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# **ERA Chair for Intelligent Transport Systems**

Karl Ernst Ambrosch ERA Chair Holder @ University of Žilina

Milan Dado, Project Coordinator Ladislav Janoušek, Coordinator Contact



# ERAdiate







# The **ERAdiate** Project

Enhancing Research and innovAtion dimension of the University of Zilina in intelligent transport systems

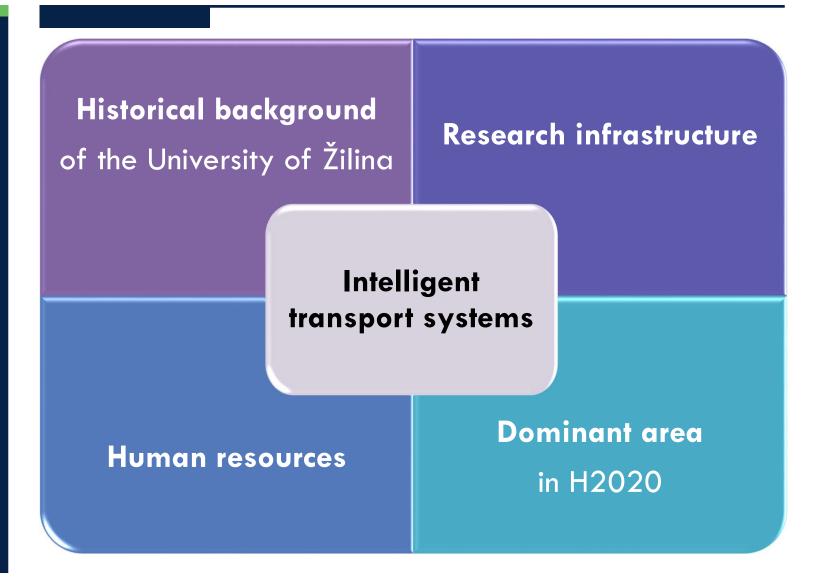
Grant Agreement No: 621386

EU: One of the first ERA Chairs & first widening measure funded in SK





# **ERAdiate - Pillars**







# **Project Highlights**

- 11 ERA Chairs granted out of 111 applications
- Strategy for Sustainability of ERA Chair
- Contribution to
  - >Excellent research
  - ➤ Enhanced competitiveness
  - ➤ Growth and jobs in line with regional innovation strategies





## **ERAdiate**

Objective - unlocking and developing the research potential and promoting excellence of the University of Zilina and the Zilina convergence region in the field of **Inteligent Transport Systems** 

**Key instruments** – systematic development of human resources, effective utilization of unique research infrastructure and transformation of institution towards enhanced competitiveness





## Tasks of ERA Chair

- Scientific work & publications
- Development of international contacts and cooperation
- Workshop & conference organization
- Outreach to global & regional partners
- Support in ITS deployment
- Cooperation projects with Industry
- Advice to decision makers / Consultancy
- Transfer of best practices





## ERAdiate – Focus on ITS

- Cooperative and complex systems
- SMART solutions
  - Smart & Liveable Cities
  - Access to Historical Centres
  - Pricing of Mobility
- Decarbonisation of mobility (eMobility)
- Business models for ITS and ICT
- Inclusive mobility
- Societal effects of ITS deployment





# **Applied Research**

- Decision support (political / commercial)
- Key Performance Indicators & SLAs
- Big Data / Open Data
- Interoperability
- System Architecture
- Roles & responsibilities
- Usability / HMI / distraction
- Data protection and privacy
- Liability issues







# A Cornerstone for Žilina University

#### Visualization











# Sustainability of the project

#### Main pillars of the University Science Park:

- Intelligent transport systems
- Intelligent manufacturing systems
- Development of new advanced materials and technologies
- Information and communications technologies

#### **Activities of ERAdiate project are in accordance with:**

- EU-Directive on Deployment of ITS & Action Plan
- Goals of H2020
- Smart solutions in different areas like smarter cities
- Regional and interregional requirements for mobility solutions
  e.g. CZ/PL/SK, AT/SK, Danube Region
- RIS 3 strategy



# RIS3 SK - STRATEGIC OBJECTIVES

# RIS3 - Research and Innovation Strategy for Smart Specialisation of the Slovak Republic

The vision of this strategy will be accomplished through strategic objectives:

- 1. Deepening integration and embeddedness of key major industries increasing local value added through the cooperation of the local supply chains and turning local supply chains into embedded clusters
- 2. Increased contribution of research to the economic growth via global excellence and local relevance
- 3. Creating a dynamic, open and inclusive innovative society as one of the preconditions for the increase in the standard of living
- 4. Improving the quality of human resources for an innovative Slovakia





# RIS3 SK - Measures (Selection)

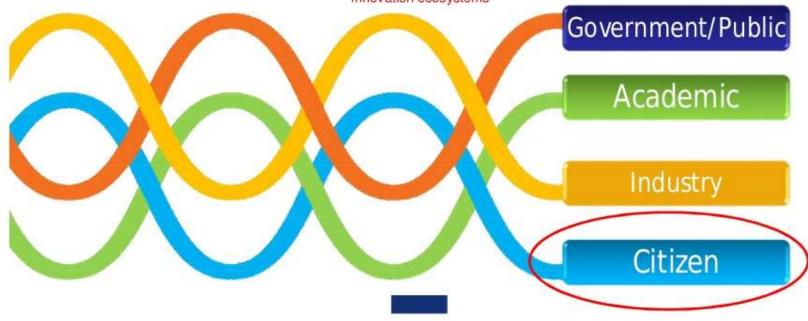
- Development of innovative capacities through cooperation between enterprises and research institutions in key sectors of the Slovak economy
- Technological upgrade for structural changes in industry
- Fostering excellence of research
- Excellent research & Knowledge diffusion
- Linking universities, Academy of Sciences, research institutions and partners from the area of industry
- Systematic support and stimulation of international cooperation in science and technology



#### **Prioritize Quadruple Helix Innovation**

Government, Academia, Industry and Citizens collaborating together to drive structural changes far beyond the scope of any one organization could achieve on it's own

Involve all stakeholders in quadruple helix to innovate and experiment in real world settings, in creating frictionless innovation ecosystems





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# Thank you for your attention!

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