

# “Environmental Guideline for the Procurement of new Rolling Stock”

## Outcome of the UIC Project PROSPER

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Henning Schwarz  
Deutsche Bahn AG

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# Outcome of the UIC Project PROSPER

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*The aim of PROSPER is to create an agreed business standard for environmental aspects in the procurement of new rolling stock.*

## ■ The UIC project PROSPER

### – Phase 1 (finalised 2003)

- Result: **Environmental Guideline** for the Procurement of Rolling Stock
  - ⇒ Information for environmental **key areas** for railways
  - ⇒ A set of qualitative **environmental specifications** for these key areas
  - ⇒ Proceeding to integrate environmental requirements into the procurement process at railways

### – Phase 2 (until 2005)

- Aim: **UIC Leaflet**
  - ⇒ Agree with the various railway expert groups on recommended **environmental performance values** for environmental key areas
  - ⇒ Documentation of **legal aspects**

*Railways and manufacturers build together with the consultant IZT the project team of PROSPER.*

## ■ The PROSPER project team

– Project Management **Die Bahn** 

– Consultant



– Reference Group



**ALSTOM**

**BOMBARDIER**  
TRANSPORTATION



**S A F T**

THE BATTERY COMPANY

 **SBB CFF FFS**

**SIEMENS**

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***PROSPER proposed 18 top priority specifications for environmental key areas.***

## ■ Results of Prosper phase 1

### – Environmental Guideline

- Key environmental areas
  - Noise
  - Exhaust emissions
  - Energy
  - Materials/ recycling/ waste
- Set of 18 qualitative top priority specifications for environmental key areas
- Process support for integrating environmental aspects

***PROSPER has proposed to use 6 top-priority specifications for energy efficiency in the procurement of new rolling stock.***

**■ Proposed energy efficiency specifications**

<b>Energy Efficiency (top priority)</b>
Defined value for traction unit efficiency at different load factors
Defined value for vehicle mass
Energy management/control system for comfort functions at longer standstills
Defined value for average diesel consumption
Calculation of on-board energy consumption by manufacturer for defined conditions
Calculation of traction energy consumption by manufacturer for specified operation pattern

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## ■ Prosper phase 2

### – Approach of the project:

- “Application” project

  - ⇒ Making research applicable

  - ⇒ Supporting procurement

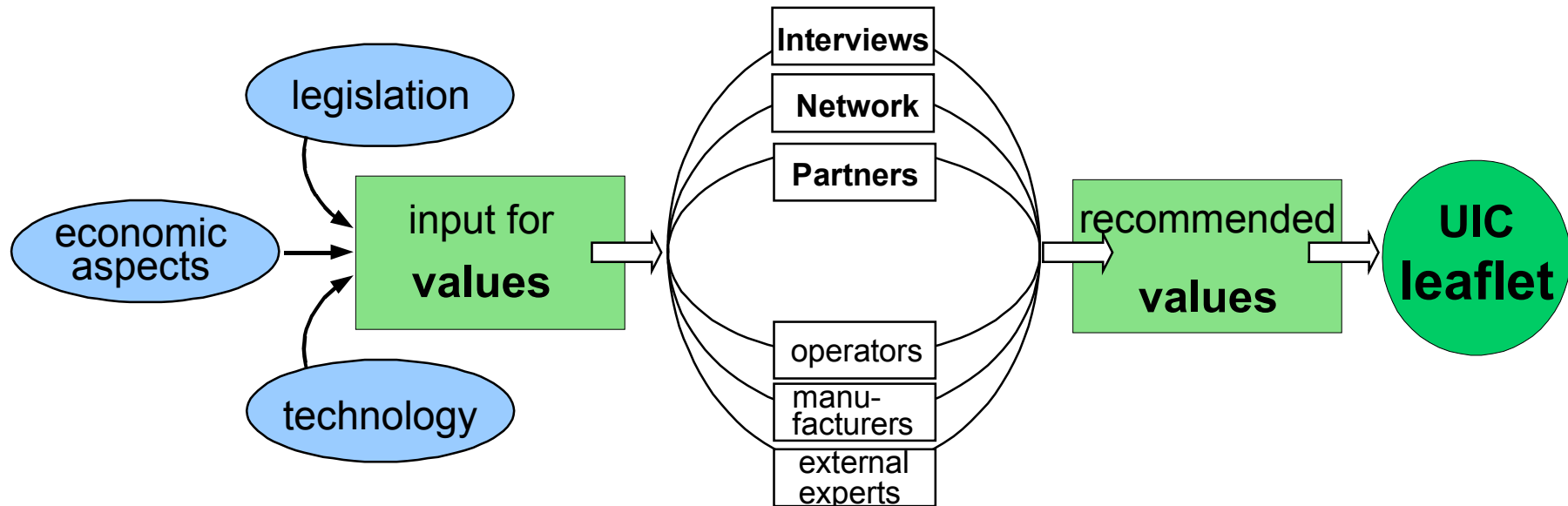
- Co-ordinating recommended performance values for specifications with UIC/ UNIFE expert groups

