

ITS Services for improving the level of road safety on national road network



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Agenda

1. Background of GDDKiA
2. Mission and goals
3. ITS service based approach
4. Examples of Safety related ITS Services
5. How the GDDKiA deploy ITS
6. Monitorig and evaluation of ITS efficiency
7. Upcomming future



Background of GDDKIA

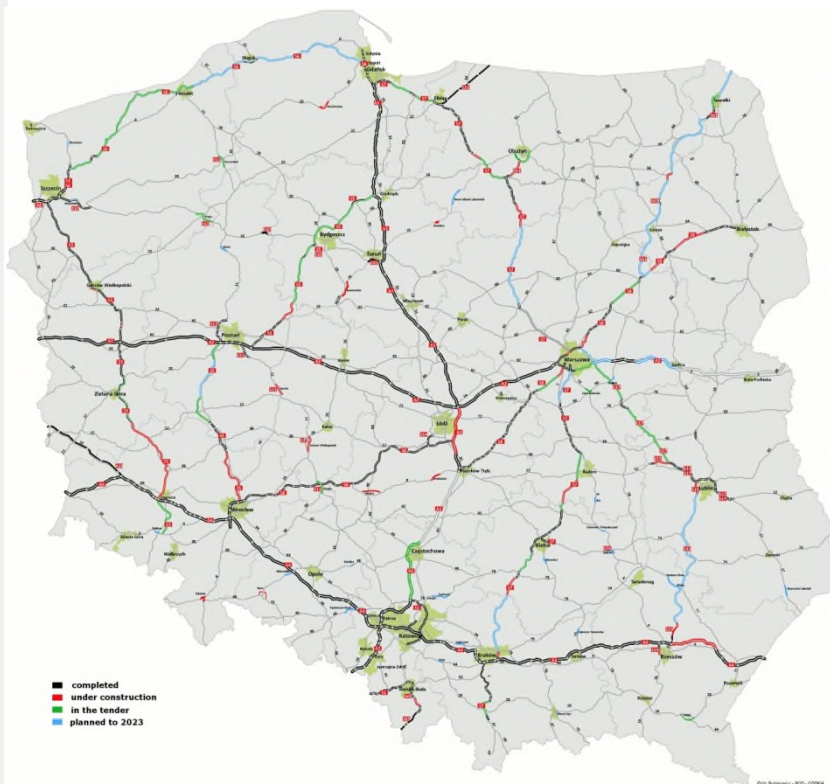
approx. 19 000 km of national roads,

including 3100 km high-speed roads:

- 1 553 km of motorways
- 1 572 km of expressways

3158 km of toll roads

- **Motorways : 1081 km , w tym:**
 - 261 km – LV (MTC v ETC) i HV (ETC)
 - 820 km – HV (ETC)
- **Expressways: 1256 km - HV (ETC) only**
- **Trunk roads 821 km - HV (ETC) only**



19 – average number of accidents per day ...

