

## Intelligent Transport Systems: a Tool or a Toy?



22 - 23 November 2016  
University of Žilina,  
Slovakia



Forever Open infrastructure across (X)  
all transport modes  
FOX project

Ján Čelko, University of Žilina

# Summary

- The FOX project aims to develop a highly efficient and effective cross-modal R&D environment and culture.
- FOX will identify common needs and innovative techniques in **construction, maintenance, inspection, and recycling & reuse** of transport infrastructure.
- Project starting with the state-of-the-art in research and practice, followed by the identification of the most promising practices and ideas.
- The final aim is to establish a cross-modal Working Group to develop a roadmap and set the agenda for cross-modal research development innovation.

**FOX falls under the Horizon 2020 topic of MG-8.1b-2014 - Smarter design, construction and maintenance.**

# Forever Open infrastructure across (X) all transport modes

- Topic: MG-8.1b-2014 (Smarter design, construction and maintenance)
- Start date: 01 May 2015
- End date/duration: 31 October 2017/30 months
- Type of action: CSA
- Consortium
  - ◆ 7 partners  
FEHRL, BAST, EURNEX, IFSTTAR, STAC, TNO, ZAG
  - ◆ 7 third parties linked to FEHRL  
AIT, CDV, DNDI, IBDIM, LNEC, NETIVEI, VGTU

# Why FOX?

---

## Challenges

- Fragmentation of the transport network
- Transport sector facing challenges common to all modes
- Advances in sensors, mobile communications ...
- Social challenges

## Solution

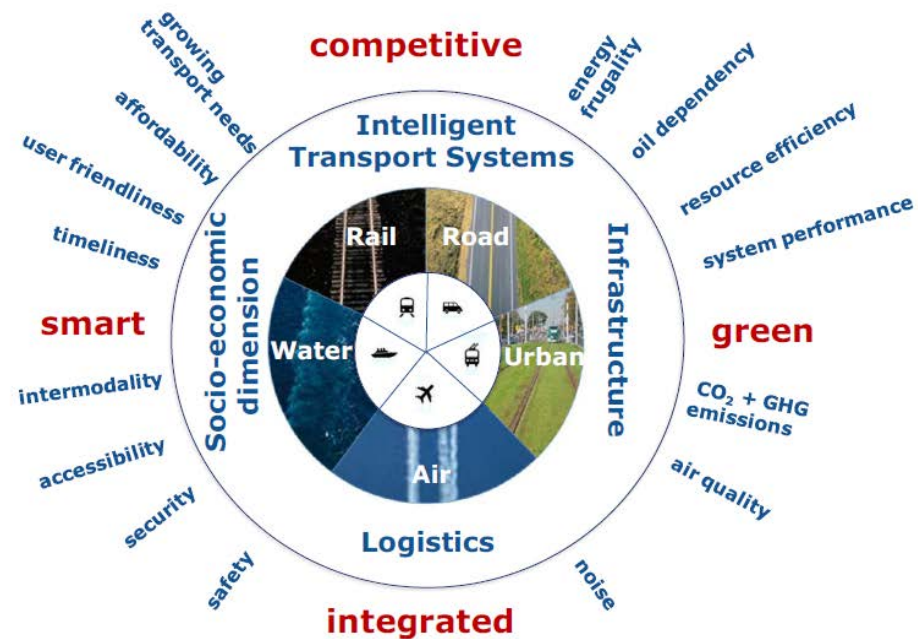
- ✓ Creation of an improved future integrated and functioning transport system for Europe
- ✓ FOX will help to bring this to pass



