ERA-NET ROAD

ECTP Conference

24 November 2009, Brussels
Outline

• The ERA-NET ROAD project (ENR1 and ENR2)
• Projects financed through ENR
• Practical benefit analysis
• ENR as a team player
• Conclusions
The ERA-NET ROAD project (ENR1 and ENR2)
ENR objectives

• European National Road Administrations (NRAs) each have their research programmes
• NRA road research: 150 M€ annually in total
• ERA-NET ROAD (ENR1):
  - A three year project part of the 6th EU Framework Programme
  - June 2005 - March 2009
  - €2.5m FP6 funding from the European Commission
• ENR1’s Aims and objectives:
  - Strengthen the European scientific base and support the structuring of the European Research Area (ERA)
  - Achieve transnational road research programmes which are strategically planned and trans-nationally funded
  - Bring about the mutual opening of national research programmes in the road sector
• ENR1’s focus is on research procurement
ENR1: 11 participants

Department for Transport (Highways Agency) with the support of TRL
Finnish Road Administration (FinnRA)
Directorate-General of Public Works and Water Management (Rijkswaterstaat)
Swedish Roads Administration (SRA)
Federal Ministry of Transport, Building and Urban Affairs (BAS)(BAS)
Norwegian Public Roads Administration (NPRA)
Federal Department for Environment, Transport, Energy & Communication (ASTRA)
Austrian Federal Ministry of Transport, Innovation and Technology (BMVIT) supported by FSV
General Directorate of National Roads and Motorways (GDDKiA)
Directorate of the Republic of Slovenia for Roads (DRSC) supported by ZAG
Danish Road Directorate (DRD)
Achievements so far...

- ENR1 worked and led to ENR2
- ERA-NET ROAD “Toolkit” developed
- 2 Fast Track Pilots (FTPs) completed successfully
- 3 further Trans-National Research Projects ongoing
- 7 Strategic Research Opportunities (SROs) identified
- 2 Cross-border funded Joint Programmes running, the next one is being prepared
- Future of ENR under discussion with CEDR
ENR2 aims

• ERA-NET ROAD II (ENR2) is a new project
  - €1.5m FP7 funding over 2 years
• Project’s aims in short:
  - Intensify cooperation, by launching two joint calls of 3M€ and 6M€
  - Assess outcomes and benefits of collaborative research
  - Strengthen dissemination of road research results on finished, ongoing and planned projects
  - Encourage and facilitate transnational road research in Europe, and embed the culture of collaborative research within NRAs
  - Help establish a permanent structure to continue after ENR2 (CEDR probably)
  - Align with all transport research, be it publicly or privately funded
  - Broaden the geographical scope of the ERA-NET ROAD
  - Take part in ERA-NET Learning Platform and other efforts
ENR2 Consortium

• ENR2 consortium consists of 21 partners:
  - Austria, Belgium-Flanders, Denmark, France, Finland, Germany, Hungary, Ireland, Lithuania, Netherlands, Norway, Poland, Slovenia, Sweden, Switzerland, United Kingdom
  - Some countries have >1 partner for administrative reasons

• CEDR is an associate partner and the champion of the project
  - CEDR: Conference of European Directors of Road
  - Will take part in the steering of the project, without funding
  - Likely vehicle for the future of ENR after the end of ENR2

• Others:
  - Some additional contacts, they may join the consortium later
  - Belgium-Wallonia, Malta, Latvia … as well as the USA
PROJECTS FINANCED THROUGH ENR
Projects financed through ENR

- These research programmes and projects are funded by NRA financial contributions
- ENR facilitates the processes through which NRAs proceed with:
  - Identification of topics for transnational research
  - Writing of call specifications
  - Management of the call itself and of the projects
3 initial projects

- These are initial trans-national project calls that aimed at making sure ENR procedures work.
  - Overall: they show that ENR procedures DO work
  - And enable trans-nationally defined and financed calls

