



# ROADEX

## Восемь лет успеха!

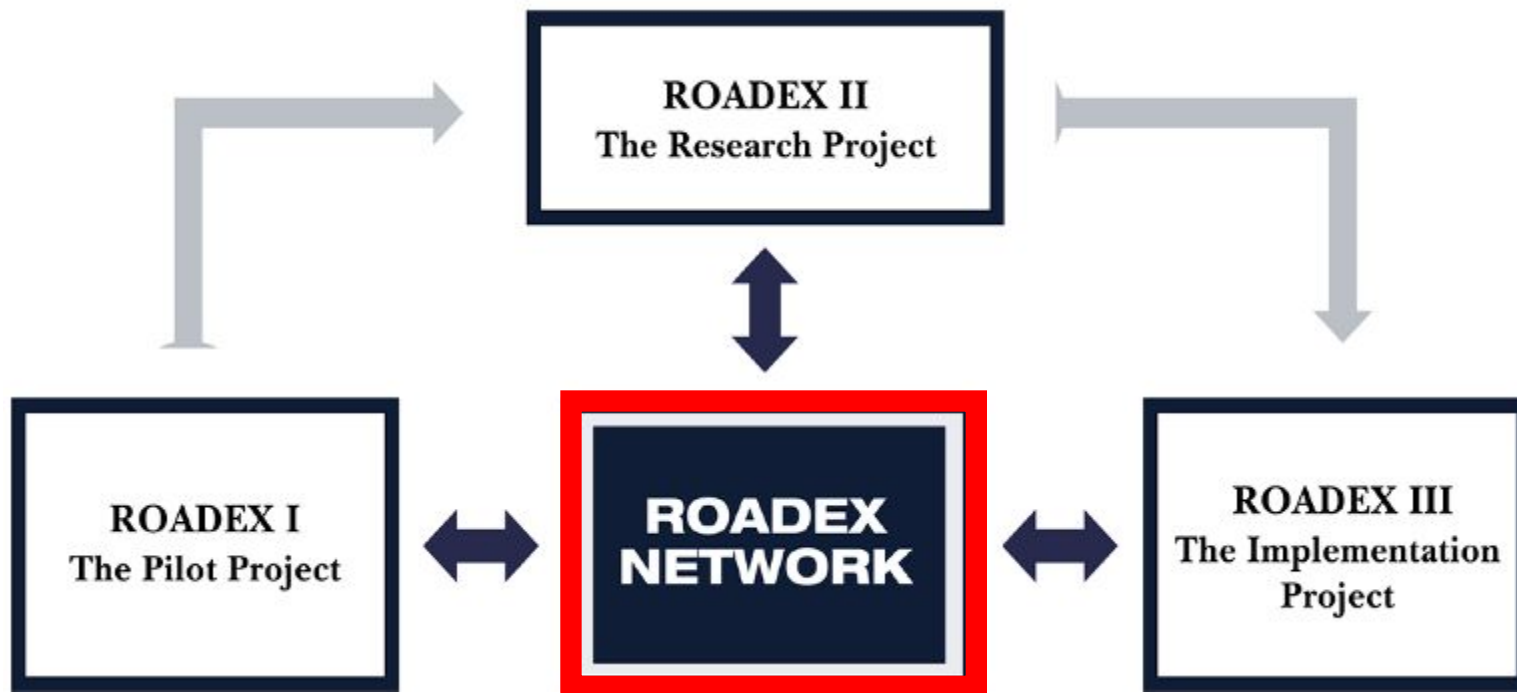
