



**Trafi**

Finnish Transport Safety Agency

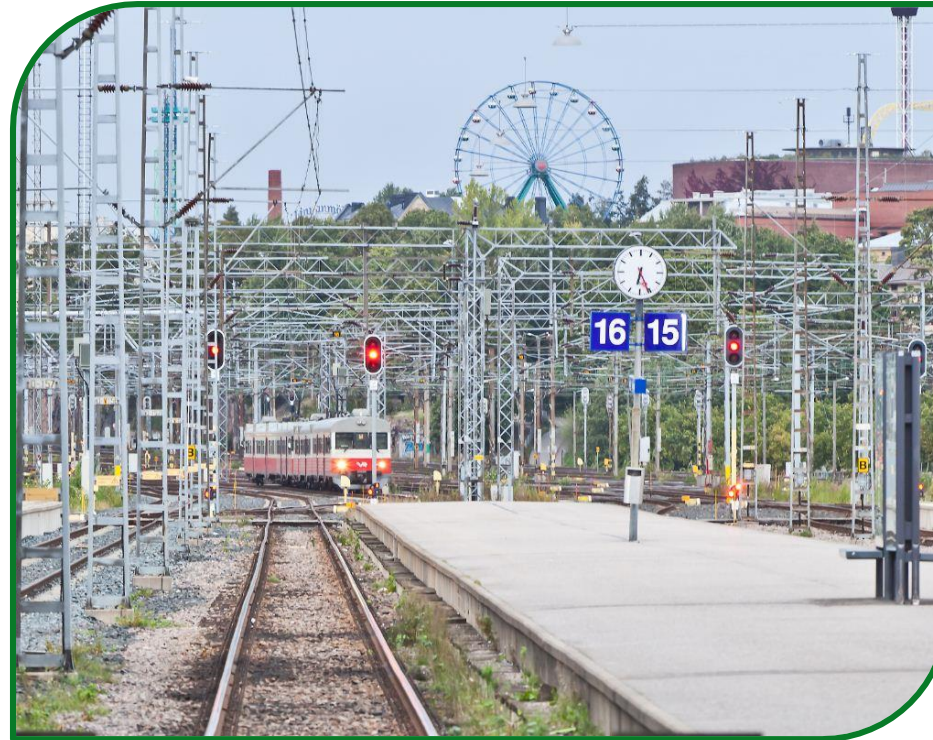
## **What Can a National Safety Authority Do Concerning Rail Human and Organisational Factors and Safety Culture?**

Kirsi Pajunen  
[kirsi.pajunen@trafi.fi](mailto:kirsi.pajunen@trafi.fi)