- Optimisation of Thin-Asphalt Layers
  - €110,000 --

- Maintenance Backlog
  - €126,000 --

- Performance-Based Contracting
  - €204,000 --
• This is the 1st programme call facilitated by ENR.
• The topic was selected from the list of “SROs”.
• “Getting to Grips with Climate Change”
• 3 years - €1.5 million for contracts
• 11 funding countries (two from outside ENR1)
  – Programme Executive Board (PEB): AT (chair), DE, DK, ES, FI, IE, NL, NO, PL, SE (programme leader), UK
• Covers:
  – Climate impact on road infrastructure
  – Road capacity for climate change
  – Risk Management Options
• Call open from 22.03 to 12.05.2008, 19 proposals were submitted
• 4 projects were awarded in late 2008
“Climate change” Call (2/2)

- **IRWIN** - awarded to Foreca Consulting Oy - €320,000
  - Improved local Road Winter Index to assess maintenance needs
  - Adaptation costs in climate
  - Adapting design rules and specifications

- **RIMAROCC** – awarded to Swedish Geotechnical Institute - €366,000
  - „Risk Management for Roads in Climate Change“
  - Develop common method of risk management with regard to climate change

- **SWAMP** - awarded to Danish Road Institute – €289,000
  - „Storm Water prevention“
  - Methods to predict damage from the water stream in and near road pavements in lowland areas

- **P2R2C2** – awarded to U. of Nottingham - €214,000
  - „Pavement Performance and Remediation Requirements following Climate Change“
  - Climate Impact on Road Infrastructure advice tool for road owners
This is the 2nd programme call facilitated by ENR.

“Safety at the Heart of Road Design”

The call closed on 27 April 2009

3 years - €1.6 million budget
  - €1.485 available for research, €165 000 admin. costs

11 funding countries (3 from outside ENR1)
  - Programme Executive Board (PEB): AT (programme leader), BE, DE, FI, IE, HU, NL, NO, SI, SE, UK

Covers:
  - Development of evaluation tools
  - Assessment of forgiving road safety measures
  - Comparison and Implementation of approaches of self-explaining roads
Five projects were awarded September 2009

**ERASER** – awarded to SWOV - €287 000
- Evaluations to Realise a common Approach to Self-explaining European Roads
- Common approach to SER

**RISMET** – awarded to SWOV - €334 000
- Road Infrastructure Safety Management Evaluation Tools
- Evaluation tool for SER

**SPACE** – awarded to VTI - €315 000
- Speed Adaption Control by Self Explaining Roads
- Focus on speed adaptation

**IRDES** – awarded to U. of Florence - €268 000
- Improving Roadside Design to Forgive Human Errors
- Evaluation tool and guidelines for forgiving roadsides (“FR”)

**EuRSI** – awarded to NUI Maynooth - €288 000
- European Road Safety Inspection
- Automated roadside mapping for forgiving roadsides (“FR”)

3rd Programme Call

- To be launched in January 2010
- "asset management" topic decided in July 2010 (SRO4) with 4 objectives:
  - Meeting stakeholders requirements and expectations
  - Understanding asset performance
  - Development of suitable KPI
  - Framework for optimised asset management
- €3M total budget confirmed
- DRD (Denmark) has agreed to lead the programme
- Next steps
  - December: participating NRAs meet to confirm call specifications and administrative procedures
  - Mid January 2010: Call is published in the OJ UE
  - End March: Call is closed
4th Programme Call

• To be launched in January 2011
  – Called „2011 Call“

• Aim at €6M
  – to be funded by NRAs as usual

• Topic to be decided in Spring 2010
  – Together with CEDR technical group research and CEDR groups
  – There may be a few topics and not just 1
Dissemination activities

- Results from these projects have to be known and used!
- All reports from projects are freely available from ENR website
- Presentations at TRA conferences, among others
  - TRA2010 in Brussels, 7-10 June 2010
- Climate change:
  - Joint meeting at Climate Change conference in Oslo on 31.3./1.4.2009: Presentations and alignment of test sections
  - Joint presentation of results at a conference in November 2010
  - Final programme report in March 2011
- Road safety:
  - Joint meeting at CEDR TG Road Safety meeting in Budapest 4.3.2010
  - Presentations of the projects and alignment with CEDR TG RS
  - Final programme report end 2011/beginning 2012
PRACTICAL BENEFIT ANALYSIS
• Climate change call – benefits to HA:
  – Geoff Richards – member of Programme Executive Board, ensures specifications include HA’s own country-specific requirements
  – Four contracts awarded (one to a UK supplier)
  – Each aligns with HA’s national road research objectives
  – UK gets €1,350,000 of research for €150,000 - for work it would have otherwise done nationally
  – This translates as savings of €1,200,000.
Benefits (2/2)

