



2011 Joint Call

Deliverable 1.3

January 2011



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Executive summary

ERA-NET ROAD II aims to strengthen the European Research Area in road research by coordinating national and regional road research programmes and policies.

The first ERA-NET ROAD project, which was funded under the Sixth Framework Programme, made considerable progress towards the networking of road research programmes across Europe. ERA-NET ROAD focused on information exchange between national owners of road research programmes and definition and preparation of joint activities.

ERA-NET ROAD II will build on this work, focusing on implementation of joint activities and funding of joint trans-national research. As owners of road research programmes, the partners in ERA-NET ROAD II will ensure that coordination between the owners of the national and regional road research programmes from both within and outside the Consortium is broadened and deepened. They will pave the way towards achieving an expenditure of 10% of their research budgets on trans-nationally funded collaborative research by 2013. They will also liaise with other public and private stakeholders in transport research programming in Europe and encourage collaboration with non-European research programmes. At the end of the project a permanent structure will have been established that will take forward the trans-national coordination of road research programmes after completion of the project and be self-sustaining.

The “**2011 Joint Call**” contains three calls on the topics *Mobility, Design and Energy*. The Calls 2011 were initiated by ERA-NET ROAD II and launched on 31st January 2011. The call itself is the Deliverable 1.3 from WP1. To proof that the call was launched in time, this Deliverable 1.3 shows the following documents on each topic:

- the three Collaboration Agreements between the participating National Road Administrations that are performing the calls,
- the three Guide for Applicants, that describe the content and the regulations of the call, and
- the eNotice in the Supplement of the Official Journal of the European Union, where the calls were published.

The Deliverable 1.4 “Report on 2011 Joint Call”, due in April 2011, will contain the description of the process how we achieved the call and some analysis about the results of the call.

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1 Mobility – Getting the most out of Intelligent Infrastructure

1.1. Collaboration Agreement

Collaboration Agreement (CA)

on the trans-national joint research programme

“Mobility – Getting the most out of Intelligent Infrastructure”

The 6 National Road Administrations (NRAs) mentioned below (hereinafter the *Parties*) enter into an agreement together with the Programme Management on the commencement and execution of the research programme described below on terms specified herein.

The Parties:

Agency for Roads and Traffic (AWV)

Graaf de Ferrarisgebouw, Koning Albert II-laan 20 bus 4, 1000 Brussels

BELGIUM / FLANDERS (BE)

www.wegenverkeer.be

The Federal Roads Office (FEDRO)

Mühlestrasse 2, Ittigen, CH-3003 Bern

SWITZERLAND (CH)

www.astra.admin.ch

Federal Ministry of Transport, Building and Urban Affairs (BMVBS)

Robert-Schuman-Platz 1, 53175 Bonn

GERMANY (DE)

www.bmvbs.de/

Ministerie van Infrastructuur en Milieu (Rijkswaterstaat)

Schoemakerstraat 97, 2628 VK Delft

NETHERLANDS (NL)

www.rws.nl

Norwegian Public Roads Administration (NPRA)

P.O. Box 8142 Dep, NO-0033 Oslo,

NORWAY (NO)

www.vegvesen.no

Highways Agency

The Cube, 199 Wharfside Street, Birmingham B1 1RN

UNITED KINGDOM (UK)

www.highways.gov.uk

The Programme Management:

Austrian Research Promotion Agency (FFG)

Sensengasse 1, 1090 Vienna

AUSTRIA (AT)

www.ffg.at

This Collaboration Agreement defines the responsibilities of the Parties and the Programme Management.

It is based on trust, common understanding and commitment and on Austrian law.

It is signed by the Authorised Representatives of the *Parties*. Original signatures are collected by the *Programme Management* and digital copies, acting as originals, are provided to all *Parties*.

The reference number of this programme is “ENR2 Mobility”.

1. Definitions

In this Collaboration Agreement, **ERA-NET ROAD II (ENR2)** means “ERA-NET ROAD II– Coordination and Implementation of Road Research in Europe” a Coordination Action funded by the 7th Framework Programme of the EC. This trans-national research programme was initiated by ENR2. ENR, the predecessor programme of ENR2, developed and provided the procedures and templates for documents for trans-national collaboration and ENR2 refined it.

The **Programme** means the trans-national joint research programme on “**Mobility – Getting the most out of Intelligent Infrastructure**”, which will be agreed in this Collaboration Agreement and which is defined in the Description of Research Needs (DoRN) and co-funded by the *Parties*. The *Programme* will launch a joint *call for proposals*.

Call for proposals means an announcement in the official journal inviting proposals for research activities in a certain theme. The most appropriate projects and project teams are then awarded the contracts. The *call for proposals* of this *Programme* is published in the Supplement to the Official Journal of the European Union (OJ S series).

Projects mean the trans-national research projects which will be jointly selected and cross-border funded by the *Parties* after the joint *call for proposals*. Contracts for the selected projects are awarded under Austrian law and regulation of the *Programme Managements* country.

Programme Executive Board (PEB) is the owner of the *Programme*. It was established by the *Parties* and consists of one representative of each *Party*. Each *Party* has one vote in the *PEB* and appoints one **PEB member** who holds the mandate within the *PEB* and one **PEB deputy** who will be kept informed permanently and who will stand in if the *PEB member* is not available. *PEB members* shall be experts in the topic of the *Programme* (see Annex II).

The **Programme Executive Board Chairman (PEC)** in this *Programme* is nominated and approved by the *PEB* (see Annex II). The *PEC* is the scientific chair of the *PEB* and chairs the meetings of the *PEB*. The *PEC* is also responsible to reporting and disseminating the status quo (progress, reports and results) of the joint programme to CEDR Technical Group Research (TGR).

Programme Management (PM) means responsibility for the commencement and execution of the joint research programme and for the day-to-day carrying out of the joint research programme. The *PM* executes the call for proposals, awards the contracts according to the *PEB* decision and manages the *Programme*. The *Party* for the *Programme Management* in this *Programme* is the **FFG Austrian Research Promotion Agency**.

Project Coordinator (PC) is the leader of the project consortium submitting a project in response to the Call for proposals. The *PC* is the primary contact for the consortium and all negotiations are carried out through the *PC*. It is the responsibility of the *PC* to act on behalf of the consortium and to keep the consortium informed at all stages of the project, from negotiation to project completion. The contract is between the *PM* and the *PC*.

PEB Project Contact (PPC) is the *PEB member* responsible for scientific guidance of a selected project on behalf of the *PEB*. The *PPC* is nominated and approved by the *PEB*. He/She supports the *PM* in the negotiations with the *PC* and has *project responsibility* for the project.

Project responsibility means responsibility for the monitoring and progress reporting of a single, selected project. The *PEB* delegates *project responsibility* to the *PPC*. Project contracts and payments remain the responsibility of the *PM*.

The **Budget Plan** for the programme will be prepared and maintained by the *PM*. The *Budget Plan* will contain a schedule of the incoming funds provided by the *Parties* (Request for Payment) and the outgoing payments to the *PCs* according to the agreed cost. It shall also maintain a record of any other costs associated with the management of the programme. The *Budget Plan* shall be approved by the *PEB* and the *PEB* shall provide details and deadlines of their fiscal years so the *Budget Plan* can take this into account in the scheduling of payments.

The **Final Programme Report** will document the added value of the programme results and recommendations; it will be sub-contracted to and prepared by a designated **PEB member**.

The **Programme Language** is English and consequently the project language as well.

The **Programme Currency** is Euro and consequently the project currency as well.

2. The Programme

The *Programme* has the title “Mobility – Getting the most out of Intelligent Infrastructure”. The **overall aim** of the joint research programme “**Mobility – Getting the most out of Intelligent Infrastructure**” is to **improve the management** of the **European road network**. The research will focus on identifying the challenges faced by NRAs in **embracing new techniques** to get the most out of the existing network and assist road authorities in identifying feasible, **valid and cost-effective solutions** for key European roads.

The **Guide for Applicants** (GfA version 1.0 of 20.12.2011), is the **Annex I** to this Collaboration Agreement and is an integral part thereof.

3. The executive powers and responsibilities

The **Programme Ownership** is held by the *Programme Executive Board (PEB)* consisting of the following *PEB members* listed in Annex II, as representatives of the *Parties*. The *PEB members* are appointed by the *Parties* and should remain the same for the duration of the Programme but can be temporarily or permanently replaced by the *PEB deputy*, as the *Party* decides. If a *PEB member* or *PEB deputy* is changed by a *Party*, the *Party* has to inform the *PM* and the *PEC*. Annex II will be updated accordingly by *PM*.

Programme Responsibility shall rest with the **PM FFG Austrian Research Promotion Agency** (see Annex II). The *PM* is supported by the *Programme Executive Chair (PEC)* Phillip Proctor (*HA*) who was nominated and approved by the *PEB*.

The administrative and organisational work to be conducted in the *Programme* shall be procured by the *PM*. The *programme responsibility* is under Austrian law and regulations and the FFG shall act within its normal framework of conduct.

In certain steps of the Programme the PM are supported by the PEB members as outlined in the following paragraphs.

At the *PEB* meetings the *PM* is supported by the *Programme Executive Board Chairman (PEC)*.

The *PEB members* jointly agree on the **objectives** for this *Programme* which are documented in the *Guide for Applicants (GfA)* – Annex I of this Collaboration Agreement.

The *PEB members* jointly agree on the **budget** that is contributed by each *Party* which is documented in this *Collaboration Agreement (CA)* Chapter 5 “*The financial obligations*” and *Annex III*. It is the responsibility of the *PM* to ensure that the payment and settlement of

expenses related to this Collaboration Agreement are kept within the agreed programme budget.

The *PM* shall take the initiative and responsibility to open and perform the **Call for Proposals** and announce it in the Supplement of the Official Journal of the European Union.

The PEB members jointly agree on the **selection** procedure and jointly execute it. Each *PEB member* evaluates the eligible proposals according to the evaluation criteria (see Annex I). The *national evaluations* are then combined by the *PM* to a „joint priority list“. The priority list is discussed by the *PEB members* and they finally select the most appropriate proposed projects within the budget frame.

If a research provider who submits a proposal is part of the same legal entity as one of the Parties or is a *PEB member*, the related *Party* or *PEB member* is excluded from the Phase 2 (Evaluation), but remains participant in the *PEB* and contributes to the **Budget Plan**. He/She returns to the *PEB* after the selection is completed. Member organisations of the **Task Force** are not eligible to submit proposals at all.

The *PM* coordinates the issuing of *Requests for Payment* to the funding Parties and the issuing of payments to the *Project Coordinators (PCs)*. The **Budget Plan** (see Chapter 5 “*the financial obligations*”) will be up-dated within a six monthly Programme Progress Report (PPR) and presented by the *PM* to the PEB.

The *PM* shall take the initiative and responsibility for entering into service contracts with the selected *PCs* with regard to project execution. The *PM* with the support of the *PPC* initiates and progresses the negotiations. The *PM* informs the *PEB* about the negotiation progress, the content of the contracts and the timescale.

PEB members responsible for each objective jointly **evaluate** the *Monitoring Progress Reports (MPR)* and *Deliverables* for the projects commissioned with each objectives. These reports shall be approved by the PEB before the payments to the Project Coordinators are released by the *PM*. All payments are made only on receipts of an approved *MPRs and Deliverables*.

The *PM* is responsible for sending a “Request for Payment” to the *Parties* at certain agreed stages **according to the Budget Plan: first instalment** after the contracts have been awarded (including the final Description of Work (DoW) and signed Consortium Agreement of the awarded project teams), **second instalment** after by the *PEB* approved Monitoring Progress Report 3 and **third instalment** after the final reports are submitted and approved by the PEB (see “*The financial obligations*”). The *Parties* contribute their share according to the *Budget Plan* to the *PM*. The *PM* pays the contractors after the approval of the reports by the PEB.

PEB members jointly decide who will prepare the **Final Programme Report**.

4. Selection procedure

The selection procedure for this joint *call for proposals* will consist of an approach in three phases if proposals are eligible (see Annex I, *ENR2 Mobility Guide for Applicants*).

5. The financial obligations

The predicted timeline for the Programme is **January 2011 – December 2013**.

The *programme* shall be financed jointly by the *Parties*. Each *Party* is expected to make minimum of total call budget **EUR 150.000,--** for three years available dedicated to one objective for the execution of the *programme*, and to be paid according to the ***Budget Plan*** which shall be approved by *PEB* before the funded and selected projects start.

Total Budget (for 3 years)	EUR 1.800.000
5 % PM Costs (coordination, organisation and administration)	EUR - 90.000
2 % Final Conference and Report & unforeseen costs	EUR - 36.000
Research Budget (for 3 years)	EUR 1.674.000

The management and coordination of the programme will be considered as a separate project and included in the ***Budget Plan***. Furthermore, a budget of max. EUR 25.000,-- is foreseen for the organising and making of the *Final Programme Conference and Final Programme Report*.

The common research programme “**Mobility - Getting the most out of Intelligent Infrastructure**” is based on the following **four objectives**:

- A) Impact Assessment of Intelligent Transport Systems (ITS)
- B) Effective Distribution of Road Authority Data
- C) High Quality Traffic Management/Information Data and Incident Detection
- D) Implementation of Short Term Prediction

The **research budget is of at least EUR 1,674 million for three years** and it is estimated that **4 to 7 projects** with duration of maximum 24 months will be jointly financed. The national financial contributions to the ***Budget Plan*** are included in Annex III. The selected projects will be cross-border funded.

If the quality of the submitted projects is so poor that the research budget is underspent, the *PEB* will decide what to do with the budget reservation. If the quality of the submitted projects is so good that there would be an overspend for one more project, the *PEB* will decide, if the total budget can be increased. The *PEB* will not force any *Party* to go beyond the financial obligation. However, a *Party* can choose to contribute more. The **overspend or underspend** should be no more than +/-10% of the total budget.

The FFG Austrian Research Promotion Agency, as the *PM*, will be responsible for the budget and accounting. They shall supervise and keep accounts of the selected projects with regard to the total resources and contributions that the *Parties* have reserved for the projects under this Collaboration Agreement. Similar responsibility shall apply if the project should receive resources from a third party.

The *PM* will present a provisional account (programme **Budget Plan**) to the other *Parties* according to the projects budget plans and the fiscal years of the *Parties*. The *PM* will submit a final account to the *Parties* for approval one month after the completion of the projects.

The *PM* will send a “**Request for Payment**” to the *Parties* to obtain their share of the budget frame according to the budget plan. Payments from the *Parties* will be placed in a custodial account from which the projects are paid. The *Request for Payment* will be sent annually in accordance with the budget plan. Payments from the *Parties* shall be paid to the *PM* within two months at the very latest after receiving the “Request for Payment”. If *Parties* wish to contribute funding upfront for more than one year this can be accommodated.

The *PM* will pay the *Project Coordinators* according to the projects budget plans at certain stages of the projects after approval of the *PEB*. The **payment** of the selected projects is foreseen on a 30/30/40% basis: 30% after the contracts have been awarded (including the final Description of Work (DoW) and signed Consortium Agreement), 30% on Monitoring Progress Report 3 and 40% on last Monitoring Progress Report 4 (Final Report) after the project is finished.

The above provisions do not apply to the obligations that a *Party* may have under national legislation with regard to the submission of accounts.

Except with the other *Parties*' cooperation and approval - and with due respect of national legislation - a *Party* cannot make changes to resources and contributions that have been specified in this *Collaboration Agreement* for the execution of this *Programme*.

