

ARROWHEAD-II planning

Finland

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www.arrowhead.eu



ARROWHEAD-II / FINLAND

Output of Arrowhead-I

- Sensoring
- Communication chains from sensors to MES
- Measurement compositioning

-> Arrowhead-II focused on applications

Tentative Consortium as a whole

Finland (Metso, Wapice, EKE, VTT, ...)

Denmark (Aalborg univ., Danfoss)

Spain (Acciona, Danobat, Orona, Mondragon univ., IK4-IDEKO, IK4-IKERLAN, ULMA)

Belgium (Sirris, 3E, Van Hoecke Automation, D-Square, Yazzoom)

Holland (Philips, universities)

Sweden (LKAB, ABB, Mobilaris, BnearIT, LTU); coordination

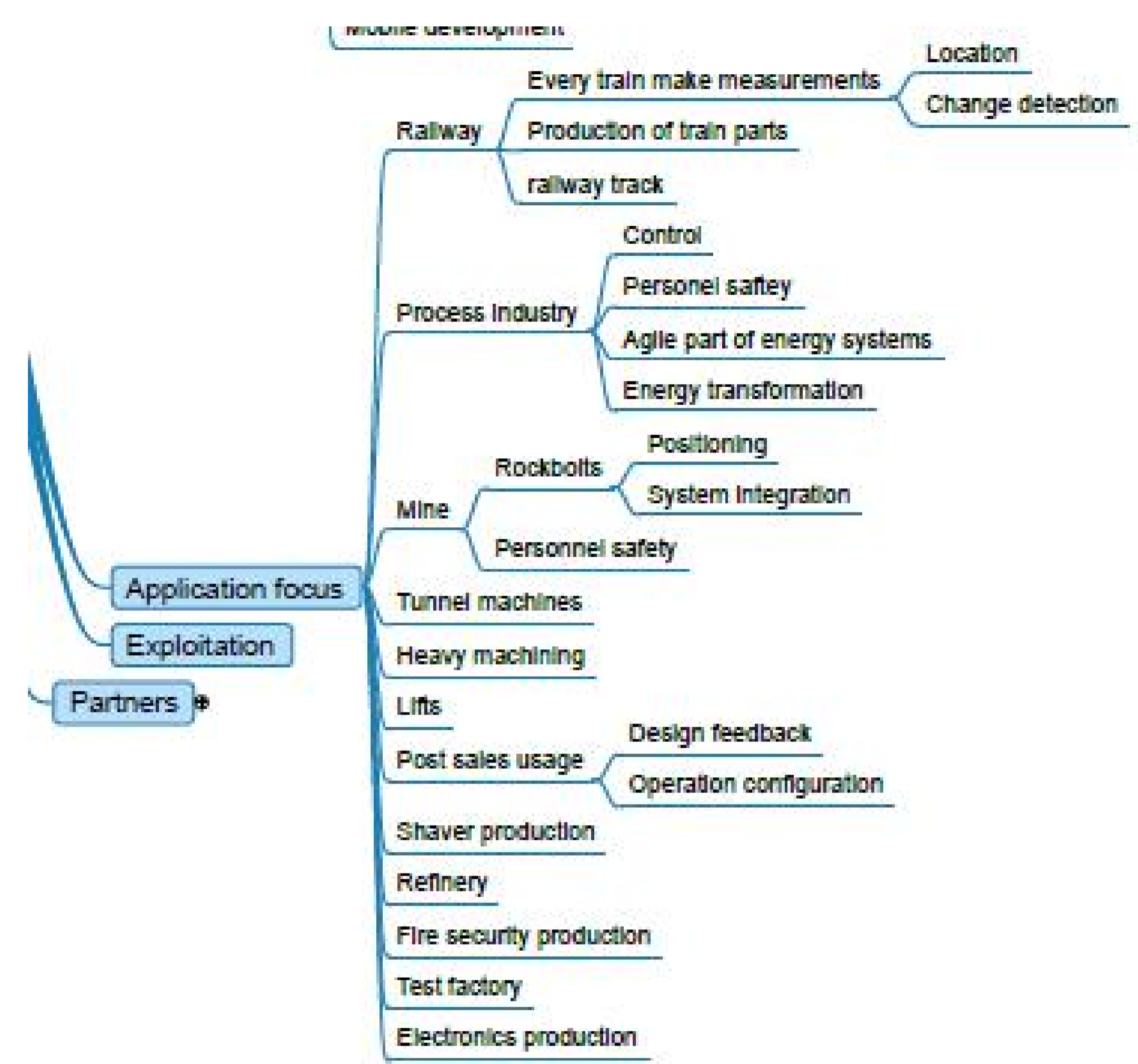
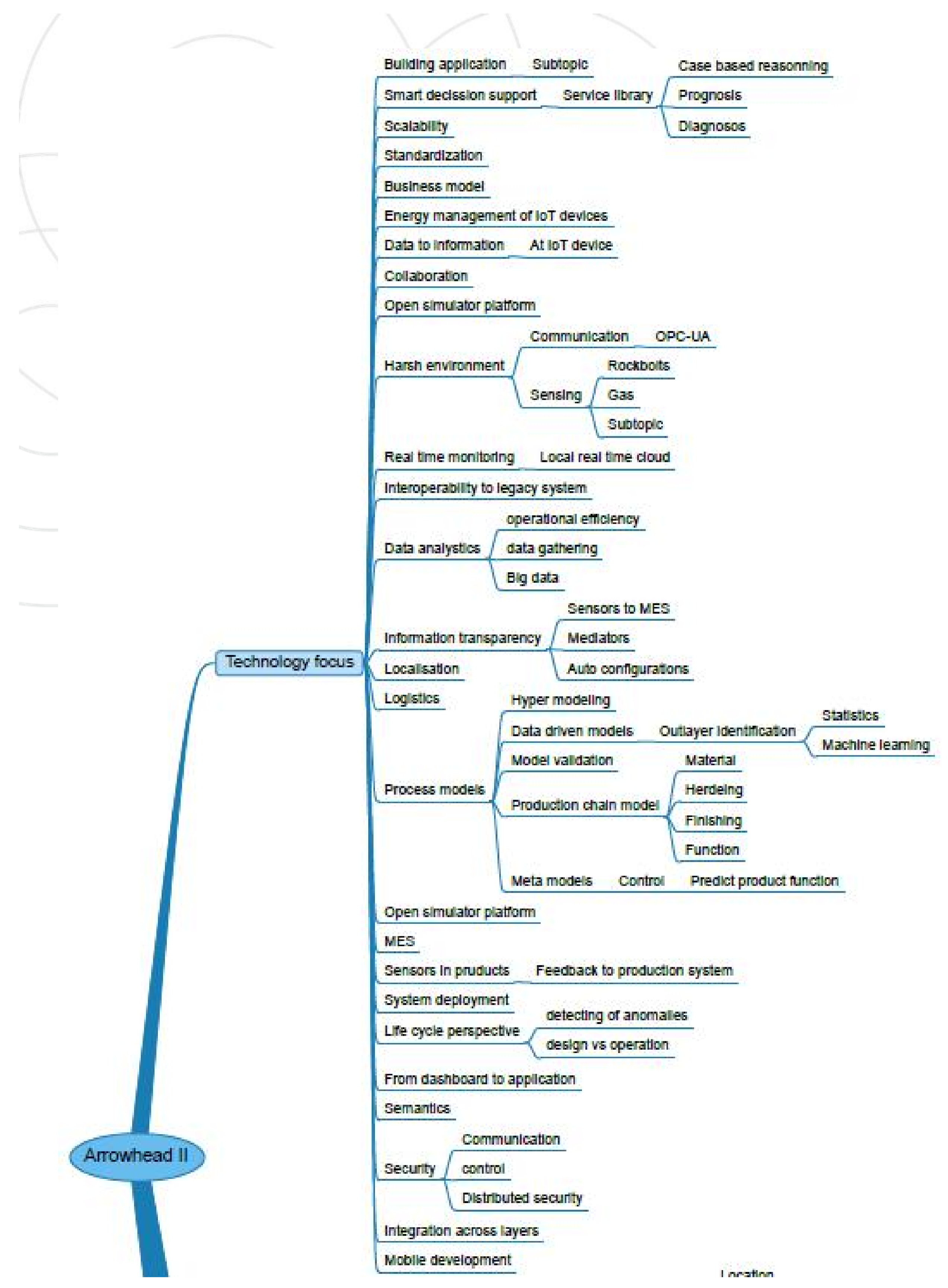
Austria (AVLK, IFAK, AIT, GUEP)