• Climate change call – benefits to HA:
  – HA would have needed to resource the management of these four projects, if procured by HA itself
  – However, Sweden/Austria are managing the programme, award of contracts and monitoring/reporting – they are funded from the programme budget pot (5%)
  – Offset against these savings are additional costs for the HA:
    • Attendance at meetings abroad – time, travel and accommodation costs
    • For four projects, assuming four overseas meetings per PB7 project leader, total additional costs ~ £20,000
  – Therefore net resource saving
• So considerable resource savings in internal HA time costs
• In addition to savings of €1,200,000 available to be spent on new road research!
ENR proven benefits:

- International best practice
- Improved quality of research
- Reduced duplication of research
- Exchange of knowledge
- Shorter timescales
- Wider choice of suppliers
- Better value for money
ENR AS A TEAM PLAYER
ENR2 and ENT

• ENT: ERA-NET TRANSPORT
• Meetings as early as April 2008
• ENR took part in ENT’s Plenary group meeting on Dec 1 and 2, 2008
• Very good atmosphere
• ENR-ENT Cooperation opportunities
  – Calls on road safety (ENR and ENT) ; ENT invited to attend ENR Road Safety call planning meeting – 18 Dec 2008
  – Call on road pricing (ENT) ; ENR invited to attend ENT Exploratory Road Safety Action Group meeting, London, 18-19 May 2008
  – Joint session at TRA 2010
  – Exchange of info on research databases for example
  – More to come certainly
ENR and technology platforms (1/2)

• **ENR intentions:**
  - contribute to an integrated policy approach for road research, and for co-modal transport research
  - investigate the development of a common platform to coordinate publicly funded research, in terms of programming and cross-border funding
  - contribute toward aligning publicly funded research programmes with the research agendas of the European technology platforms active in transport

• **NRAs intend to use transnational research as a tool towards solving joint issues**
  - And thus play their part in the construction of the ERA
• ENR has a full work package dedicated to such liaison:
  – WP4, « Alignment with transport research »
  – WP leader: Richard van der Elburg (NL)

• Tasks:
  – Align with publicly funded research
  – Align with privately funded research

• Has already established significant contact with ERTRAC, for example
ECTP and ENR

• ENR and ECTP share a number of concerns and interests and have reason to cooperate:
  – Strong mind to put innovation to practice
  – Energy efficiency and climate change mitigation
  – Etc.

• Links through:
  – ECTP’s focus area « Networks »
  – ECTP’s task force on infrastructures
  – ENR’s WP4 « Alignment »
  – ENR’s Plenary Group

• Input towards the January 2011 call is welcome
  – Among other cooperation activities
CONCLUSIONS
Conclusions

- ENR developed Trust, Understanding and Commitment between NRAs
- ENR successfully developed cooperation models, identified research priorities
- ENR launched calls and is developing others, facilitating exciting research projects
- Transnational collaboration is now proven to be beneficial
- Now aiming at integrating collaborative research as “business as usual”
- The ENR process is open to all research providers and road administrations
• ERA-NET ROAD is fully open to stakeholders, including from countries that are not currently ENR2 partners.

• Research providers and industry:
  – Welcome to answer ENR-facilitated calls
  – These calls are funded 100% and procedures are simple

• National road administrations:
  – Participate in ENR calls (definition, funding) – free
  – Access research results from the website – free
  – Consider joining as an ENR partner – and receive COM financing to help

• Technology platforms:
  – Engage with us towards joint realization of the ERA
  – Take part in our Plenary Group, 22 April 2010 in Copenhagen
Thank you for your attention
www.eranetroad.org

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