If a *Party* is adjusted insolvent or unable to pay the instalments for the trans-national research programme and has to leave the *PEB*, than the remaining *Parties* have to decide whether

- a. the remaining *Parties* of that trans-national research programme defray the amount of the payments of the insolvent *Party* equally
- or
- b. the trans-national research programme “Mobility – Getting the most out of Intelligent Infrastructure” shall be discontinued

6. Progress and results

The *PEB* shall hold **meetings**:

- to approve the final selection of the project proposals and the contractors
- to approve the results of certain stages of the projects and release the payments
- to keep informed and report to CEDR TGR on regular basis.
- and whenever one or all *Parties* find it otherwise appropriate, with regard to mutual briefing and evaluation of the current progress and results of the projects.

It is estimated that 2-3 *PEB* meetings will be held each year. The meeting locations will be rotated in the *PEB member* countries.

For each selected project the *PM* will delegate the *project responsibility* to a *PEB member*. This *PEB member* then becomes **PEB Project Contact (PPC)**. The *Parties* shall keep each other up to date with regard to the progress of the selected projects.

If selected projects need information (such as collection of data, fulfilling questionnaires, normal procedures etc) from the *Parties* they should be supportive. If costs are incurred, they should be included in the projects costs.

If a selected project is divided into stages or subtasks, the *PEB* reserves the right to evaluate progress at the completion of each stage or subtask. The *PEB* may then decide to continue with the project, modify the project content, or terminate the project.

On completion of a project, the *PEB* may request the project provider to present the results of the project to the *Parties* for their evaluation and approval. Other interested *Parties* may be invited to the presentation in accordance with the *Parties'* mutual agreement to that effect.

7. Intellectual property rights and patents

The final reports of the projects shall be published and the *Parties* all become owners of information and the results, including Intellectual Property Rights. All publications and presentations derived from the research carried out under this programme must duly acknowledge the collaborative nature of the programme and its link with the ERA-NET ROAD initiative.

The FFG Austrian Research Promotion Agency will take appropriate actions in order to assure that the agreed results shall be available to all *Parties* for their evaluation and approval.

8. Decisions and conflict solving

The *Parties* shall make an effort to find an amicable solution to problems or disputes that may arise with regard to programme coordination, execution, and interpretation of this Collaboration Agreement including the programme description, financial issues, and other issues related to project execution. If no amicable solution can be found, the conflict shall be solved on 3 levels:

- 1) The *PM* resolves the conflict (neutral position in *PEB*)
- 2) The Road Directors of the *Parties* will resolve the conflict in good will.
- 3) The conflict is referred to the Court of Arbitration in Vienna, Austria.

In day-to-day business agreement can be achieved by e-mail. The *PM* e-mails proposals to all *PEB* members asking for comments and setting up a deadline of about two weeks for contributions. After the deadline the *PM* decides the most appropriate solution according to the comments of the *PEB*. No response by the stated deadline is taken to denote assent.

9. Changes to the Collaboration Agreement and its Duration

Resources and contributions that have been specified in this Collaboration Agreement may not be changed unless approved by all *Parties*. All changes will be agreed through an amended *Collaboration Agreement*.

This Agreement remains in force until all research projects governed under this *Collaboration Agreement* are completed, all project results are evaluated and approved, and the final accounts for the project have been submitted and approved by the *Parties*.

The *Parties* may terminate the Collaboration Agreement if a *Party* violates the Collaboration Agreement substantially.

1.2. The Guide for Applicants

1 Introduction

The **aim** of this trans-national research programme, entitled “**Mobility: Getting the most out of Intelligent Infrastructure**”, is to **realise the benefit of intelligent Infrastructure** by assessing the challenges faced by National Road Administrations in embracing new techniques to get the most out of the existing road network.

This trans-national research programme “**Mobility: Getting the most out of Intelligent Infrastructure**” is initiated by ERA-NET ROAD II (ENR2). The main objective of this joint research programme is to recommend “ERA-NET ROAD II – Coordination and implementation of Road Research in Europe” is a Coordination and Support Action funded by the 7th Framework Programme of the EC. ENR2 partners are Austria, Belgium (Flanders), Denmark, Finland, France, Germany, Hungary, Ireland, Lithuania, Netherlands, Norway, Poland, Slovenia, Sweden, Switzerland, United Kingdom, with CEDR (Conference of European Directors of Roads) as an Associate Partner. These partners are committed to the goals of ENR2 which provides a platform for international cooperation and collaboration in research areas of common interest. Details can be viewed at the ENR2 website www.eranetroad.org.

The research programme has been drafted to fulfil common interests of National Road Administrations (NRA). The participating NRAs in this Joint Research Programme are Belgium, Switzerland, Germany, Netherlands, Norway and United Kingdom. As in previous ERA-NET ROAD programmes, they will establish a Programme Executive Board (PEB) and a Programme Management (PM) will take over the administrative issues.

The PEB uses the Common Obligation Programme Model from the ‘ENR-toolkit’ to perform this cross-border funded joint call for proposals. That means that the Call for Proposals will be prepared and conducted by the Programme Management and under Austrian law and regulations and the budget is jointly funded by all participants of the PEB.

To achieve the goals set by ENR2, it is essential that national research results, knowledge and experience be exchanged at all levels and develop a common approach and an increased acceptance of intelligent infrastructure principles and **benefit from the trans-national collaboration**.

2 Reasons for the Joint Research Programme

The research commissioned by this call is underpinned by many years of intelligent infrastructure research. This includes many projects in intelligent transport systems that have been funded nationally and by the EU - ***It is not intended to duplicate this research.***

It is anticipated that Road authorities will benefit from the implementation of joint research to reduce congestion, improve safety and the environment. Research funds are limited so a collaborative approach to gain knowledge across European road authorities is desirable. This joint research programme will therefore maximise the benefit of NRAs funds invested into research.

In discussions conducted at European level it has been found that road authorities have important investment decisions to make regarding the purchase of intelligent infrastructure. The research commissioned by this call is focused on understanding the challenges faced by National Road Administrations in embracing new intelligent infrastructure technologies. This research is intended to improve the implementation of intelligent infrastructure technologies by identifying feasible, valid and cost-effective solutions for key European roads, which will

enable Road Directors to identify where to target resources to obtain best value. The research conclusions and recommendations will be presented in such a way that they can be implemented across the EU. Details for specific research areas are outlined in section 2.1.

2.1. Research Objectives of the Joint Call

The **overall aim** of the joint research programme is to **improve the management** of the **European road network**. The research will focus on identifying the challenges faced by NRAs in **embracing new techniques** to get the most out of the existing network and assist road authorities in identifying feasible, **valid and cost-effective solutions** for key European roads.

The programme is based on **four objectives** which are described below together with an expected output. The objectives were developed with the concepts of:

- A) Impact Assessment of Intelligent Transport Systems (ITS)**
- B) Effective Distribution of Road Authority Data**
- C) High Quality Traffic Management/Information Data and Incident Detection**
- D) Implementation of Short Term Prediction**

This research programme seeks to understand how to get the most out of Intelligent Infrastructure from a road operator point of view. These objectives have been developed following a series of workshops involving specialists from each of the partner Road Authorities. In these workshops, it was recognised that benefits of intelligent infrastructure systems need to be included in business cases. These will inform decisions about whether funding can be made available. In addition all of the above objectives need to consider value for money, whole life costing, sustainability and the environment for the road operator.

Applicants should ensure their project proposals are **clearly linked to one of the four objectives** listed above, although it is accepted that there may be overlap between them. Proposals should emphasise the **trans-national benefit** of the project outcomes for the participating Road Authorities in the context of getting the most out of Intelligent Infrastructure.

A) Impact Assessment of Intelligent Transport Systems (ITS)

Road Authorities use appraisal information as one of the key inputs into decisions about whether transport schemes should go ahead. The building of the business cases for investment require information on how to deliver maximum benefit for minimum cost and often requires a strong return on investment. Road Authorities need to identify these road benefits for co-operative vehicle systems and intelligent infrastructure to release investment funds. This research will assist Road Authorities to identify which co-operative services deliver maximum benefit and enable road operators to manage the road network more cost effectively.

Headline objective

The research will identify which **co-operative services deliver maximum benefit** for Road Authorities and enable Road Authorities to **manage** the road network **more cost effectively** and to **implement the EU directive 2010/40/EU**.

Research proposals may include:

- Gather information from existing research in order to understand the short term benefits of in-vehicle traffic management by road authorities.
- Cost Benefit ratio for co-operative systems for short and medium term based on real world implementation to identify what co-operative systems are attractive to road authorities.
- Develop business models and a road map for implementation of co-operative systems for road authorities which identifies barriers to implementation and means of overcoming them.
- Analysis of legal aspects for example data protection, liability and privacy.
- Analysis of performance of co-operative systems technology regarding services, availability, reliability and safety.
- Development of a model that allows the comparison of costs and benefits of existing, in-use ITS technology with innovative co-operative systems for selected functions

Expected outputs would include:

- **Short/medium term business case** regarding to
 - Road Map
 - Cost Benefit ratio
 - Analysis of legal enables
 - Impact of measures regarding safety and availability

B) Effective Distribution of Road Authority Data

Road authorities can unlock significant cost savings in the short to medium term by taking advantage of in-vehicle devices to reduce or ultimately remove the reliance on roadside infrastructure. This will reduce capital and operational costs as well as the opportunity for delivering additional environmental benefits. The aim of effective distribution of data is to specify the provision of tactical motorway information to drivers by means of in-vehicle devices. This not only includes synchronisation of messages, but also lane-specific speed restrictions and diversions for traffic management, including dynamic use of the hard shoulder.

Headline objective

The research will develop **requirements of effective use and distribution of road authority data to third parties** such as service providers, vehicle manufacturers, satellite navigation providers and personal device manufacturers.

Research proposals may include:

- Gather information from existing research in order to understand the short term benefits of effective distribution of data by road authorities.
- Develop the short/medium term business case to understand how road authorities start to move from physical roadside sign infrastructure to in-vehicle 'virtual' signs.
- Investigate whether a common geographic information systems (GIS) is required across all road authorities for in-vehicle information distribution.
- Recommendations for standardisation based on common approaches and best practice for the different types of in vehicle services needed by European road authorities
- Recommendations for harmonisation of "virtual" traffic signs.
- Develop interface requirements from a road authority traffic management point of view and consider the legal and human factors in regards to road signs in-vehicles.
- Investigate role of interaction between public (road operators) and private sector in-vehicle service provides for the delivery of traffic management in vehicles and aid consistency and preciseness between road side and in-vehicle services.
- Develop a protocol that makes public authorities routing strategies available to individual service providers.

Expected outputs would include:

- **Short/medium term business case** regarding to
 - Road Map
 - Cost Benefit ratio
 - Analysis of legal enables
 - Impact of measures regarding safety and availability
- **Implementation plan** based on best practice across all Road Authorities.
- A harmonized protocol for distribution of public authorities data including traffic control strategies.

C) High Quality Traffic Management/Information Data and Incident Detection

Detection of incidents is an essential element of operational management of the road network. National Road authorities would like the best possible picture of what is happening on their network to reach road users.

There are more and more sources of real-time information becoming available. It is considered that by utilising alternative technology to achieve reliable incident detection, road authorities could significantly reduce the overall costs of detection and maintenance compared to traditional methods. Additionally, consideration should also be given to incident detectors fitted to vehicles which could create a low cost, dynamic incident detection network. This research will explore the benefits of the fusion of many data sources - both public and private and take a lead in exploring the institutional, commercial and technical aspects of building a high quality real-time overview of the network.

Headline objective

The **research** will capture road authority **requirements for detection**, and **identify detector solutions** appropriate to their operational needs to reduce cost and improve traffic and incident management.

Research proposals may include:

- Gather information from existing research in order to understand road authorities' future requirements for incident detection and develop cost analyses for a variety of operational environments, to deliver best practice across Europe.
- Investigate, existing trials and collaborations, looking at the performance of detection technologies in relation to operational requirements.
- Reduce the cost of installation and long term maintenance requirements by understanding the trade off of false alarms, detection time and missed detections against system cost.
- Utilising alternative technology for efficient and effective monitoring of stopped vehicles before, during and after opening of the hard shoulder.
- Minimise the amount of technological infrastructure at the roadside by utilising alternative technologies such as eCall, floating vehicle data, and systems built into vehicles such as Satellite Navigation, vehicle sensors like ESP (Electronic Stability Program) to achieve incident detection and to decrease the overall costs of detection considerably.
- Examine existing trials and collaboration using private sector data in relation to operational requirements and understand data quality.
- Develop commercial models for the acquisition/exchange of data, how road authorities can purchase private sector data in a sustainable way, limiting dependency on any single data source.
- Develop a Data Fusion Real-Time Database and tools to support incident analysis and present the information on a common interface.

Expected outputs would include:

- Requirements for the implementation of **detection in specific locations** and **different classifications/categories** of road.
- Requirements for the implementation of private **sector data for traffic management use**.
- Method to **merge different data sources** of different quality.
- **Generic functional specification** for road authorities for incident detection.

D) Implementation of Short Term Prediction

Based on research carried out in Europe using real-time traffic modelling techniques, road authorities would benefit from the implementation of real-time prediction tools to reduce congestion and improve safety. The ultimate business objective for real-time traffic modelling is to optimise the use of the road authorities' existing network thereby extracting the maximum benefit from the investment made to date.

Currently real-time traffic modelling for road authorities is only in the research domain and there needs to be a drive towards implementation. Real-time modelling is perceived as difficult to implement and maintain without highly specialist, expensive processes so a collaborative approach to gain best practice solutions across European road authorities is suggested. This research will therefore focus on breaking down these implementation barriers and will work towards a low cost sustainable solution for using real-time traffic models in the operational environment.

Headline objective

The **research** will develop a robust solution for **real-time traffic modelling** including **low cost maintenance** to sustain an effective up-to-date model, for use by road authorities now and in the future.

Research proposals may include:

- Gather information from existing research to assess customers' requirements.
- Examine existing trials using various real-time traffic modelling techniques in order to determine best practice for implementation.
- Combine historic Origin-Destination data with real-time data to model the state of the network in order to predict the onset of congestion.
- Develop an operator tool to display real-time effects of potential traffic management measures and offer suggested actions for operators to take in various scenarios.

Expected outputs would include:

- Requirements for the implementation of **real-time modelling tools into a control room environment**.
- Generic functional specification for a **real-time network model** for European road authorities.
- Recommendations for **standardisation and/or common approaches** for user interface.

2.2. Overview of current European activities and results*

A general overview of the present research results and activities in Europe is outlined below.

Applicants **must not duplicate existing results on ongoing projects**, but submitted projects can be based on the outcomes and state of the art identified in the projects listed below.

7th Framework Programme

eMobility-plus – ERA-NET TRANSPORT PLUS

<http://www.transport-era.net/electromobility.html>

- i) analyse and prepare long-term sustainable conditions for the development of Electromobility in Europe looking to 2025

European Union

<http://eur-lex.europa.eu>

- i) **Directive 2010/40/EU** on the framework for the deployment of Intelligent Transport Systems
http://ec.europa.eu/transport/its/road/action_plan/action_plan_en.htm

EASYWAY

- i) ITS deployment on main TERN corridors
www.easyway-its.eu

COOPERS

- i) cooperative systems for intelligent road safety
www.coopers-ip.eu

CVIS

- i) cooperative vehicle-infrastructure systems
www.cvisproject.org

SAFESPOT

- ii) Cooperative vehicles and infrastructure for intelligent road safety
www.safespot-eu.org

CEDR Technical Group Road Maintenance

- i) Strategic Plan 2009-2013, October 2008
<http://www.cedr.eu>
- ii) Various publications
<http://www.cedr.fr>

ERA-NET ROAD/ENR2

<http://www.eranetroad.org>

- i) Maintenance backlog, estimation and use
- ii) Road users getting to grip with Climate Change
ongoing project
- iii) Safety at the heart of road design
ongoing project
- iv) Effective Asset Management meeting future challenges
ongoing project

ERTRAC – European Road Transport Research Advisory Council

<http://www.ertrac.org>

- i) Structured Research Recommendations 2007-2015.