*Responsible traffic.  
Courage and co-operation.*

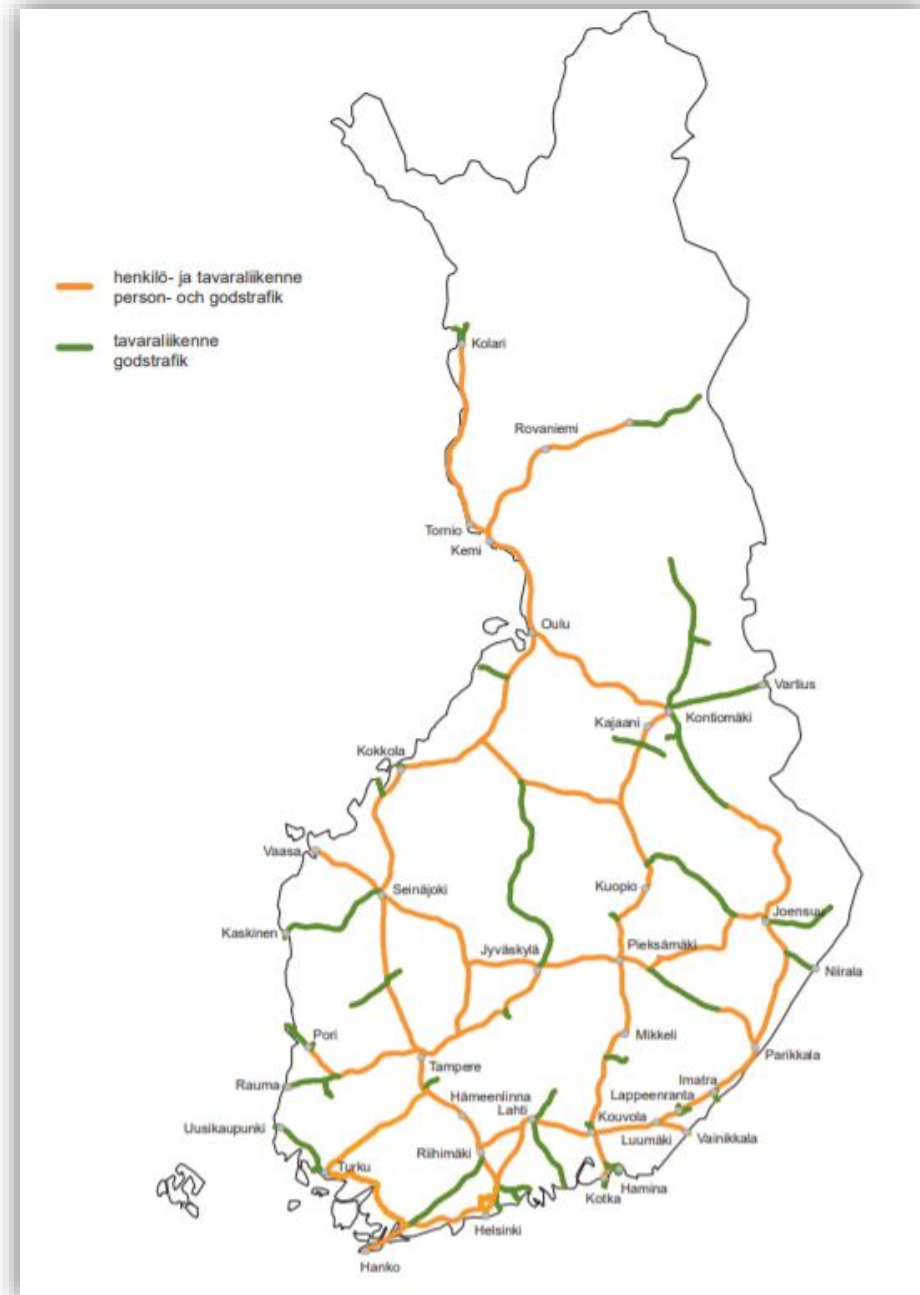
# Content

- Background
- NSA and HOF
- NSA and safety culture
- Lessons learned

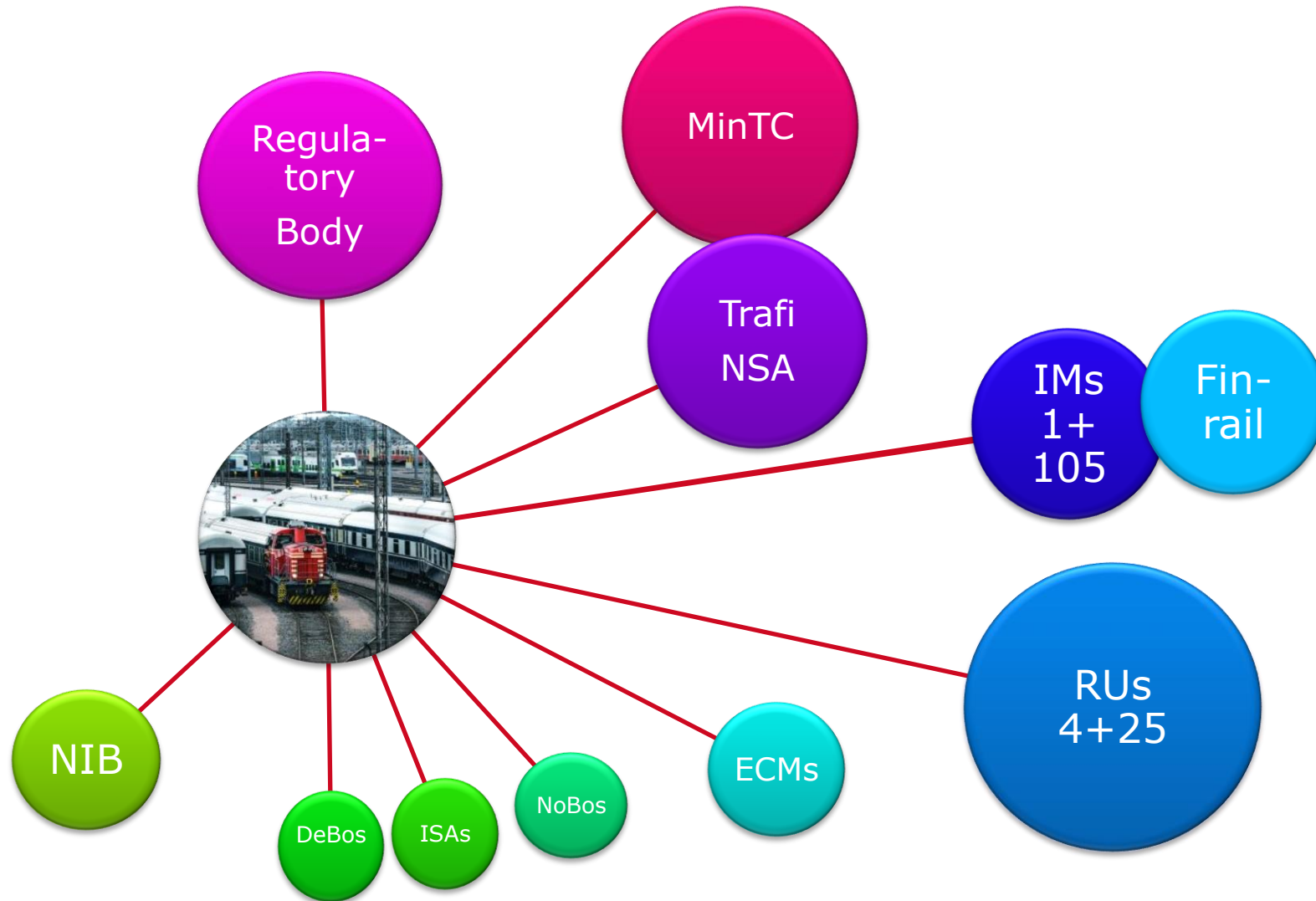


# Finnish state owned rail network

- Length 5926 km
  - About 55% electrified
  - About 90% single track
- Nominal track gauge 1524 mm
- 2748 level crossings (31 Dec 2017)
  - 25% equipped with warning devices



