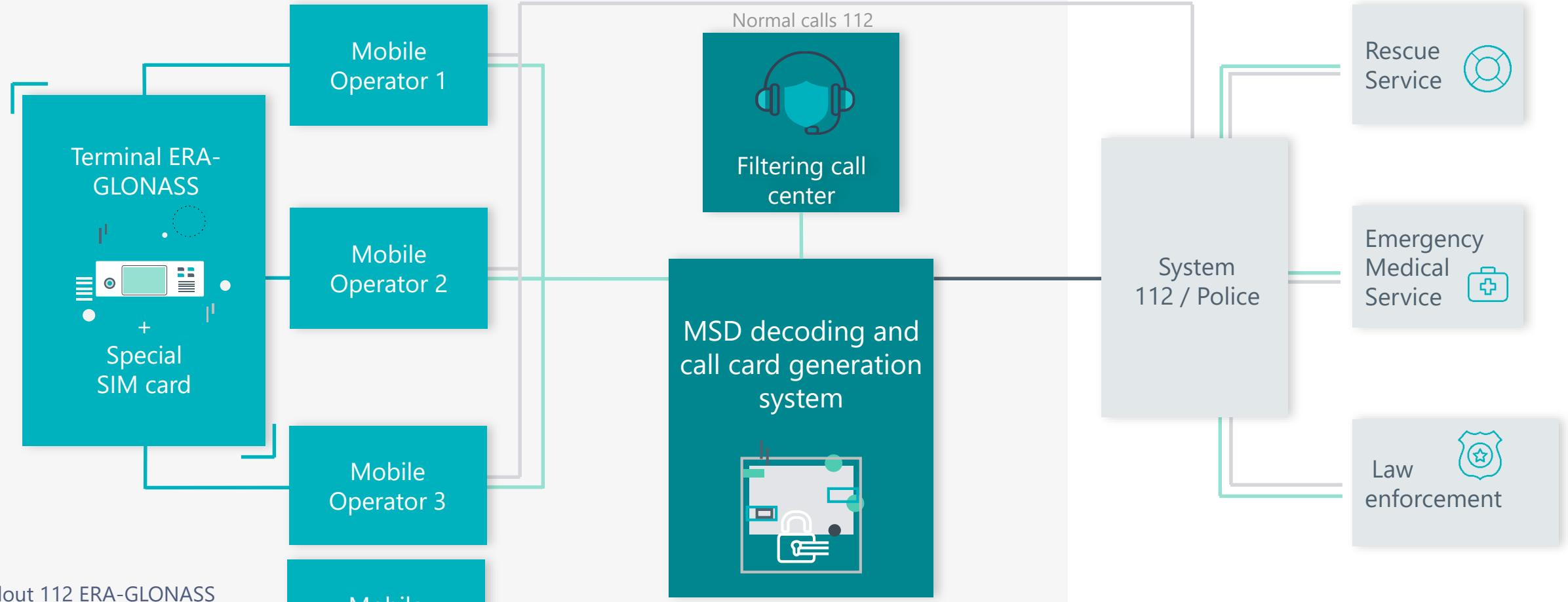
1. Radio signal transmission over GSM networks of telecom operators

2. Reception, decryption, processing of emergency messages, formation of a call card

3. Response to the call



callout 112 ERA-GLONASS

Data communication

ERA-GLONASS is deployed throughout the Russian Federation

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Accepted emergency calls – 7 653 919

90 485 were treated as TRUE emergency calls and rescue services were requested.

Over Thousands lives saved

System-112 (Emergency services)

Territorial body of the Ministry of Internal Affairs of Russia

Infrastructure Engineering Solutions

- Emergency call in case of accident: automatically and manually triggered
- SMS – backup data transfer channel
- Full MVNO network (virtual mobile operator)
- The priority of eCalls ("eCall" flag)
- Interface with System-112 and systems of emergency operational services of the Russian Federation
- Interface with the state system of Shared System of interdepartmental electronic interaction
- Reservation of elements
- A system for increasing the accuracy and reliability of navigation

Better coverage area = higher reliability!

