Road Crash Data Review and Reporting
Training on improvement to crash data management
Istanbul - 25-27 June 2024

Example of road safety data sharing

Egidijus Skrodenis
Mobility & Innovation Expert
MC Mobility Consultants GmbH
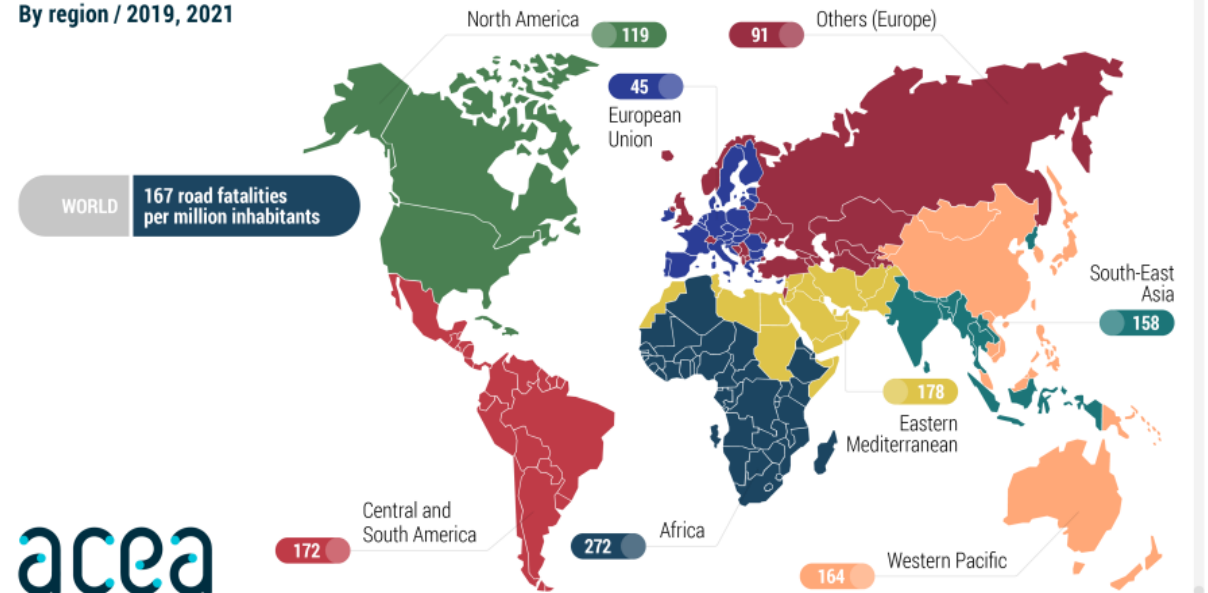
Roads in the EU are the Safest In The World

The EU counts on average less than **50 deaths per million inhabitants, against:**

- 174 deaths per million globally

- 106 deaths per million in the USA

- 93 deaths per million in geographical Europe.

ROAD FATALITIES PER MILLION INHABITANTS

By region / 2019, 2021

North America 119
Others (Europe) 91
European Union 45
WORLD 167 road fatalities per million inhabitants
South-East Asia 158
Eastern Mediterranean 178
Central and South America 172
Africa 272
Western Pacific 164

acea

European "White paper" and Valetta declaration on traffic safety

- In 2000 European Commission approved 1st "white paper" on traffic safety. Beside others, one of the main goals was to reduce fatalities on the European Union countries' roads by 50% till 2010

- In 2010 European Commission approved 2nd "white paper" on traffic safety. Beside others, one of the main goals was to reduce fatalities on the European Union countries' roads by 50% till 2020 and achieve 0 death in 2050

- In 2017 Valetta declaration on road safety was signed between European Union transport ministers to reduce by 50% death on European roads till 2030