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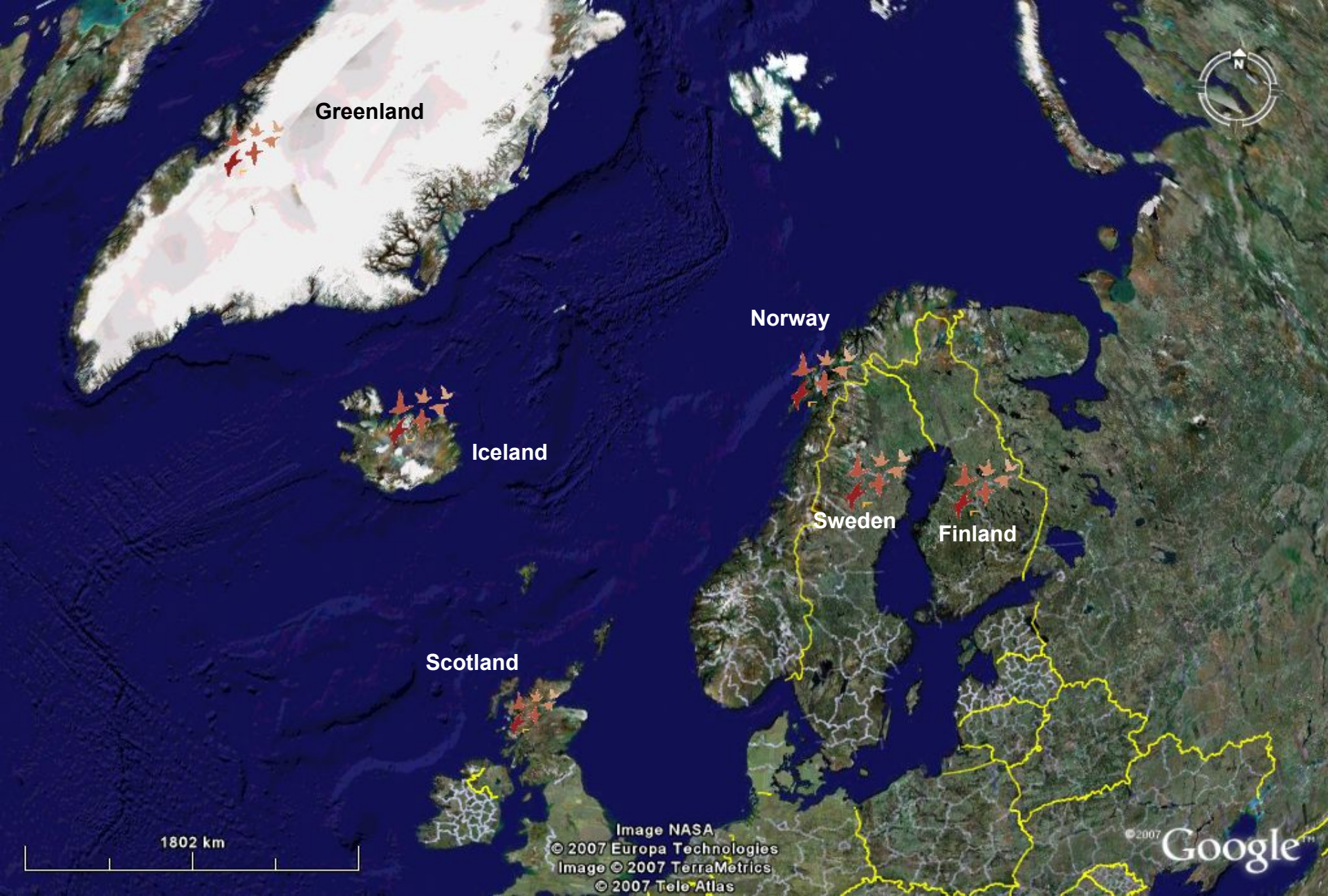