FEHRL – Europe’s road research centres

<http://www.fehrl.org>

- i) The Strategic European Road Research Programme 2006-2011.

National programmes – UK DfT and Highways Agency

http://www.highways.gov.uk/knowledge_compendium/

- i) TIDDC TRUE incident detection and data collection
(ben.catchesides@highways.gsi.gov.uk)
- ii) AVSPIG autonomous VMS switching from positional information of gritters
(ben.catchesides@highways.gsi.gov.uk)
- iii) Managed Motorways In Vehicle Data Requirements Research
(owen.ardil@highways.gsi.gov.uk)
- iv) CVHS review
(http://www.aecom.com/Where+We+Are/Europe/Transportation/_resources)

German guidelines e.g.:

- i) TLS, Technische Lieferbedingungen für Streckenstationen, Bundesministerium für Verkehr, Bau und Stadtentwicklung.
- ii) RWVA, Richtlinien für Wechselverkehrszeichenanlagen, Bundesministerium für Verkehr, Bau und Stadtentwicklung
- iii) RWVZ, Richtlinien für Wechselverkehrszeichen, Bundesministerium für Verkehr, Bau und Stadtentwicklung

German Research studies:

- i) Requirements on dynamic route signs with integrated traffic jam and travel time information; Berichte der Bundesanstalt für Straßenwesen, Heft V 181, 2009.
- ii) Equipping motorway junctions with dynamic signposts with integrated congestion information – dWiSta; Berichte der Bundesanstalt für Straßenwesen, Heft V 162, 2007.
- iii) Requirements on dynamic route signs with integrated traffic jam and travel time information; Berichte der Bundesanstalt für Straßenwesen, Heft V 181, 2009.
- iv) Integration of traffic data (FCD- Floating Car Data) acquired by mobile telephone networks into the control procedures of collective traffic influencing measures; Forschung Straßenbau und Straßenverkehrstechnik, Bundesministerium für Verkehr, Bau und Stadtentwicklung, Heft 933, 2006.

MDM: Mobilitäts Daten Marktplatz

- i) Mobilitäts Daten Marktplatz - eine gemeinsame Route zur neuen Mobilität
www.mdm-portal.de

Flanders References (Belgium)

- i) Uitbouw van Dynamisch Verkeersmanagement op het Vlaamse autowegennet : Deel A : Visie en realisatievoorstel, Vlaams Verkeerscentrum, 2008
- ii) Beleidsnota Mobiliteit en Openbare Werken 2009-2014, Hilde Crevits (Vlaams minister van Mobiliteit en Openbare Werken), 2009-2010
<http://docs.vlaamsparlement.be/docs/stukken/2009-2010/g217-1.pdf>

3 General information for applicants

“**Mobility – Getting the most out of Intelligent Infrastructure**” is a trans-national joint research programme initiated by ERA-NET ROAD II. It is cross-border funded by Belgium, Germany, Netherlands, Norway, Switzerland and United Kingdom.

The **Programme Management**, responsible for the management of this joint research programme, is the **Austrian Research Promotion Agency (FFG)**. Thus, Austrian law and regulation will be applied. The open call for proposals is performed as Design Contest. This contest is partly based on Directive 2004/18/EC respective BVergG 2006 (Austria). It refers to § 10 z13 BVergG 2006 specific exclusion for R&D services, therefore the European and Austrian public procurement directives and rules are not applicable.

This is an **open joint call for proposals** with following organisational issues:

3.1 Project types

The aim is to trans-nationally fund projects regarding the project type “applied research” (from „Community Framework for State Aid for Research and Development and Innovation” - 2006/C 323/01).

Applied research is also original investigation undertaken to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective.

(Frascati Manual 2002)

3.2 Duration

The duration of this programme is 36 months from January 2011 to December 2013. The duration for **individual projects can be up to 24 months** within the programme timescale.

3.3 Language

The programme language is English and consequently the project language of the proposals shall be English.

3.4 Procedural overview

The selection procedure for this joint *call for proposals* will consist of an approach in three phases:

Phase 1 (Application): The call is announced and opened in the Supplement of the Official Journal of the European Union and the FFG Austrian Research Promotion Agency invites organisations to hand in full proposal(s) by taking into account the national rules and regulations of the Programme Management, Austria (see *Chapter 3.4.2 Submission of proposals*).

Phase 2 (Evaluation): Evaluation of the eligible project proposals is carried out by experts of the *Parties*, the *PEB members*, applying the defined *evaluation criteria* and *trans-national benefit* to prepare a joint priority list of the proposed projects in three steps to be able to achieve joint trans-national funding decisions (see *Chapter 3.4.4 Evaluation Criteria*).

Phase 3 (Selection): Final discussion and agreement on the **joint priority list** for each of the four objectives take place within the PEB Selection Meeting. *PEB members* have the authority to reallocate their own funding to another objective, depending on incoming proposals. Some adjustment might be needed reflecting trans-national interest or in case of duplication of projects. For each objective, the final decision and responsibility lies with its funding *PEB members*.

According to the agreed joint priority list the *PEB* selects the most appropriate projects. The maximum number of projects that can be selected is determined by the size of the *budget frame*. All applicants will get feedback after the selection.

3.4.1 Predicted Timeline

Action	Date
Phase 1: Submission	open 60 days
Call opens	31 January 2011
Call closes	31 March 2011
Phase 2: Evaluation	
Evaluation and ranking of proposals	April 2011
Phase 3: Selection	
Contracting phase	May 2011 till September 2011

3.4.2 Submissions of the proposals

The call for proposals gives possibilities for both smaller and larger projects, addressing various research areas listed in points 2.1.

Download the Guide for Applicants and Application Form (Part A and B) at

URL: www.eranetroad.org

Applicants should ensure their project proposals are **clearly linked to only one of the four objectives** and should clearly **state the trans-national benefit of the project output(s)**.

These proposals are legally binding till December 2011.

The applicant (the project coordinator of the consortium) must submit the proposal using the **Application Form (Part A and B)** and must include a **draft Consortium Agreement** to the Programme Management. Project Proposals must be submitted via e-mail to mobility.eranetroad@ffg.at by **31 March 2011, 12:00 CET** at the latest.

E-mail: mobility.eranetroad@ffg.at

The *Programme Management* requires the **Application Form** in Word and Excel format (*ENR Mobility_Application Form_Part A.doc and ENR Mobility_Application Form_Part B.xls*).

For each submission the Application Form should be renamed as:

- **ENR Mobility_Acronym_Part A.doc** (content part) and
- **ENR Mobility_Acronym_Part B.xls** (financial part)

Where Acronym is the project acronym of the submitted project proposal.

The **Consortium Agreement** must be signed by all consortium members before the contract is placed (after selection). No template for a **Consortium Agreement** is provided. The required content is described below, in the Eligibility Criteria.

The call closes on 31 March 2011, (12:00 CET)

Submissions received after the above deadline will not be considered.

3.4.3 Eligibility Criteria

- The use of the Application Form for the proposal of this joint call for proposals is obligatory (“ENR2 Mobility Application Form.doc”).
- Only applicants from independent legal entities established in Europe are eligible.
- Applications must be submitted by a Project Coordinator of a consortium of at least two independent legal entities (including the coordinator) from different countries in Europe. A maximum 75% of the workload can be assigned to one partner.
- The management structure must be appropriate and resources for successfully carrying out the proposed activities must be adequate. A project consortium requires a **Consortium Agreement** between the project partners, a draft Consortium Agreement shall be submitted (see *Chapter 3.4.2*). The purpose is to clarify:
 - Technical Provisions (tasks of the partners, project schedule, etc)
 - Managerial Provisions (co-ordinator, responsibilities, etc)
 - Financial Provisions (financial plan, payments, costs, etc)
 - General Provisions (duration, communication, dissemination, etc)
- Organisations that were involved in the preparation of the Description of Research Needs (DoRN) of this programme (members of the “Task Force” written the DoRN) are not allowed being part of a Project Consortium submitting a proposal.

3.4.4 Evaluation criteria

Quality of the projects

Eligible applications/projects from phase 1 will be assessed (1=very poor; 10= excellent) on the basis of the following **four evaluation criteria** (in parentheses the weight that is given to each criterion). Eligibility criteria are defined above.

Quality of proposed activity (30%)

- Technical-scientific quality, with focus on:
 - Degree of innovation; comparison to state-of-the-art
 - supplement potential and certain risk (financial and technical)
 - quality of applied methods and approach
- Quality of planning, with focus on:
 - Project Management and Resources
 - Work-plan (phasing, milestones, project meetings, etc)
 - Adequacy of costs and financial plan

Relevance of proposed activity (30%)

- Contribution to achieving the aims of this call
- Added value from the work for Road Authorities

Suitability of applicants and project partners (20%)

- Scientific-technical qualification and capacity of the participants (knowledge and experience)
- Management skills and capacities

Potential and exploitation (20%)

- Dissemination of project results and strategy for exploitation of these results
- Transnational benefit and potential

4 Total budget of the call

The total budget earmarked for the co-financing of projects amounts to **EUR 1,67 mio.**

Thus it is expected that **4-7 projects** could be jointly funded. Financial assistance will exceed to 100 % of the total eligible costs for basic and applied research projects.

The costs are **inclusive VAT** (see Annex I – Contract for services).

Eligible Costs must be incurred during the duration of the project. They are:

- **Personnel:** type of work with personnel cost rates (including overheads)
- **Travel:** travel, accommodation and meetings, etc related to the project
- **Material:** only depreciation during the project can be considered

Please consider 2-3 joint meetings with the Programme Executive Board with 1-2 representatives of the project.

In the following you see an exemplary of the Cost-Structure:

Project Total Costs

Project title:	the abc
Acronym	ab

Total Costs - Project Coordinator									
	Organisation	Personnel Costs	Travel Costs	Material Costs	Total Costs in EUR (excl. VAT)	VAT in %	Total Costs in EUR (incl. VAT)	Requested funding in EUR	Reuquest funding in %
Project Coordinator	xxx	54.000	2.000	0	56.000	0%	56.000	56.000	100%

Total Costs - Project Partners									
	Organisation	Personnel Costs	Travel Costs	Material Costs	Total Costs in EUR (excl. VAT)	VAT in %	Total Costs in EUR (incl. VAT)	Requested funding in EUR	Reuquest funding in %
Partner 1	PRC - Private Commercial Organisation including Consultant	15.000	1.000		16.000	15%	18.400	18.400	100%
Partner 2	SME - Company	75.000		1.500	76.500	25%	95.625	95.625	100%
Partner 3	PUC-Public Commercial Organisation	23.000	2.000		25.000	10%	27.500	27.500	100%
sum		113.000	3.000	1.500	117.500		141.525	141.525	

Project Total Costs									
		Personnel Costs	Travel Costs	Material Costs	Total Costs in EUR (excl. VAT)	VAT in %	Total Costs in EUR (incl. VAT)	Requested funding in EUR	Reuquest funding in %
sum		167.000	5.000	1.500	173.500	24.025	197.525	197.525	100%

Project Financing		
	in EUR	in %
Total Costs (incl. VAT)	197.525	100%
Rquested Funding	197.525	100%

5 Contacts

Programme Management (PM): Austrian Research Promotion Agency (FFG)

	Party	Name	mail	mobile/phone
AT	FFG	Katharina Eder	Katharina.eder@ffg.at	+43 (0)5 7755 5034
AT	FFG	Christian Pecharda	Christian.pecharda@ffg.at	+43 (0)5 7755 5030

6 Downloads

Applicants must comply with all terms of the full text and be submitted on the forms provided. The full text of this call for proposals, the **Guide for Applicants** and the **Application Form (Part A and B)**, can be downloaded at the following internet address:

Information: <http://www.eranetroad.org>
Submission to email: mobility.eranetroad@ffg.at

Applicants must comply with all terms of the full text and be submitted on the forms provided.

ABSCHNITT VI: ZUSÄTZLICHE INFORMATIONEN

VI.2) AUFTRAG IN VERBINDUNG MIT EINEM VORHABEN UND/ODER PROGRAMM, DAS AUS GEMEINSCHAFTSMITTELN FINANZIERT WIRD

Ja Nein

Wenn ja, geben Sie an, um welche Vorhaben und/oder Programme es sich handelt
 This Joint Research Programme was initiated by ERA-NET ROAD

VI.2) SONSTIGE INFORMATIONEN (falls zutreffend):

The full text of this call for proposals, the Guide for Applicants and the Application Form (Part A and B), can be found and downloaded from the following internet address:
<http://www.eranetroad.org/>
 The call will start at 31 January 2011.
 This contest is covered by Directive 2004/18/EC respective BVerG 2006 (Austria). It refers to § 10 Z 13 BVerG 2006 specific exclusion for R&D services.

VI.3) RECHTSBEHELFSVERFAHRENNACHPRÜFUNGSVERFAHREN (nur bei Wettbewerben im Zusammenhang mit Aufträgen der Sektoren)

VI.3.1) Zuständige Stelle für Nachprüfungsverfahren

Offizielle Bezeichnung:

Postanschrift:

Ort:

Postleitzahl:

Land:

E-Mail:

Telefon:

Fax:

Internet-Adresse (URL):

Zuständige Stelle für Schlichtungsverfahren (falls zutreffend):

Offizielle Bezeichnung:

Postanschrift:

Ort:

Postleitzahl:

Land:

E-Mail:

Telefon:

Fax:

Internet-Adresse (URL):

VI.3.2) Einlegung von Rechtsbehelfen (bitte Abschnitt VI.3.2 ODER ggf. Abschnitt VI.3.3 ausfüllen)

Genauere Angaben zu den Fristen für die Einlegung von Rechtsbehelfen:

VI.3.3) Stelle, bei der Auskünfte über die Einlegung von Rechtsbehelfen erhältlich sind

Offizielle Bezeichnung:

Postanschrift:

Ort:

Postleitzahl:

Land:

E-Mail:

Telefon:

Fax:

Internet-Adresse (URL):

VI.4) TAG DER ABSENDUNG DIESER BEKANNTMACHUNG:

26/01/2011 (TT/MM/JJJJ)

IV.5) PREISE UND PREISGERICHT

IV.5.1) Es werden Preise vergeben

Ja Nein

Wenn ja, Zahl und Wert der zu vergebenden Preise (falls zutreffend):

IV.5.2) Angaben zu den Zahlungen an alle Teilnehmer (falls zutreffend):

IV.5.3) Folgeaufträge:

Jeder Dienstleistungsauftrag im Anschluss an den Wettbewerb wird an den bzw. an einen der Gewinner des Wettbewerbs vergeben

Ja Nein

IV.5.4) Die Entscheidung des Preisgerichts ist für den öffentlichen Auftraggeber bindend

Ja Nein

IV.5.5) Namen der ausgewählten Preisrichter (falls zutreffend):

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

ANHANG A

SONSTIGE ADRESSEN UND KONTAKTSTELLEN

I) ADRESSEN UND KONTAKTSTELLEN, BEI DENEN NÄHERE AUSKÜNFTEN ERHÄLTICH SIND

Offizielle Bezeichnung:

Postanschrift:

Ort:

Postleitzahl:

Land:

Kontaktstelle(n):

Telefon:

Zu Händen

E-Mail:

Fax:

Internet-Adresse (URL):

II) ADRESSEN UND KONTAKTSTELLEN, BEI DENEN WEITERE UNTERLAGEN ERHÄLTICH SIND

Offizielle Bezeichnung:

Postanschrift:

Ort:

Postleitzahl:

Land:

Kontaktstelle(n):

Telefon:

Zu Händen

E-Mail:

Fax:

Internet-Adresse (URL):

III) ADRESSEN UND KONTAKTSTELLEN, AN DIE PROJEKTE/ANTRÄGE AUF TEILNAHME ZU SENDEN SIND

Offizielle Bezeichnung:

Postanschrift:

Ort:

Postleitzahl:

Land:

Kontaktstelle(n):

Telefon:

Zu Händen

E-Mail:

Fax:

Internet-Adresse (URL):

2. Design – Rapid and Durable Maintenance Methods and Techniques

2.1. Collaboration Agreement

Collaboration Agreement (CA)

on the trans-national joint research programme

“Design – Rapid and Durable Maintenance Methods and Techniques”

The 10 National Road Administrations (NRAs) mentioned below (hereinafter the *Parties*) enter into an agreement together with the Programme Management on the commencement and execution of the research programme described below on terms specified herein.