MALTA EU 2017

Progress in the two decades from 2000 till 2020 in the EU has been remarkable

- The number of fatal crashes fell by 43% from 2001 to 2010

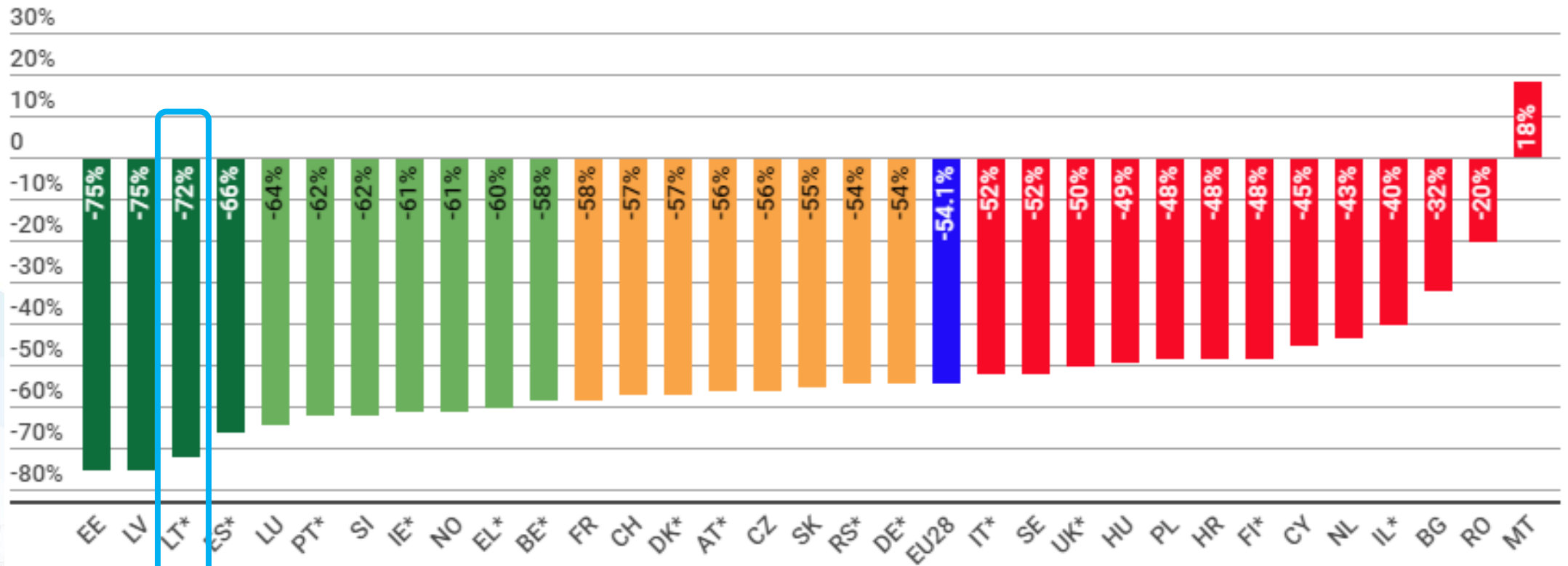- And by another 20% between 2010 and 2017
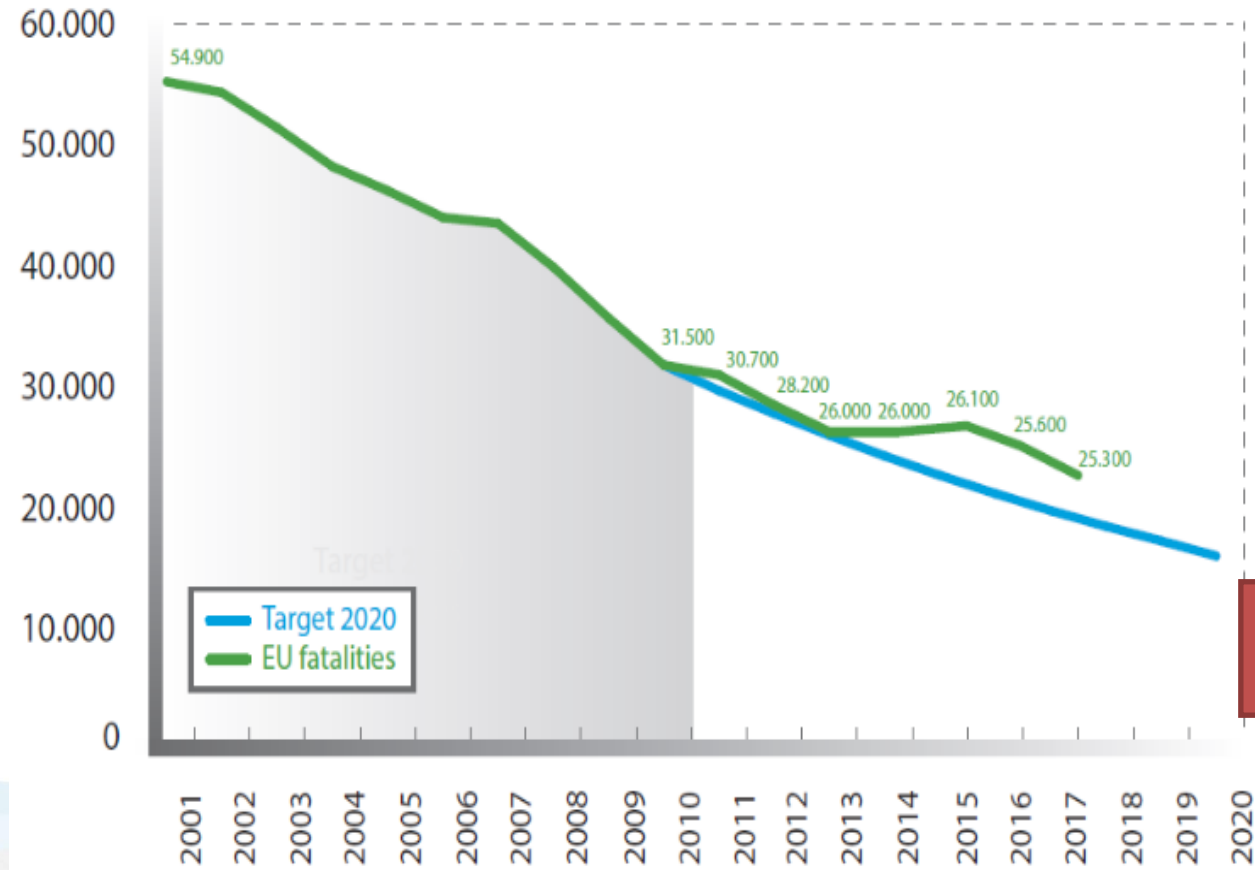
Source – CARE (EU road accidents database)

Valletta Declaration on Road Safety

Relative change in road deaths (%) 2001-2017

In 2004, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, **Lithuania**, Malta, Poland, Slovakia and Slovenia joined EU and needed to fulfil EU targets, including traffic safety

Lithuanian experience

Key facts about Lithuania

Capital (and largest city): Vilnius

Official language: Lithuanian

Area: 65,300 km²

Population: 2,944 million

National currency: EURO

First mentioned: 9 March 1009

Borders' length: 1,732 km

Transport fleet: 2,275,977 (180,720 heavy)

Membership: EU, NATO

Trakai Castle

Anykščiai Church

Lake Sartai

Kernavės Mounds

Lithuanian Road safety strategy 2008 - 2011

Common activities of all institutions, NGO's, etc.

Intensive educational activities

Road safety strategy 2008-2011

Amendments of pertaining legislation

Implementation of engineering measures

Strict control of road users

Structure of the governmental Road Safety Commission since 2008

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┌─────────────────────────┐
│     Prime Minister      │
│  (Chairman of the GRSC) │
└─────────────────────────┘
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Traffic safety Council (Chairman MoTC vice minister)

Minister of MoTC

Minister of Internal Affairs

Representatives of other related ministries, institutions, NGO's, society and business
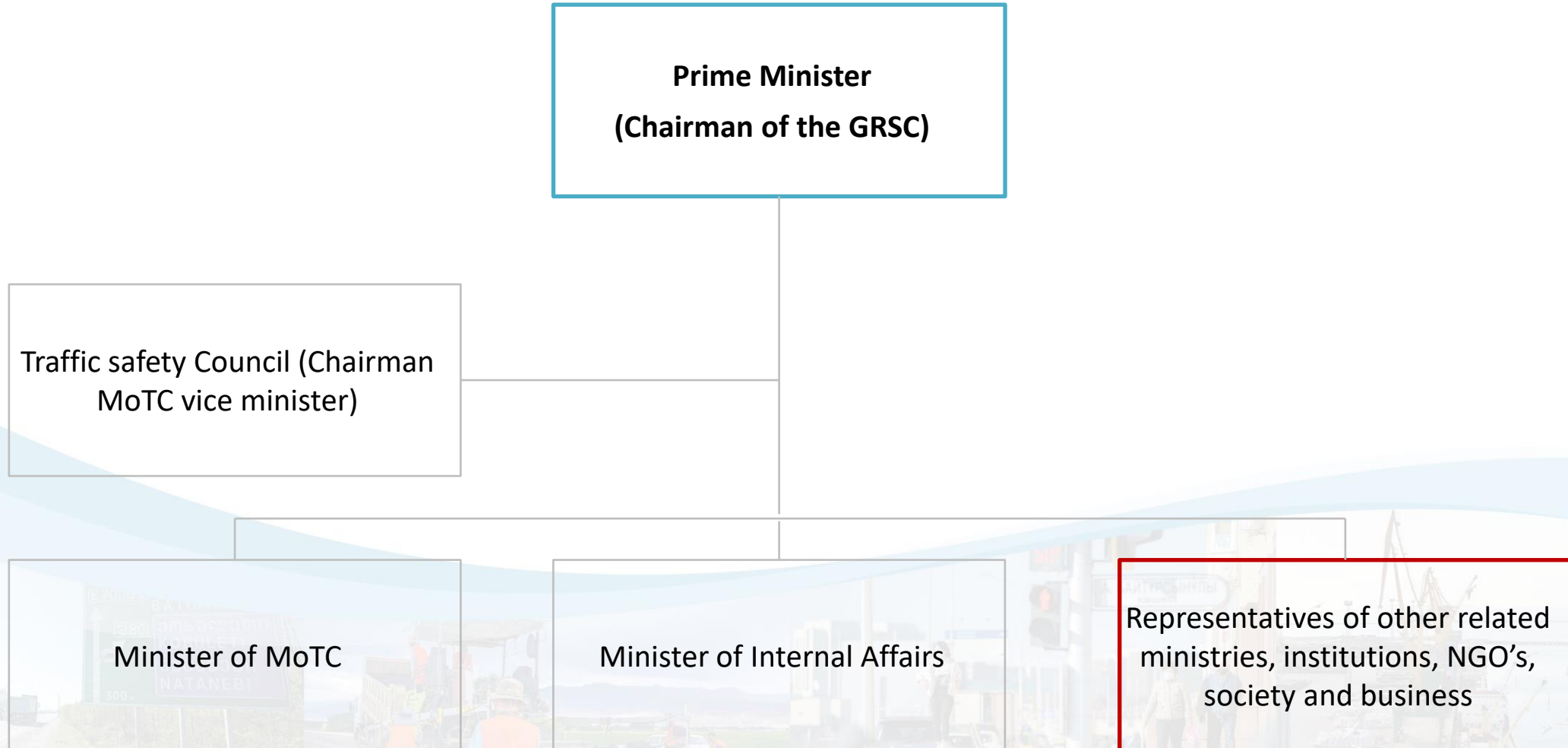
2011-2017 Traffic safety programme

