PROJECT PROPOSALS FOR THE 2ND CALL OF FP7

(DEC 2007 – JAN 2008)

Template for the project synopsis

1. Proposal for project name

Continuously Supported Embedded Slab Track (BBEST) Installation & Compatibility

2. Problem that the project will address (why is the project being initiated?)

Slab track has long been seen as way of improving ride quality, reducing maintenance costs and extending the asset lives both of the track and the vehicles. However, many slab track designs have failed to live up to there high initial expectations for various reasons but often related to the fixity between the slab and the rail.

Balfour Beatty have been working on a new from of embedded rail support that it is hoped will solve many of these technical problems, as well as to control noise and reduce transport costs to people and to business. The design will produce a system that increases operational safety while reducing the size of the infrastructure required.

This project is needed to progress the design from its current trial state (short sections installed) to the point where the European railway organizations will feel able to commit to production level installations.

3. Scope of the project

- Establish installation methodology & mechanization
- Establish output rates/costs (to meet or better ballasted track) based on Innotrack LCC models
- Prove the installation methodology
- Show compatibility with existing S&C designs and existing track forms
- Show compatibility with other disciplines such as signalling and power
- Confirm improved vehicle interaction

4. Which section of the 2nd call draft is being addressed?

This project would fall under Section 15.

5. State of the art: previous or on-going research or standardization initiatives in this area

The continuously supported embedded slab track is already the state of the art and as such it is currently being developed under the existing Innotrack programme of works. The existing projects look at the cost benefits of the system and at some elements of the design. This proposed project would build on the existing work and take the system to the next stage of the process i.e. installation. Initial cost is already known to be significant part of the whole life costs and this work will look at minimizing such costs.

6. Estimated budget (total and EC Contribution)
(Please note that under FP7 R&D activities as well as demonstration will be 50% funded)

Since a full last of partners is yet to be fully defined the costing can only be approximate at this stage. However, the anticipated to cost of the project is approximately €7 million. It is expected that 50% of this funding would come from the framework with remainder from the partners.

7. Project duration *(indicative range: between 24 and 48 months)*

The project is expected to last around 40 months.

8. The leader of the proposal preparation

Balfour Beatty Rail Technologies Limited will lead the project.

9. Main potential partners (names of companies supporting the proposal as opposed to potentially interested stakeholders)

The full list of partners is still to be established. However, the main potential partners will be Balfour Beatty Rail Technologies and ProRail. It is anticipated that at leased other one European railway (possibly DB) and up to 2 Universities will also be involved in the project.

10. Contributions to standards – can the results of this projects be transferred into future EN standards? *(Maximum 5 lines)*

Contributions to standards are possible both in the area of track fixing design and assessment (the current standards are not directly relevant) and also in the vehicle track interaction area.

11. Implications of the project for current individual company products and practices – is the proposal supported internally within each major partner at the strategic level? *(Maximum 5 lines)*

The project has a high level of support with the main partners and is seen as key innovation both in terms of future business growth and in the further expansion of mainline and metro systems in Europe.

12. Risk factors that could jeopardize the implementation of results. How to ensure market up-take and who will have the responsibility over the implementation? *(Maximum 5 lines)*

The key risk is that potential adopters of this technology will not have sufficient confidence to make a long term investment in a new system. The project is specifically about addressing this risk in so far as it will provide evidence and examples of a complete working system for numerate evaluation.

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