ROADEX Network Implementing Accessibility

Presentation outline

- The ROADEX phases
- Facts
- Partners
- Consultancy and Knowledge Centre
- Demonstration Projects
- Research Projects
- eLearning Design
- Graphic design and creative input
- Management of the Project
THE ROADEX PHASES

ROADEX NETWORK

The Research Project

The Dissemination Project

ROADEX II

The Pilot Project

The Implementation Project

ROADEX III

ROADEX NETWORK

ROADEX IMPLEMENTING ACCESSIBILITY
FACTS

11 partners

7 countries
3 years July 2009 – June 2012

Total: 2,163,473 Euro

EU-fund: 1,194,205 Euro (55%)
<table>
<thead>
<tr>
<th>THE ROADEX PARTNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lead Partner, The Swedish Road Administration Northern Region (SRA)</strong></td>
</tr>
<tr>
<td>The Swedish Forest Agency (SFA)</td>
</tr>
<tr>
<td>The Finnish Road Administration, Lapland District (Finnra)</td>
</tr>
<tr>
<td>Greenland Home Rule Government (GHR)</td>
</tr>
<tr>
<td>The Icelandic Road Administration (ICERA)</td>
</tr>
<tr>
<td>Norwegian Public Roads Administration, The Northern Region (NPRA)</td>
</tr>
<tr>
<td>The Highland Council (THC)</td>
</tr>
<tr>
<td>Forestry Commission (FC)</td>
</tr>
<tr>
<td>Comhairle Nan Eilean Siar (CNES)</td>
</tr>
<tr>
<td>National Roads Authority (NRA)</td>
</tr>
<tr>
<td>Department of Transport (DoT)</td>
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</table>
THE MISSION

“To encourage the everyday use of ROADEX techniques and innovations on Northern Periphery low volume public roads, forest roads and private roads within the framework of climate change and increasing environmental awareness”
OUR SALES ARGUMENTS: “Saving Money” and “Sustainability”
Information in one place
ROADEX Network Implementing Accessibility

Knowledge Centre

Private road owners
Roads organisations

Contractors
Forest companies

Politicians
Consultants

Universities
Students

New technologies
Surveys

New materials
Case studies

Conferences
Environmental issues

Demonstration projects
Local briefings

Information to target groups
The ROADEX demonstration projects

Location of a demonstration project
### Demonstration projects

- **7 countries**
- **13 Partners**
- **6 categories**
- **23 projects**

#### Distribution between Partners

<table>
<thead>
<tr>
<th>No</th>
<th>Location</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Greenland</td>
<td>Drainage maintenance guidelines - to be managed by Dr Timo Saarenketo of Roadscanners Oy, author of the ROADEX drainage reports</td>
</tr>
<tr>
<td>2</td>
<td>Ireland</td>
<td>Road friendly vehicles and CTI - to be managed by Professor Pauli Kolisoja of the Tampere University of Technology, author of the ROADEX report on permanent deformation.</td>
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<td>3</td>
<td>Finland</td>
<td>Forest Road management and maintenance policies - to be managed by Svante Johansson of Roadscanners AB, author of the ROADEX reports and policies on the socio-economic impacts of low volume roads.</td>
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<td>Iceland</td>
<td>Rutting, from theory to practice - to be managed by Professor Pauli Kolisoja of the Tampere University of Technology, author of the ROADEX report on permanent deformation.</td>
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<tr>
<td>5</td>
<td>Highland</td>
<td>Roads on Peat - to be managed by Ron Munro of Munroconsult Ltd, author of the ROADEX reports on roads constructed on peat.</td>
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<tr>
<td>6</td>
<td>Western Isles</td>
<td>Analysis of health problems due to vibration - to be managed by Johan Granlund, Vectura Consulting AB, author of the ROADEX III Task B report “Health Issues Raised by Poorly Maintained Road Networks“</td>
</tr>
</tbody>
</table>
Demonstration projects

- agree number and location with SC
- agree scope of project with local Partner
- start early 2010, end late 2011
- managed and advised by a Lead Expert
- work carried out by the local Partner
- supported by the ROADEX Consultancy
- disseminated through Knowledge Centre
- publicised locally and across NPP
ROADEX Research Projects

- Climate change
- Vehicle and human vibration
- Road widening
Rossby Centre Rainfall Scenarios

winter

max

min

summer

Saarelainen & Makkonen 2007
CLIMATE CHANGE AND ROAD PROBLEMS

Special Focus:

Research will focus how to react to climate change

Instructions - Guidelines
ROAD WIDENING

Special Focus:

Why certain road widenings fail and others not.