National traffic safety programme 2011-2017

Monitored by MoTC

Strategic priorities

Goals and benchmarks

Action plan (indicators)

1. Safe behaviour of users

2. Safe roads'infrastructure

3. Safe vehicles

4. Effective first aid for road users after accidents

5. State-of-the-art ICT for road safety

Strategic goal: TOP – 10 in terms of EU safest countries for road users
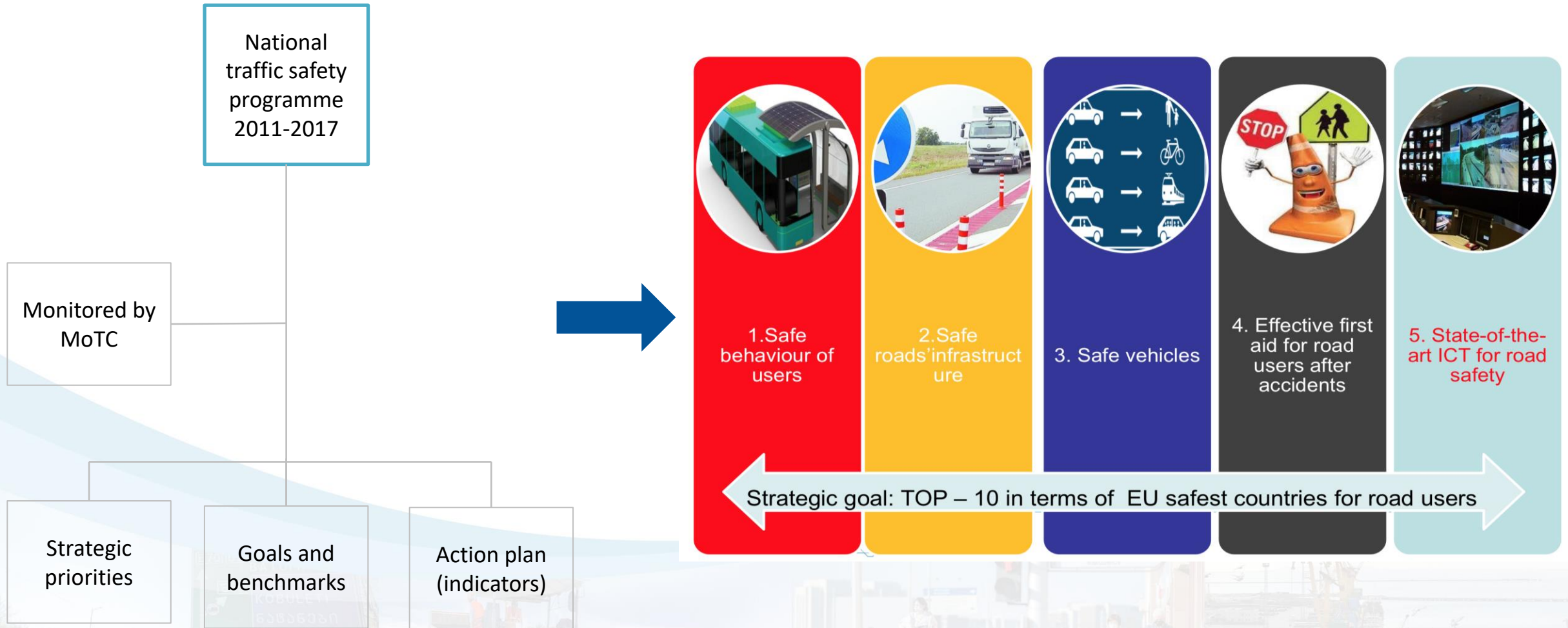
Lithuanian Vision-Zero programme for traffic safety 2020 -2030

Main targets:

- Not more than 75 fatalities per year till 2030

- Not more than 37 fatalities per year till 2040

- 0 fatalities per year till 2050

1 GOAL
Is to reduce the number of violations of the Road Traffic Rules

2 GOAL
Is to ensure that the road infrastructure meets the established requirements
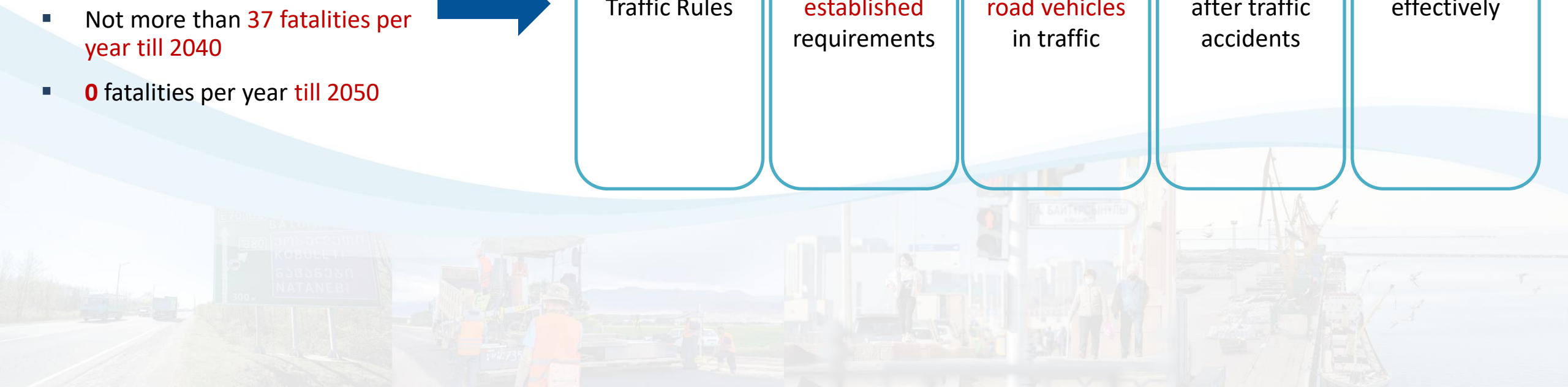
3 GOAL
Is to reduce the number of technically defective road vehicles in traffic