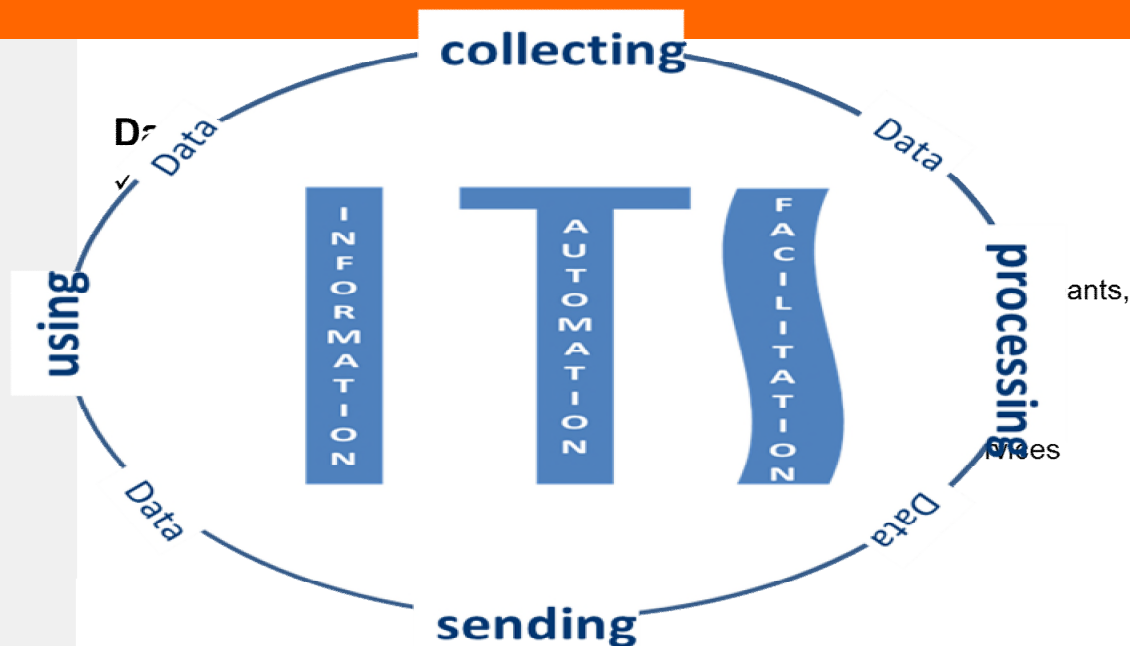
Mission and Goals

Providing of top quality public services:

functional, **safe** and comfortable road transport infrastructure

for customers performing (or planning to perform) „transport operations”

following different motivations and diverse **needs**



ITS service based approach

- Effectiveness of ITS
- 30% reduction in fatalities
- 30% reduction in seriously injured persons
- 15% reduction of congestion
- 20% improvements in energy-efficiency*



What?, Why? Where?, when ? who?, how?, how much?

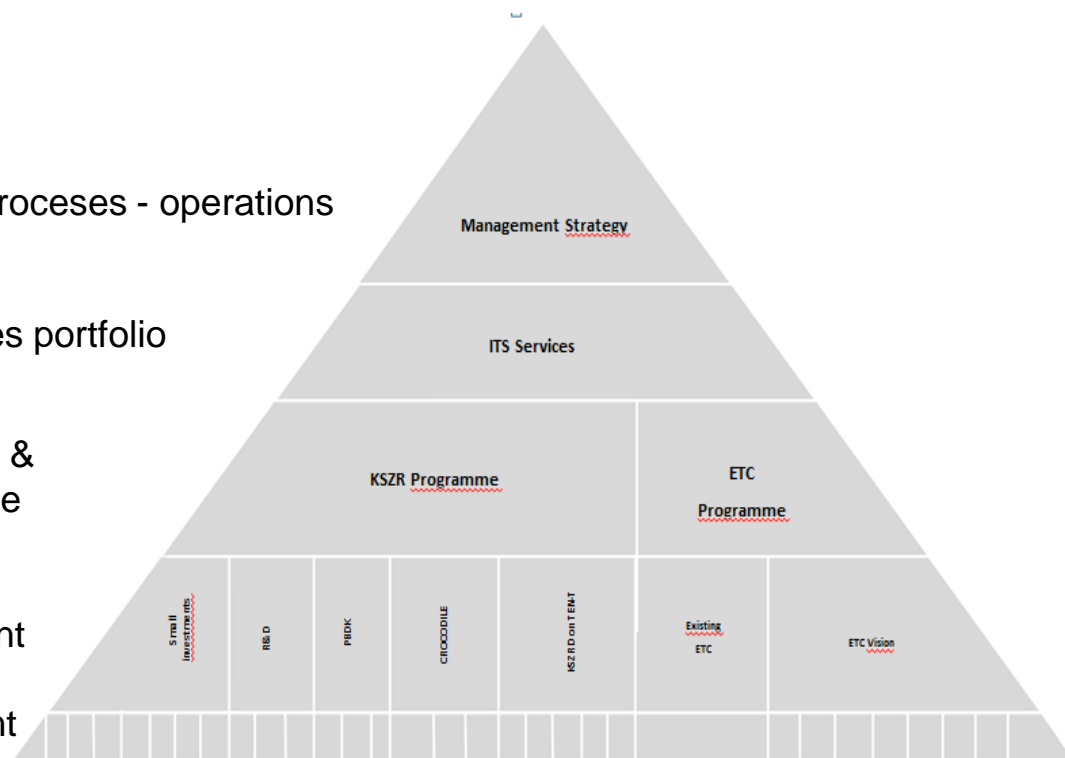
Business proceses - operations

ITS services portfolio

deployment &
maintenance

project
management

procurement



Examples of Safety related ITS Services

GDDKiA current ITS services :

