



ECTP Conference - Versailles 21<sup>st</sup> & 22<sup>nd</sup> November 2006

# Planning & execution of the FP6 project “Sustainable Bridges”



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# Outline

- History of the project
- Vision & expected impact
- Technologies addressed
- Results and societal impact
- Project organisation
- Owner input
- EU supervision
- EU review comments
- Lessons learned



# History of Sustainable Bridges

- Several partners participated in a similar, unsuccessful FP5 bid called Ecobridge
- Railway specific theme in first call for FP6
- Full SB consortium assembled in early 2003
- “Integrated project” bid submitted in mid 2003 and accepted for funding in autumn 2003
- Kick off meeting December 2003
- Project to finish November 2007
- 32 partners from 12 countries, including 8 clients (6 railway administrations UK, Sweden, France, Germany, Poland, Finland & 2 road administrations Sweden & Finland)



## Project vision and expected outcomes

- A series of tool boxes and guidance documents that will permit:
  - Increased allowable train loads and speeds
  - Increased residual service life
  - Enhanced management, strengthening and repair systems



# Technologies addressed

- Bridge assessment
  - Structural analysis
  - Load transfer & soil/structure interaction
  - Structural damping
  - Material degradation
- *supported by* NDT
  - Radar
  - Tomography
- *and monitoring*
  - Wireless networks
  - Forced excitement using a shaker
- Strengthening
  - Mineral based composites

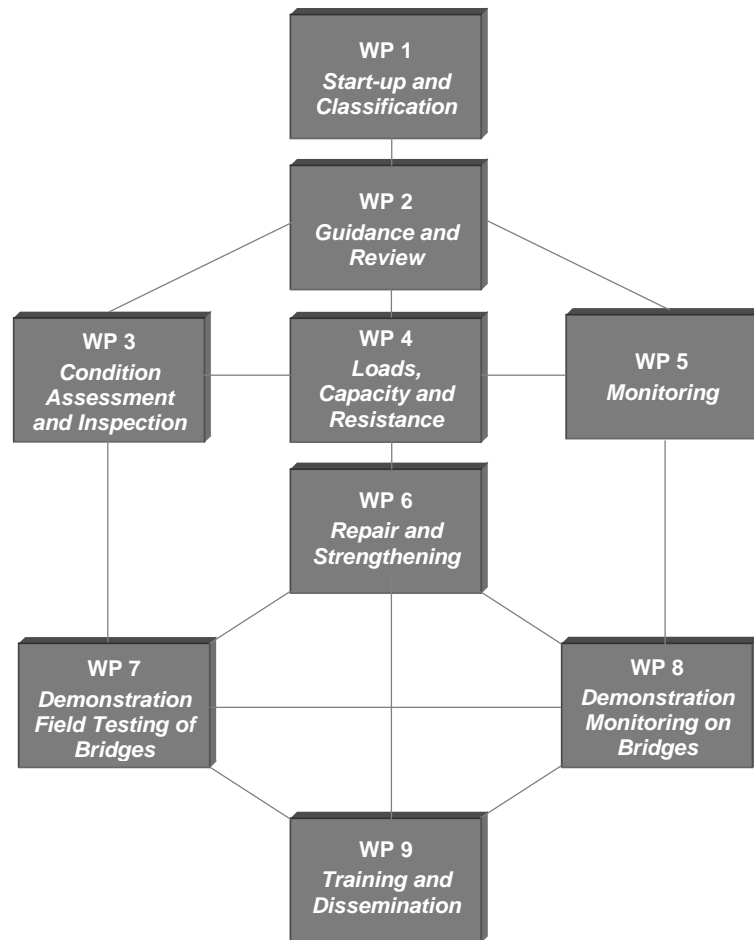


## Results & societal impact

- Preliminary results
  - Still 12 months to run!
    - Drafts of tool boxes being prepared
    - Site trialling/demonstrations under way
- Societal impact
  - A more competitive European railway sector
  - Less disruption to the travelling public
  - Less environmental impact due to reduced construction activity



# Project organisation



## Management

General assembly – all 32 partners  
(meets once per year)

Management team – each WP  
leader plus manager and scientific leader  
(chaired by manager, meets physically  
twice per year supplemented by  
telephone conferences about monthly)

Executive board – 1 client, 1  
consultant, 1 academic, 1 research body  
plus manager and scientific leader (chair  
changes annually, meets physically twice  
per year supplemented by telephone  
conferences if needed)



# Railway owner input

- Network Rail led WP1 (Start up and classification), Banverket leads WP2 (Guidance and review)
- Each railway partner is responsible for guiding the work at least one of the “scientific” WPs and ensuring that the outputs are relevant to the project aims
  - WP3-DB, WP4-NR, WP5-DB, WP6-BV, WP7-SNCF & NR, WP8-RHK & BV, WP9-PKP
- WP2 “railway owner” sub group gives “practical” comments on all draft deliverables
- WP2 arranges general assembly and produces “internal” reviews of yearly progress & future implementation plan





# EU supervision

- Annual project report and 18 month forward work plan produced in December each year
  - EU have appointed two reviewers
    - Patrick Van Honacker
    - Dermot O'Dwyer
- Reviewers' comments received by project in January
- Formal review meeting in Brussels in February
- Approval to continue



# Selected EU review comments

- Is the proposed update to the *Implementation Plan* for the next period satisfactory from a management point of view including use of resources?
  - The management team has done an excellent work and it is anticipated that they will continue to do so. Involvement of bridge owners (end users) in all WP's and in review of deliverables is very positive.
- Does the project have significant use potential (if applicable)?
  - Absolutely! The results of this project will be of potential benefit to all railway infrastructure providers across Europe.



# Selected EU review comments

- Are potential users and other stakeholders (outside the consortium) suitably involved?
  - The end users (major railway companies) are involved and they have direct contact with other networks through their UIC and other contacts.
  - As outlined previously, the success of the project will depend on the implementation of the project's results. Therefore it is important to continue to foster close ties with Infrastructure Providers and their organisations, e.g. UIC. In addition it is important the project's deliverables incorporate the findings of other related projects. It would be undesirable for the Sustainable Bridges project to propose procedures that differ from other current research: such a situation would restrict the implementation of both research projects.



## Lessons learned

- Clients must be involved in formulating the questions to be answered by the project
- Do not invite your “friends” to participate; find people with the real research capability to deliver the answers
- Research partners need to be able to address more than one area and be able to switch resources if necessary



Thank you