4 GOAL
Is to save road users more efficiently after traffic accidents

5 GOAL
Is to manage traffic accident risks more effectively

Cooperation and coordination of ALL actions between ALL stakeholders

Actors of Intensive cooperation and joint actions

- Business
- Society
- Politics
- NGO's
- Media and journalists
- Public institutions
- Religious communities

- The most important is HUMAN and everything should be oriented to his safety and comfort
- Coordination all actions between all stakeholders
- Consolidate all funds and investments to common activities
- Involve society and business as much as possible in all activities
- Use media and journalists and coordinate activities by providing them information
- Organize joint between all stakeholders' social campaigns to increase public awareness
- Openly exchange all possible data between organizations
- Provide open data for the society

New traffic safety approach since 2008

DIRECTIONS

Infrastructure

Sustainable planning
Design policy
Categorization of the roads
Safe infrastructure management
Investigation of accidents
Cost-benefit analysis

Infrastructure

Legislation

Upgrade of legislation and technical norms

Development of new legal acts and norms

Timely (up to 5y) renewal of legislation and norms

Education

Schools (children) education programs

Drivers training programs

Social campaigns, media

Trainings for specialists

Control

Police enforcement

Penalty system

Speed cameras

Joint stakeholders' actions

GOOD QUALITY DATA

Road safety measures selection and implementation process

DATA COLLECTION AND ANALYSIS

Selection of dangerous points and stretches (Experts, society)	Network Safety Ranking procedure	Road Safety Impact Assessment procedure	Road Safety Audit procedure	Black Spots determination and Investigation procedure	Accidents Prediction procedure	Investigation of every fatal accident	Road Safety Inspection procedure	Traffic police patrolling sections selection	Providing information for society	Improvement of the legislation

COST-BENEFIT ANALYSIS AND SELECTION OF MEASURES

Installation of post-accident and preventive infrastructure	Planning the traffic control activities and updating the legislation	Society awareness raising and social campaigns planning

The open data

- The good quality data is a base for all decisions' making, including traffic safety

- Public open data law got in force from 2016

State of play on open data – 2023

MATURITY LEVEL RATING

	Policy	Portal	Impact	Quality
Ranking	#14	#7	#8	#9
LT	93%	95%	98%	89%
EU27	89%	85%	77%	82%

Overall	
EU27	83%
LT	94%
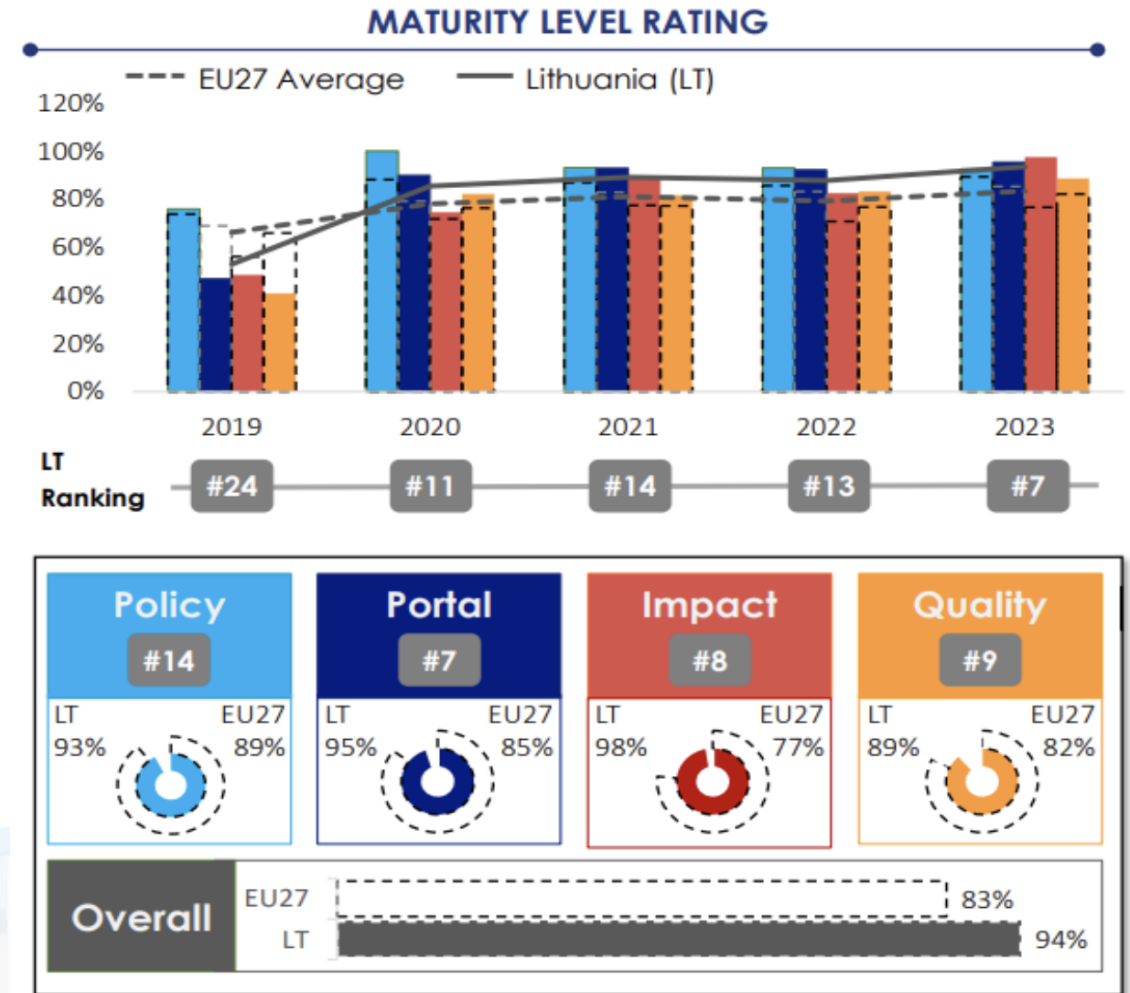
Timeline of the development of traffic accidents' information systems/databases (EIIS)