- Validation of the results by these groups

  - ⇒ Agreement on good practices/ recommended performance values for the proposed environmental specifications

*The UIC leaflet will be the outcome of the co-ordination with experts from the whole rail sector.*

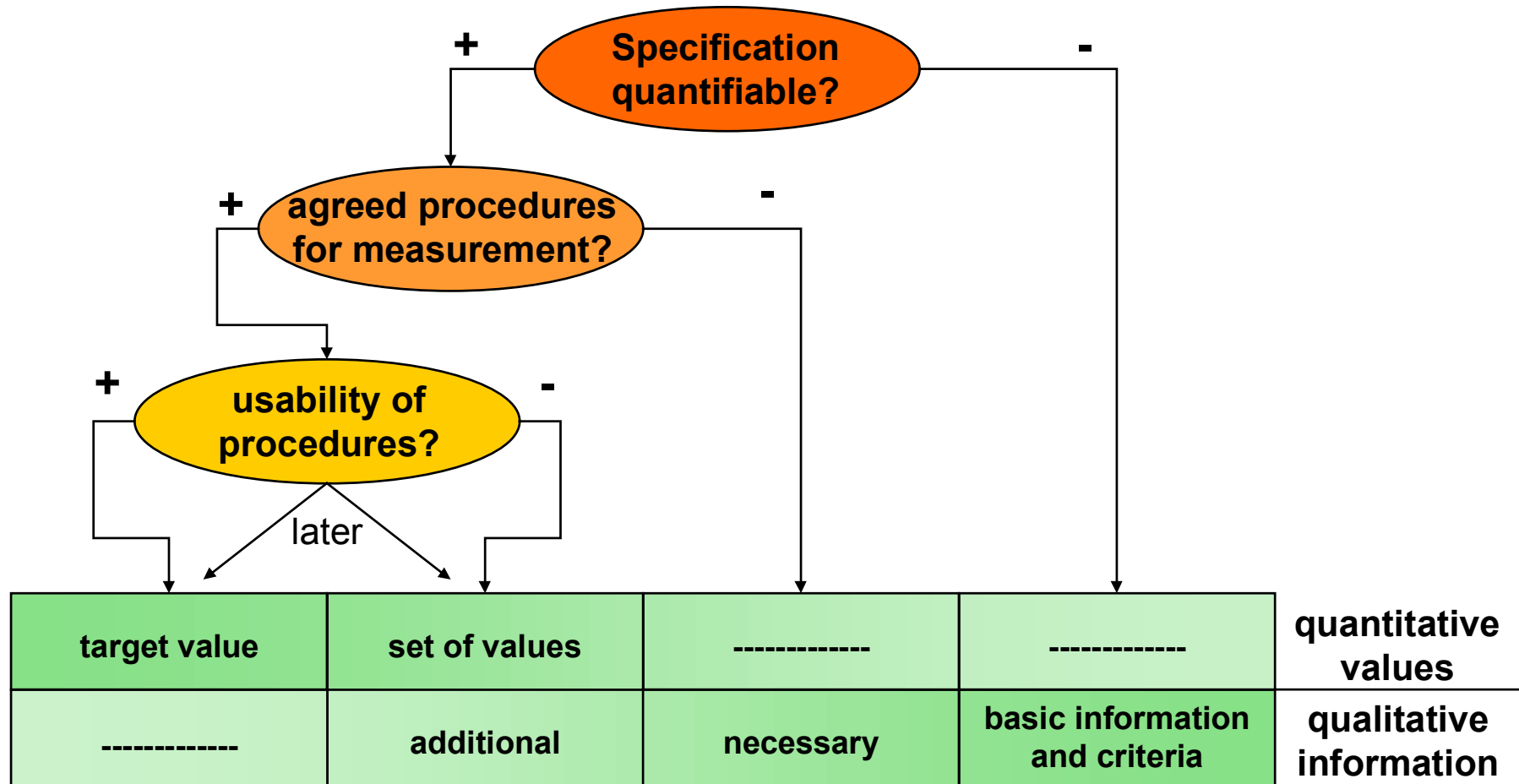
■ **Co-ordination process of PROSPER phase 2**



<u>knowledge base:</u>			<b>feasibility study</b> (standardised operation cycles for energy consumption assessment)
<b>EVENT</b>	<b>Prosper I</b>	<b>RAVEL / REPID</b>	

*It is the aim of the co-ordination process to obtain recommended target values for the environmental specifications.*

■ **Obtaining performance values for specifications**



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*Standardised calculation and verification methods are necessary to obtain quantifiable energy efficiency specifications.*

## ■ Conclusions

- PROSPER will provide a “**business standard**” for environmental aspects in the procurement of new rolling stock
- **Energy Efficiency** is a main aspect for PROSPER phase 2
- There is a need for **quantifiable energy specifications**
  - To obtain values for energy specifications further investigations are necessary
    - ⇒ **harmonised approach for energy specifications**
    - ⇒ **calculation and verification methods**

More information at [www.railway-procurement.org!](http://www.railway-procurement.org!)