



SMART E67: results and influence



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Key data

Objective: SMART E67 project aims to increase efficiency and safety of passenger and cargo mobility in the Central Baltic region by introducing ITS on E67 transport corridor.

Target KPI: a decrease of average travel time by **0,57%**, (approx. 1,5-2min. per vehicle on route or 70000+ hours saved yearly) if compared to the current situation in the influenced route's section of almost **400km**.

Total budget: **2,46** mil.EUR of which **2,09** mil.EUR (85%) is EU (ERDF) co-financing.

Traffic management measures: **42** spots & sections are equipped with overall **116** ITS units.

Implementation period: **4** years (11.2015. – 11.2019.)

Initiation: kick-off meeting of the previous BRA working cycle (11.2014.)



New experience and challenges



- Open competition (1st call of Interreg CB 2014-2020).
- “Life cycle” project’s type (combined investments & “soft” activities).
- R&D components included (complementary studies & pilots).
- Tight international partnership (mainly joint approach to management).
- **Introduction of new traffic management (TM) measures in practice.**
- Ambitions and allocations initially were not well-balanced (estimations).

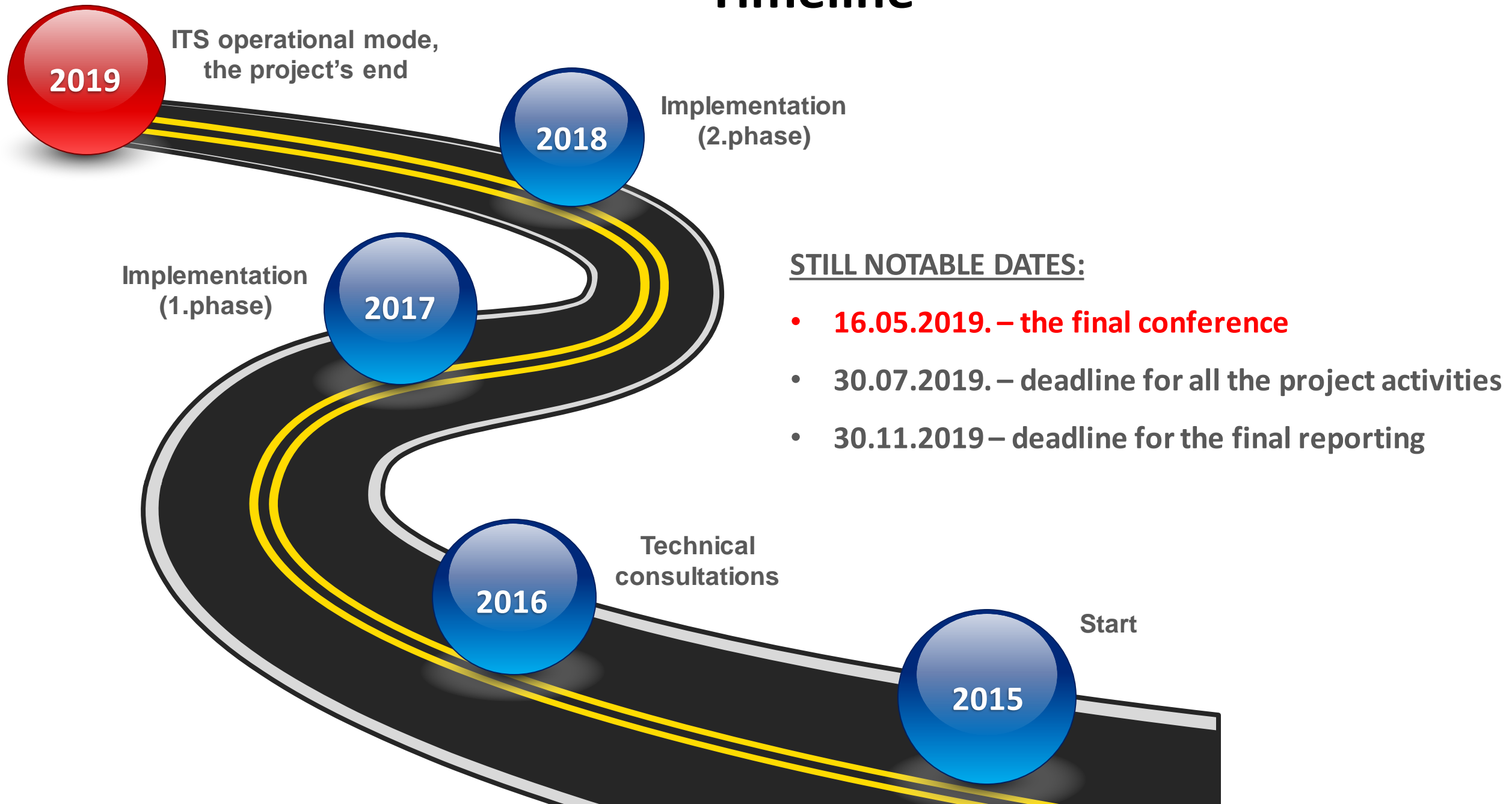
Thematical scope (working packages)