1991 – 2002
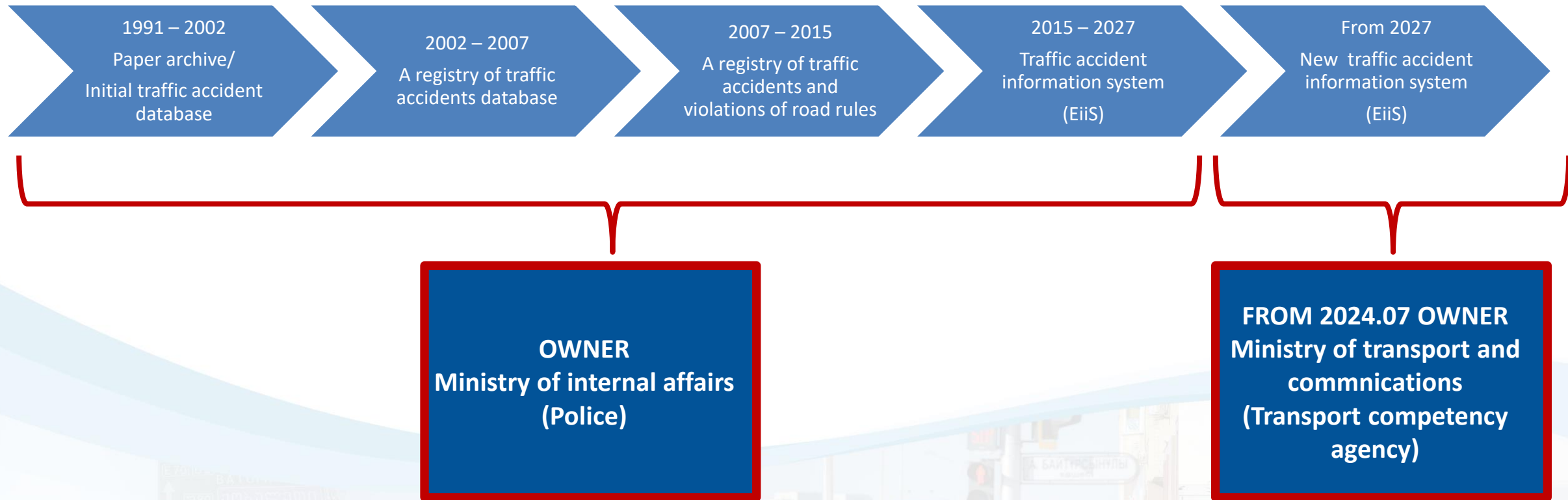Paper archive/
Initial traffic accident database

2002 – 2007
A registry of traffic accidents database

2007 – 2015
A registry of traffic accidents and violations of road rules

2015 – 2027
Traffic accident information system (EiiS)

From 2027
New traffic accident information system (EiiS)

OWNER
Ministry of internal affairs
(Police)

FROM 2024.07 OWNER
Ministry of transport and commnications
(Transport competency agency)

The purposes of the existing EIIS

The purpose of the EJIS development was to create an information system for:

- planning the deployment of police forces and patrol routes on roads

- organizing preventive and other measures aimed at ensuring traffic safety

- providing the institutions of the Republic of Lithuania and the European Union

- other legal entities and individuals with police-registered traffic incidents that occur in Lithuania
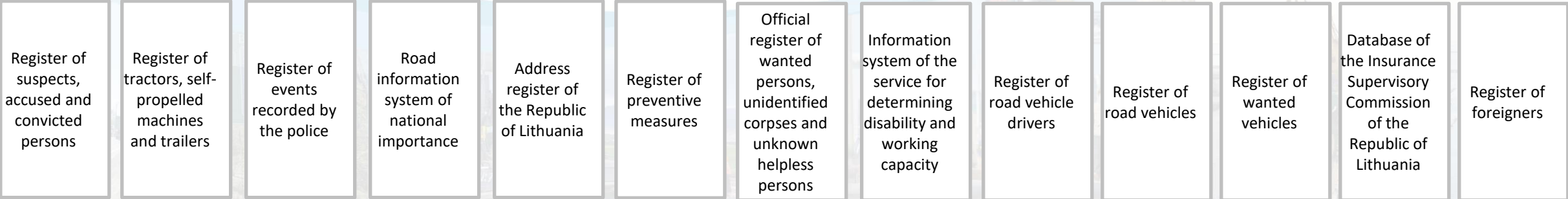
- publishing statistical data

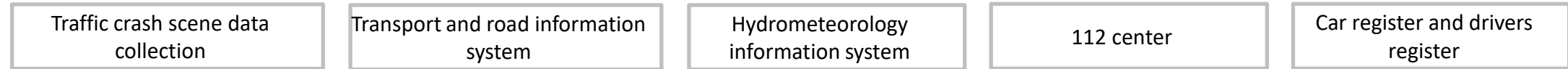# Existing traffic accidents information system structure

TRAFFIC ACCIDENTS INFORMATION SYSTEM SUBSYSTEMS

INFORMATION SYSTEM ADMINISTRATIVE AND USER'S MANAGEMENT SUBSYSTEM

SERVERS AND MANAGEMENT

Traffic accident subsystem
1.Data collection and storage   2. Data and documents formation

Spatial data subsystem
Spatial data identification and mapping of traffic accident locations

Reporting subsystem
Traffic accident data processing, detalisation, systematization and formation of traffic accident statistical reports

Administration subsystem
Administration of authorizations and rights of employees of EIIS manager and processors, management of classifiers, management of internal and external EIS data flows

Data exchange subsystem
Ensuring EIS data exchange with state registers, external and internal systems

INTEGRATIONS WITH OTHER PUBLIC SYSTEMS

| Register of suspects, accused and convicted persons | Register of tractors, self-propelled machines and trailers | Register of events recorded by the police | Road information system of national importance | Address register of the Republic of Lithuania | Register of preventive measures | Official register of wanted persons, unidentified corpses and unknown helpless persons | Information system of the service for determining disability and working capacity | Register of road vehicle drivers | Register of road vehicles | Register of wanted vehicles | Database of the Insurance Supervisory Commission of the Republic of Lithuania | Register of foreigners |

Users of existing traffic accidents information system

Traffic crash scene data collection	Transport and road information system	Hydrometeorology information system	112 center	Car register and drivers register

DATA SOURCES

TRAFFIC ACCIDENTS INFORMATION SYSTEM

DATA USERS

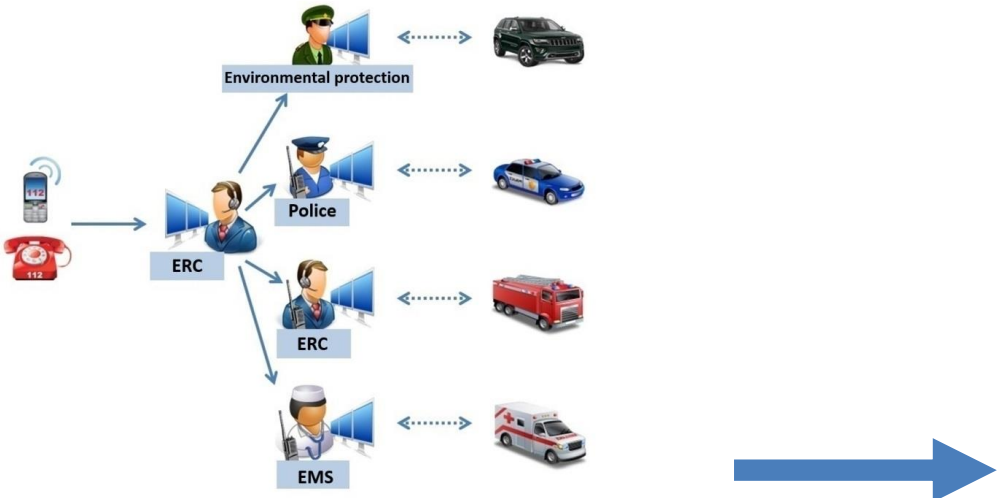| Police	Transport competency agency	Lithuanian road administration	Transport inspection companies	Lithuanian transport safety agency	Insurance companies	Municipalities administrations	Lithuanian open data agency	EC CARE database	112 center	State health Fund under the Ministry of Health	The State Board of the Social Insurance Fund under the Ministry of Social Security and Labour