## The aims of FOX & USE-IT



**ROAD, RAIL, RIVER AND RUNWAY**  
A Cross Modal Transport System for Europe



## Objective(s) of FOX

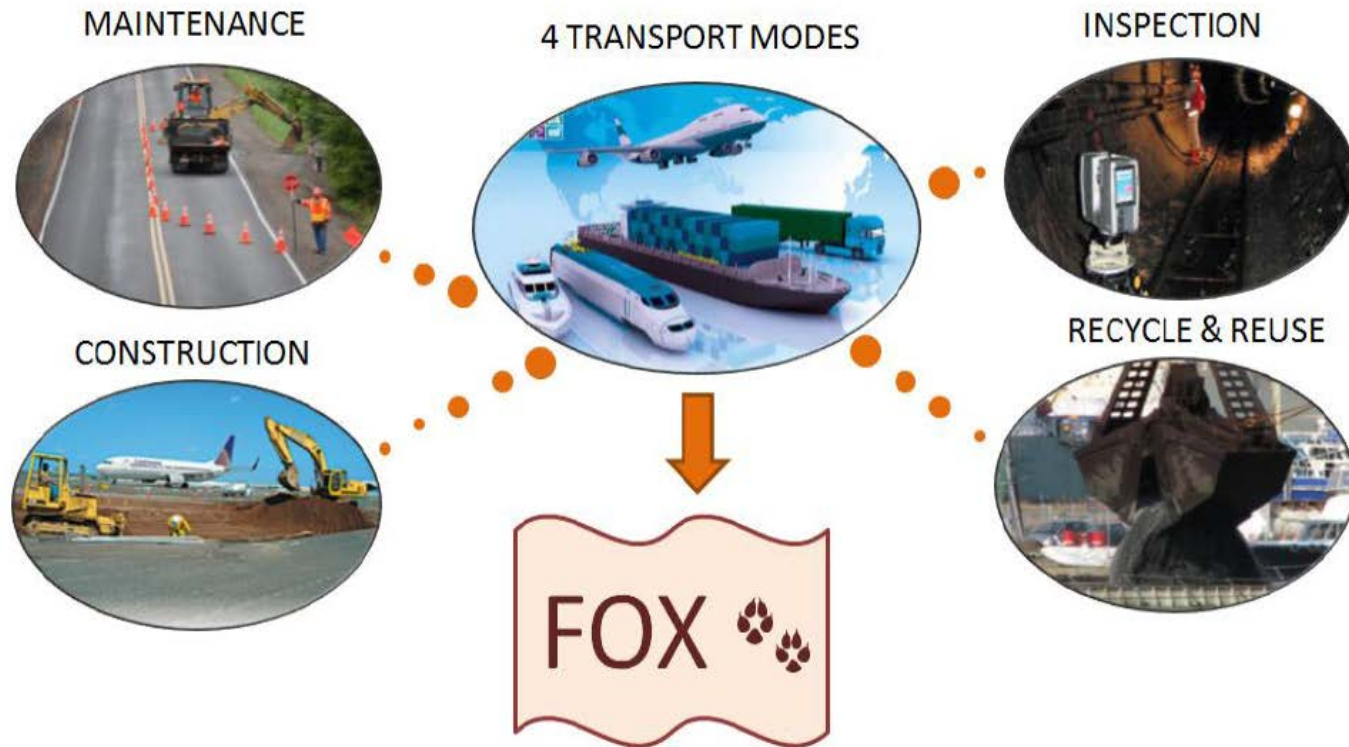
---

The objective of FOX is to:

- Contribute to the common cross-modal development of the transport sector.
- Strengthen the culture of partnership among operators in the various transport modes.
- Establish the broad scope of partnerships and cooperation in the transport sector.
- Identify common needs and opportunities for further co-modal development and implementation.