- Technical consultations (feasibility study, ex-ante/ex-post analysis, technical design);
- Deployment of road ITS installations (VMS, traffic sensors, RWS, IMS and prep. works);
- TIC adaptation (complex software, staff training);
- Communication to the target groups (incl. info campaign and conference);
- Project's management (supportive measures, provided by the partners).

NB: the first extensive deployment of variable message signs (VMS) for traffic management in Latvia and Estonia.

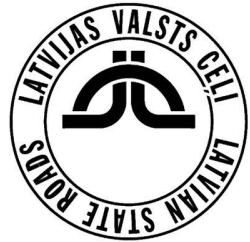


Timeline



Production scheme

MANAGEMENT & IMPLEMENTATION



Lead partner (LV)



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Partner (EE)



Associate partner (FI)

ITS DEPLOYMENT



Road equipment (LV)



TM software (LV)



Road equipment & TM software (EE)

THE OTHER KEY EXTERNAL SERVICES



Feasibility study (LT)



Ex-ante / ex-post analysis (EE)

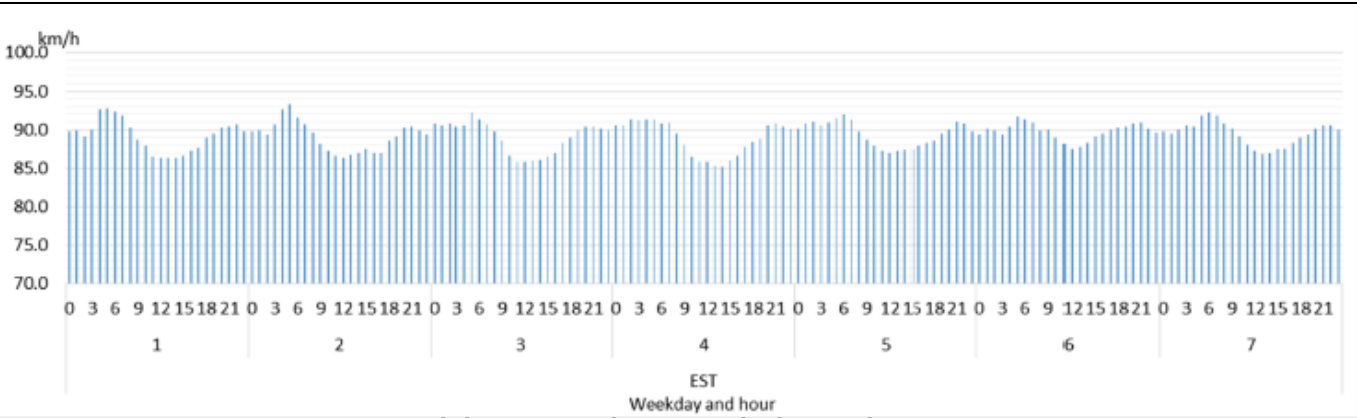


TIC training & TMP study (EE)