Radio coverage on Federal highways:
- MTS
- Megafon
- Beeline
- Tele 2

→ MVNO > 99%

ERA-GLONASS is a state certified trusted system for public authorities

Some statistics on received eCalls from Q1 2017

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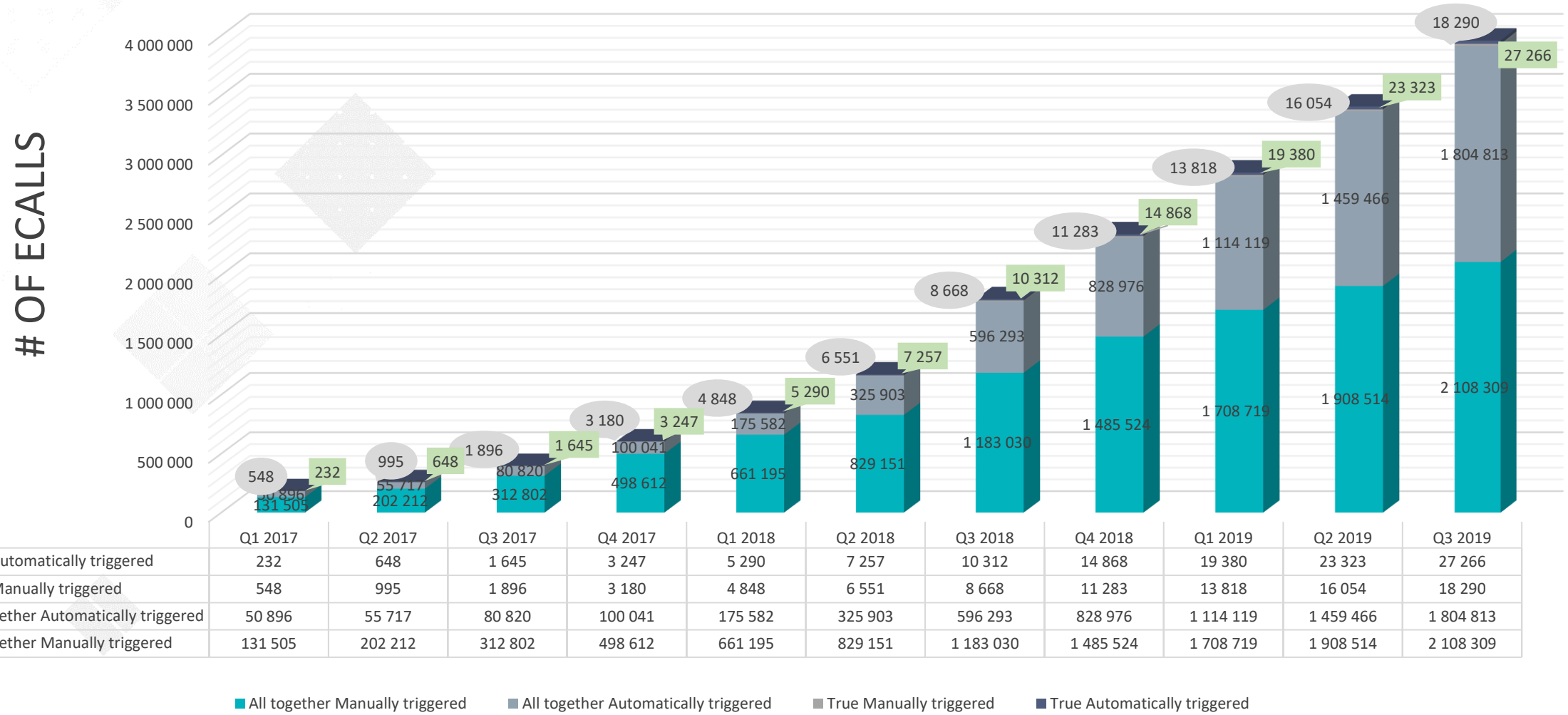
Manually triggered eCalls with comparison to automatically triggered eCalls

