

# ROADEX Восемь лет успеха!

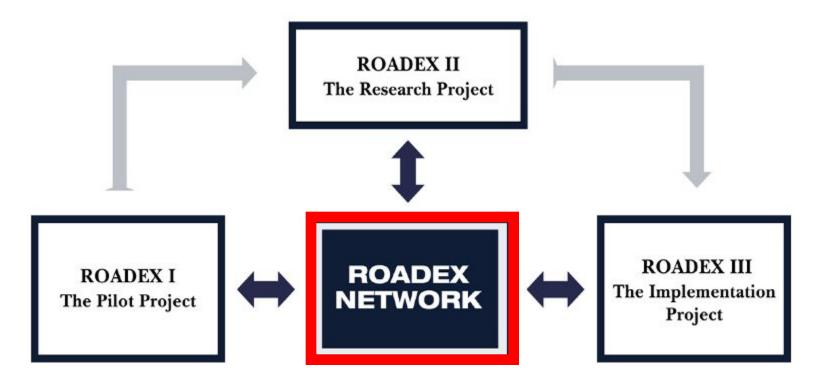


THIS PROJECT IS BEING PART- FINANCED BY THE EUROPEAN UNION European Regional Development Fund





# Проекты ROADEX 1998 - 2007











# Проект ROADEX II 2002-2005

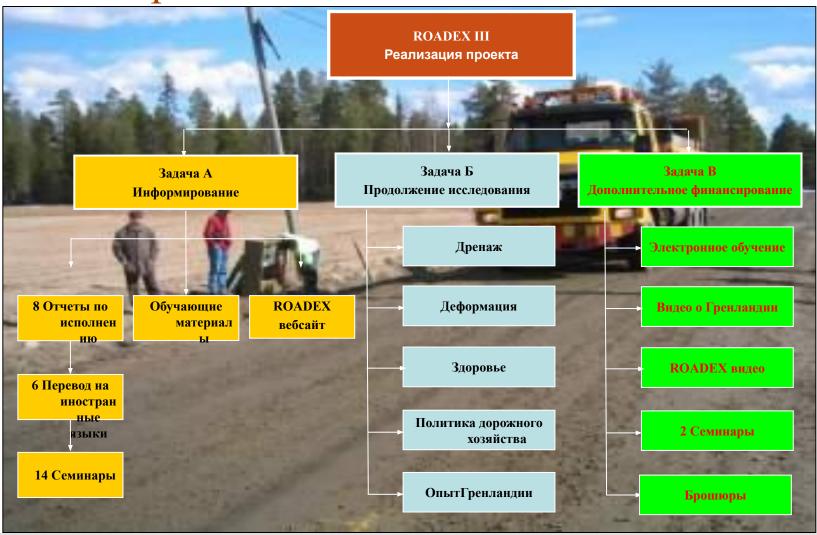
# Публикации Roadex

- ROADEX II Дороги с низкой интенсивностью движения в Северной Периферии DVD
- Уровень обслуживания пилотной дорожной сети ROADEX II
- Постоянная деформация
- Применение новых технологий
- Распутица на дорогах с низкой интенсивностью пвижения
- Социально-экономические влияния дорожных условий на дорогах с низкой интенсивностью движения
- Проблема несущей способности на дорогах с низкой интенсивностью движения, построенных на болотах
- Водоотвод на дорогах с низкой интенсивностью движения
- Структурные инновации

- Мониторинговые, коммуникационные и информационные системы Environmental guidelines
- Руководство по защите окружающей среды, брошюра

•Политика управления дорогами с низкой интенсивностью движения предложения

# Проект ROADEX III 2006-2007



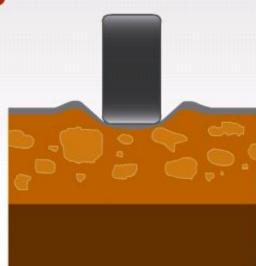
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### Permanent Deformation

- 1. WHAT IS PERMANENT DEFORMA-TION AND WHY WE DO NOT LIKE IT
- 2. PERMANENT DEFORMATION RUTTING CLASSIFICATION
- 2.1 WHY RUTTING CLASSIFICATION IS NEEDED
- 2.2 MODE 0 RUTTING
- 2.3 MODE 1 RUTTING
- 2.4 MODE 2 RUTTING
- 2.5 MODE 3 RUTTING
- 2.6 COMBINED RUTTING MODES IN NON-FROST AREAS
- 2.7 RUTTING MODES AND SEASONAL CHANGES
- 2.8 PUMPING AND PERMANENT DEFORMATION
- SURVEY AND MONITORING TECHNIQUES
- 4. CLASSIFICATIONS, ANALYSIS AND DIAGNOSTICS
- 5. MANAGING PERMANENT DEFORMATION
- 6. DESIGN & REPAIR PROCESS
- 7. PRACTICAL EXAMPLES
- 8. INTERACTIVE PRACTICE & TESTS

## 2.3 Mode 1 Rutting

**PLAY AGAIN** 



#### What is Mode 1 rutting

- ▶ In weaker granular materials, local shear close to the wheel may occur. This gives rise to dilative heave immediately adjacent to the wheel track where granular material can undergo large plastic shear strains and consequent dilation, leading to relatively loose material. This rutting can therefore be considered to be largely a consequence of inadequate granular material shear strength in the aggregate relatively close to the pavement surface.
- Evidence from both trial pavements and from theory has demonstrated that the maximum shear in Mode 1 rutting is felt at a depth of approximately 1/3rd of the width of the wheel (or width of the wheel pair where twin tyres are used). In pavements with significant traffic wander (wide lanes, roads with no markings, roads without existing ruts) the depth may even be a little deeper. Similarly, in pavements which have a significant asphalt layer the critical depth is likely to be rather deeper from the surface than a third of the wheel width due to the effects of the asphalt in changing the stress distribution within the pavement. Research results from the ROADEX II project showed that in general the most critical depth is at a



