



# RODOS

DEVELOPMENT OF TRANSPORTATION SYSTEMS



RODOS is a unique research platform for the future of intelligent transportation in the Czech Republic. RODOS brings together the academic community, government agencies, and leading Czech companies, where our strengths are combined to seek out new ways to monitor, model, manage and charge for transportation. Our long-term strategic goal is to use new tools for transportation informatics to create a comprehensive body of information, and to integrate this into existing ICT systems.

**We make  
transportation dynamic**

## Center for the development of transportation systems – RODOS

As we speak, the Czech transportation system is already straining under the increased burden of mobile people and goods, yet its capacity cannot easily be expanded. It is therefore necessary to seek out other ways to efficiently monitor, model, manage and effectively charge for transportation. Such a difficult task must be tackled using the most modern methods, the best technologies, and in accordance with the needs and interests of the state and commercial spheres. That is why RODOS was created as part of the Ostrava supercomputer research program at the IT4Innovations Centre of Excellence.

RODOS combines top technical universities, specialized scientific institutions, and leading Czech companies, into an association which not only has bold plans but also the potential and real power to fulfill them.

The RODOS Center does not exist in a vacuum. As researchers, we are aware of the strategic position of the Czech Republic in the center of Europe. We are monitoring trends abroad and designing systems which will be able to cooperate with the applications of neighboring states.

And most importantly, all the benefits gained are permanent. RODOS is not a one-time grant project which will disappear after the subsidies from the Technology Agency of the Czech Republic dry up. Even after the research program ends, the benefits achieved will remain applicable and anchored in everyday life.

## Task areas

From 2012–2018, the RODOS center will be addressing 7 task areas, concerning specifically defined aspects of transportation. The results of research will affect everyone. Not just because the Czech Republic will gain advanced tools and methods for forecasting, modeling and managing transportation, or that it will be able to more effectively collect transportation fees. Above all, regular motorists will be able to plan and change their trips based on current road conditions. This will reduce stress and save time and money.

### So just what exactly are the task areas which the RODOS program will be addressing?

1. Project management
2. Comprehensive database of the movement of people and goods in the CR
3. Dynamic mobility model for the CR
4. Innovative traffic management systems
5. New models for financing transportation infrastructure
6. Methods for modeling and optimizing multi-modal mobility
7. Education and dissemination of the center's work



## Center benefits

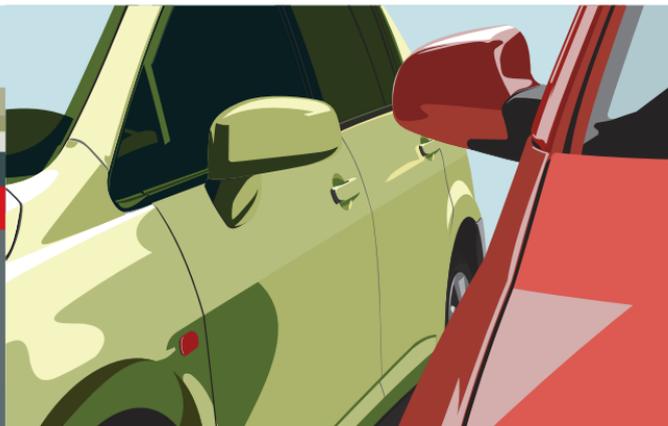
Although the benefits of the RODOS center are clear, we would like to emphasize two of the most fundamental:

- Tools will be created which will increase the efficiency of the national transportation system. These tools will be tested in pilot projects and then prepared for immediate deployment at full operation.
- The tools and methods developed will increase the prestige of the Czech Republic abroad, and improve its ability to compete on the market of intelligent transportation systems, since the RODOS center research will have great potential application abroad.

## Target groups

The research of the RODOS center is intended primarily for three target groups:

- Public institutions responsible for the operation of highways and roads
- Commercial partners
- The professional public



## RODOS in brief

If we were to introduce RODOS in 5 simple statements, we would say:

- We are a unique collection of experts from academia, leading Czech companies, and the public sector
- We provide comprehensive modeling, management, and optimization of the transportation of the future
- We have at our disposal the most modern facilities, the greatest expertise, and the super computing capabilities of the IT4Innovations Centre of Excellence
- We are bringing innovation to transportation and are eliminating the age-old stereotypes which plague and impact each and every one of us
- We are working with the goal of truly shaping and improving the current transportation situation, and are giving new direction to the field of transportation informatics

## We're designing the future of transportation

The Center for the development of transportation systems is comprised of:

### **Vysoká škola báňská – Technical University of Ostrava**

A technically oriented university with more than 160 years of tradition, recipient of the RODOS project | [www.vsb.cz](http://www.vsb.cz)

### **Transport Research Centre**

The only public research institution under the competence of the Ministry of Transportation | [www.cdv.cz](http://www.cdv.cz)

### **Czech Technical University in Prague**

One of the oldest technical universities in the world, focusing on applied science | [www.cvut.cz](http://www.cvut.cz)

### **Brno University of Technology**

An internationally recognized educational institution among the best in the world | [www.vutbr.cz](http://www.vutbr.cz)

### **CAMEA, spol. s r.o.**

Manufacturers of image and signal processing systems to monitor highway traffic | [www.camea.cz](http://www.camea.cz)

### **CE-Traffic, a.s.**

A leading provider of transportation data and information services for Central Europe | [www.ce-traffic.cz](http://www.ce-traffic.cz)

### **Central European Data Agency, a.s.**

The first company completely devoted to acquiring and managing map bases in digital form | [www.ceda.cz](http://www.ceda.cz)

### **The ELTODO Group**

An engineering design company which produces, installs, and supplies products for transportation and telematics | [www.eltodo.cz](http://www.eltodo.cz)

### **Kapsch Telematic Services spol. s r.o.**

Operator of a national system for electronic toll collection | [www.kapsch.cz](http://www.kapsch.cz)

### **KVADOS, a.s.**

Specialists in mobile information systems and managing resources in the field | [www.kvados.cz](http://www.kvados.cz)



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