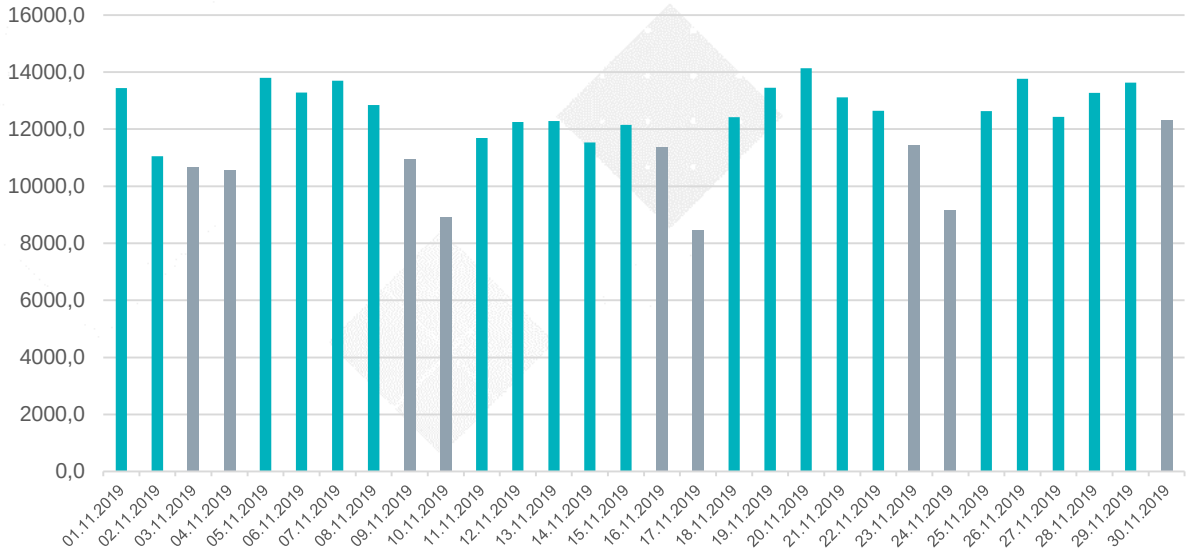


	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019
True Automatically triggered	232	648	1 645	3 247	5 290	7 257	10 312	14 868	19 380	23 323	27 266
True Manually triggered	548	995	1 896	3 180	4 848	6 551	8 668	11 283	13 818	16 054	18 290
All together Automatically triggered	50 896	55 717	80 820	100 041	175 582	325 903	596 293	828 976	1 114 119	1 459 466	1 804 813
All together Manually triggered	131 505	202 212	312 802	498 612	661 195	829 151	1 183 030	1 485 524	1 708 719	1 908 514	2 108 309