# Achieving the objectives of FOX

---



Cross modal approach in the area of construction, inspection, maintenance and recycle & reuse of transport infrastructure

# WPs of FOX

- **WP1** Project Management covers administrative and technical coordination. (FEHRL)
- **WP2** Construction aims to find construction methods for infrastructure useable in at least two or more transport modes. (IFSTTAR)
- **WP3** Maintenance aims to find new technologies and modular precast components with the required in-use properties in a cost-effective way and to optimise the methods for maintenance. (BAST)
- **WP4** Inspection aims to increase the use of new inspection methods for existing and new infrastructure. (ZAG)
- **WP5** Recycling & Reuse aims to decrease the use of energy and natural resources in construction and maintenance of infrastructure. (TNO)
- **WP6** Dissemination and exploitation/implementation ensures that FOX's outcomes are widely disseminated to the appropriate target stakeholder audiences, at the appropriate time, via appropriate tools, and that those who can contribute to their exploitation can be encouraged to participate. (FEHRL)



# Expected Impacts

---

## Outputs

- ❑ Report on state of the art and best practises in modular design and automated construction techniques in each mode
- ❑ Final report “Description of the best practice useful for other transportation modes and identification of common research needs
- ❑ Working Group of stakeholders and experts from different transport modes

## Expected Impacts

---

### Outcomes

- ❑ A network of researchers and practitioners
- ❑ The stimulation of the sharing of knowledge and innovation between experts from different transport modes
- ❑ A cross-modal roadmap with guidelines for more efficient collaboration and cooperation among operators
- ❑ A FOX WG with sub groups committed to the development of a cross-modal roadmap of the transport sector. The WG will continue to develop “cross-modal R&D” after end of project.

## Expected Impacts

---

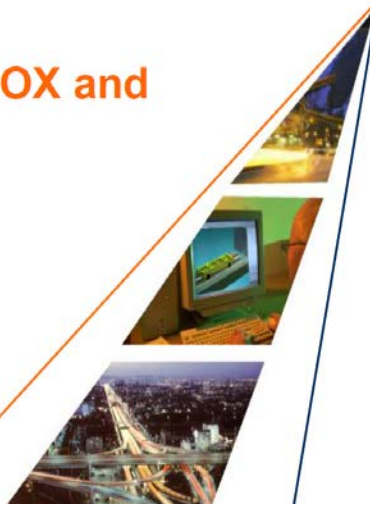
### Impacts (results of the project)

- ❑ The bringing together of key stakeholders to create new forms of cooperation that will facilitate the exchange of knowledge, experience, information etc across the four modes
- ❑ To take the next step towards the practical implementation of aspects in the joint ETP roadmap

# References



## General overview of FOX and USE-iT



**USE-iT partners**

FEHRL	FEHRL	IBDM
TRL	TRL	VGUT
AIT	AIT	DNDI
LNEC	LNEC	TNO
EURNEX	EURNEX	CEDEX
IFSTTAR	IFSTTAR	CDV
STAC	STAC	VTI

**FOX partners**

FEHRL	FEHRL	IBDM
BASi	BASi	NETIVEI
ZAG	ZAG	DNDI
IFSTTAR	IFSTTAR	CDV
TNO	TNO	VGUT
EURNEX	EURNEX	AIT
STAC	STAC	LNEC

**Start date:** 1<sup>st</sup> May 2015  
**Duration:** 24 months (USE-iT) and 30 months (FOX)

**Project Coordinator**  
Thierry Goger  
Secretary General  
FEHRL – Europe's National Road Research Centres  
Boulevard de la Woluwe 42/B3  
1200 Brussels | Belgium

Tel: +32 (0) 2 775 82 38  
thierry.goger@fehrl.org | www.fehrl.org  
www.linkedin.com/company/fehrl  
twitter.com/FEHRL\_comms  
Follow 'FEHRL' on www.facebook.com



**USE-iT FOX**

USE-iT = users, safety, security and energy in transport infrastructure  
FOX = Forever Open Infrastructure across (X) all transport modes

[www.useitandfoxprojects.eu](http://www.useitandfoxprojects.eu)

FEHRL materials

[www.fehrl.org/](http://www.fehrl.org/)

[www.foxproject.eu](http://www.foxproject.eu)



(<https://www.linkedin.com/groups/8442538/profile>)

USE-iT - users, safety, security and energy in transport infrastructure  
FOX - Forever Open infrastructure across all transport modes

# Thank you for your attention!

Contact: [jan.celko@uniza.sk](mailto:jan.celko@uniza.sk)