The Parties:

Agency for Roads and Traffic (AWV)

Graaf de Ferrarisgebouw, Koning Albert II-laan 20, bus 4, B1000 Brussels

BELGIUM / FLANDERS (BE)

www.wegenverkeer.be

Federal Ministry of Transport, Building and Urban Affairs (BMVBS)

Robert-Schuman-Platz 1, 53175 Bonn

GERMANY (DE)

www.bmvbs.de/

Ministry of Transport, Danish Road Directorate (DRD)

Vejteknisk Institut, Guldaderen 12, 2640 Hedehusene

DENMARK (DK)

www.vejdirektoratet.dk

Finnish Transport Agency (FTA)

Opastinsilta 12 A, FI-00520 Helsinki (visiting address)

P.O.Box 33, 00521 Helsinki, Finland (postal address)

FINLAND (FI)

www.liikennevirasto.fi

Ministère de l'écologie, du développement durable, des transports et du logement – MEDDTL

Grande Arche

Tour Pascal A et B 92055 La Défense CEDEX

FRANCE (FR)

Ministerie van Infrastructuur en Milieu (Rijkswaterstaat)

Schoemakerstraat 97, 2628 VK Delft

NETHERLANDS (NL)

www.rws.nl

Norwegian Public Roads Administration (NPRA)

P.O. Box 8142 Dep, NO-0033 Oslo,

NORWAY (NO)

www.vegvesen.no

Swedish Transport Administration (STA)

Röda vägen 1, S-78187 Borlänge

SWEDEN (SE)

www.vv.se

Slovenian Roads Agency (DRSC)

Tržaška 19, 1000 Ljubljana

SLOVENIA (SI)

Highways Agency

The Cube, 199 Wharfside Street, Birmingham B1 1RN

UNITED KINGDOM (UK)

www.highways.gov.uk

The Programme Management:

Austrian Research Promotion Agency (FFG)

Sensengasse 1, 1090 Vienna

AUSTRIA (AT)

www.ffg.at

This Collaboration Agreement defines the responsibilities of the Parties and the Programme Management.

It is based on trust, common understanding and commitment and on Austrian law.

It is signed by the Authorised Representatives of the *Parties*. Original signatures are collected by the *Programme Management* and digital copies, acting as originals, are provided to all *Parties*.

The reference number of this programme is “ENR2 Design”.

1. Definitions

See page 9 – Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”.

2. The Programme

Overall **aim** of the joint research programme “**Design - Rapid and durable Maintenance Methods and Techniques**” is to improve road conditions for the short- and long-term. The solutions have to be **feasible, valid** and **cost-effective**.

The **Guide for Applicants** (GfA version 1.0 of 20.12.2011), is the **Annex I** to this Collaboration Agreement and is an integral part thereof.

3. The executive powers and responsibilities

The **Programme Ownership** is held by the *Programme Executive Board (PEB)* consisting of the following *PEB members* listed in Annex II, as representatives of the *Parties*. The *PEB members* are appointed by the *Parties* and should remain the same for the duration of the Programme but can be temporarily or permanently replaced by the *PEB deputy*, as the *Party* decides. If a *PEB member* or *PEB deputy* is changed by a *Party*, the *Party* has to inform the *PM* and the *PEC*. Annex II will be updated accordingly by *PM*.

Programme Responsibility shall rest with the **PM FFG Austrian Research Promotion Agency** (see Annex II). The *PM* is supported by the *Programme Executive Chair (PEC)* *Vesa Männistö* (FTA) who was nominated and approved by the *PEB*.

The administrative and organisational work to be conducted in the *Programme* shall be procured by the *PM*. The *programme responsibility* is under Austrian law and regulations and the FFG shall act within its normal framework of conduct.

In certain steps of the Programme the PM are supported by the PEB members as outlined in the following paragraphs.

At the *PEB* meetings the *PM* is supported by the *Programme Executive Board Chairman (PEC)*.

The *PEB members* jointly agree on the **objectives** for this *Programme* which are documented in the *Guide for Applicants (GfA)* – Annex I of this Collaboration Agreement.

The *PEB members* jointly agree on the **budget** that is contributed by each *Party* which is documented in this *Collaboration Agreement (CA)* Chapter 5 “*The financial obligations*” and *Annex III*. It is the responsibility of the *PM* to ensure that the payment and settlement of expenses related to this Collaboration Agreement are kept within the agreed programme budget.

The *PM* shall take the initiative and responsibility to open and perform the **Call for Proposals** and announce it in the Supplement of the Official Journal of the European Union.

The *PEB members* jointly agree on the **selection** procedure and jointly execute it. Each *PEB member* evaluates the eligible proposals according to the evaluation criteria (see Annex I). The *national evaluations* are then combined by the *PM* to a „joint priority list”. The priority list is discussed by the *PEB members* and they finally select the most appropriate proposed projects within the budget frame.

If a research provider who submits a proposal is part of the same legal entity as one of the *Parties* or is a *PEB member*, the related *Party* or *PEB member* is excluded from the Phase 2 (Evaluation), but remains participant in the *PEB* and contributes to the **Budget Plan**. He/She returns to the *PEB* after the selection is completed. Member organisations of the **Task Force** are not eligible to submit proposals at all.

The PM coordinates the issuing of *Requests for Payment* to the funding Parties and the issuing of payments to the *Project Coordinators (PCs)*. The **Budget Plan** (see Chapter 5 “*the financial obligations*”) will be up-dated within a six monthly Programme Progress Report (PPR) and presented by the PM to the PEB.

The PM shall take the initiative and responsibility for entering into service contracts with the selected *PCs* with regard to project execution. The *PM* with the support of the *PPC* initiates and progresses the negotiations. The *PM* informs the *PEB* about the negotiation progress, the content of the contracts and the timescale.

PEB members responsible for each objective jointly **evaluate** the *Monitoring Progress Reports (MPR)* and *Deliverables* for the projects commissioned with each objectives. These reports shall be approved by the PEB before the payments to the Project Coordinators are released by the *PM*. All payments are made only on receipts of an approved *MPRs and Deliverables*.

The *PM* is responsible for sending a “Request for Payment” to the *Parties* at certain agreed stages **according to the Budget Plan: first instalment** after the contracts have been awarded (including the final Description of Work (DoW) and signed Consortium Agreement of the awarded project teams), **second instalment** after by the *PEB* approved Monitoring Progress Report 3 and **third instalment** after the final reports are submitted and approved by the PEB (see “*The financial obligations*”). The *Parties* contribute their share according to the *Budget Plan* to the *PM*. The *PM* pays the contractors after the approval of the reports by the PEB.

PEB members jointly decide who will prepare the **Final Programme Report**.

4. Selection procedure

The selection procedure for this joint *call for proposals* will consist of an approach in three phases if proposals are eligible (see Annex I, *ENR2 Design Guide for Applicants*)

5. The financial obligations

The predicted timeline for the Programme is **January 2011 – December 2013**.

The *programme* shall be financed jointly by the *Parties*. Each *Party* is expected to make minimum of total call budget **EUR 150.000,-** for three years available dedicated to one objective for the execution of the *programme*, and to be paid according to the **Budget Plan** which shall be approved by *PEB* before the funded and selected projects start.

Total Budget (for 3 years)	EUR 1.980.000
5 % PM Costs (coordination, organisation and administration)	EUR - 99.000
2 % Final Conference and Report & unforeseen costs	EUR - 39.600
Research Budget (for 3 years)	EUR 1.841.400

The management and coordination of the programme will be considered as a separate project and included in the **Budget Plan**. Furthermore, a budget of max. EUR 25.000,- is foreseen for the organising and making of the *Final Programme Conference and Final Programme Report*.

The common research programme “**Design – Rapid and Durable Maintenance Methods and Techniques**” is based on the following **three objectives**:

- A) Safely Optimising Road Network Availability during Maintenance
- B) Durable Construction and Maintenance Methods
- C) Strategies for Reducing Maintenance Costs

The **research budget is of at least EUR 1.841.400 for three years** and it is estimated that **5 to 8 projects** with a duration of maximum 24 months will be jointly financed. The national financial contributions to the **Budget Plan** are included in Annex III. The selected projects will be cross-border funded.

If the quality of the submitted projects is so poor that the research budget is underspent, the *PEB* will decide what to do with the budget reservation. If the quality of the submitted projects is so good that there would be an overspend for one more project, the *PEB* will decide, if the total budget can be increased. The *PEB* will not force any Party to go beyond the financial obligation. However, a Party can choose to contribute more. The **overspend or underspend** should be no more than +/-10% of the total budget.

The FFG Austrian Research Promotion Agency, as the *PM*, will be responsible for the budget and accounting. They shall supervise and keep accounts of the selected projects with regard to the total resources and contributions that the *Parties* have reserved for the projects under this Collaboration Agreement. Similar responsibility shall apply if the project should receive resources from a third party.

The *PM* will present a provisional account (programme **Budget Plan**) to the other *Parties* according to the projects budget plans and the fiscal years of the *Parties*. The *PM* will submit a final account to the *Parties* for approval one month after the completion of the projects.

The *PM* will send a “**Request for Payment**” to the *Parties* to obtain their share of the budget frame according to the budget plan. Payments from the *Parties* will be placed in a custodial account from which the projects are paid. The *Request for Payment* will be sent annually in accordance with the budget plan. Payments from the Parties shall be paid to the *PM* within two months at the very latest after receiving the “Request for Payment”. If Parties wish to contribute funding upfront for more than one year this can be accommodated.

The *PM* will pay the *Project Coordinators* according to the projects budget plans at certain stages of the projects after approval of the *PEB*. The **payment** of the selected projects is foreseen on a 30/30/40% basis: 30% after the contracts have been awarded (including the final Description of Work (DoW) and signed Consortium Agreement), 30% on Monitoring Progress Report 3 and 40% on last Monitoring Progress Report 4 (Final Report) after the project is finished.

The above provisions do not apply to the obligations that a *Party* may have under national legislation with regard to the submission of accounts.

Except with the other *Parties*' cooperation and approval - and with due respect of national legislation - a *Party* cannot make changes to resources and contributions that have been specified in this *Collaboration Agreement* for the execution of this *Programme*.

If a Party is adjusted insolvent or unable to pay the instalments for the trans-national research programme and has to leave the *PEB*, than the remaining Parties have to decide whether

- a. the remaining Parties of that trans-national research programme defray the amount of the payments of the insolvent Party equally
- or
- b. the trans-national research programme “Design – Rapid and Durable Maintenance Methods and Techniques” shall be discontinued.

6. Progress and results

See page 13 – *Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”*.

7. Intellectual property rights and patents

See page 14 – *Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”*.

8. Decisions and conflict solving

See page 14 – *Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”*.

9. Changes to the Collaboration Agreement and its Duration

See page 14 – *Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”*.

2.2. The Guide for Applicants

1. Introduction

Overall aim of the joint research programme “**Design - Rapid and durable Maintenance Method and Techniques**” is to improve road conditions for the short- and long-term. The solutions have to be **feasible, valid** and **cost-effective**.

This trans-national research programme “**Design - Rapid and durable Maintenance Method and Techniques**” is initiated by ERA-NET ROAD II (ENR2). The main objective of this joint research programme is to recommend “ERA-NET ROAD II – Coordination and implementation of Road Research in Europe” is a Coordination and Support Action funded by the 7th Framework Programme of the EC. ENR2 partners are Austria, Belgium (Flanders), Denmark, Finland, France, Germany, Hungary, Ireland, Lithuania, Netherlands, Norway, Poland, Slovenia, Sweden, Switzerland, United Kingdom, with CEDR (Conference of European Directors of Roads) as an Associate Partner. These partners are committed to the goals of ENR2 which provides a platform for international cooperation and collaboration in research areas of common interest. Details can be viewed at the ENR2 website www.eranetroad.org.

The research programme has been drafted to fulfil common interests of National Road Administrations (NRA). The participating NRAs in this Joint Research Programme are Belgium, Germany, Denmark, Finland, France, Netherlands, Norway, Sweden, Slovenia and United Kingdom. As in previous ERA-NET ROAD programmes, they will establish a Programme Executive Board (PEB) and a Programme Management (PM) will take over the administrative issues.

The PEB uses the Common Obligation Programme Model from the ‘ENR-toolkit’ to perform this cross-border funded joint call for proposals. That means that the Call for Proposals will be prepared and conducted by the Programme Management and under Austrian law and regulations and the budget is jointly funded by all participants of the PEB.

To achieve the goals set by ENR2, it is essential that national research results, knowledge and experience be exchanged at all levels and develop a common approach and an increased acceptance of intelligent infrastructure principles and **benefit from the trans-national collaboration**.

2. Reasons for the Joint Research Programme

The main reason for the joint research programme is to accelerate the process of introducing new technologies and innovations for more cost-effective, rapid and durable road maintenance in Europe. Joint efforts are needed to run effective research on identified common issues. The aim is to catch up to meet the current needs of a functioning and functional road network and future expectations for safer, more environmentally friendly, reliable and robust road network in Europe.

Research commissioned by this call is underpinned by many years of effort by research that has aimed to optimise the road maintenance from both a technical and economic point of view. This involves a large number of projects funded nationally and by the EU for many years. In discussions conducted at European level, it has been found that the road authorities have made significant investments and conducted research in virtually the same themes and areas. **This programme is not intended to duplicate this research**. However, what is needed is a scan of existing standards, methods and techniques that may be of interest for this programme. Findings from the scan that can be directly applied should be recommended and demonstrated as pilot projects. Furthermore, the potential for development of existing standards, methods and technologies aimed at achievement of objectives in this research programme should be explored.

Conclusions and recommendations from this research should be presented in such a way that they can be implemented in all EU Member States with a reasonable degree of need for their own actions. This is despite the prevailing conditions of different road authorities, their responsibilities, the difference in road classes from country to country, their own standards, maintenance strategies, road types, etc.. These should not be an obstacle to the implementation of research findings from this program.