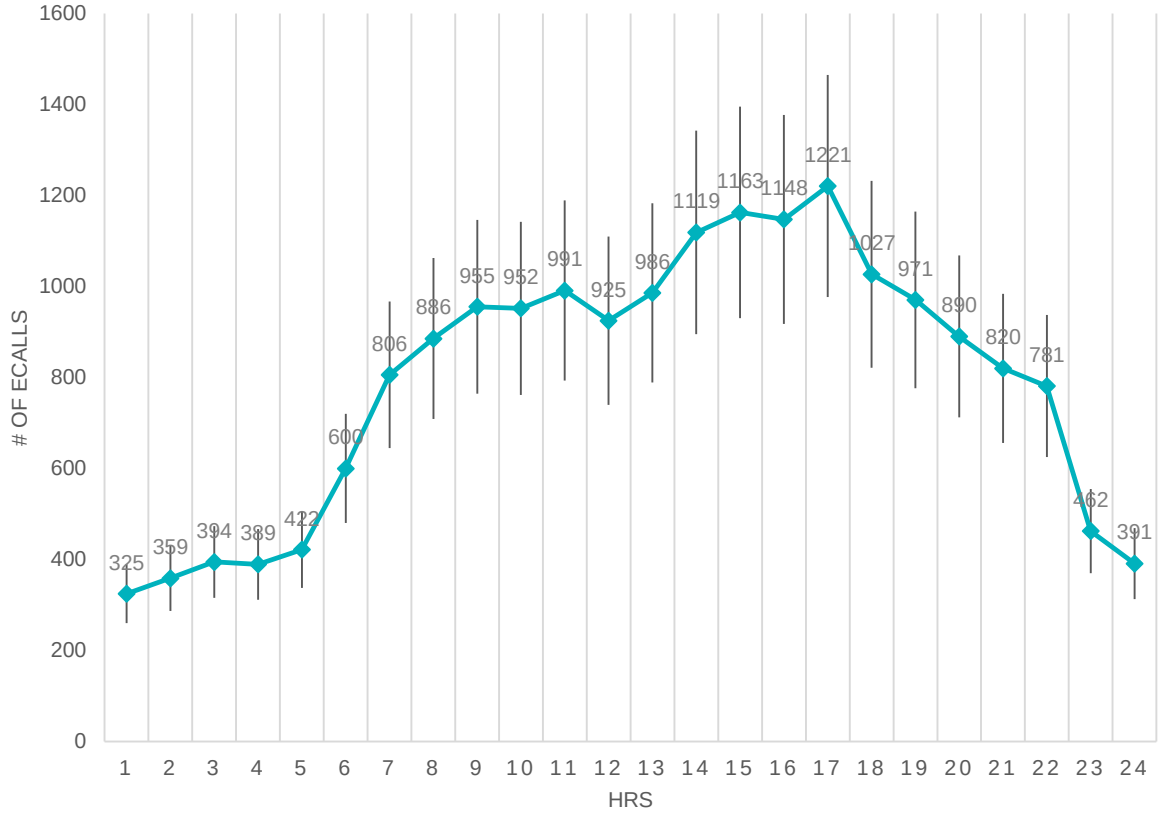
All together Manually triggered | All together Automatically triggered | True Manually triggered | True Automatically triggered

Currently ERA-GLONASS receives and processes **15 700** incoming eCalls on a daily basis and **2 000 SMS** (used as backup delivery mechanism in case of lack of network coverage).

Incoming eCalls with respect to day of the week



Incoming eCalls within one day



Statistics during a week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
# OF ECALLS	14826,5	14313,65	15031,9	15401,7	15815,95	14634,92	14297,05

** Q1 2020 relevant*

We make your journey safer and comfortable by delivering added value services

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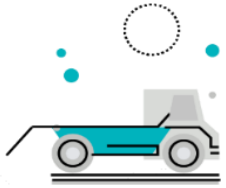
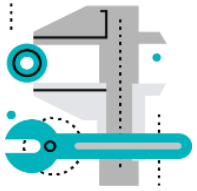
- User friendly service request
- Multiple opportunities in one button
- Service availability (the best network coverage in Russia)
- We save your time on verifying if a vehicle belongs to a OEM on road support program
- We save your time on verifying where you are



Vehicle towage



Emergency technical assistance

- Tire replacement
- Fuel delivery
- Removing the car from hard-to-reach places
- Etc.