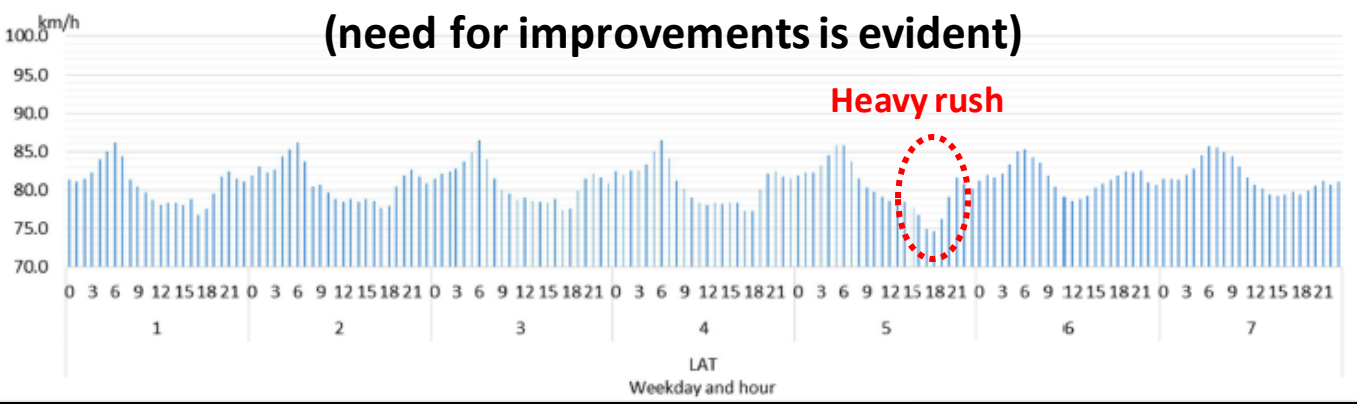


VMS promotional video (EE)

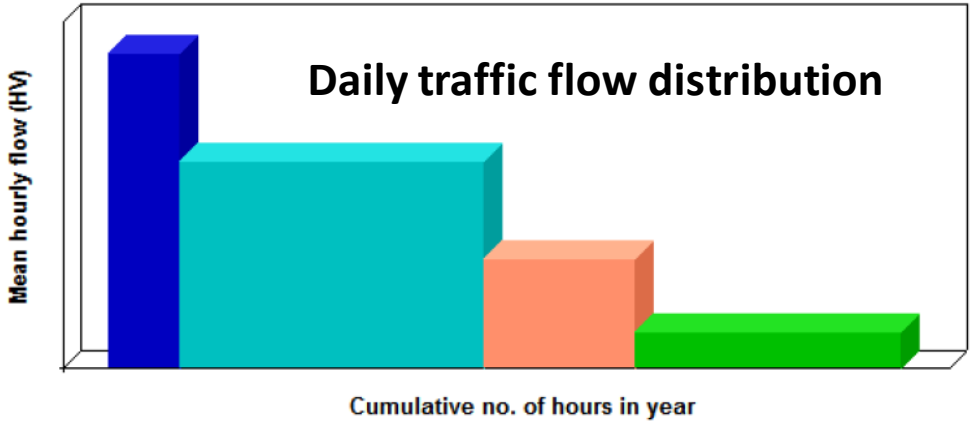
General traffic pattern on E67 (2016., ex-ante analysis)



Weekly travel speed distribution (need for improvements is evident)

