FP4 - Rail4Earth

Sustainable and green rail systems

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Zbigniew Jancewicz PKP S.A.

FP4-RAIL4EARTH – Sustainable and green rail systems

- **Main objective:** provide new innovative products and services based on leading edge technologies to **minimize the overall energy consumption** and **environmental impact** of the railway system, to make this transportation mode **healthier, more attractive** and to provide **resiliency against climate change**
- **Target solution: Enhanced rolling stock, infrastructure, stations, and all their related sub-systems** (traction, bogies, brakes, energy storage systems, HVAC, etc.)
- **Benefit:** improve the existing sustainability performance of railways, more attractive and resilient transport mode.
- **Six focus areas:**
  - **SP1**: Alternative (to Diesel) energy solutions for the rolling stock
  - **SP2**: Energy in rail infrastructure and stations
  - **SP3**: Sustainability and resilience of the rail system
  - **SP4**: Electro-mechanical components and sub-systems for the rolling stock
  - **SP5**: Healthier and safer rail system
  - **SP6**: Trains Attractiveness (Interiors)

- **Total project cost:** 95.100.000 €
- **Project duration:** 48 months (End: Nov 2026)
- **Number of partners:** 23 > 71

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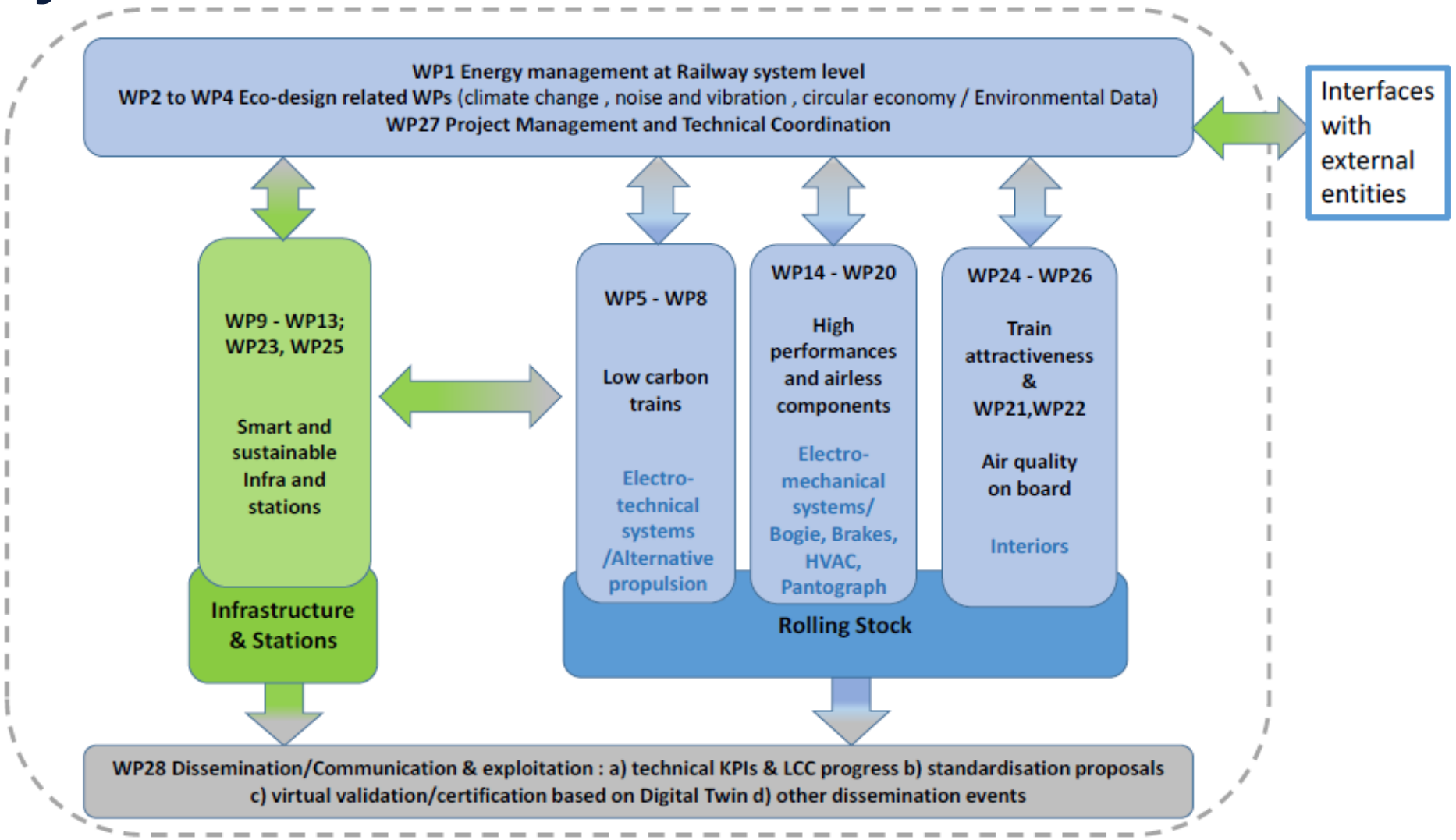

Figure 1: Schematic diagram of Rail4EARTH

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Collaborative work on a European scale enables to integrate a variety of stakeholders in different countries: infrastructure, rolling stock, stations, suppliers, operators, etc.

Collaborative work allows to consider for adaptation to climate change studies:

➔ Different points of view

➔ Sharing returns of experience

➔ Wide variety of climates to ask the right questions at the European scale for Europe-wide topic

➔ Not to forget any kind of asset in the railway domain