Accident manager

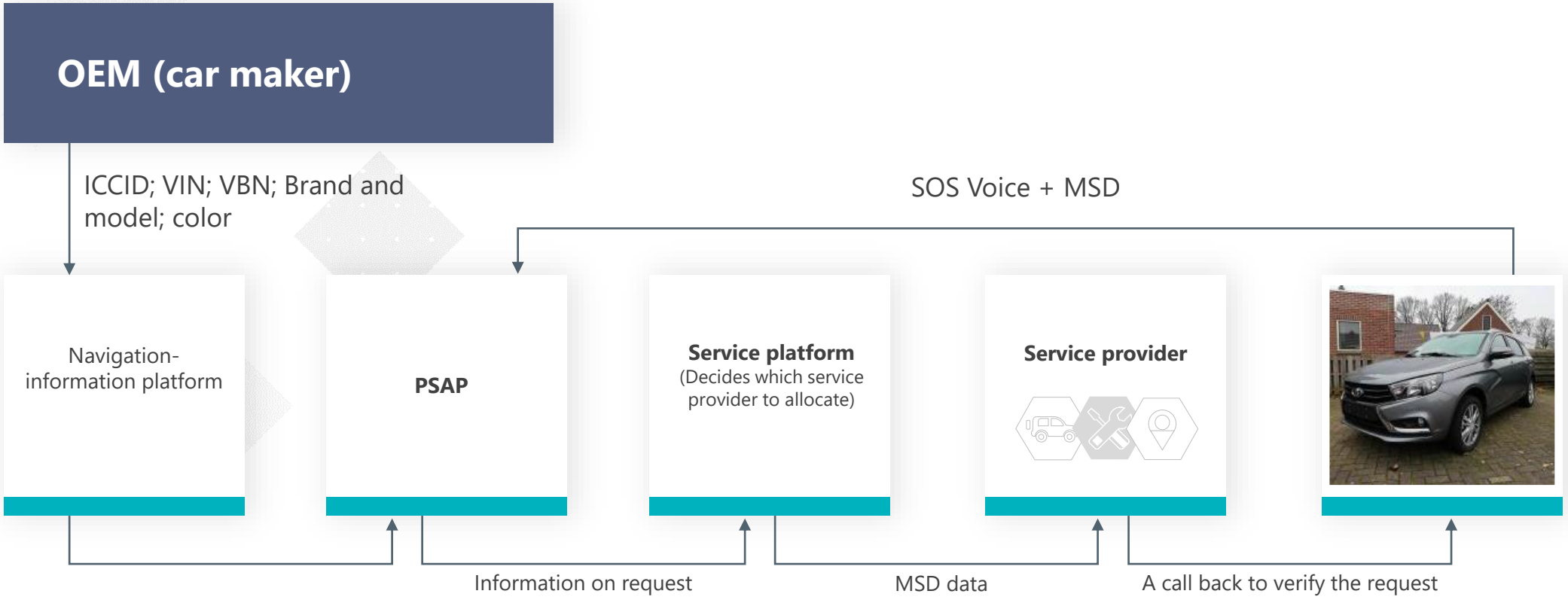
Information services

- PTI appointment
- Insurance
- Etc.

Legal consulting

Assistance so you can continue your trip

- Rental vehicle
- Taxi
- Train/plane tickets
- Hotels



Clients

Partners

eCall and ERA GLONASS Interoperability proposal

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BASIS:

- eCall is in operation within territory of EU 27 member States
- ERA GLONASS launched to operation Jan 1st 2015 in Russia
- Russia borders with 6 EU member States
- eCall and ERA GLONASS use the same data transmission mechanisms and MSD
- EU vehicles traveling to Russia and Vise versa

POSSIBLE SCENARIOS

- **Cross-Border scenario:** If the vehicle registered in ERA GLONASS traveling to EU and requests help only MSD information is available for the local emergency response teams. Vehicle reference information (Brand and Model, color, license plate number) not available, but in some cases are preferred to locate the vehicle on an accident site. Vice versa for EU vehicles traveling to Russia.
- **Near-Border scenario:** If the IVS is located in one country but is registered on another country's mobile network, the emergency call and MSD are sent to the PSAP of the second country. Emergency assistance is not possible.

