ERRAC Evaluation Group – Checklist for the Risk Benefit Analysis of EU Projects

The ERRAC Evaluation Working Group has established a check list where they can assess the state of health of existing EU Funded Research Projects. The intention is to use the same list for evaluating on-going projects as well as for pre-evaluating the feasibility of projects during the preparation phase before they are submitted to the Commission.

The first set of check points are related to the ease of implementation.

(The success of the project itself is taken for granted so the aim of the check points is to identify specific threats to the successful implementation of its results)

1. Why is the project being initiated?
   The PROWEEL project aims to address the problem that no painting or protection system, that meets the environmental requirements, can meet all the requirements of the protection against corrosion and against mechanical aggression defined in the existing EN standard EN13261 (Axles Product Requirements).

2. By whom is the project being initiated?
   European Railway Wheel sets Association (ERWA)

3. What are the objectives and forecast benefits?
   - Reduction in VOC level
   - Reduction of manufacturing and maintenance costs
   - Reduction of non quality ratio (due to claims) by a better adhesion
   - Avoidance of investment in combustion systems
   - Less frequent painting during service
   - Economic & safety analysis of the paint-less solution

4. How can that benefit be measured?
   A detailed work plan should be presented, broken down into work packages (WPs) which should follow the logical phases of the implementation of the project, and include consortium management and assessment of progress and results.

5. Who is taking the benefit?
   - Transport operators
   - Railway supply industry
   - Safety and certification bodies
   - Standardisation bodies
   - Engineering organisations (for interface/system management)
   - European and national policy makers

6. Who is taking the cost?
   ERWA

7. How equitably are the costs and benefits being distributed? (i.e. a proper LCC analysis should be elaborated and agreed upon in the bid preparation or initial work phases)

The costs are being distributed equally across the wheelset industry while the benefits are being distributed more or less equally between the industry and the railway operators, both of whom will benefit from the improved wheelset protection.

8. Is any party going to lose anything if specific results are implemented?
   Potentially paint suppliers may experience a drop in demand if improved adhesion is achieved or there is a move towards a paint-less solution.

9. Are all the real stakeholders for implementation of the results represented in the project or do they support the project in some other way?
   Railway operators (end-users) are represented through UIC which is a major partner in the project. Paint suppliers, who may not necessarily be direct partners in the project, will support the project through an external paint suppliers group.

10. What are the consequences if part, or all, the implementation fails?
    High Risk that water based paint systems cannot be integrated on railway axles for corrosion protection.

11. Who is affected by these consequences of failure?
    All manufacturers, Operators and the environment in not meeting European objectives for reduced VOCs.

12. Is there any up front investment necessary before the benefit can be taken? Surely yes, but refer to question 7 with a demonstrable and increased LCC. Only then should we start the full project. No

13. Is there anybody who has specific reasons to block implementation? (special interest groups or some potential industry partners excluded from the project?) No

14. What are the reasons for their opposition? (Market protection, job protection, call on investment funding, etc…) N/A

15. Is there a need to change laws or Technical Specifications for Interoperability in order to be able to implement the results? Amended EN standards

16. How can the necessary changes best be implemented? (Through changes to Directives, national regulations or through the TSIs or mandatory or voluntary standards? What happens if there is no enabling legislation such as a Directive, as applied to most of the urban sector?)
    Through national bodies

17. What are the probabilities to succeed with the necessary changes to the law or TSIs? See 16 High

18. Are there any unknown parameters affecting implementation? (Fees, hidden costs or permissions required, etc…) No

19. Is there a need to redesign products to gain any benefits from the project? See 12. Yes

20. Is there a need to make changes to already installed base of vehicles or infrastructure? No

21. If there is no need to change the existing installed base, can the existing base be disadvantaged in any way? No

22. Who pays for the above changes and how will investment be funded? LCC must demonstrate.
    Through ERWA members; economic analysis of solutions is to be undertaken.

23. Is the project underwritten by all stakeholders, at an operational level, with an appropriate level of authority? Yes

24. Are there any negative impacts of implementation foreseen which could threaten implementation in the longer term? No

25. Are there any existing projects whose results could be in conflict with this one? No

26. Are there any other projects supporting or depending on this one? No

27. Are the results of the project immediately capable of implementation or is some additional research work likely to be required? Capable of implementation.