While the main focus of the programme is on improving the road networks over the long term based on Life Cycle Cost Analysis (LCCA), the research will also include an examination on operational issues like minimising negative impacts on traffic flow whilst maintaining or improving safety for road workers and users, innovative methods, materials, techniques of road maintenance.

Common Research Needs were identified in first term while the second term was dedicated to discussions about how to achieve significant and relevant results through the Joint Programme. These exercises however, resulted in the proposals shown in next chapter.

2.3. Research Objectives of the Joint Call

Overall aim of the joint research programme “**Design - Rapid and durable Maintenance**” is to improve road conditions for the short- and long-term. The solutions have to be **feasible, valid and cost-effective**.

The programme is based on **three objectives** which are described below together with an expected output. The objectives were developed with the concepts of:

- A) Safely Optimising Road Network Availability during Maintenance**
- B) Durable Construction and Maintenance Methods**
- C) Strategies for Reducing Maintenance Costs**

These objectives were developed following a series of workshops involving specialists from each of the partner Road Authorities. In these workshops, it was recognised that the traditional approach without pan-European co-operation, often resulted in duplication of research. This research programme seeks to redress the problem by integrating these issues into an optimised management framework.

All partners agreed also that there is significant potential for improvement of the traditional road maintenance approaches through application of better material technology, effective safe, environmental friendly methods and standards for road maintenance in order to prolong the service life of road and other road elements.

Applicants should ensure their project proposals are **clearly linked to one of the three objectives** listed above, although it is accepted that there may be overlap between them. Proposals should emphasise the **trans-national benefit** of the project outcomes for the participating Road Authorities in the context of rapid and durable maintenance.

A) Safely Optimising Road Network Availability during Maintenance

Maintenance planning is today a comprehensive exercise involving selection of appropriate maintenance work through from simple to complex cost and benefit analyses. These analyses seldom include the consideration of road user's costs or road safety for workers during the period of maintenance works. At the same time the demands on reliable transport expressed in terms of availability to road network as well as safe working environment is increasing.

Today, there are no clear guidance on how to estimate the time needed for different types of maintenance work and how to evaluate the negative impacts for road users taking into account safety on roads during the time of maintenance works. The main objective for the research to be carried out under this topic is to prepare guideline for sound planning of maintenance works. The suggested guideline shall allow integration of both economy and technique in the procedure of maintenance planning. The guideline shall particularly focus on minimising interruptions of the road network whilst maintaining or improving safety and environment, when prioritising between different set of maintenance works.

Research proposals may include:

- Development of innovative methods and techniques for **better availability and reduced disruption of traffic due to maintenance work**. Incentives for the contractor to help optimise the time needed for maintenance work are considered as important contribution. In this respect, the possibilities for the use of incentives in the contract documents should be examined and compared between countries. In addition to new concepts and ideas should also today known methods and techniques to promote less time on the road for maintenance identified and compared. Incentives for the contractor to assist in optimising the time needed for maintenance works.
- Development of **measures to optimise the safety of road workers**, whilst minimising the disruption is an important part of this research. It is assumed that there is great potential for the use of modern technologies for better traffic management during maintenance works. The potential should be identified and recommendations for use of its technologies, adapted to different types of road and type of maintenance work are taken forward. Different maintenance technology which allows maintenance work on the side of the road section is also interesting in this context. This would then allow for substantial reduction of time for maintenance on the road section. It may be noted that the proposed methods and techniques must be cost effective and reasonable in relation to road user cost.

Expected outputs would include:

- Suggest method for maintenance planning procedures which considers the assessment of maintenance of different road components/assets at the same time, resulting in less frequent traffic interruption
- Suggest a method for joint planning of maintenance work of various parts of the road assets, in order to minimize traffic disruption
- Suggest appropriate supplements to the guidelines for new road design that includes both traffic interruption during construction and maintenance (impact to road user) and safe roadwork as important parameters to consider in the procedures of road design
- Develop methodology for evaluation of road user's- cost and expectations in relation to disruptions and delays due to the time needed for maintenance as well as the type of maintenance to be carried out. It requires, inter alia, development of the concept, which allows reading of parameters relating to the needs and expectations of the procedures for maintenance planning
- Develop concept for incentives for more efficient production process and define criteria to be used in bidding documents, which promotes innovation for rapid, safer and environmental friendly roadwork

B) Durable Construction and Maintenance Methods

Road Authorities in Europe have long been working to develop improved descriptions of the maintenance requirements using road condition data in order to justify maintenance costs. At the same time, there have been major effort to streamline operation- and maintenance cost by improving traditional methods and techniques for various maintenance work. As indicated, the improvements are from partly to mostly been focused on the development of traditional methods and techniques. Although there is much work left in the traditional road engineering, we want through this invitation particularly welcome new unexplored material technologies such as nanotechnology which may also be suitable for operation and maintenance of road infrastructure.

This research programme however calls for durable maintenance methods and material technique, suitable for cost effective road maintenance. Focus should be on innovative maintenance's methods and techniques which result in reduced maintenance costs without compromising with expected performance or even may mean performance improvement. Suggested or developed methods, materials have to be theoretically assessed by means of for instance an appropriate LCCA and validated through in situ demonstration.

Another important aspect in this context is recycling and reusing of recycled materials. Research, development and demonstration in this respect are seen as key to success to meet the requirements of an effective and sustainable society. Material technology should be developed resulting in the achievements of better materials properties for sufficient performance which in turn results in durable road construction.

Research proposals may include:

- Development of methods and techniques for **effective maintenance of road construction** which ensures its durability as well as the road- section's other belongings, parts and components. The focus should be on innovative maintenance's methods and techniques which result in reduced maintenance costs without compromising with expected performance or even may mean performance improvement.
- Introduction of durable **materials which increase sustainability of maintenance work** by application of new material technology such as "nanotechnology". Attention should be on identifying new materials technologies and/or substantial improvements to existing materials for long life and performance.
- Demonstration of the possible potential for the use of advanced technologies such as GPS- technique in steering of the equipment to effectively carry out road maintenance.
- Development of methods/techniques for recycling of material which results to obtaining of at least same quality as the material's origin and if not may be even better quality than its origin.

Expected outputs would include:

- Identification of the best practice and development of executing innovative and effective maintenance methods/techniques
- Identification of other possible materials (e.g. recycling- and reused materials) than the conventional which can be used for road maintenance in order to improve the durability of road construction and / or other design elements. Cost-effectiveness of possible use of these materials has to be shown by any suitable LCCA.
- Evaluation and demonstration of advanced technologies that can significantly increase production capacity in road maintenance

C) Strategies for Reducing Maintenance Costs

As indicated before, many road authorities worldwide, facing difficulties to cope with user expectations regarding demands on safer, more reliable and greener road transportation. The gap between desired and actual road standard increases due to insufficient funding for maintenance, traffic growth and costly maintenance of new road sections which are often equipped with amongst others expensive electronics. At the same time, it is well known that there is potential of reduction on maintenance cost through adoption of a proper maintenance strategy, suitable planning of maintenance works and application of innovative approaches for maintenance. This research programme, calls for tools and techniques which enables implementation of sound maintenance strategy for reduction of maintenance which still takes into account road user's expectations regarding availability of road network during road works.

In general there are two aspects that require particular attention in a modern maintenance strategy. One is that today there is no standard approach to include road user expectations on the availability of a road section during maintenance work. The second is that the costs of the planned maintenance work as well as the expected effects of the same are crucial parameters for road authorities in maintenance planning. These interests are often in conflict with each other. Modern maintenance strategy should optimize these interests by applying an appropriate LCCA.

Another aspect for reducing maintenance costs is a high level quality control and assurance in road and maintenance works. There is a need for implementing process-oriented quality assurance in maintenance procedures to assure long service life.

Research proposals may include:

- Identifying and if needed developing the **best practice of Life Cycle Costs and Analysis** which allows optimisation between road users interests regarding availability of road section during maintenance works and authority's interest for cost effective and durable maintenance work. The LCCA method shall be able to assist in evaluation of different maintenance alternatives and selecting proper and adequate maintenance which is adequate to needed maintenance (costs and benefits analysis).
- Developing **concept for proper maintenance planning** which assures selection of adequate maintenance works to assure effective use of maintenance budget based on available road condition data with minimised negative effects on road user, safety for road workers and environment

Expected outputs would include:

- Develop **concept for maintenance planning** which allows selection of sections in need of maintenance based on not only cost and benefit analysis but also road user's expectations.
- Harmonised and good enough **Life Cycle Cost Analysis (LCCA) method** which allows evaluation of different maintenance alternatives and which considers traffic interruption as well as safety for road workers as important parameters in the procedure of analysis. The LCCA- method to be developed should be able to address economical and technical evaluations of available and futures set of rehabilitation and maintenance work (new materials techniques and standards)

NOTE: Do NOT duplicate what has been done at the ENR "Asset Management" Call 2010!
(see project descriptions: http://www.eranetroad.org/index.php?option=com_content&view=article&id=91&Itemid=88)

2.4. Overview of current European activities and results

A general overview of the present research results and activities in Europe is outlined below.

Applicants **must not duplicate existing results or ongoing projects**, but submitted projects can be based on the outcomes and state of the art identified in the projects listed below.

CA4PRS Implementation - Project for Rapid Rehabilitation

<http://www.dot.ca.gov/newtech/roadway/llprs/index.htm>

European Project ELLPAG - European Long-Life Pavement Group

http://www.fehrl.org/?m=32&id_directory=1015

CEDR Technical Group Road Maintenance

- iii) Strategic Plan 2009-2013, October 2008
<http://www.cedr.eu>

ERA-NET ROAD/ENR2

<http://www.eranetroad.org>

- v) Maintenance backlog, estimation and use (2009)
- vi) Road users getting to grip with Climate Change ongoing project
- vii) Safety at the heart of road design ongoing project
- viii) Effective Asset Management meeting future challenges ongoing project

ERTRAC – European Road Transport Research Advisory Council

<http://www.ertrac.org>

- ii) Structured Research Recommendations 2007-2015.

FEHRL – Europe’s road research centres

<http://www.fehrl.org>

- ii) The Strategic European Road Research Programme 2006-2011
- iii) Forever Open Road Programme

OECD – International Transport Forum

<http://www.internationaltransportforum.org>

- i) Speed Management, 2006
- ii) Long life pavements

National Programmes – Norwegian Public Roads Administration

<http://www.vegvesen.no/en/Professional>

- i) Climate and Transport (2007 – 2010)
Handling of changes in climate
- ii) SaltSMART (2001 – 2010)
Improve salting procedures
- iii) Modern Road Tunnels (2008 - 2011)
Provide a clear policy on tunnel planning, construction and maintenance

National programmes – Highways Agency (UK)

- i) Risk approach to prioritising maintenance, 2010
- ii) Treatment of transverse cracks in flexible composite pavements, 2009
- iii) Integrated whole life cost model for maintenance, 2009
- iv) Feedback on superior asphalts, 2009
- v) Implementing asphalt durability tests, 2009
- vi) Optimum maintenance strategy for structures, 2008
- vii) Achieving best value through pavement maintenance monitoring, 2008
- viii) Prioritising ways to reduce the impact of maintenance on journey times, 2008
- ix) Prefabricated pavements and other innovations for rapid and improved construction and maintenance, 2008
- x) Integration of whole life costing of road features, 2008
- xi) Performance of impregnants, 2008
- xii) Specimen monitoring for continued durability, 2007
- xiii) Better estimates of service lives of thin surfacing systems, 2006
- xiv) Durability of concrete pavements surfaced with thin asphalt, 2006
- xv) Durable composite inlays for HGV lanes, 2006
- xvi) Effectiveness of washing bridges, 2005
- xvii) Maintenance of footways and cycleways, 2004
- xviii) Probability of effective maintenance measures, 2004
- xix) Durability and performance of deck hinges, 2004
- xx) Durability of quieter surfacing, 2004
- xxi) Optimising the returns from long life roads, 2003
- xxii) Preventative maintenance strategies for different bridge groups, 2003
- xxiii) Sumpless gullies as a low maintenance option, 2003
- xxiv) Footway maintenance research, 2002
- xxv) Surfacing performance on bridge decks, 2002
- xxvi) Durability of proprietary paved inverts for corrugated steel buried structures, 2000
- xxvii) Effect of highway drainage on pavement longevity, 2000

3. General information for applicants

“**Design – Rapid and Durable Maintenance Methods and Techniques**” is a trans-national joint research programme initiated by ERA-NET ROAD II. It is cross-border funded by Belgium, Germany, Denmark, Finland, France, Netherlands, Norway, Sweden, Slovenia and United Kingdom

The **Programme Management**, responsible for the management of this joint research programme, is the **Austrian Research Promotion Agency (FFG)**. Thus, Austrian law and regulation will be applied. The open call for proposals is performed as Design Contest. This contest is partly based on Directive 2004/18/EC respective BVergG 2006 (Austria). It refers to § 10 z13 BVergG 2006 specific exclusion for R&D services, therefore the European and Austrian public procurement directives and rules are not applicable.

This is an **open joint call for proposals** with following organisational issues:

3.1 Project types

The aim is to trans-nationally fund projects regarding the project type “applied research” (from „Community Framework for State Aid for Research and Development and Innovation (2006/C 323/01)“)

Applied research is also original investigation undertaken to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective.

(Frascati Manual 2002)

3.2 Duration

The duration of this programme is 36 months from January 2011 to December 2013. The duration for **individual projects can be up to 24 months** within the programme timescale.

3.3 Language

The programme language is English and consequently the project language of the proposals shall be English.

3.4 Procedural overview

See page 25 – Guide for Applicants of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”.

3.4.1 Predicted Timeline

Action	Date
Phase 1: Submission	open 60 days
Call opens	31 January 2011
Call closes	31 March 2011
Phase 2: Evaluation	
Evaluation and ranking of proposals	April 2011
Phase 3: Selection	
Contracting phase	May 2011 till September 2011

3.4.2 Submissions of the proposals

The call for proposals gives possibilities for both smaller and larger projects, addressing various research areas listed in points 2.1.

Download the Guide for Applicants and Application Form (Part A and B) at

URL: www.eranetroad.org

Applicants should ensure their project proposals are **clearly linked to only one of the three objectives** and should clearly **state the trans-national benefit of the project output(s)**.

These proposals are legally binding till December 2011.

The applicant (the project coordinator of the consortium) must submit the proposal using the **Application Forms (Part A and B)** and must include a **draft Consortium Agreement** to the Programme Management. Project Proposals must be submitted via e-mail to design.eranetroad@ffg.at by **31 March 2011, 12:00 CET** at the latest.

E-mail: design.eranetroad@ffg.at

The *Programme Management* requires the **Application Form** in Word and Excel format (*ENR Design_Application Form_Part A.doc and ENR Design_Application Form_Part B.xls*).

For each submission the Application Form should be renamed as:

- **ENR Design_Acronym_Part A.doc** (content part) and
- **ENR Design_Acronym_Part B.xls** (financial part)

where Acronym is the project acronym of the submitted project proposal.

The **Consortium Agreement** must be signed by all consortium members before the contract is placed (after selection). No template for a **Consortium Agreement** is provided. The required content is described below, in the Eligibility Criteria.

The call closes on 31 March 2011, (12:00 CET)

Submissions received after the above deadline will not be considered.

3.4.3 Eligibility Criteria

See page 27 – *Guide for Applicants of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”*.

3.4.4 Evaluation criteria

See page 28 – *Guide for Applicants of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”*.