PROPOSAL:

- To establish cooperation with all EU member States and possible testing two-way Exchange Gateway for Cross-Border scenario
- To deploy two-way Exchange Gateway for Near-Border scenario with 6 neighboring EU member States and to use the same solution within EU if applicable
- To amend intergovernmental agreements on international road traffic (if necessary)

Exchange Gateway for Cross-Border scenario (EU-Russian information exchange)

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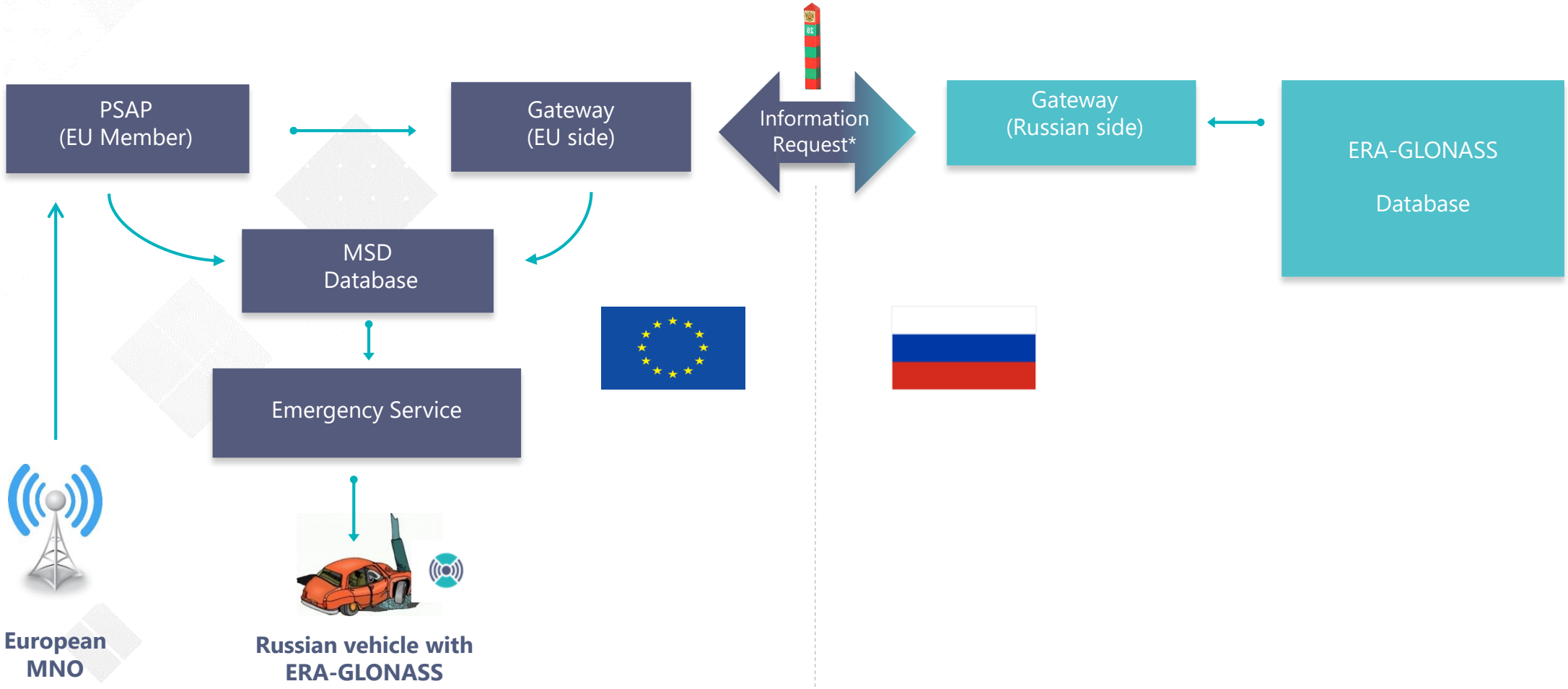

* Request if necessary for enrichment of information (which is not stored in database)

Exchange Gateway for Near-Border scenario (Finnish-Russian cross-border interaction)