Real time accident data for the society

New approach from 2024.07: the owner of EIIS will be MoTC

The purpose of the EIIS development project is to create (modernize) EIIS for:

- registering EIIS objects

- collecting, storing, processing, systematizing, monitoring traffic incidents

- performing statistical analysis

- storing, using and providing EIIS to institutions of the Republic of Lithuania and the European Union other legal entities and natural persons the data of registered traffic incidents

- publish data publicly

- plan preventive, infrastructural, traffic control and other traffic safety measures,

- planning the deployment of police forces and patrol routes on roads

LIETUVOS POLICIJA

Lithuanian Ministry of internal affairs and Lithuanian police will be responsible for the traffic safety prevention and control`

Data provider`

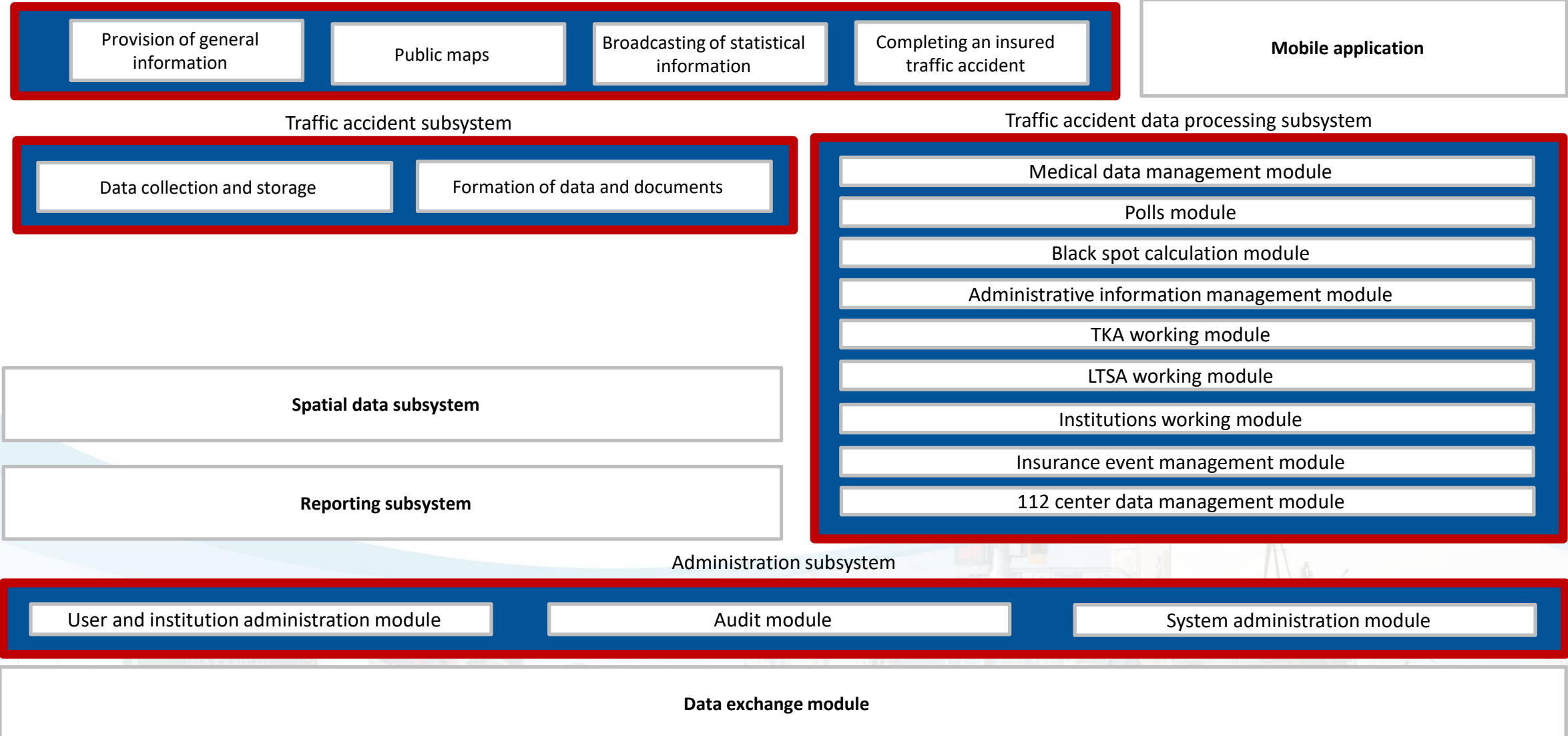LIETUVOS RESPUBLIKOS
SUSISIEKIMO MINISTERIJA

Lithuanian Ministry of Transport and Communications and Transport competency agency will be responsible for the traffic safety analysis, social campaigns and infrastructure upgrades
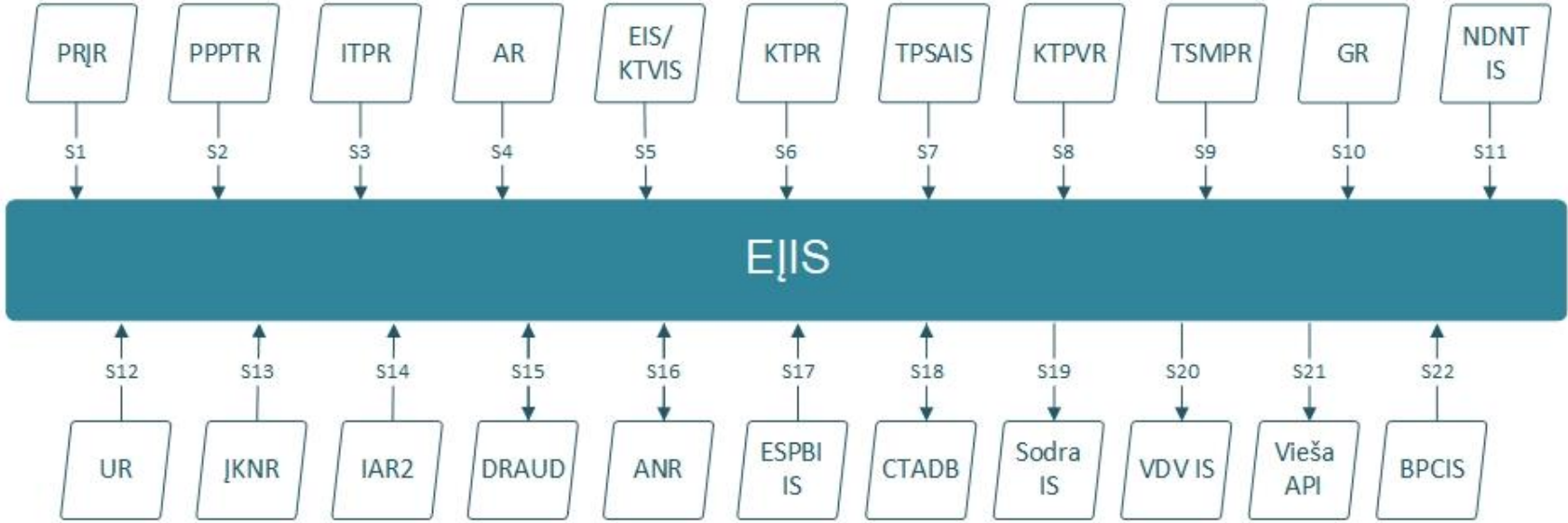
New owner of the EIIS