4. Total budget of the call

The total budget earmarked for the co-financing of projects amounts to **EUR 1,84 mio.**

Thus it is expected that **5-8 projects** could be jointly funded. Financial assistance will exceed to 100 % of the total eligible costs for basic and applied research projects.

The costs are **inclusive VAT** (see Annex I – Contract for services).

Eligible Costs must be incurred during the duration of the project. They are:

- **Personnel:** type of work with personnel cost rates (including overheads)
- **Travel:** travel, accommodation and meetings, etc related to the project
- **Material:** only depreciation during the project can be considered

Please consider 2-3 joint meetings with the Programme Executive Board with 1-2 representatives of the project.

In the following you see an exemplary of the Cost-Structure (*See page 29 – Guide for Applicants of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”*)

Only cost incurred during the timescale of the project can be included.

5. Contacts

Programme Management (PM):

	Party	Name	mail	mobile/phone
AT	FFG	Katharina Eder	Katharina.eder@ffg.at	+43 (0)5 7755 5034
AT	FFG	Christian Pecharada	Christian.pecharada@ffg.at	+43 (0)5 7755 5030

6. Downloads

Applicants must comply with all terms of the full text and be submitted on the forms provided.

The full text of this call for proposals, the **Guide for Applicants** and the **Application Form (Part A and B)**, can be downloaded at the following internet address:

Information: <http://www.eranetroad.org>

Submission to email: design.eranetroad@ffg.at

Applicants must comply with all terms of the full text and be submitted on the forms provided.

IV.5) PREISE UND PREISGERICHT

IV.5.1) Es werden Preise vergeben

Ja Nein

Wenn ja, Zahl und Wert der zu vergebenden Preise (falls zutreffend):

IV.5.2) Angaben zu den Zahlungen an alle Teilnehmer (falls zutreffend):

IV.5.3) Folgeaufträge:

Jeder Dienstleistungsauftrag im Anschluss an den Wettbewerb wird an den bzw. an einen der Gewinner des Wettbewerbs vergeben

Ja Nein

IV.5.4) Die Entscheidung des Preisgerichts ist für den öffentlichen Auftraggeber/den Auftraggeber bindend

Ja Nein

IV.5.5) Namen der ausgewählten Preisrichter (falls zutreffend):

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

ABSCHNITT VI: ZUSÄTZLICHE INFORMATIONEN

VI.2) AUFTRAG IN VERBINDUNG MIT EINEM VORHABEN UND/ODER PROGRAMM, DAS AUS GEMEINSCHAFTSMITTELN FINANZIERT WIRD

Ja Nein

Wenn ja, geben Sie an, um welche Vorhaben und/oder Programme es sich handelt

This Joint Research Programme was initiated by ERA-NET ROAD

VI.2) SONSTIGE INFORMATIONEN (falls zutreffend):

The full text of this call for proposals, the Guide for Applicants and the Application Form, can be found and downloaded from the following internet address:

<http://www.eranetroad.org/>

The call will start at 31 January 2011.

This contest is covered by Directive 2004/18/EC respective BVerG 2008 (Austria). It refers to § 10 Z. 13 BVerG 2008 specific exclusion for R&D services.

VI.3) RECHTSBEHELFSVERFAHREN/NACHPRÜFUNGSVERFAHREN (nur bei Wettbewerben im Zusammenhang mit Aufträgen der Sektoren)

VI.3.1) Zuständige Stelle für Nachprüfungsverfahren

Offizielle Bezeichnung:

Postanschrift:

Ort: Postleitzahl:

Land:

E-Mail: Telefon:

Fax:

Internet-Adresse (URL):

Zuständige Stelle für Schlichtungsverfahren (falls zutreffend):

Offizielle Bezeichnung:

Postanschrift:

Ort: Postleitzahl:

Land:

E-Mail: Telefon:

Fax:

Internet-Adresse (URL):

VI.3.2) Einlegung von Rechtsbehelfen (bitte Abschnitt VI.3.2 ODER ggf. Abschnitt VI.3.3 ausfüllen)

Genauere Angaben zu den Fristen für die Einlegung von Rechtsbehelfen:

VI.3.3) Stelle, bei der Auskünfte über die Einlegung von Rechtsbehelfen erhältlich sind

Offizielle Bezeichnung:

Postanschrift:

Ort: Postleitzahl:

Land:

E-Mail: Telefon:

Fax:

Internet-Adresse (URL):

VI.4) TAG DER ABSENDUNG DIESER BEKANNTMACHUNG:

26/01/2011 (TT/MM/JJJJ)

ANHANG A

SONSTIGE ADRESSEN UND KONTAKTSTELLEN

I) ADRESSEN UND KONTAKTSTELLEN, BEI DENEN NÄHERE AUSKUNFTE ERHÄLTlich SIND

Offizielle Bezeichnung:

Postanschrift:

Ort: Postleitzahl:

Land:

Kontaktstelle(n): Telefon:

Zu Händen

E-Mail: Fax:

Internet-Adresse (URL):

II) ADRESSEN UND KONTAKTSTELLEN, BEI DENEN WEITERE UNTERLAGEN ERHÄLTlich SIND

Offizielle Bezeichnung:

Postanschrift:

Ort: Postleitzahl:

Land:

Kontaktstelle(n): Telefon:

Zu Händen

E-Mail: Fax:

Internet-Adresse (URL):

III) ADRESSEN UND KONTAKTSTELLEN, AN DIE PROJEKTE/ANTRÄGE AUF TEILNAHME ZU SENDEN SIND

Offizielle Bezeichnung:

Postanschrift:

Ort: Postleitzahl:

Land:

Kontaktstelle(n): Telefon:

Zu Händen

E-Mail: Fax:

Internet-Adresse (URL):

3. Energy – Sustainability and Energy Efficient Management of Roads

3.1. Collaboration Agreement

Collaboration Agreement (CA)

on the trans-national joint research programme

“Energy – Sustainability and Energy Efficient Management of Roads”

The 7 National Road Administrations (NRAs) mentioned below (hereinafter the *Parties*) enter into an agreement together with the Programme Management on the commencement and execution of the research programme described below on terms specified herein.

The Parties:

Federal Ministry of Transport, Building and Urban Affairs (BMVBS)

Robert-Schuman-Platz 1, 53175 Bonn

GERMANY (DE)

www.bmvbs.de

Ministry of Transport, Danish Road Directorate (DRD)

Vejteknisk Institut, Guldaderen 12, 2640 Hedehusene

DENMARK (DK)

www.vejdirektoratet.dk

National Roads Authority (NRA)

St. Martin's House, Waterloo Road, Dublin 4

IRELAND (IE)

www.nra.ie

Ministerie van Infrastructuur en Milieu (Rijkswaterstaat)

Schoemakerstraat 97, 2628 VK Delft

NETHERLANDS (NL)

www.rws.nl

Norwegian Public Roads Administration (NPRA)

P.O. Box 8142 Dep, NO-0033 Oslo,

NORWAY (NO)

www.vegvesen.no

Swedish Transport Administration (STA)

Röda vägen 1, S-78187 Borlänge

SWEDEN (SE)

www.vv.se

Highways Agency

The Cube, 199 Wharfside Street, Birmingham B1 1RN

UNITED KINGDOM (UK)

www.highways.gov.uk

The Programme Management:

Austrian Research Promotion Agency (FFG)

Sensengasse 1, 1090 Vienna

AUSTRIA (AT)

www.ffg.at

This Collaboration Agreement defines the responsibilities of the Parties and the Programme Management.

It is based on trust, common understanding and commitment and on Austrian law.

It is signed by the Authorised Representatives of the *Parties*. Original signatures are collected by the *Programme Management* and digital copies, acting as originals, are provided to all *Parties*.

The reference number of this programme is “ENR2 Energy”.

1. Definitions

See page 9 – Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”.

2. The Programme

The overall aim of the joint research programme “**Sustainability and Energy Efficient Management of Roads**” is to **improve the common understanding and performance of sustainable development** in the context of the road authorities. Develop **whole life consideration of sustainability and energy efficiency**, developing **decision making tools with practical application** to all stages of road planning, design, construction and maintenance. Addressing the need to assess the effects of operation, safety and durability, which will **deliver improvements in the energy efficiency performance of the road asset**.

The **Guide for Applicants** (GfA version 1.0 of 20.12.2011), is the **Annex I** to this Collaboration Agreement and is an integral part thereof.

3. The executive powers and responsibilities

The **Programme Ownership** is held by the *Programme Executive Board (PEB)* consisting of the following *PEB members* listed in Annex II, as representatives of the *Parties*. The *PEB members* are appointed by the *Parties* and should remain the same for the duration of the Programme but can be temporarily or permanently replaced by the *PEB deputy*, as the *Party* decides. If a *PEB member* or *PEB deputy* is changed by a *Party*, the *Party* has to inform the *PM* and the *PEC*. Annex II will be updated accordingly by *PM*.

Programme Responsibility shall rest with the **PM FFG Austrian Research Promotion Agency** (see Annex II). The *PM* is supported by the *Programme Executive Chair (PEC)* Åsa Lindgren (STA) who was nominated and approved by the *PEB*.

The administrative and organisational work to be conducted in the *Programme* shall be procured by the *PM*. The *programme responsibility* is under Austrian law and regulations and the FFG shall act within its normal framework of conduct.

In certain steps of the Programme the PM are supported by the PEB members as outlined in the following paragraphs.

At the *PEB* meetings the *PM* is supported by the *Programme Executive Board Chairman (PEC)*.

The *PEB members* jointly agree on the **objectives** for this *Programme* which are documented in the *Guide for Applicants (GfA)* – Annex I of this Collaboration Agreement.

The *PEB members* jointly agree on the **budget** that is contributed by each *Party* which is documented in this *Collaboration Agreement (CA)* Chapter 5 “*The financial obligations*” and *Annex III*. It is the responsibility of the *PM* to ensure that the payment and settlement of expenses related to this Collaboration Agreement are kept within the agreed programme budget.

The *PM* shall take the initiative and responsibility to open and perform the **Call for Proposals** and announce it in the Supplement of the Official Journal of the European Union.

The *PEB members* jointly agree on the **selection** procedure and jointly execute it. Each *PEB member* evaluates the eligible proposals according to the evaluation criteria (see Annex I). The *national evaluations* are then combined by the *PM* to a „joint priority list”. The priority list is discussed by the *PEB members* and they finally select the most appropriate proposed projects within the budget frame.

If a research provider who submits a proposal is part of the same legal entity as one of the *Parties* or is a *PEB member*, the related *Party* or *PEB member* is excluded from the Phase 2 (Evaluation), but remains participant in the *PEB* and contributes to the **Budget Plan**. He/She

returns to the *PEB* after the selection is completed. Member organisations of the **Task Force** are not eligible to submit proposals at all.

The *PM* coordinates the issuing of *Requests for Payment* to the funding Parties and the issuing of payments to the *Project Coordinators (PCs)*. The **Budget Plan** (see Chapter 5 “*the financial obligations*”) will be up-dated within a six monthly Programme Progress Report (PPR) and presented by the *PM* to the *PEB*.

The *PM* shall take the initiative and responsibility for entering into service contracts with the selected *PCs* with regard to project execution. The *PM* with the support of the *PPC* initiates and progresses the negotiations. The *PM* informs the *PEB* about the negotiation progress, the content of the contracts and the timescale.

PEB members responsible for each objective jointly **evaluate** the *Monitoring Progress Reports (MPR)* and *Deliverables* for the projects commissioned with each objectives. These reports shall be approved by the *PEB* before the payments to the Project Coordinators are released by the *PM*. All payments are made only on receipts of an approved *MPRs* and *Deliverables*.

The *PM* is responsible for sending a “Request for Payment” to the *Parties* at certain agreed stages **according to the Budget Plan: first instalment** after the contracts have been awarded (including the final Description of Work (DoW) and signed Consortium Agreement of the awarded project teams), **second instalment** after by the *PEB* approved Monitoring Progress Report 3 and **third instalment** after the final reports are submitted and approved by the *PEB* (see “*The financial obligations*”). The *Parties* contribute their share according to the *Budget Plan* to the *PM*. The *PM* pays the contractors after the approval of the reports by the *PEB*.

PEB members jointly decide who will prepare the **Final Programme Report**.

4. Selection procedure

The selection procedure for this joint *call for proposals* will consist of an approach in three phases if proposals are eligible (see Annex I, *ENR2 Energy Guide for Applicants*)

5. The financial obligations

The predicted timeline for the Programme is **January 2011 – December 2013**.

The *programme* shall be financed jointly by the *Parties*. Each *Party* is expected to make minimum of total call budget **EUR 150.000,-** for three years available dedicated to one objective for the execution of the *programme*, and to be paid according to the **Budget Plan** which shall be approved by *PEB* before the funded and selected projects start.

Total Budget (for 3 years)	EUR 1.350.000
5 % <i>PM</i> Costs (coordination, organisation and administration)	EUR - 67.500
2 % Final Conference and Report & unforeseen costs	EUR - 27.000
Research Budget (for 3 years)	EUR 1.255.500

The management and coordination of the programme will be considered as a separate project and included in the **Budget Plan**. Furthermore, a budget of max. EUR 25.000,- is foreseen for the organising and making of the *Final Programme Conference and Final Programme Report*.

The common research programme “**Energy – Sustainability and Energy Efficient Management of Roads**” is based on the following **three objectives**:

- A) Sustainability: Develop a common understanding of sustainability and development of a rating system
- B) Provide an Energy Efficient Road Infrastructure (construction, maintenance and operation)
- C) Determine the most important Road Infrastructure Characteristics which influence Vehicle Energy Consumption

The **research budget is of at least EUR 1.255.500 for three years** and it is estimated that **4 to 6 projects** with a duration of maximum 24 months will be jointly financed. The national financial contributions to the **Budget Plan** are included in Annex III. The selected projects will be cross-border funded.

If the quality of the submitted projects is so poor that the research budget is underspent, the *PEB* will decide what to do with the budget reservation. If the quality of the submitted projects is so good that there would be an overspend for one more project, the *PEB* will decide, if the total budget can be increased. The *PEB* will not force any Party to go beyond the financial obligation. However, a Party can choose to contribute more. The **overspend or underspend** should be no more than +/-10% of the total budget.

The FFG Austrian Research Promotion Agency, as the *PM*, will be responsible for the budget and accounting. They shall supervise and keep accounts of the selected projects with regard to the total resources and contributions that the *Parties* have reserved for the projects under this Collaboration Agreement. Similar responsibility shall apply if the project should receive resources from a third party.

The *PM* will present a provisional account (programme **Budget Plan**) to the other *Parties* according to the projects budget plans and the fiscal years of the *Parties*. The *PM* will submit a final account to the *Parties* for approval one month after the completion of the projects.

The *PM* will send a **“Request for Payment”** to the *Parties* to obtain their share of the budget frame according to the budget plan. Payments from the *Parties* will be placed in a custodial account from which the projects are paid. The *Request for Payment* will be sent annually in accordance with the budget plan. Payments from the Parties shall be paid to the *PM* within two months at the very latest after receiving the “Request for Payment”. If Parties wish to contribute funding upfront for more than one year this can be accommodated.

The *PM* will pay the *Project Coordinators* according to the projects budget plans at certain stages of the projects after approval of the *PEB*. The **payment** of the selected projects is foreseen on a 30/30/40% basis: 30% after the contracts have been awarded (including the final Description of Work (DoW) and signed Consortium Agreement), 30% on Monitoring Progress Report 3 and 40% on last Monitoring Progress Report 4 (Final Report) after the project is finished.