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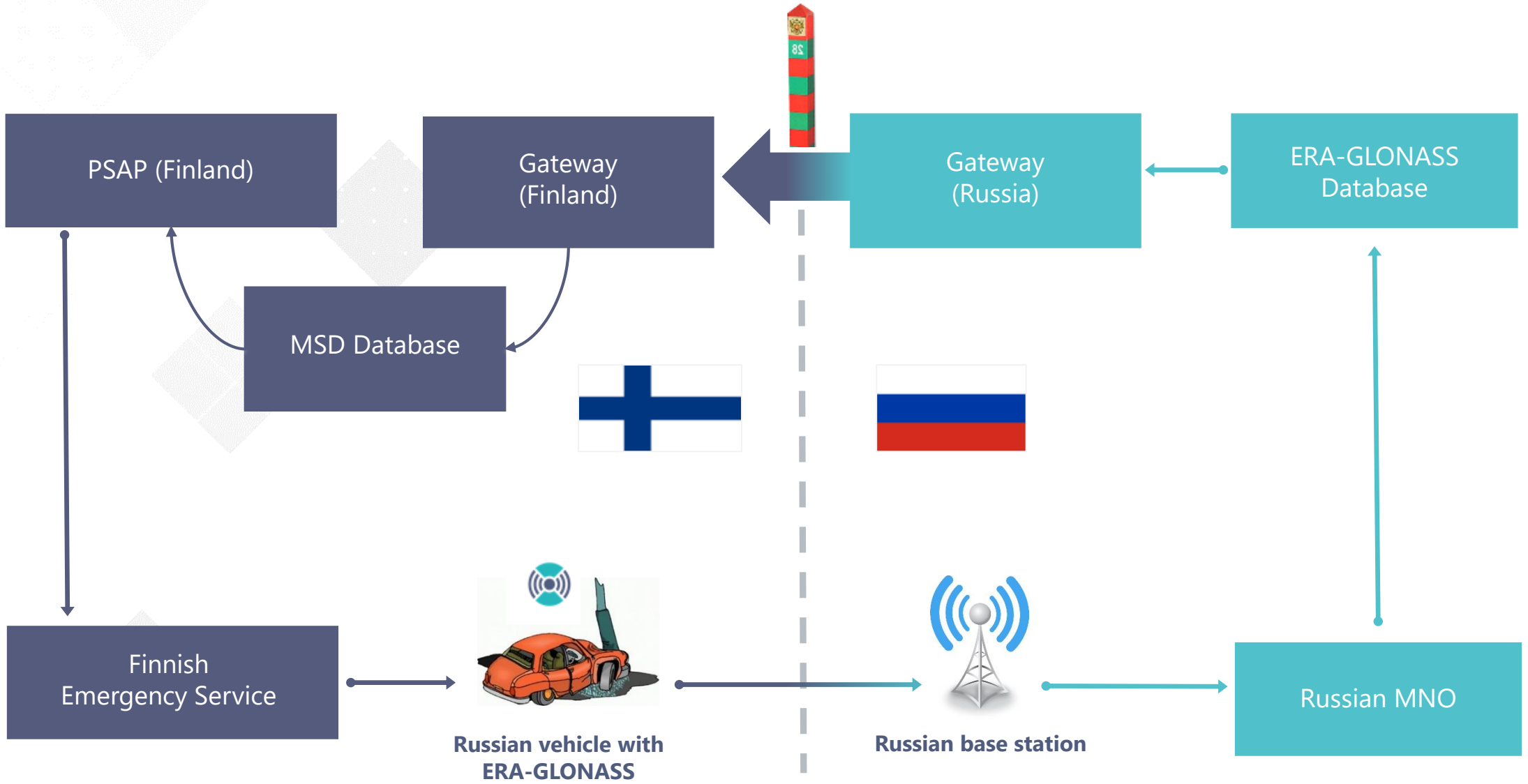

United Euro-Asian Road Safety Ecosystem with same quality of service guaranteed

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THANK YOU FOR ATTENTION!

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