

# „SMARTER TRANSPORT” IT FOR CO-OPERATIVE TRANSPORT SYSTEM

*Dr. habil. Balázs Horváth PhD*

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Framework of the project „Smarter Transport”

## **Társadalmi Megújulás Operatív Program (TÁMOP)**

„Előremutató Infokommunikációs Technológiák kutatásának támogatása, valamint a kapcsolódó IT szakember-utánpótlás biztosítása”

**TÁMOP-4.2.2.C-11/1/KONV**

## Timeline of the project „Smarter Transport”

- Start: 1<sup>st</sup> November 2012.
- End: 30<sup>th</sup> October 2014.

## Consortium of the project „Smarter Transport”

- Lead Partner
  - Széchenyi István University
- Partners
  - Kecskemét College
  - Óbuda University - Alba Regia University Centre
  - Universitas-Győr Nonprofit Ltd

## *Main directions of „Smarter Transport”*

### **1. Conceptual researches**

System analysis of transport, demand and solution in the field of ICT

### **2. Modelling transport processes**

Macro- and microscopic modelling of transport systems

### **3. Data processing**

Collecting and handling of data warehouses

### **4. Control**

Centralised and distributed control systems based on ICT

### **5. Intervention**

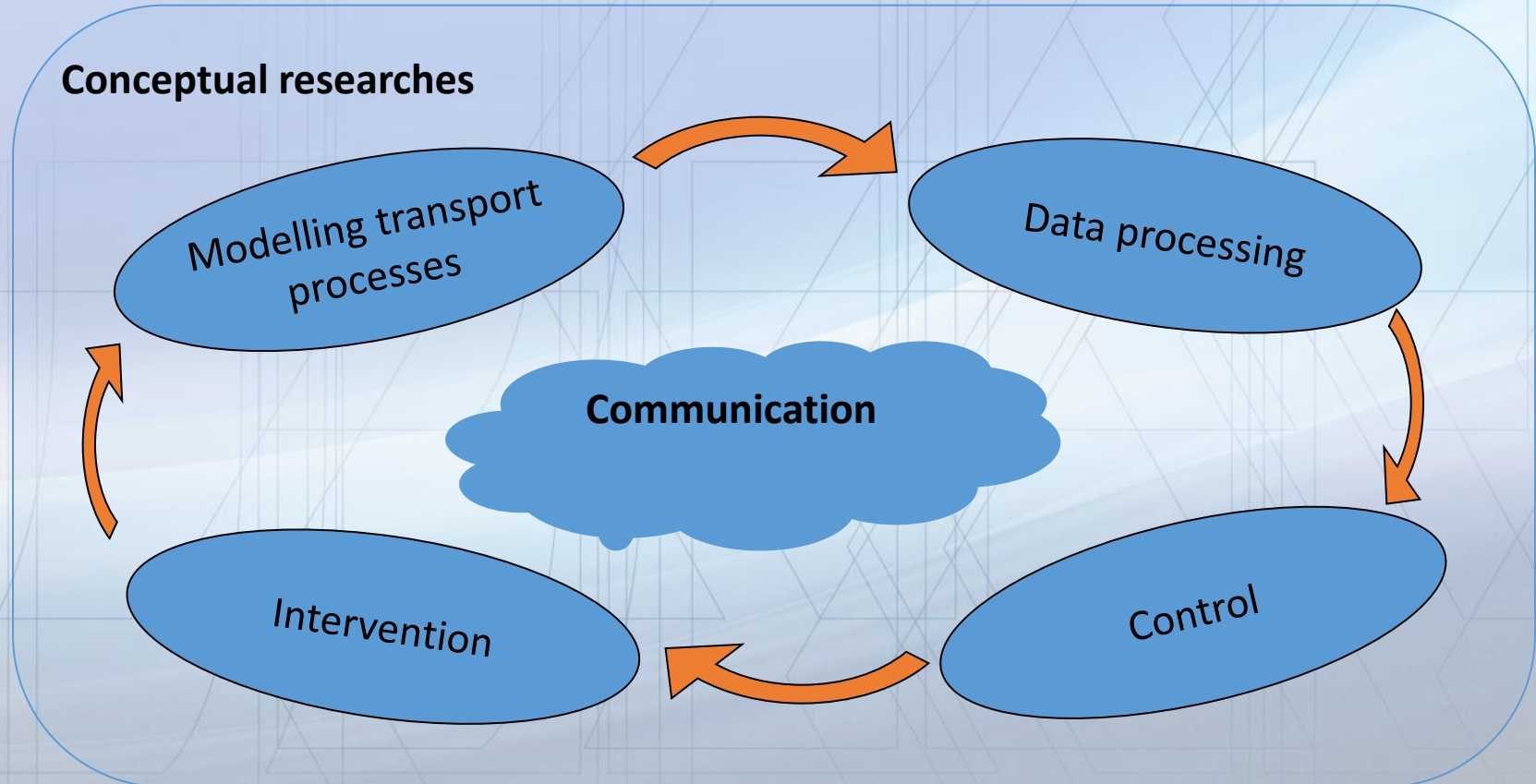
Solutions for supporting drivers through V2X communication