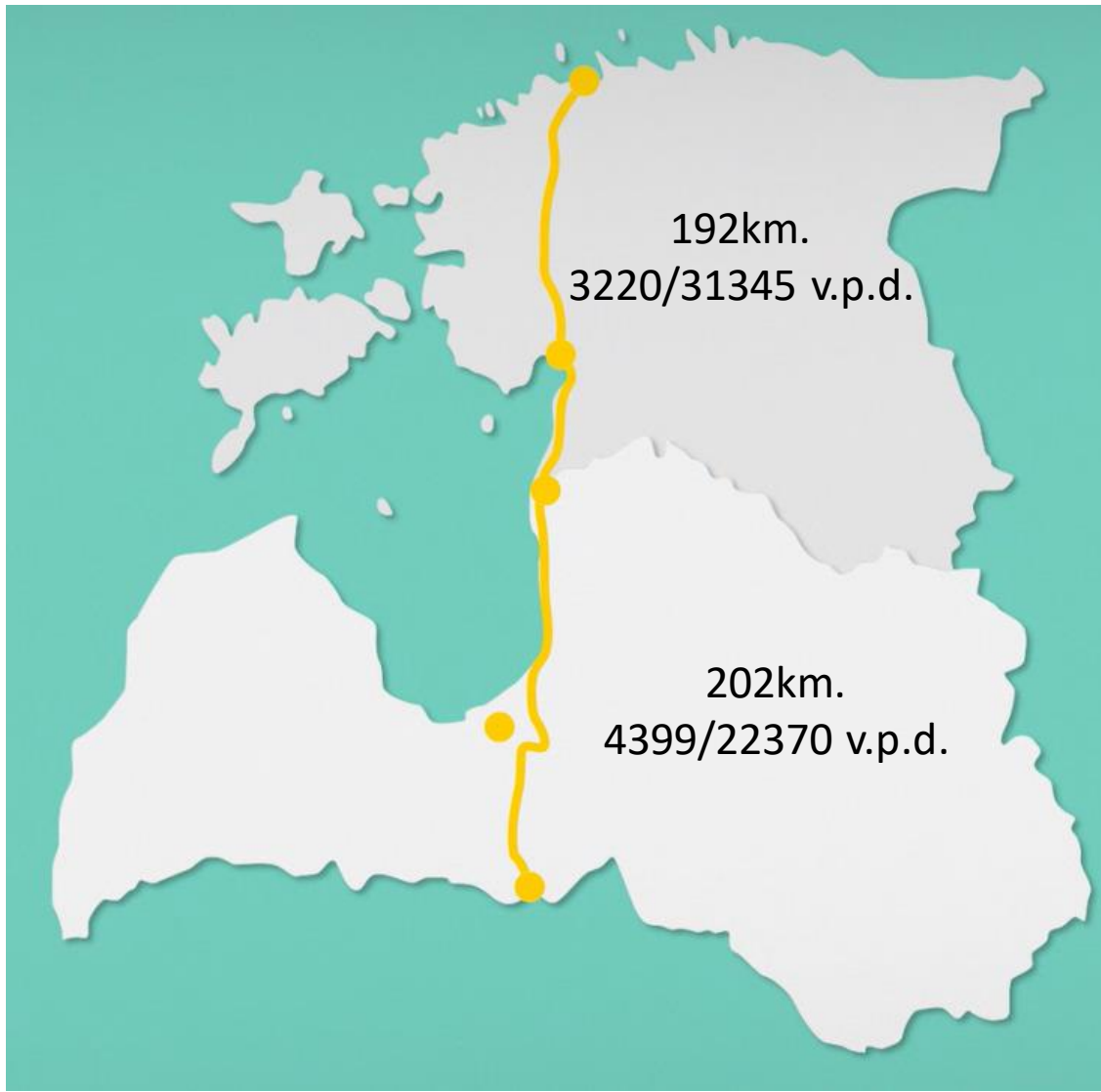


Heavy rush



Legend

- Peak hours
- Day time
- Evening ho
- Night time



Operational environment

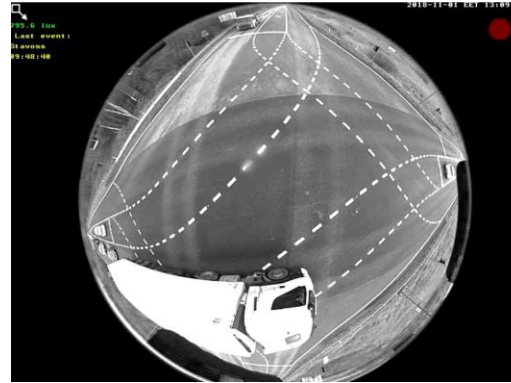
The project's service concept (2016., feasibility study)



KEY FEATURES:

- harmonization between the partners;
- compliance to the EIP;
- cohesion to the existing ITS elements;
- further scalability to the road network.