28. Can an 'Early Adopter' be identified and brought into the project from day one?

29. Are there any 'parallel' activities at the level of CEN/CENELEC/ETSI/IEC/ IEEE in this area? No

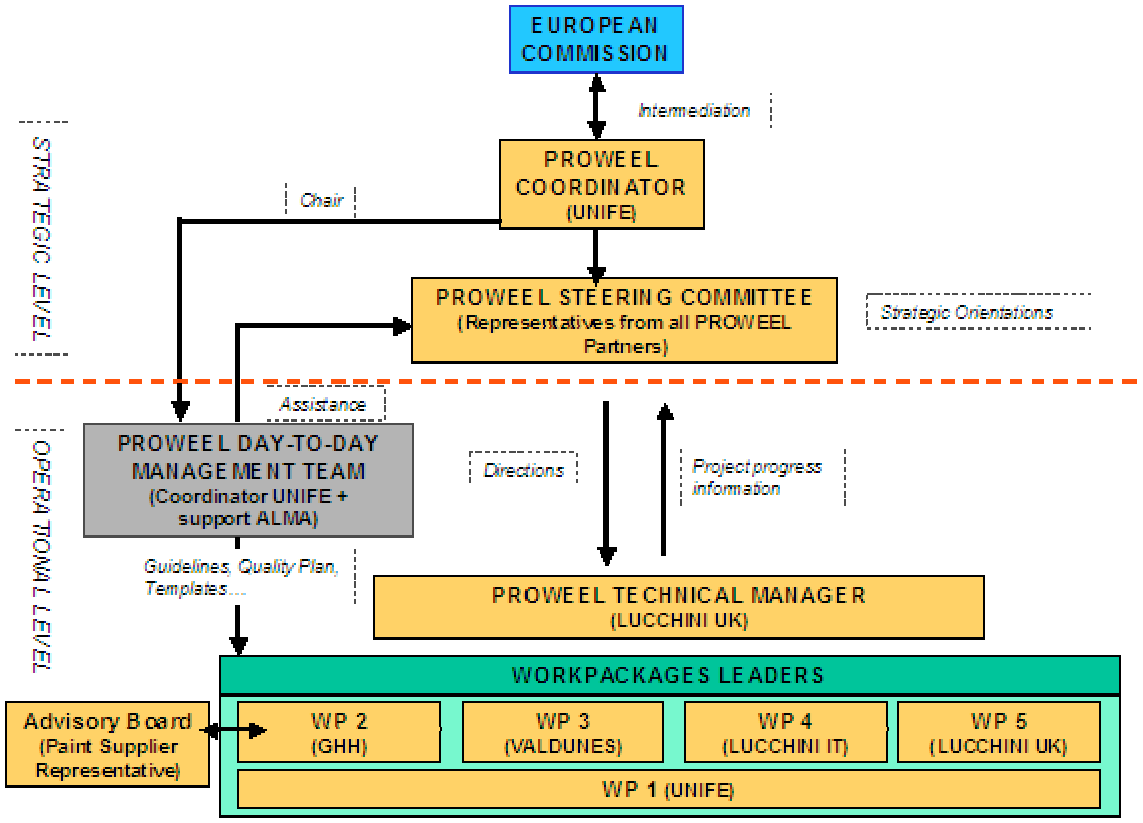
The second set of check points deals with the project & threats to its future success.

(Economic and project auditing issues are excluded. Almost all of these items are required in the Bid documents and the agreed description of work negotiated with the Commission.)

30. Project participants (Composition of Consortium)
    - ERWA members (GHH, Valdunes, Rafil/BVV, Lucchini, CAF, Bonatrans)
    - System Integrator (Siemens)
    - UIC (representing Operators)
    - Research institutions (ENSCL (Lille), CREPIM, TU Clausthal, Politecnico di Milano)
    - SMEs

31. Project mandate (Description of Work)
    Investigation the adhesion behaviour of water based painting systems applied on axles and wheels with various surface conditions (roughness conditions).
    Investigation of new painting and protection systems and/or a design method for a paint-less system for all rolling stock types.
    Assess the fatigue behaviour of wheelset materials undertaking small scale and large scale testing.

32. Project organization (Management Structure)
    Proposed management structure (as per 1st call proposal):



33. Representatives with an appropriate level of authority and expertise (Identified Experts)
    Experts from each ERWA member, UIC and paint suppliers group

34. Intellectual leadership of the project, system architecture, etc. (Technical Management)
    ERWA member (Lucchini UK – to be confirmed)

35. Mechanisms available to ensure that the project is not deviating from its original mandate and objectives within the defined review frameworks (Management Structure)
    Steering Committee (as indicated in 32)

36. Measures taken to follow up deliverables are made on time and to the right quality (Project Quality Plan) Incorporated in proposal document

37. Mechanisms to quickly and smoothly resolve conflicts within the project (Management Structure)
    Refer 32 – proposed management structure

38. Known sources of potential conflicts (Risk Assessment prior to contract signature)
    Risk Assessment included in detailed work description of proposal

39. Any participant who may have an interest in failure of the project, should be identified at the Risk Assessment stage and mitigation measures considered
    Interfaces with paint suppliers group to be carefully managed to ensure positive input

40. Communication with the main stakeholders (Communication and Dissemination Plan)
    Incorporated in proposal document

The third set of questions could be industry or company specific

(These are not normally made available for public use)

41. Who will pay for the proposed changes and how will investment be funded? If there is a market and demonstrable LCC, the companies will pay for changes, if not they won't and the project shouldn't start.
    There is not expected to be significant investments required after completion of the project as the technologies, if successful, will be implemented directly at relatively low cost by the wheelset manufacturers (ERWA).

42. Is the project underwritten by all internal stakeholders, at an operational level, with an appropriate level of authority?

43. Are there any negative internal impacts of implementation foreseen which could threaten implementation in the longer term? No

44. Are there any existing internal projects which could be in conflict with this one? No

45. Are there any other internal projects supporting or depending on this one? No

The fourth set of questions relates to completed projects researching into the same topic and deals with the degree of implementation achieved:

46. Have the results already been implemented somewhere?
47. Have the results not been implemented in areas where similar conditions exist?
48. What are the reasons for this non-implementation? (Lack of funding, NIH, research overtaken by innovation, etc…)

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