### **6. Communication**

Communication between intelligent vehicles and its surrounding, factor of safety and security



# „Smarter Transport”



## *Structure of the project „Smarter Transport”*

- 4 partners (+2 research institutes)
- 6 research directions
- 11 sub-projects
- 87 researchers
- 49 other staff

## Pledges (*results till now*)

Patents	2
Sub-projects	11 (11)
Young researchers in the project	33 (34)
Possible new partners for further projects	15
Publications	103 (51)
Companies in the project	9



# Management of the project „Smarter Transport”

- Head of the researches: Balázs Horváth PhD
- Head of the scientific and academic communication: Professor József Bokor, member of the Hungarian Scientific Academy
- Head of technology transfer: László Nádai PhD
- Heads of the sub-projects
  - 1.: Professor Péter Földesi
  - 2.: Zoltán Horváth PhD
  - 3.: Imre Felde PhD
  - 4.: István Prileszky CSc
  - 5.: Zoltán Varga PhD
  - 6.: Professor András Edelmayer, member of the Hungarian Scientific Academy
- Management team
  - Álmos Dinnyés PhD
  - Zsuzsanna Doktor
  - Csaba Papatyi

## *Main directions of „Smarter Transport”*

**1. Conceptual researches**

**2. Modelling transport processes**

**3. Data processing**

**4. Control**

**5. Intervention**

**6. Communication**

## Sub-projects

- P1 Conceptual researches
  - P1-1 Urban mobility supported by info-communication

## Sub-projects

- P2 Modelling transport processes
  - P2-1 Development of info-communication technologies to model and control urban road networks
  - P2-2 Research of simulation and optimisation methods to support the concept „SmartCity-Smart Transport”

## Sub-projects

- P3 Data processing
  - P3-1 Data collection methods based on different data sources
  - P3-2 Producing Origin-Destination data from mobile phone information



## Sub-projects

- P4 Control
  - P4-1 Info-communication to support planning and control in public transport
  - P4-2 Forecasting of traffic flow data