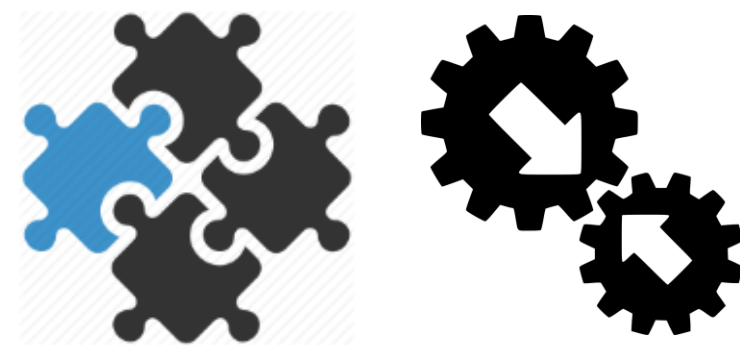
The project's key TM technologies



The advanced traffic/environment detection



Variable message signs



The integrated approach to the operational TM solutions

The main differences in TM approach between the partners

LV:

- various scattered TM spots along the route;
- IMS pilots for 2 locations;
- in-depth RWS/VMS(only warning type) integration on-site.



EE:

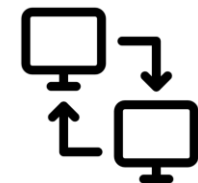
- sections' approach to traffic control (2 main stretches);
- emphasize on VMS deployment (more units and types).

Cross-border cooperation LV-EE



Participants of LV-EE TM training (Tallinn, 03.2019.)

- **Knowledge transfer (meetings, info exchange etc.)**
- **Joint efforts (decision-making process & some procurements)**
- **TM coherence provision (common procedures & tech. compatibility)**



The project's results



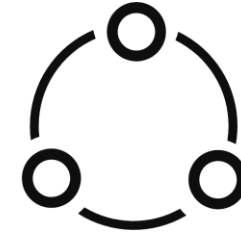
Target (traffic) oriented:

- Travel time savings
- Better traffic safety
- Less veh. emissions



Added value (planned):

- External investments, attracted to the assets
- Staff development, inc. covering expenses
- Scalability of the created TM solutions
- Positive PR



Synergy (unplanned):

- Cost savings, transferred to the additional activities
- Better functionality of the delivered ITS products

Acknowledgements

The project's activity: Design and works on SMART E67 road ITS elements in Latvia (single contract with "Fima Group")

Contest: Industrial prize of the year, awarded by "Latvian building, design and construction council"

Ranking: the 1.place in the category of new engineering constructions, 2018.



Awarding ceremony 07.03.2019.

The project's related PR activities (VMS use oriented)



TV programs

Autovadītājus sagaida jaunas – mainīgās ceļa zīmes

VAS "Latvijas Valsts ceļi" (LVC) jau vairākus gadus strādā pie projekta, kas Via Baltica (E67) maršrutā paredz ieviest viedās transporta sistēmas – mainīgās ceļa zīmes, viedos luksoforus u.c. Par projekta virzību "Autoceļu Avīzei" stāsta projekta komunikācijas vadītājs Lauris Vilniņš.

Sī projekta ietvaros uz E67 šosejām parādīsies pilnīgi jaunas ceļa zīmes. Kādas tās būs? Šīs ceļa zīmes nebūs uz balta fona, taču tie būs tie paši Latvija un Eiropa pieņemtie ierobežojumi un apzīmējumi – maksimāli ātruma ierobežojumi, brīdinājumi un informējamo zīmes. Pats galvenais, kas jāsaprot – šīm zīmēm ir tāds pats spēks, kā parastajām ceļa zīmēm – ja uz elektroniska displeja būs attēlots ātruma ierobežojums 50 km/h, tad, braucot ātrāk, auto vadītāju varēs sodīt. Autovadītājiem būs jāpierod – šīs zīmes ir statiskas zīmes, bet vienā brīdī tā rādīs brīdinājumu par mīļā vai slidenu ceļu, bet jau nākamajā – par konkrētu ātruma ierobežojumu. So zīmju galvenais udevums, ņemot vērā aktuālajiem braukšanas apstākļiem un situācijai uz ceļa, uzlabot satiksmes drošību. Cik vietas šādas mainīgās ceļa zīmes plānots uzstādīt? Kopumā uz Tallinas (A1) un Rauskas (A7) šosejām būs 13 vietas ar mainīgām ceļa zīmēm un divas vietas attēlotā informācija būs kompleksa – būs gan brīdinājuma, gan ierobežojošās zīmes. Lielākā daļa jauno zīmju būs posmā no Amālienas līdz Rīgai. Pamati šīs zīmes vadīs no meteoroloģiju datiem – informācija parādīsies automātiski, taču iespēja uzlikt konkrētu zīmī būs arī Satiksmes informācijas centra (SIC) dispečeriem. SIC speciālisti, ņemot vērā katru klādu, attēloto zīmī varēs koriģēt.