Portugal (ISEP, Uninova)

Norway

Germany (Infineon, IFAK, HS Emden, ...)

Italy



Arrowhead II

Technologies & Applications



WP structure - draft

WP1 Vision and targeted results

T1.2 Application and technology gap analysis

WP2 Exploitation, ecosystems and business modelling

WP4 Technology platform - with gap analysis

T4.1 Collaboration technology

T4.2 Automation services

T4.3 System engineering

T4.4 Modelling and Simulation

T4.5 Data analytics

T4.6 Verification

T4.7 Robust sensing and communication

WP5 Design, Engineering, deployment, operation and maintenance

WP7 Pilot applications A

WP8 Pilot applications B

WP9 Pilot applications C

WP10 Dissemination

WP11 Project management

Planned Finnish Pilot cases:

P1: Smart asset management for railroads

- Condition identification from train-rail interaction
- Every train makes the measurements
- location, detection of changes, etc.

P2: Simulators in CPS applications

- 3D interaction with plant data (real, virtual, augmented, ...)
- ...

Planned Finnish Pilot cases2:

P3: Smart decision support

- Diagnosing system health
- Prognosis of performance
- Case-Based reasoning
- Toolboxes, libraries, models
- Offered as cloud services

Other issues:

- Scalability
- Standardization
- Business models (warranties, insurances, maintenance planning or optimization), pricing)

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