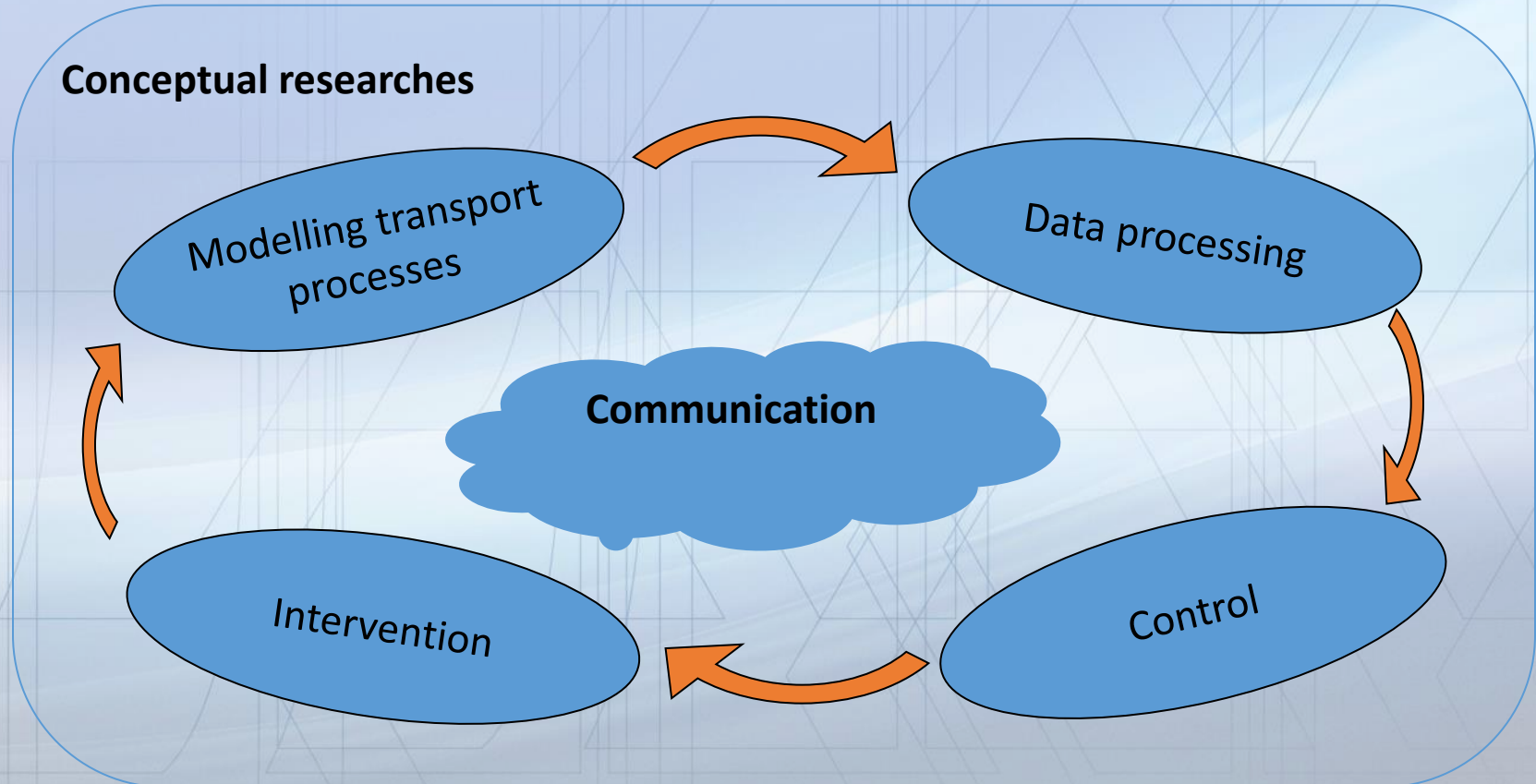
## Sub-projects

- P5 Intervention
  - P5-1 Driver assistance solutions based on V2X
  - P5-2 Intelligent vehicle with alternative drivetrain to test V2X in urban environment

## Sub-projects

- P6 Communication
  - P6-1 Classification of info-communication equipments and systems from the viewpoint of safety and security
  - P6-2 Communication technologies of intelligent vehicles and transport systems

# „Smarter Transport”



# THANK YOU FOR YOUR ATTENTION.

*dr. habil. Balázs Horváth PhD*

*Széchenyi István University – Department of Transport*

## Contact

*Email: [balazs.horvath@sze.hu](mailto:balazs.horvath@sze.hu)*

*Tel.: 96/503-494*

*Web: <http://ko.sze.hu>*



## COOPERATION BETWEEN HIGHER EDUCATION, RESEARCH INSTITUTES AND AUTOMOTIVE INDUSTRY

TÁMOP-4.1.1.C-12/1/KONV-2012-0002

## BASIC RESEARCH FOR THE DEVELOPMENT OF HYBRID AND ELECTRIC VEHICLES

TÁMOP-4.2.2.A-11/1/KONV-2012-0012

## "SMARTER TRANSPORT" - IT FOR CO-OPERATIVE TRANSPORT SYSTEM

TÁMOP-4.2.2.C-11/1/KONV-2012-0012

Nemzeti Fejlesztési Ügynökség  
[www.ujszechenyiterv.gov.hu](http://www.ujszechenyiterv.gov.hu)  
06 40 638 638



**HUNGARY'S RENEWAL**



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