The above provisions do not apply to the obligations that a *Party* may have under national legislation with regard to the submission of accounts.

Except with the other *Parties'* cooperation and approval - and with due respect of national legislation - a *Party* cannot make changes to resources and contributions that have been specified in this *Collaboration Agreement* for the execution of this *Programme*.

If a Party is adjusted insolvent or unable to pay the instalments for the trans-national research programme and has to leave the *PEB*, than the remaining Parties have to decide whether

- a. the remaining Parties of that trans-national research programme defray the amount of the payments of the insolvent Party equally

or

- b. the trans-national research programme “Energy – Sustainability and Energy Efficient Management of Roads” shall be discontinued.

6. Progress and results

See page 13 – Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”.

7. Intellectual property rights and patents

See page 14 – Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”.

8. Decisions and conflict solving

See page 14 – Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”.

9. Changes to the Collaboration Agreement and its Duration

See page 14 – Collaboration Agreement of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”.

3.2. The Guide for Applicants

1 Introduction

The aim of this joint programme “**Energy - Sustainability and Energy Efficient Management of Roads**” is to **improve the common understanding and performance of sustainable development** in the context of the road authorities. Develop **whole life consideration of sustainability and energy efficiency**, developing **decision making tools with practical application** to all stages of road planning, design, construction and maintenance. Addressing the need to assess the effects of operation, safety and durability, which will **deliver improvements in the energy efficiency performance of the road asset**.

This trans-national research programme “**Energy - Sustainability and Energy Efficient Management of Roads**” is initiated by ERA-NET ROAD II (ENR2). The main objective of this joint research programme is to recommend “ERA-NET ROAD II – Coordination and implementation of Road Research in Europe” is a Coordination and Support Action funded by the 7th Framework Programme of the EC. ENR2 partners are Austria, Belgium (Flanders), Denmark, Finland, France, Germany, Hungary, Ireland, Lithuania, Netherlands, Norway, Poland, Slovenia, Sweden, Switzerland, United Kingdom, with CEDR (Conference of European Directors of Roads) as an Associate Partner. These partners are committed to the goals of ENR2 which provides a platform for international cooperation and collaboration in research areas of common interest. Details can be viewed at the ENR2 website www.eranetroad.org.

The research programme has been drafted to fulfil common interests of National Road Administrations (NRA). The participating NRAs in this Joint Research Programme are Germany, Denmark, Ireland, Netherlands, Norway, Sweden and United Kingdom. As in previous ERA-NET ROAD programmes, they will establish a Programme Executive Board (PEB) and a Programme Management (PM) will take over the administrative issues.

The PEB uses the Common Obligation Programme Model from the ‘ENR-toolkit’ to perform this cross-border funded joint call for proposals. That means that the Call for Proposals will be prepared and conducted by the Programme Management and under Austrian law and regulations and the budget is jointly funded by all participants of the PEB.

To achieve the goals set by ENR2, it is essential that national research results, knowledge and experience be exchanged at all levels and develop a common approach and an increased acceptance of intelligent infrastructure principles and **benefit from the trans-national collaboration**.

2 Reasons for the Joint Research Programme

The research commissioned by this Call is underpinned by many years of research effort aimed at optimising road management from both a technical and economic point of view. The Road Authorities across Europe manage their networks to **ensure the road functions efficiently and safely**. Roads allow goods to be transported across Europe and around individual countries and ensure people can fulfil their social, domestic and commuting needs. In our current societies **roads are essential to the economic prosperity of a country and to the** everyday lives of the millions of people who use them.

The Sustainable Development Strategy of the European Union (EU SDS) is a framework for a long-term vision of sustainability in which economic growth, social cohesion and environmental protection go hand in hand and are mutually supporting. Sustainable construction is one of the six markets in the EU Lead Market Initiative. It involves environmental concerns, health aspects and issues of convenience. To make a balanced consideration on road investment, whether construction, maintenance or operation, a **common understanding of sustainability** is very important.

With a common understanding comes the potential to **develop a sustainability framework and indices** to determine a roads sustainability performance. Such an approach would inform whether measures aimed at addressing one or more problem are appropriate and **improve the sustainability**, including durability and efficiency of the road. The framework and index may also highlight weaknesses or beneficial opportunities to Road Authorities.

The threat to our societies from **climate change is real and relevant to road authorities**. To a road authority the durability of the asset is vital and whole life cost considerations are a common feature of investment decision making. **Whole life carbon decision making** is starting to emerge and must draw on life cycle analysis, embodied carbon and traffic emission modelling. Energy sources will most probably be more limited or at least more expensive in the future. Therefore we also need to include energy in decision making.

Route alignment, gradient, lane provision, speed and surface texture all affect a vehicle's performance and emissions. Identifying the most **important aspects of road design which influence whole life energy demand** and related carbon emissions is pertinent to the road authorities, planners and policy makers. Road authorities need reliable knowledge to evaluate the effects of various road characteristics balancing efficiency-potential and cost-effectiveness. Planning and road design tools need to include energy analysis to facilitate the consideration of the entire life cycle of a road and to achieve cost-effective measures.

The potential of these important aspects to contribute further to sustainability and overall energy efficiency, particularly to the **reduction of network energy consumption and vehicle emissions**, needs to be analysed to determine which approaches work best. More effective co-operation between road authorities and stakeholders is needed to ensure reliable knowledge is gathered to help road authorities in implementing the most **effective and efficient road solutions**.

2.1 Research Objectives of the Joint Call

The overall aim of the joint research programme "**Sustainability and Energy Efficient Management of Roads**" is to **improve the common understanding and performance of sustainable development** in the context of the road authorities. Develop **whole life consideration of sustainability and energy efficiency**, developing **decision making tools with practical application** to all stages of road planning, design, construction and maintenance. Addressing the need to assess the effects of operation, safety and durability, which will **deliver improvements in the energy efficiency performance of the road asset**.

The programme is based on **three objectives** with an expected output. The objectives were developed with the concepts of:

- A) Sustainability: Develop a common understanding of sustainability and development of a rating system**
- B) Provide an Energy Efficient Road Infrastructure (construction, maintenance and operation)**
- C) Determine the most important Road Infrastructure Characteristics which influence Vehicle Energy Consumption**

These objectives were developed following a series of workshops involving specialists from each of the partner Road Authorities. In these workshops, it was recognised that the traditional approach to managing roads, based primarily on the condition of the pavement and structures, is inadequate for today's needs as they largely ignore the wider issues such as stakeholder expectations, whole life costing, sustainability and the environment. This research programme seeks to redress the problem by integrating these issues into an optimised management framework.

Applicants should ensure their project proposals are **clearly linked one of the three objectives** listed above, although it is accepted that there may be overlap between them. Proposals should emphasise the **trans-national benefit** of the project outcomes for the participating Road Authorities in the context of sustainable energy efficient management of the road infrastructure.

A) Sustainability – Develop a common understanding of sustainability and development of a rating system

Understanding what sustainability means in the context of National Road Authorities is very important. NRAs must cope with EU goals in the context of global goals/challenges and deliver or exceed national goals/targets/regulations.

In general, the three pillars of sustainability are environment, economic and social. However, it is not well known how sustainability is incorporated into what is currently delivered by NRAs. The above mentioned pillars are used as such or usually only partly by most organisations that have an interest in sustainability. Are these measures currently used to gauge what NRAs are delivering in terms of sustainable road infrastructure and is there any metric available to show how sustainable road authorities are and what needs to be done to improve their performance.

Road authorities would benefit from a common understanding of sustainability, clarity over the long term efforts and benefits from following a sustainable path which will lead to better consideration and a true value on impacts and benefits. Developing a system that allows sustainability evaluation tools that can be used to identify locations with the potential for road improvements and which allow consideration of local factors when assessed against solutions which have proven to be successful in other countries.

Research proposals may include:

- How to define sustainability from a NRA perspective? Different NRAs manage different areas of work, therefore having a relatively agreed understanding of what is covered and what is not would be a great step forward.
- What has been done and what should be done by the NRAs in the area of sustainability. How can the planning in early stages be improved to better consider e.g. land use planning and communities, drainage and foundation needs, eco system services and whole life sustainability? What has really been implemented and used, and what have been the cost and benefits of implementation? How long did it take to implement and who was involved in doing it? Are there substantial differences between NRAs?
- What are the most relevant items in order to improve sustainability which could be influenced by the NRA? Are there different sets of items for different decision making situation and/or different NRAs?

Expected outputs would include:

- Definition of sustainability for different purposes.
- The most appropriate measures to improve sustainability, their costs and effects (over the lifecycle) and how there could be implemented and considered in future rehabilitation and upgrading projects.
- A rating system/procedure for sustainability that allows policy to be influenced. There may be different systems/procedures for different areas, such as planning, design, construction and operation. Procurement should form part of the construction component. Rating procedures can be combined to a single or several indices or rating metric. Recommendations on how this could be used to compare the performance of different NRA in the future, including practical guidelines for implementation.

B) Provide an Energy Efficient Road Infrastructure

The planning, design, construction, management and demolition of road infrastructure is significant on CO₂-emission and energy used. Currently, no holistic approach exists to take the energy consumption and the CO₂-emission of all steps of a lifecycle of a road into account. A life cycle assessment could be applied on three levels; the materials, construction, and the infrastructure itself.

There are no comprehensive and widely applied tools available how roads are planned and designed, what material should be used and how the road should be constructed in order to optimise energy use and CO₂ impact over the entire life cycle when planning new roads and maintenance activities. Excavation and transportation of materials is energy intensive works. The foundation of roads covers a variety of operations but lack information on energy use or CO₂-emissions. Choices of methods and equipment have to be focused on reducing energy consumption but not at the expense of consequential social or environmental impacts of the choice made.

Selection of materials and components, as well as the consumption of these, must be in terms of energy used in their manufacture. This in turn means that the goods should have a declared energy or resource use. Furthermore, one must take into account the energy consumption in the future operational phase of such equipment including here whole life cycle and eventual decommissioning.

As a parallel to EIAs it would be interesting to develop an Energy Use Assessments/Analysis which could also be calculated as annual costs or loads and to develop an energy rating and performance comparator for roads.

Research proposals may include:

- Establishing what has been done in the area to find relevant needs/shortcomings
- Analyses of the CO₂-emission and energy used in transport related to all steps of the lifecycle. Estimate the possible impact of road infrastructure measures on CO₂-emission and energy used in roads. Identify the most critical steps to be considered.
- Are current road standards and guidelines sufficient for future needs? When mobilising for climate changes, how can the road construction be modernised with respect to energy use and CO₂ impact? What is the significance of road design for operation and maintenance?
- What kind of analysis systems/procedures are needed to improve decision making in this area? Development of guidelines for design and implementation of such decision making tools.

Expected outputs would include:

- Development of procedures and related tools to calculate the possible impact of road infrastructure measures on CO₂-emission and energy used in road transport.
- Development of a tool that enables NRA to take energy consumption in all steps of a lifecycle of a road into account in decision making processes.
- Development Guideline for implementation
- Implement energy conservation in road design and maintenance.

C) Determine the most important Road Infrastructure Characteristics that influence Vehicle Energy Consumption

Road infrastructure characteristics contribute considerably to vehicle energy consumption. Currently there are several existing methods of taking the relationship of vehicles energy consumption and road infrastructure characteristic into account in decision process when deciding on suitable road infrastructure in Europe. Some of these methods have been implemented into use, but not very widely in European NRAs. In particular, these methods are not used in pavement management systems. At best the methods consider surface characteristics and road alignment, principally vertical alignment, but overall design standards, lane provision, design speed and speed limits, tolerance of congestion and additional temporary congestion associated with construction and maintenance works are all relevant. In addition, it is important to examine, how pavement surface characteristics and energy use are relative to other vehicle energy consumption How can other conflicting aspects be taken into account, such as noise, durability and safety?

How will regional characteristics, climate and geography, topography, influence on the parameters? How should such 'environmental parameters' be considered when focusing on the most important road infrastructure characteristics?

Research proposals may include:

- Establishing what has been done in the area to find relevant needs/shortcomings.
- Define the effect of road infrastructure characteristics to vehicle energy consumption and develop a tool/methodology to analyse these effects, taking the existing knowledge into consideration and future fleet characteristics.
- Define in which environment these road infrastructure characteristics/parameters are of major or minor concern.
- Investigate the possibilities to include road infrastructure characteristics and vehicle's energy consumption relationship in a Pavement/Asset Management System, including relevant pavement surface data (micro/macro/mega roughness, unevenness, etc.) collection/measurements needed for analysis.

Expected outputs would include:

- Defined and modelled effects of road infrastructure characteristic into vehicle energy consumption, in relation to regional or climatic/ environmental parameters.
- Developed tools/methodologies to be used in analysis of road infrastructure characteristics to vehicle's energy consumption
- Develop guideline and instructions for implementation and use of developed tools

2.2 Overview of current European activities and results

A general overview of the present research results and activities in Europe is outlined below.

Applicants **must not duplicate existing results on ongoing projects**, but submitted projects can be based on the outcomes and state of the art identified in the projects listed below.

7th Framework Programme

FP7 SST.2011.5.5-2: Advanced and cost effective road infrastructure

EUROSTAT

Eurostat pages on sustainable development indicators:
(<http://ec.europa.eu/eurostat/sustainabledevelopment>)

CEDR Technical Group Road Maintenance

- iv) Strategic Plan 2009-2013, October 2008
<http://www.cedr.eu>

ERA-NET ROAD/ENR2

<http://www.eranetroad.org>

- ix) Maintenance backlog, estimation and use
- x) Road users getting to grip with Climate Change
ongoing project
- xi) Safety at the heart of road design
ongoing project
- xii) Effective Asset Management meeting future challenges
ongoing project

ERTRAC – European Road Transport Research Advisory Council

<http://www.ertrac.org>

- iii) Structured Research Recommendations 2007-2015.

FEHRL – Europe’s road research centres

<http://www.fehrl.org>

- iv) The Strategic European Road Research Programme 2006-2011.

OECD – International Transport Forum

<http://www.internationaltransportforum.org>

PIARC

<http://www.piarc.org>

Transportation Research Board (TRB), US

<http://www.trb.org>

National programmes – UK DfT and Highways Agency

http://www.highways.gov.uk/knowledge_compendium/

Other references

- Eurostat pages on sustainable development indicators: (<http://ec.europa.eu/eurostat/sustainabledevelopment>)
- ENR SR04: Effective Asset Management Meeting Future Challenges. http://www.eranetroad.org/index.php?option=com_content&view=article&id=91&Itemid=88
- ENR: Maintenance Backlog - estimate and use (May 2009) (http://www.eranetroad.org/index.php?option=com_docman&task=cat_view&gid=57&Itemid=53)
- ERCPD (Energy Conservation in Road Pavement Design, Maintenance and Utilisation), www.ecrpd.eu
- MIRIAM (Models for rolling resistance In Road Infrastructure Asset Management Systems), <http://www.fehrl.org/index.php?m=155&mode=more&id=263>
- Swedish Transport Administration: Energy Efficient Road Construction, Operation and Maintenance – Action plan. (Publ no 2009:146)
- VETO (Sweden)

3 General information for applicants

“**Energy - Sustainability and Energy Efficient Management of Roads**” is a trans-national joint research programme initiated by ERA-NET ROAD II. It is cross-border funded by Germany, Denmark, Ireland, Netherlands, Norway, Sweden and United Kingdom.