New EIIS structure

Public portal

Provision of general information	Public maps	Broadcasting of statistical information	Completing an insured traffic accident

Mobile application

Traffic accident subsystem

Data collection and storage	Formation of data and documents

Traffic accident data processing subsystem

Medical data management module

Polls module

Black spot calculation module

Administrative information management module

TKA working module

LTSA working module

Institutions working module

Insurance event management module

112 center data management module

Spatial data subsystem

Reporting subsystem

Administration subsystem

|		
User and institution administration module	Audit module	System administration module

Data exchange module

External EIIS data flows and users

Nearest future – establish transport sector data lake

- The next step will be to establish open data lake for the Lithuanian transport sector and **EIIS will be the part of the data-lake**

- This will help to automatize processes and will let to do more accurate investigations in shorter time

- The data lake will be equipped with AI tools for the better analysis and prognosis
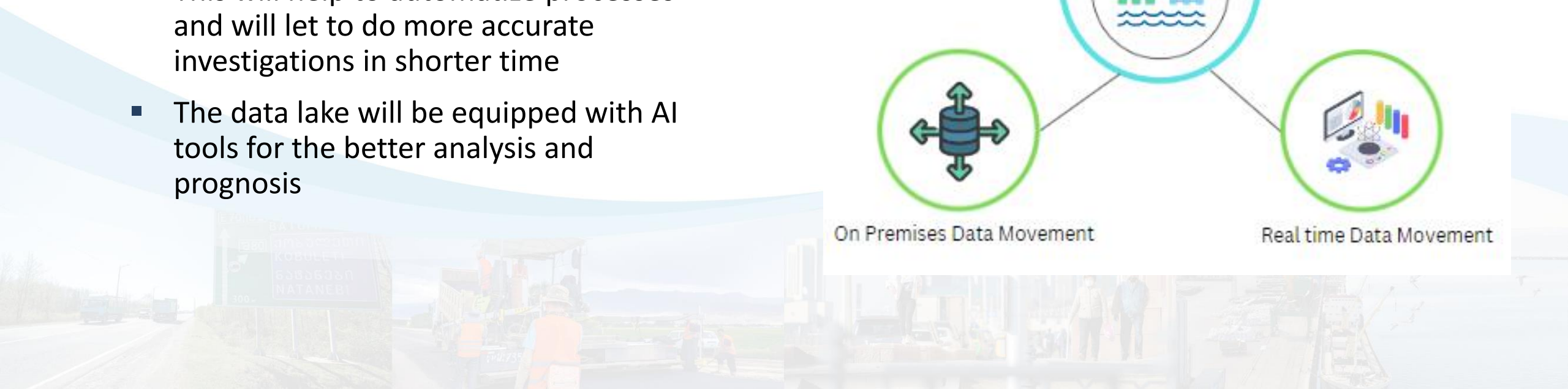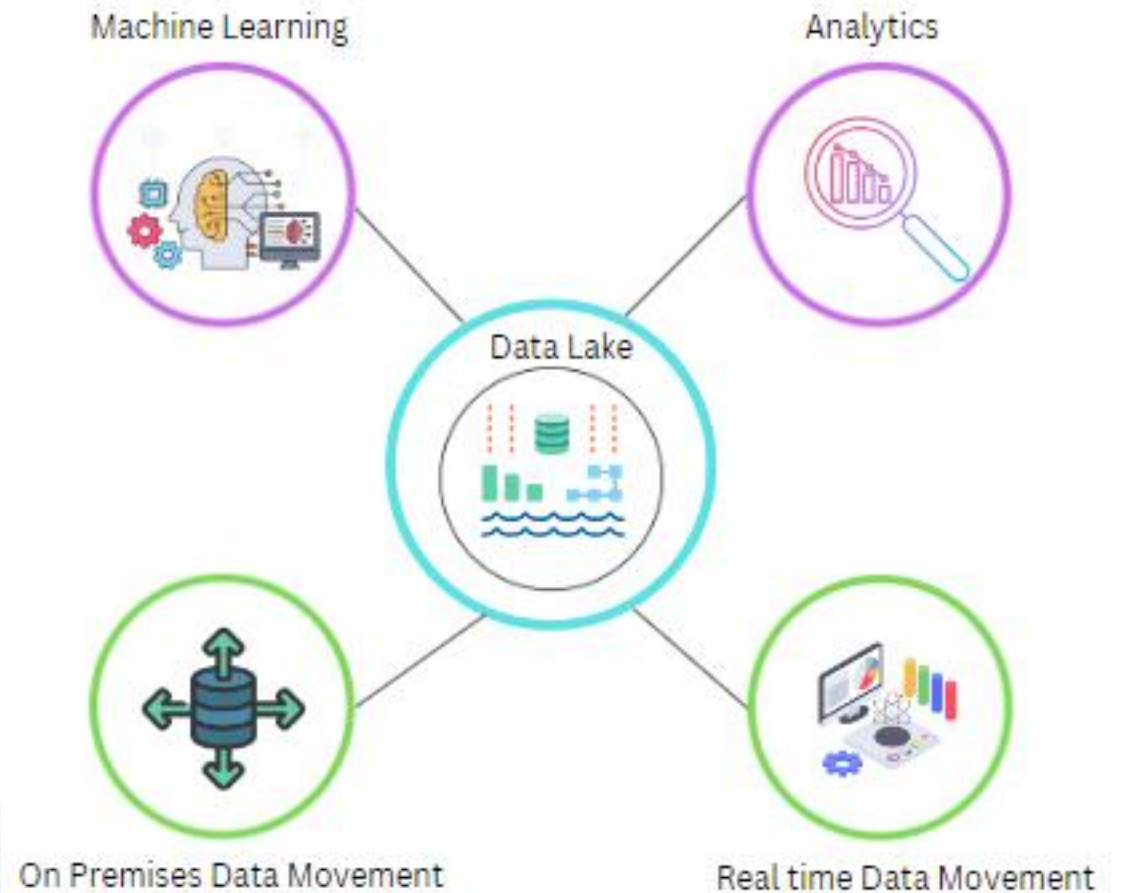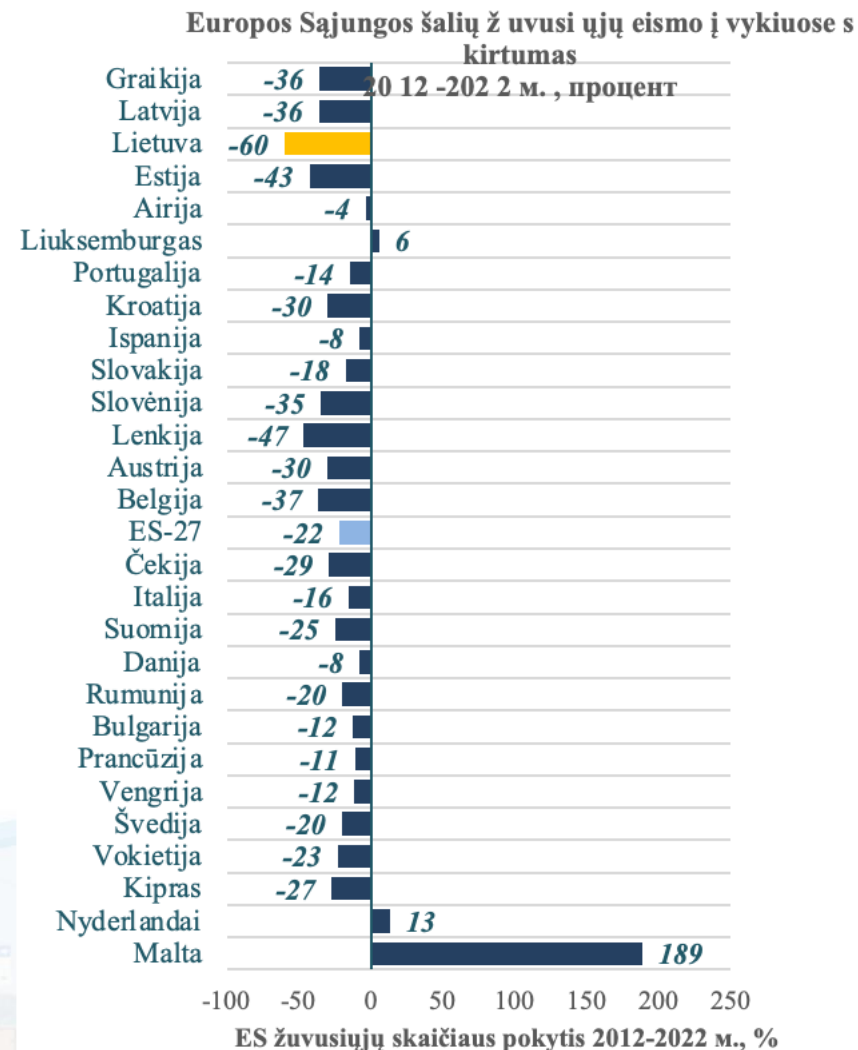
Traffic safety achievements in Lithuania

