13th UIC Sustainability Conference

VIENNA 2016

A SUSTAINABLE ECOLABEL FOR TRAINS
SNCF proposal
on pollutant emissions of diesel traction

Workshop "Emissions and Air Quality"

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STUDY CONTEXT

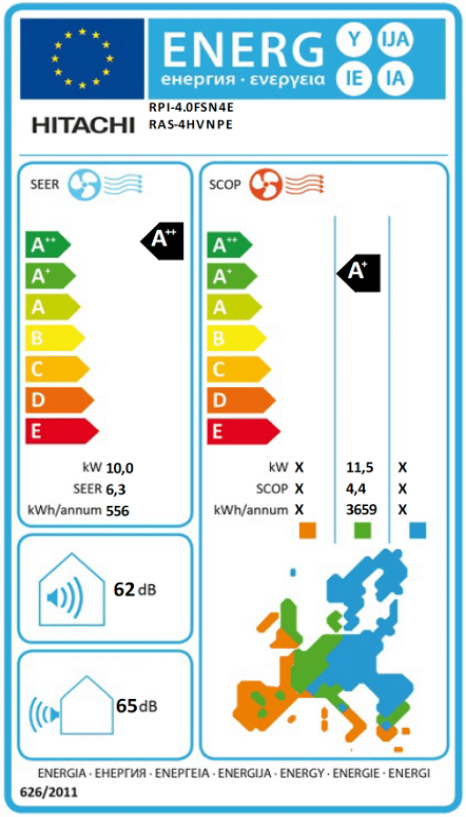
- Objective: To propose a display of sustainable performances clear and reliable to compare the different types of rolling stocks
- Long term vision: take in account the evolution of performances of the rolling stocks over 10 years
- Targeted public: B to B > Manufacturers, authorities of transportation, project managers, sale, marketing

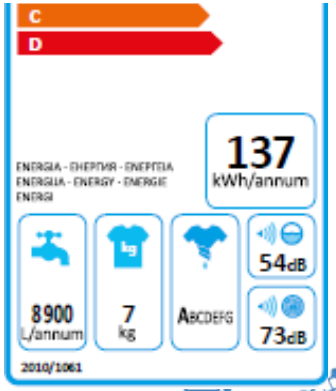
GOAL

- Objective and comparative characterization of sustainable performances of the rolling stocks
- Improvement of the sustainability performances in the early conception phase
- Communication and reinforcement of the credibility of train as a solution for sustainable transportation
- Anticipation of a possible regulation for the railway sector

METHOD

- A worldwide analysis of existing ecolabels, experiences and evaluations of impacts
- Requirements for an ecolabel for trains
- Creation of indicators
- Application to a selection of SNCF trains





6 SUSTAINABLE INDICATORS

Energie

Accessibility

CO_2

Noise

Emissions of diesel engines

Material, recyclability

INDICATORS SPECIFICATION

- 38 requirements

Objectives of the method

- Credibility, reliability, confidence,
- Simplicity, clarity,
- Stability
- Affordable
- Consistency

Computation of indicators

- Completeness
- Comparison
- Feasibility
- Relevance
- Differentiating

DIESEL EMISSIONS INDICATORS

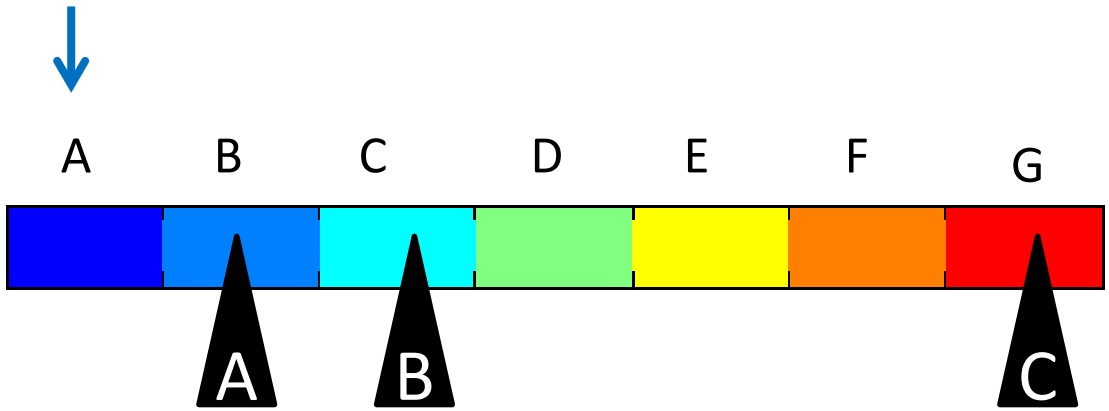
- Two relevant indicators : NOx & PM
- Parameters
  - Number of engines per trains
  - Number of seats per trains
  - F cycle emissions (C1?)
- Train 'A'

Stage V limits		
NOx	2	g / kWh
Particules	0,015	g / kWh

Stage V limits / tonne. seat		
NOx	8,77	mg / kWh.seat
Particules	0,066	mg / kWh.seat

DIESEL EMISSIONS SCALE

Stage V limit



- Scale to be define : linear or non linear
  - Computation for several trains

CONTACT

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