The **Programme Management**, responsible for the management of this joint research programme, is the **Austrian Research Promotion Agency (FFG)**. Thus, Austrian law and regulation will be applied. The open call for proposals is performed as Design Contest. This contest is partly based on Directive 2004/18/EC respective BVergG 2006 (Austria). It refers to § 10 z13 BVergG 2006 specific exclusion for R&D services, therefore the European and Austrian public procurement directives and rules are not applicable.

This is an **open joint call for proposals** with following organisational issues:

3.1 Project types

The aim is to trans-nationally fund projects regarding the project type “applied research” (from „Community Framework for State Aid for Research and Development and Innovation (2006/C 323/01)“)

Applied research is also original investigation undertaken to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective.

(Frascati Manual 2002)

3.2 Duration

The duration of this programme is 36 months from January 2011 to December 2013. The duration for **individual projects can be up to 24 months** within the programme timescale.

3.3 Language

The programme language is English and consequently the project language of the proposals shall be English.

3.4 Procedural overview

See page 25 – Guide for Applicants of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”.

3.4.1 Predicted Timeline

Action	Date
Phase 1: Submission	open 60 days
Call opens	31 January 2011
Call closes	31 March 2011
Phase 2: Evaluation	
Evaluation and ranking of proposals	April 2011
Phase 3: Selection	
Contracting phase	May 2011 till September 2011

3.4.2 Submissions of the proposals

The call for proposals gives possibilities for both smaller and larger projects, addressing various research areas listed in points 2.1.

Download the Guide for Applicants and Application Form (Part A and B) at

URL: www.eranetroad.org

Applicants should ensure their project proposals are **clearly linked to only one of the three objectives** and should clearly **state the trans-national benefit of the project output(s)**.

These proposals are legally binding till December 2011.

The applicant (the project coordinator of the consortium) must submit the proposal using the **Application Form (Part A and B)** and must include a **draft Consortium Agreement** to the Programme Management. Project Proposals must be submitted via e-mail to energy.eranetroad@ffg.at by **31 March 2011, 12:00 CET** at the latest.

E-mail: energy.eranetroad@ffg.at

The *Programme Management* requires the **Application Form** in Word and Excel format (*ENR Energy_Application Form_Part A.doc* and *ENR Energy_Application Form_Part B.xls*).

For each submission the Application Form should be renamed as:

- **ENR2 Energy_Acronym_Part A.doc** (content part) and
- **ENR2 Energy_Acronym_Part B.xls** (financial part)

where Acronym is the project acronym of the submitted project proposal.

The **Consortium Agreement** must be signed by all consortium members before the contract is placed (after selection). No template for a **Consortium Agreement** is provided. The required content is described below, in the Eligibility Criteria.

The call closes on 31 March 2011, (12:00 CET)

Submissions received after the above deadline will not be considered.

3.4.3 Eligibility Criteria

See page 27 – *Guide for Applicants of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”*.

3.4.4 Evaluation criteria

See page 28 – *Guide for Applicants of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”*.

4 Total budget of the call

The total budget earmarked for the co-financing of projects amounts to **EUR 1,25 mio.**

Thus it is expected that **4-7 projects** could be jointly funded. Financial assistance will exceed to 100 % of the total eligible costs for basic and applied research projects.

The costs are **inclusive VAT** (see Annex I – Contract for services).

Eligible Costs must be incurred during the duration of the project. They are:

- **Personnel:** type of work with personnel cost rates (including overheads)
- **Travel:** travel, accommodation and meetings, etc related to the project
- **Material:** only depreciation during the project can be considered

Please consider **2-3 joint meetings** with the Programme Executive Board with 1-2 representatives of the project.

In the following you see an exemplary of the Cost-Structure (See page 29 – Guide for Applicants of trans-national joint research programme on “Mobility-Getting the most out of Intelligent Infrastructure”)

Only cost incurred during the timescale of the project can be included.

5 Contacts

Programme Management (PM):

	Party	Name	mail	mobile/phone
AT	FFG	Katharina Eder	Katharina.eder@ffg.at	+43 (0)5 7755 5034
AT	FFG	Christian Pecharda	Christian.pecharda@ffg.at	+43 (0)5 7755 5030

6 Downloads

Applicants must comply with all terms of the full text and be submitted on the forms provided.

The full text of this call for proposals, the **Guide for Applicants** and the **Application Form (Part A and B)**, can be downloaded at the following internet address:

Information: <http://www.eranetroad.org>

Submission to email: energy.eranetroad@ffg.at

Applicants must comply with all terms of the full text and be submitted on the forms provided.

3.3. The Announcement in eNotice (Supplement to the Official Journal of the European Union)

1/7 ENOTICES_FFGKRK 26/01/2011- ID:2011-012748 Standard-Formblatt 14
Energy - sustainability and energy efficient management of roads



Veröffentlichung des Supplements zum Amtsblatt der Europäischen Union
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BEKANNTMACHUNG ÜBER ZUSÄTZLICHE INFORMATIONEN, INFORMATIONEN ÜB NICHTABGESCHLOSSENE VERFAHREN ODER BERICHTIGU

Hinweis: Sollten die berichtenden bzw. zusätzlichen Informationen zu einer wesentlichen Änderung der in der ursprünglichen Bekanntmachung angeführten Bedingungen führen, die den Grundsatz der Gleichbehandlung sowie das Ziel einer wettbewerblichen Beschaffung betrifft, wird die Verlängerung der ursprünglich vorgesehenen Fristen erforderlich.

ABSCHNITT I: ÖFFENTLICHER AUFTRAGGEBER

I.1) NAME, ADRESSEN UND KONTAKTSTELLE(N)

Offizielle Bezeichnung: FFG Austrian Research Promotion Agency
Postanschrift: Sensengasse 1
Ort: Vienna Postleitzahl: 1090
Land: Österreich
Kontaktstelle(n): Telefon: +43 577556034
Zu Händen: Katharina Eder
E-Mail: katharina.eder@fgg.at Fax:
Internet-Adresse(n) (falls zutreffend)
Hauptadresse des Auftraggebers (URL): www.fgg.at
Adresse des Beschafferprofils (URL):

I.2) ART DER BESCHAFFENDEN STELLE

- Öffentlicher Auftraggeber (bei Aufträgen, die unter die Richtlinie 2004/18/EG fallen)
- Auftraggeber (bei Aufträgen, die unter die Richtlinie 2004/17/EG – „Sektoren“ – fallen)

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ABSCHNITT IV: VERFAHREN

IV.1) VERFAHRENSART

IV.1.1) Verfahrensart (siehe Angaben in der ursprünglichen Bekanntmachung)

- Offenes Verfahren
- Nichtoffenes Verfahren
- Beschleunigtes nichtoffenes Verfahren
- Verhandlungsverfahren
- Beschleunigtes Verhandlungsverfahren
- Wettbewerblcher Dialog

IV.2) VERWALTUNGSINFORMATIONEN

IV.2.1) Aktenzeichen beim öffentlichen Auftraggeber/beim Auftraggeber (siehe Angaben in der ursprünglichen Bekanntmachung, falls anwendbar)

IV.2.2) Referenznummer der Bekanntmachung für elektronisch übermittelte Bekanntmachungen (sofern bekannt)

Übermittlung der ursprünglichen Bekanntmachung über:

- SIMAP
- OJS eSender

Login: ENOTICES_FFGKRK
Referenznummer der Bekanntmachung: 2011-012676 (Jahr und Dokumentnummer)

IV.2.3) Bekanntmachung, auf die sich diese Veröffentlichung bezieht (falls zutreffend)

Bekanntmachungsnummer im ABl.: vom // (TT/MM/JJJJ)

IV.2.4) Tag der absendung dieser bekanntmachung:

26/01/2011 (TT/MM/JJJJ)

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ABSCHNITT II: AUFTRAGSGEGENSTAND

II.1) BESCHREIBUNG

II.1.1) Bezeichnung des Auftrags durch den Auftraggeber (siehe Angaben in der ursprünglichen Bekanntmachung)

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II.1.2) Kurze Beschreibung (siehe Angaben in der ursprünglichen Bekanntmachung)

The overall aim of the joint research programme "Mobility – Getting the most out of Intelligent Infrastructure" is to improve the management of the European road network. The research will focus on identifying the challenges faced by NRAs in embracing new techniques to get the most out of the existing network and assist road authorities in identifying feasible, valid and cost-effective solutions for key European roads. The programme is based on the following four objectives (described in the Description of Research Needs):
 A: Impact assessment of Intelligent Transport Systems (ITS)
 B: Effective distribution of road authority data
 C: High quality traffic management/information data and incident detection
 D: Implementation of short term prediction
 These objectives were developed following a series of workshop involving specialists from each of the partner Road Authorities. This research programme seeks to understand how to get the most out of Intelligent Infrastructure from a road operator point of view. These objectives have been developed following a series of workshops involving specialists from each of the partner Road Authorities. In these workshops, it was recognised that benefits of intelligent infrastructure systems need to be included in business cases. These will inform decisions about whether funding can be made available. In addition all of the above objectives need to consider value for money, whole life costing, sustainability and the environment for the road operator. Applicants should ensure their project proposals are clearly linked to one of the four objectives listed above, although it is accepted that there may be overlap between them. Proposals should emphasise the trans-national benefit of the project outcomes for the participating Road Authorities in the context of getting the most out of Intelligent Infrastructure.

II.1.3) Gemeinsames Vokabular für öffentliche Aufträge (CPV) (siehe Angaben in der ursprünglichen Bekanntmachung)

	Hauptteil	Zusatzteil (falls zutreffend)
Hauptgegenstand	73110000	
Ergänzende Gegenstände	73000000	
	73210000	

ABSCHNITT VI: ZUSÄTZLICHE INFORMATIONEN

VI.1) DIESE BEKANNTMACHUNG BEZIEHT SICH AUF
 (Gegebenenfalls so viele Kästchen wie erforderlich anklicken)

- Nichtabgeschlossenes Verfahren
- Berichtigung
- Sonstige Informationen

VI.2) INFORMATIONEN ÜBER NICHTABGESCHLOSSENE VERGABEVERFAHREN
 (Gegebenenfalls so viele Kästchen wie erforderlich anklicken)

- Das Vergabeverfahren wurde eingestellt.
- Das Vergabeverfahren war erfolglos.
- Der Auftrag wurde nicht vergeben.
- Der Auftrag wird möglicherweise Gegenstand einer neuen Veröffentlichung sein.

VI.3) ZU BERICHTIGENDE ODER ZUSÄTZLICHE INFORMATIONEN

(gegebenenfalls die Stelle des Textes oder der Daten, die zu ändern oder hinzuzufügen sind, bitte angeben; der entsprechenden Abschnitt & die Nummer aus der ursprünglichen Bekanntmachung bitte angeben)

VI.3.1) Änderung der ursprünglichen Informationen oder Veröffentlichung in TED nicht ordnungsgemäß.

- Änderung der ursprünglichen Informationen, die vom öffentlichen Auftraggeber übermittelt wurden
- Die Veröffentlichung in TED stimmt nicht mit den ursprünglich vom öffentlichen Auftraggeber übermittelten Informationen überein.
- In beiden

VI.3.2) Bekanntmachung oder entsprechende Ausschreibungsunterlagen

- In der ursprünglichen Bekanntmachung
- In den entsprechenden Ausschreibungsunterlagen (weitere Auskünfte, siehe entsprechende Ausschreibungsunterlagen)
- In beiden (weitere Auskünfte, siehe entsprechende Ausschreibungsunterlagen)

VI.3.3) In der ursprünglichen Bekanntmachung zu berichtiger Text (falls zutreffend)

Stelle des zu berichtigen Textes:	Anstatt:	muss es heißen:
Abschnitt II.1.2	The overall aim of the joint research programme "Mobility – Getting the most out of Intelligent Infrastructure" is to improve the management of the European road network. The research will focus on identifying the challenges faced by NRAs in embracing new techniques to get the most out of the existing network and assist road authorities in identifying feasible, valid and cost-effective solutions for key European roads. The programme is based on the	The overall aim of the joint research programme "Energy - Sustainability and Energy Efficient Management of Roads" is to improve the common understanding and performance of sustainable development in the context of the road authorities. Develop whole life consideration of sustainability and energy efficiency, developing decision making tools with practical application to all stages of road planning, design, construction and maintenance. Addressing the need to assess the

Stelle des zu berichtigen Textes:	Anstatt:	muss es heißen:
	(described in the Description of Research Needs): A: Impact assessment of Intelligent Transport Systems (ITS) B: Effective distribution of road authority data C: High quality traffic management/information data and incident detection D: Implementation of short term prediction These objectives were developed following a series of workshop involving specialists from each of the partner Road Authorities. This research programme seeks to understand how to get the most out of Intelligent Infrastructure from a road operator point of view. These objectives have been developed following a series of workshops involving specialists from each of the partner Road Authorities. In these workshops, it was recognised that benefits of intelligent infrastructure systems need to be included in business cases. These will inform decisions about whether funding can be made available. In addition all of the above objectives need to consider value for money, whole life costing, sustainability and the environment for the road operator. Applicants should ensure their project proposals are clearly linked to one of the four objectives listed above, although it is accepted that there may be overlap between them. Proposals should emphasise the trans-national benefit of the project outcomes for the participating Road Authorities in the context of getting the most out of Intelligent Infrastructure.	improvements in the energy efficiency performance of the road asset. The programme is based on three objectives with an expected output. The objectives were developed with the concepts of: A) Sustainability: Develop a common understanding of sustainability and development of a rating system B) Provide an Energy Efficient Road Infrastructure (construction, maintenance and operation) C) Determine the most important Road Infrastructure Characteristics which influence Vehicle Energy Consumption These objectives were developed following a series of workshops involving specialists from each of the partner Road Authorities. In these workshops, it was recognised that the traditional approach to managing roads, based primarily on the condition of the pavement and structures, is inadequate for today's needs as they largely ignore the wider issues such as stakeholder expectations, whole life costing, sustainability and the environment. This research programme seeks to redress the problem by integrating these issues into an optimised management framework. Applicants should ensure their project proposals are clearly linked one of the three objectives listed above, although it is accepted that there may be overlap between them. Proposals should emphasise the trans-national benefit of the project outcomes for the participating Road Authorities in the context of sustainable energy efficient management of the road infrastructure.

VI.3.4) In der ursprünglichen Bekanntmachung zu berichtiger Daten (falls zutreffend)

Stelle der zu berichtigen Daten:	Anstatt:		muss es heißen:	
	(tt/mm/jjjj)	(hh:mm)	(tt/mm/jjjj)	(hh:mm)

VI.3.5) In der ursprünglichen Bekanntmachung zu berichtiger Adressen und Kontaktstellen (falls zutreffend)

Stelle des zu berichtigen Textes:

Offizielle Bezeichnung:
 Postanschrift:
 Ort: Postleitzahl:
 Land:
 Kontaktstelle(n): Telefon:
 Zu Händen:
 E-Mail: Fax:
 Internet-Adresse(n) (falls zutreffend)
 Hauptadresse des Auftraggebers (URL):
 Adresse des Beschafferprofils (URL):

VI.3.6) In der ursprünglichen Bekanntmachung hinzuzufügender Text (falls zutreffend)

Stelle des hinzuzufügenden Textes	Hinzuzufügender Text

VI.4) Weitere zusätzliche Informationen (falls zutreffend)

VI.5) TAG DER ABSENDUNG DIESER BEKANNTMACHUNG:
 26/01/2011 (tt/mm/jjjj)