THIS PROJECT IS BEING PART- FINANCED BY THE EUROPEAN UNION  
European Regional Development Fund



## Проекты ROADEX 1998 - 2007





Greenland

Iceland

Norway

Sweden

Finland

Scotland

1802 km

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**ROADEX III**  
NORTHERN PERIPHERY



## ROADEX II reports



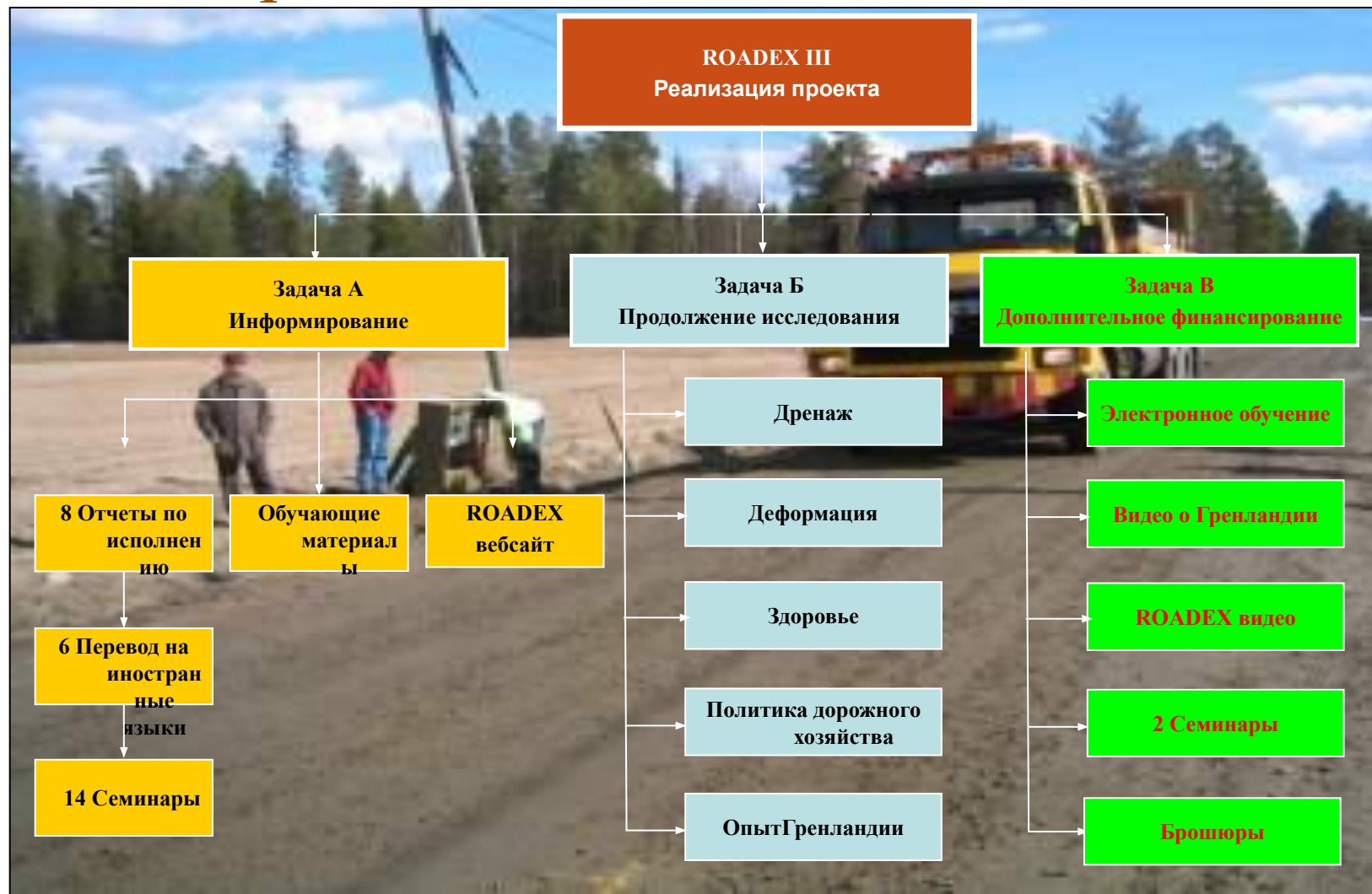
# Проект ROADEX II 2002-2005

## 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 движения**
- **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 – некоторые предложения**



# Проект ROADEX III 2006-2007





## Permanent Deformation

1. WHAT IS PERMANENT DEFORMATION 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

3. SURVEY AND MONITORING TECHNIQUES

4. CLASSIFICATIONS, ANALYSIS AND DIAGNOSTICS

5. MANAGING PERMANENT DEFORMATION

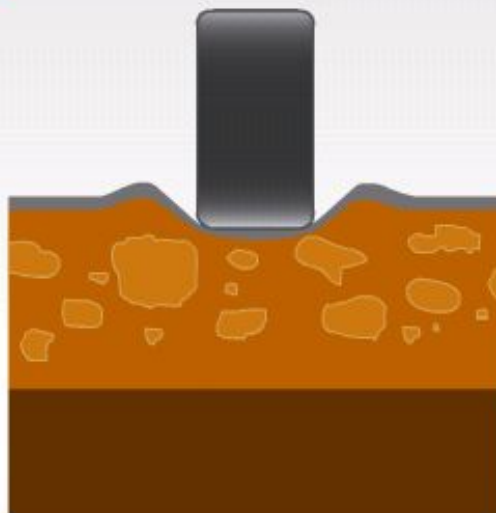
6. DESIGN & REPAIR PROCESS

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



▶ EXTRANET



▶ E-LEARNING



▶ HOME

[HOME](#) | [ROADEX III](#) | [ROADEX II](#) | [ROADEX](#) | [PUBLICATIONS](#) | [NEWS](#)

▶ DESCRIPTION

ROADEX NETWORK  
EU AGENDAS  
PARTNERS  
LINKS  
FEEDBACK/REQUESTS  
SEARCH

Last update 19/09/2007

## Welcome to the ROADEX web site

The site provides your gateway to the ROADEX network, research, published information, the partners and people involved in the project. The site is being added to regularly as information becomes available. We appreciate any feedback or suggestions for improvement.