Latest road survey technology:

3d GPR technology
High precision IR technology

Results:

New proposals for guidelines for road widening
VEHICLE HUMAN INTERACTION

Special Focus:

Maintenance standards vs. different vibration levels

Summer vibration vs. winter vibration

CTI systems and vibration –ie are we measuring the right parameters
Graphical guidelines / Layout samples
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.

ROADEX project

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."

Read More

E-learning

An extension of the e-learning project. This permits the production of additional educational material and graphics to make the package more complete and attractive to users.

Continue

Consultancy and Knowledge Centre

The consultancy and knowledge centre will work as an external application under the ROADEX website for both the users and the developers to discuss and develop the everyday solutions and working methods further.

Read More
Welcome to the ROADEX Consultancy and Knowledge Centre

The knowledge centre will work as an external application under the ROADEX website for both the users and the developers to discuss and develop the everyday solutions and working methods further.

Discuss and develop the everyday solutions and working methods further

Obtain the best up to date information

Contact experts

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Consultancy and Knowledge Centre

Latest News: 13 August 2008. After being hosted for a few months on a temporary web site the e-learning package is now running directly from the ROADEX website's server.

Everyday Solutions

ROADEX | Consultancy and Knowledge Centre | Feedback | Roads constructed over peat

<table>
<thead>
<tr>
<th>Topic</th>
<th>Author</th>
<th>Views</th>
<th>Replies</th>
<th>Last Post</th>
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<tr>
<td>How to get it done</td>
<td>Author 1</td>
<td>6,885</td>
<td>57</td>
<td>Aug 25, 2009 12:03 AM by id11</td>
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<td>Have a look of this case study in Scotland</td>
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<td>5,507</td>
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<td>Aug 24, 2009 11:05 PM by plantfam</td>
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<td>Interesting solution</td>
<td>Author 3</td>
<td>7,161</td>
<td>48</td>
<td>Aug 23, 2009 8:31 AM by Thicket Films</td>
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<td>There is a ROADEX report written about this</td>
<td>Author 4</td>
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<td>2</td>
<td>Aug 23, 2009 8:17 AM by AndrewScaife</td>
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<td>We used the same method in Ireland also</td>
<td>Author 5</td>
<td>2,632</td>
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<td>Aug 20, 2009 9:22 PM by tonk007</td>
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<td>Project compiled</td>
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<td>Aug 20, 2009 12:01 AM by dynamstyx</td>
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RSS

Answered question
Unanswered question with answer points still available
Unanswered question
eLearning/ Layout sample
Lesson 1
Permanent Deformation

The Lesson that follows is an executive summary of the 2005 ROADEX II report on “Permanent Deformation”. It aims to be a working manual, defining why rutting may take place in low volume pavements. Hence, it aims to provide advice for road owners and operators about means of overcoming rutting in newly constructed or reconstructed pavements by design and about assessing the likely future rutting in existing pavements.

What is permanent deformation and why we do not like it.

In the early areas of the Northern Periphery, unsealed or thinly-sealed road pavements are very common. Typically, these road structures are constructed from one, or more, layers of crushed stone aggregate laid on top of the subgrade (Figure 1.1). The surface of these pavements is either provided by the aggregate or by a thin bituminous seal into which stones of uniform size are rolled. In both cases, the aggregate layers provide the major structural capability of the pavement.

Compacted aggregate is a flexible material, and if it is too weak, it tends to deform plastically, a little bit of plastic deformation occurring under each wheel load. Little by little, this accumulates and appears in the pavement as rutting. This type of behavior is a feature of every layer. It is greatest if the applied stress level, under traffic wheels, is higher.

This report aims to explain why rutting occurs, the factors that influence it, and how it may be addressed by road owners and operators so that it becomes less significant.

Permanent deformation and factors affecting it

In the study areas of the Northern Periphery, unsealed or thinly-sealed road pavements are very common. Typically, these road structures are constructed from one, or more, layers of crushed stone aggregate laid on top of the subgrade (Figure 1.1). The surface of these pavements is either provided by the aggregate or by a thin bituminous seal into which stones of uniform size are rolled. In both cases, the aggregate layers provide the major structural capability of the pavement.

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Publicity and promotion

Local
- newsletters
- site visits
- Knowledge Centre
- intranet

National
- newspapers
- technical journals
- seminars
- Knowledge Centre

International
- website
- published papers
- technical journals
- conferences
  - ESME 2009
  - ISCORD 2010
  - Winter PIARC 2010
  - 10th LVR 2011
THANK YOU!