

ERAdiate



The ERAdiate Project



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



Dr. Karl Ernst Ambrosch, ERA Chair Holder



Intelligent Transport Systems



- Information, communication & control systems
- Intermodal & multimodal aspects
- Traveller/traffic information & driver assistance
- Traffic management
- Public & commercial transport
- Electronic fee/toll collection EFC/ETC
- Emergency services and commercial services
- eCall (mandatory from 2018)
- TMC, DATEX II, DSRC, ...



ITS Standardisation – CEN TC278



WG 1
Electronic Fee
Collection

WG 2 Freight & Logistics

WG 3 Public transport

WG 7 ITS Spatial data

WG 8 Road Traffic Data WG 10 Human-Machine interfacing

WG 12 Vehicle identification

WG 13 ITS Architecture

WG 14
Recovery of stolen vehicles

WG 15 eCall

WG 16
Cooperative
ITS

http://www.itsstandards.eu/



Setup of ERA Chair Program

ERACIate

11 ERA Chairs granted out of 111 applications

Country	Institution	Area of research
Belgium	Université de Mons	Energy efficiency in cities
Croatia	University of Zagreb -Faculty of Veterinary Medicine	e Molecular veterinary medicine
Czech Repu	blic Masarykova univerzita	Life sciences
Estonia	Tallinna Tehnikaulikool	Chemistry and biomass treatment
Poland	Instytut Genetyki Roślin Polskiej Akademii Nauk	Plant biology
Portugal	Madeira Interactive Technologies Institute Associac	ao Human computer interactions
Republic of	Serbia Institut Za Nuklearne Nauke Vinca	Nanotechnology
Slovakia	Zilinska Univerzita v Ziline Transport systems	and communication technologies
Slovenia	Institut Jozef Stefan Food and	alysis through radioactive isotopes
Spain	Universidad de las Palmas de Gran Canaria	Aquaculture
The United	Kingdom Falmouth University	Digital games design



Expectations



- Promoting excellence of UNIZA
- Increase critical mass of excellent researchers
- Effective management of science and innovations
- Contribution to growth and jobs in line with regional innovation strategies
- 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
 (e.g. Electronic Tolling, Smart Cities, ...)



ITS Research



"European research aims to strengthen the competitiveness of our transport industries and to develop a better European transport system for the benefit of all."

- New technologies for greener, smarter, more efficient transport
- Innovation for safer, more sustainable and inclusive mobility
- Focusing on ITS Action Plan & ITS Directive 2010/40/EU



Research Fields



- Cooperative and complex systems
- SMART solutions
 - Smart & Liveable Cities
 - Access
 - Pricing
- 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



ERAdiate

Thank you for your attention.

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