- ✓ Information about incidents for drivers
- ✓ Incident management for GDDKiA in same sections
- ✓ Support for maintenance and security of the roads for GDDKiA – weather info
- ✓ Weight in motion for enforcement agency (WIM)
- ✓ Dynamic rerouting for traffic (detours) in same sections
- ✓ Ghost driver detection in one section



ITS services scheduled to be delivered by GDDKiA

- ☐ Lane management
- ☐ Dynamic speed management
- ☐ Opening the lane for overtaking the columns of HGV's
- ☐ Ramp metering
- ☐ Area and corridor traffic management
- ☐ Area traffic signalization management
- ☐ Emergency lane managemnt
- ☐ Incident detection
- ☐ Unexpected congestion detection
- ☐ Travel times information
- ☐ Recomendded speed limit information
- ☐ „Safe and secure” parking area for HGV's
- ☐ SINGLE POINT OF ACCESS

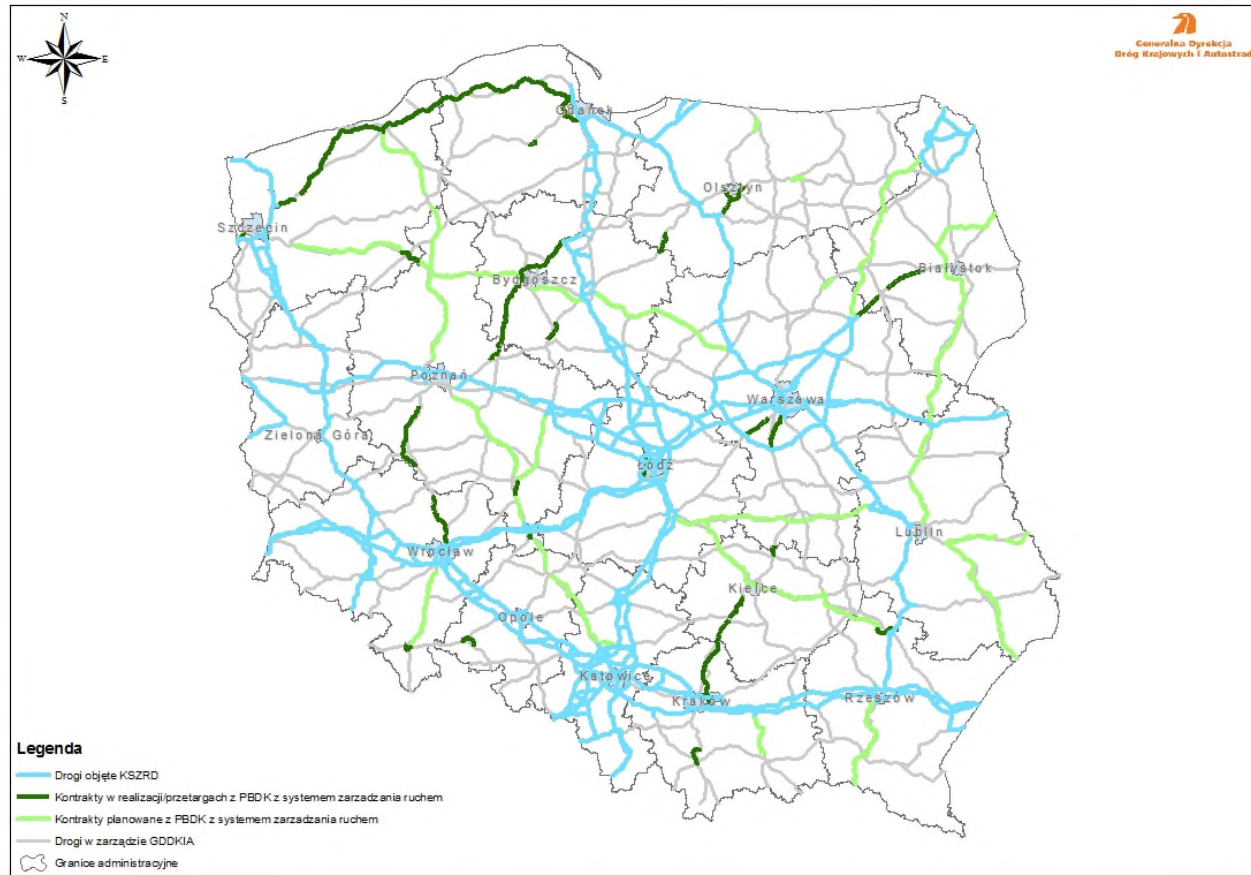


How the GDDKiA deploy ITS



Program KSZR:

1. KSZR/TENT – 85% EU-CEF
2. Crocodile – 20% EU TENT
3. Crocodile 2 – 20% EU CEF
4. 69 road constructions schemes contain ITS/KSZR components – EU POIS



Monitoring and evaluation of ITS efficiency & performance



example *2015:

- ✓ 72 032 calls requested for road information
- ✓ 126 336 min of talks providing road information
- ✓ 22 481 press releases, messages, statements written cautions on incidents and traffic situation
- ✓ 62 – incidents/traffic messages per day..

*figures not include ETC/MTC



GDDKiA's dedicated methodology on ITS service management

KPI's



As a part of GDDKiA's road safety management procedure fifth phase



R&D academia and science



The future is coming...

a number of accidents **up to 85%**
by elimination of human factor

Autonomous vehicles can reduce

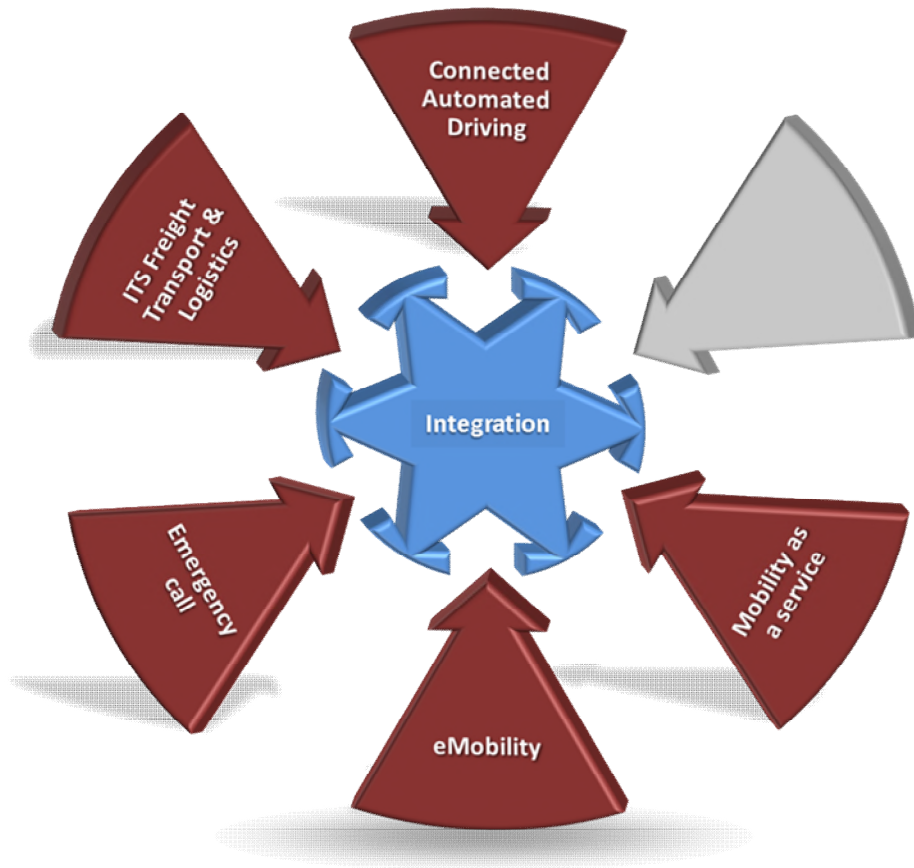
Automation cooperation among
infrastructure, vehicles...people

Cooperative ITS (C-ITS)
I2X, X2I, V2X, X2V, X2X

BIG DATA PLATFORMS

5G communication

Procuring ITS...as a service



Participation the GDDKiA in
H2020 – „HYBROAD” Project

Summary

Lessons learned:

- ☐ plan, deploy and use responsible
- ☐ based on real needs
- ☐ use for many purposes
- ☐ avoid „bells and whistles” 😊

...to avoid low or non return on investment



ITS has a strong potential for making our road safer

- ☐ saving humans lives
- ☐ mitigating the accidents severity
- ☐ preventing the accidents
- ☐ shortage the recovery actions time

....

but they are still just DATA tools, resources, facilitators
...not a ready solution...

they are just an **element** of entire safety management system