▶ SEARCH



▶ LATEST NEWS

**31 October '07** - Executive summaries in Icelandic published. [more ...](#)

**24 Sept. '07** - Dates for the Norwegian and Komi seminars published. [more ...](#)

**20 Sept. '07** - Final Seminar announced for 9 November 2007. Register and [more ...](#)

**19 Sept. '07** - New seminars announced in Dumfries and Dublin. Register and [more ...](#)

**12 Sept. '07** - Finnish seminars delivered to over 100 delegates. Presentations published. [more ...](#)

**11 Sept. '07** - Executive summaries in Finnish now published. [more ...](#)

## What is ROADEX?

ROADEX was born in 1998 in the form of a "pilot" project with the aim of :-

***"Creating effective technical exchange & co-operation between road districts in the Northern Periphery of Europe."***

Road Network Management and Maintenance for low traffic volume roads in the northern parts of Europe are the main topics of interest for the project. The project was a great success and goes from strength to strength under the name ROADEX III now under way. For more information on the [ROADEX Network](#) [click here](#).

Through the co-operation of the Russian Association of Regional Road Administrations (RADOR) and the Finnish Road Administration the project has made its first real contact with Russian road authorities. Four of the ROADEX II reports have been translated into Russian and four ROADEX speakers presented ROADEX findings to seminar delegates in Petrozavodsk, Karelia, Russia on 1-3 November 2006. [Click here \(Щелкните здесь\)](#) for details.

The site presents :-

Main sections:

The Home section:

▶ EVENTS

**Delivering Affordable and Reliable Low Volume Roads**  
**ROADEX III Final Seminar in Inverness**  
Friday 9 November  
Register by email to:  
[tecs-at-highland.gov.uk](mailto:tecs-at-highland.gov.uk)





**PUBLICATIONS**

- DESCRIPTION
- ROADEX
- ROADEX II
- ▶ ROADEX II - Russian
- ROADEX III

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- 12 Sept. '07 - Finnish seminars delivered to over 100 delegates. Presentations published. [more ...](#)
- 11 Sept. '07 - Executive summaries in Finnish now published. [more ...](#)
- 6 August '07 - Publicity leaflets for the seminars in Finland available. [more ...](#)
- 25 April - Description for Task B4 updated. [more ...](#)
- 16 April '07 - Swedish exec. summaries page now in Swedish. [more ...](#)

Last update 02/03/2007

## ИЗДАНИЯ О «ROADEX II» НА РУССКОМ ЯЗЫКЕ

**Документ или Издание**

«pdf»

**Дата выпуска**

**Мнение пользователей дорог об уровне обслуживания дорог на экспериментальных участках «ROADEX II»**  
 Результаты опроса по состоянию дорожной сети и пользованию дорог



(анг.)

Апрель 2004

**Постоянная Деформация**  
 Ключевые слова: ROADEX; колейность; планирование покрытий; изучение каменных материалов; анализ напряжения; невяжущий гранулированный материал



(анг.)

04/08/05

**Новые технологии обработки материала**  
 Ключевые слова: ROADEX; материал грунтовой почвы; восприимчивость влажности; нетрадиционный стабилизатор; битумные эмульзии; лабораторные тесты



(анг.)

04/08/05

**Мероприятия по снижению последствий повода на дорогах с низкой интенсивностью движения**  
 Ключевые слова: ROADEX; последствия весенней распутицы; описание проблемы; политика ограничения нагрузки; дороги с низкой интенсивностью движения; мониторинг; восстановление



(рус.)

04/08/05  
(13/12/06)

**Социально-экономические влияния дорожных условий на дороги с низкой интенсивностью движения**  
 Ключевые слова: ROADEX; влияние на здоровье; дороги с низкой интенсивностью движения; дорожные условия; социально-экономические влияния; социально-экономические модели



(анг.)

04/08/05

**Проблемы несущей способности на дорогах с низкой интенсивностью движения, построенных на торфе**  
 Ключевые слова: ROADEX; дороги; торф; строительство; исследование; геотехнический



(анг.)