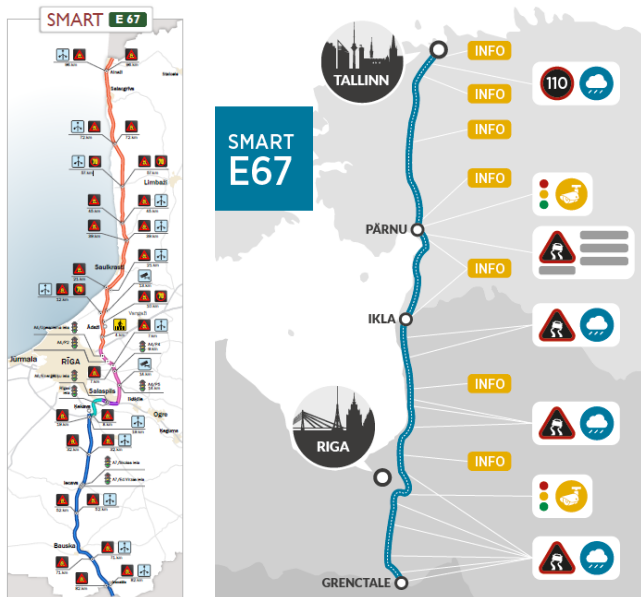


Newspapers



Social networks (FB)

2018. gadā uz Via Baltica uzstādīs elektroniskās ceļa zīmes, adaptīvos luksoforus un citu aprīkojumu



VARIABLE MESSAGE SIGNS ON ROADS

Three types of variable message signs have been installed on the Tallinn-Pärnu-Rīga road, based on LED technology: speed signs, warning signs and large text-based information boards.

Variable message signs can be used to warn road users instantly about traffic accidents, obstructions on the road, inform them about road works and re-routing in case of a closed road, forward information about travel time in case of traffic congestion, and give other useful information related to traffic. These signs also enable safer U-turns on four-lane roads by lowering the speed limit on the main road.

Information is gathered by means of special software from monitoring devices like road weather stations, cameras, traffic counters etc. Data is gathered about road and air temperature, state of the road surface, wind speed, visibility, type and intensity of precipitation, traffic volume and traffic speed. The information is gathered in order to react more promptly to changing weather conditions, traffic congestions, accidents, etc. For example, if the weather is changing considerably, the variable message signs are used to change the maximum allowed speed and/or to warn the road users. Signs are controlled by the Traffic Management Centre of the Road Administration.

The deployment of variable message signs will improve road safety and traffic flow, as well as decrease travel time.

UNVISIBLE MESSAGE SIGNS ARE AS COMPULSORY TO THE ROAD USERS AS REGULAR TRAFFIC SIGNS.

Elektroniskās ceļa zīmes brīdina autovadītājus par bīstamiem braukšanas apstākļiem, un negaidītu apledojumu. Brīdina arī par

Informācija tiek apstrādāta un nosūtīta "Viedajam ceļam"

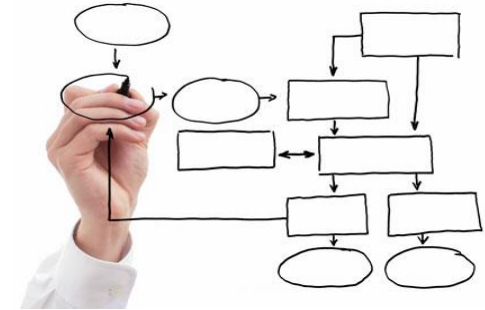
The promotional video

The dedicated infographics and leaflets

Lessons learned



KEY SUCCESS FACTORS





Thank You for attention!



MAANTEEMET



EIROPAS SAVIENĪBA
Eiropas Reģionālās attīstības fonds