- For the achievements of the last decade in improving road safety, Lithuania was awarded the most important European road safety award 2 times — the European Transport Safety Council (ETSC) PIN Award

- Out of the European countries assessed by the organization, Lithuania was the only European Union country to halve road deaths between 2011 and 2021

EC PIN award in 2022 and 2012

Europos Sąjungos šalių žuvusiųjų eismo įvykiuose skirtumas

2012-2022 м., процент

Country	Value
Graikija	-36
Latvija	-36
Lietuva	-60
Estija	-43
Airija	-4
Liuksemburgas	6
Portugalija	-14
Kroatija	-30
Ispanija	-8
Slovakija	-18
Slovėnija	-35
Lenkija	-47
Austrija	-30
Belgija	-37
ES-27	-22
Čekija	-29
Italija	-16
Suomija	-25
Danija	-8
Rumunija	-20
Bulgarija	-12
Prancūzija	-11
Vengrija	-12
Švedija	-20
Vokietija	-23
Kipras	-27
Nyderlandai	13
Malta	189

ES žuvusiųjų skaičiaus pokytis 2012-2022 м., %

Conclusions

- Cooperation of the stakeholders was the main trigger to achieve real reduction of the fatalities on the Lithuanian roads

- Cooperation let to use the funding in the most efficient way

- Cooperation let to change behavior of the society

- The good results can be achieved only if good quality data exists, and it is possible to interpolate it with other data sources
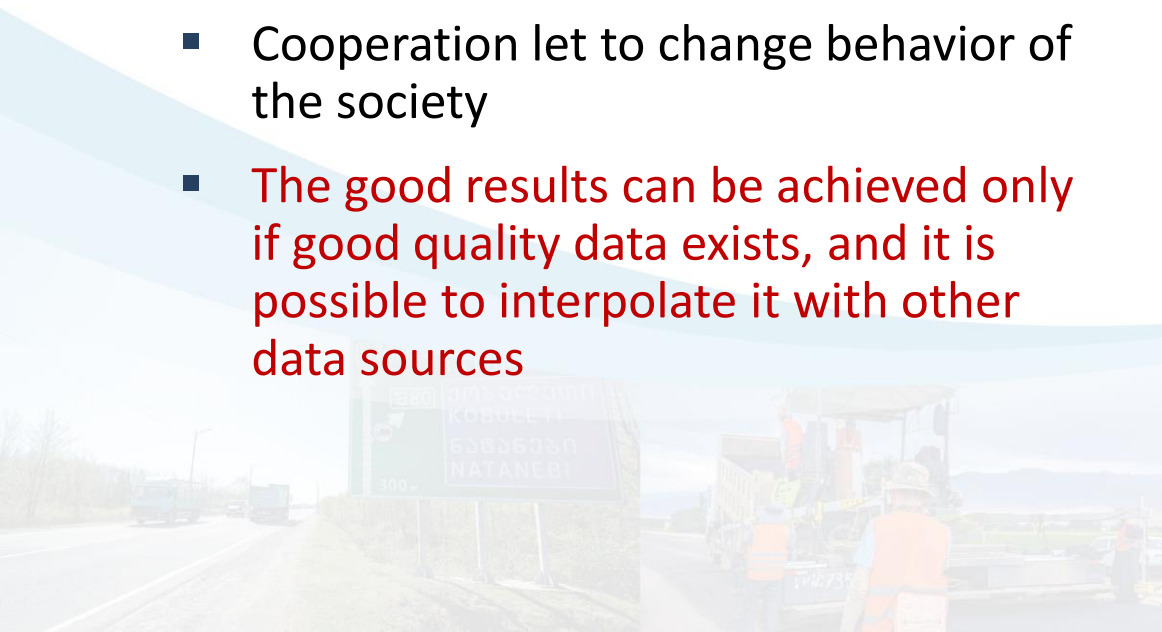
Thank You!

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