04/08/05

**Дренаж на дорогах с низкой интенсивностью движения**  
 Ключевые слова: ROADEX; дренаж; состояние дорог; LCA; полевые тесты; влажность; деформация; упругий модуль; усовершенствование дренажа; срок службы покрытий



(рус.)

04/12/06  
(13/12/06)

**Руководство по охране окружающей среды**



04/08/05

**SEARCH**



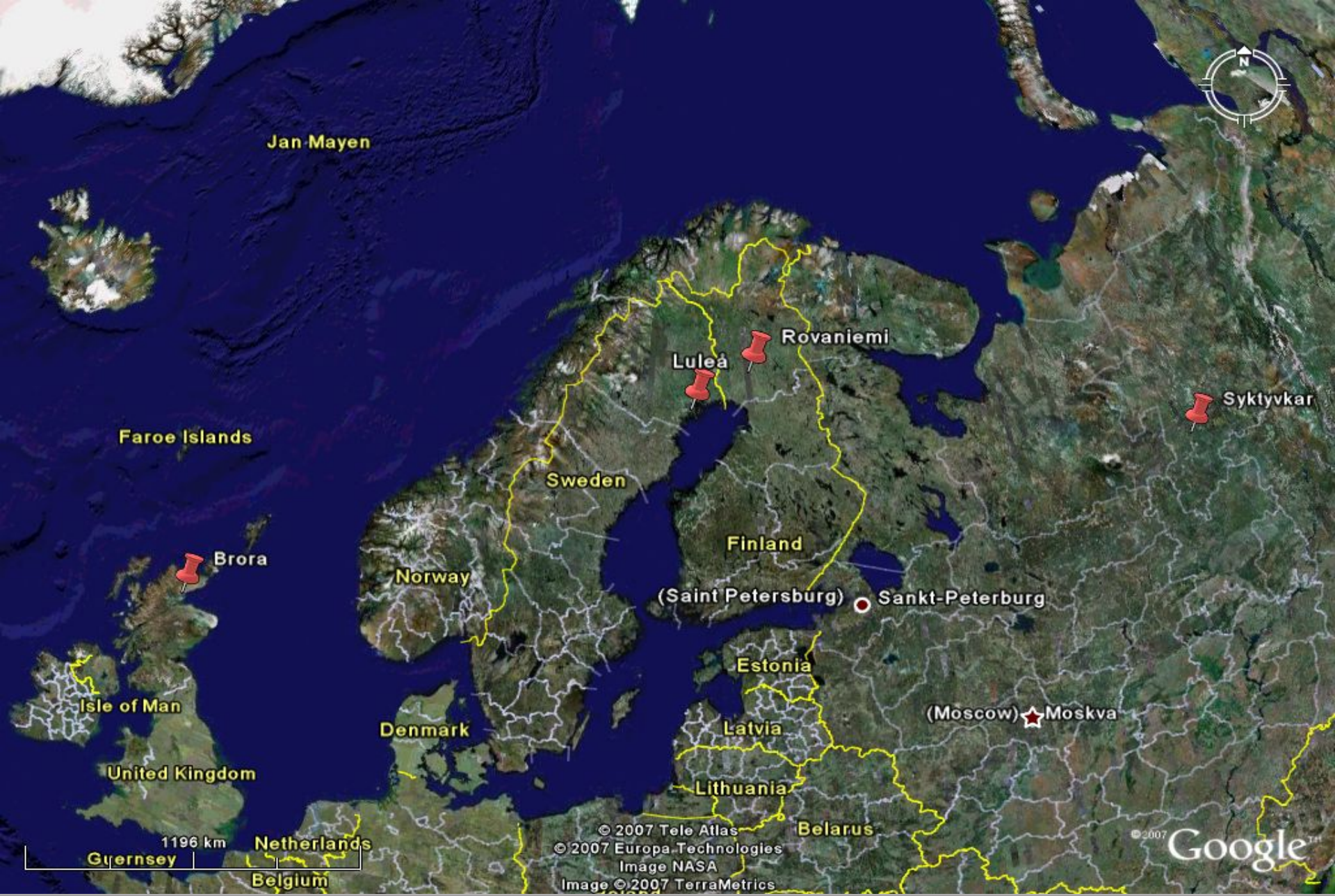
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# Баренц регион











Brora

Lulea

Rovaniemi

Syktyvkar

SCOTLAND

SWEDEN

FINLAND

RUSSIA

2860 km

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**ROADX III**  
NORTHERN PERIPHERY



Успех и сотрудничество  
продолжаются...

ROADEX III  
NORTHERN PERIPHERY