# Railway sector

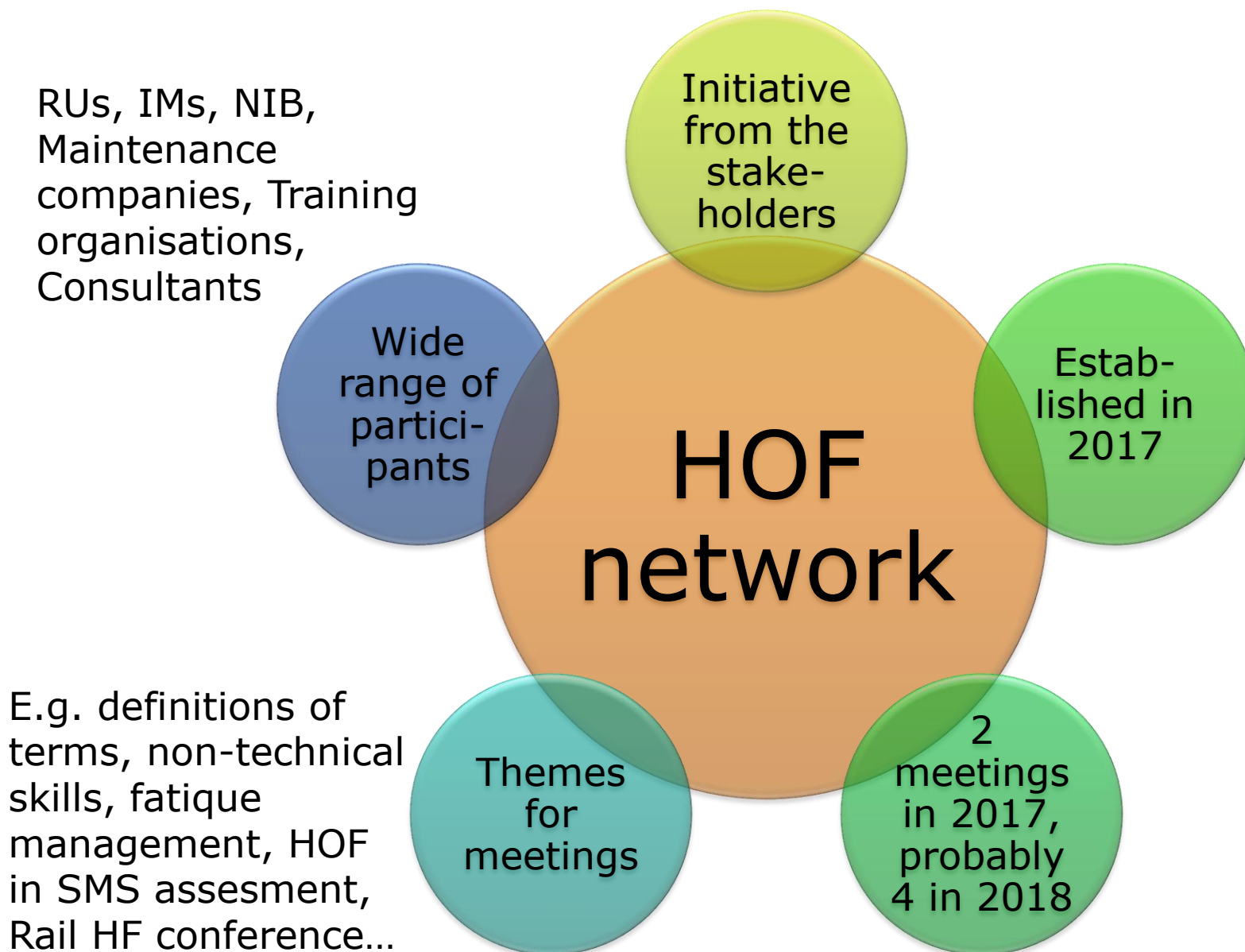






# Role of NSA concerning HOF





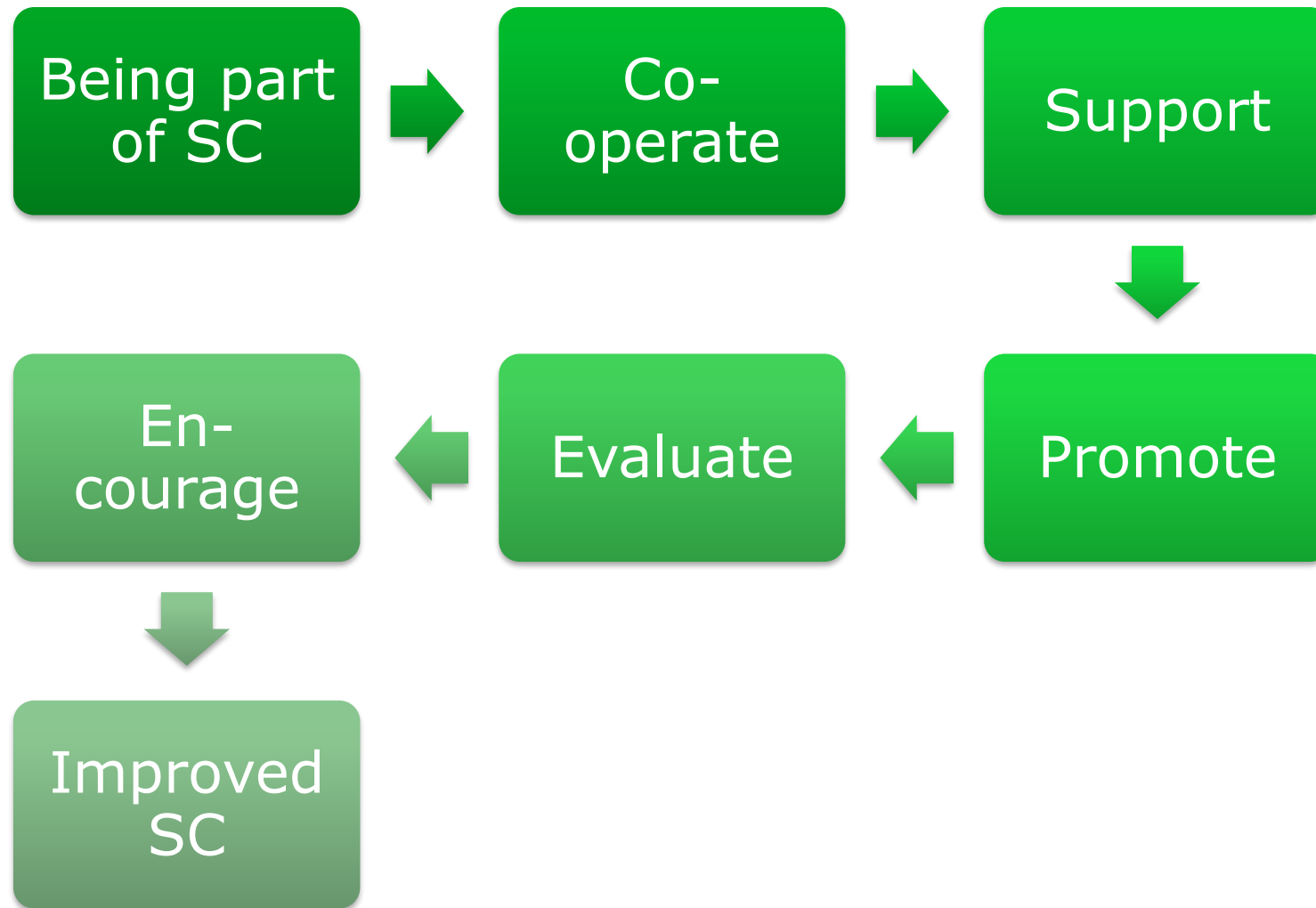


# NSA & Safety culture





# Role of NSA in safety culture



# Safety climate survey

- Finnish Institute of Occupational Health working as experts
- Piloted in 3 railway organisations
  - 2 departments of main RU
  - Maintenance company (with safety certificate)
  - Small RU
- Was to be piloted also in an airline company but did not succeed
- At present analysing the results
- After that necessary amendments to the model made



# Information sources for organization profile

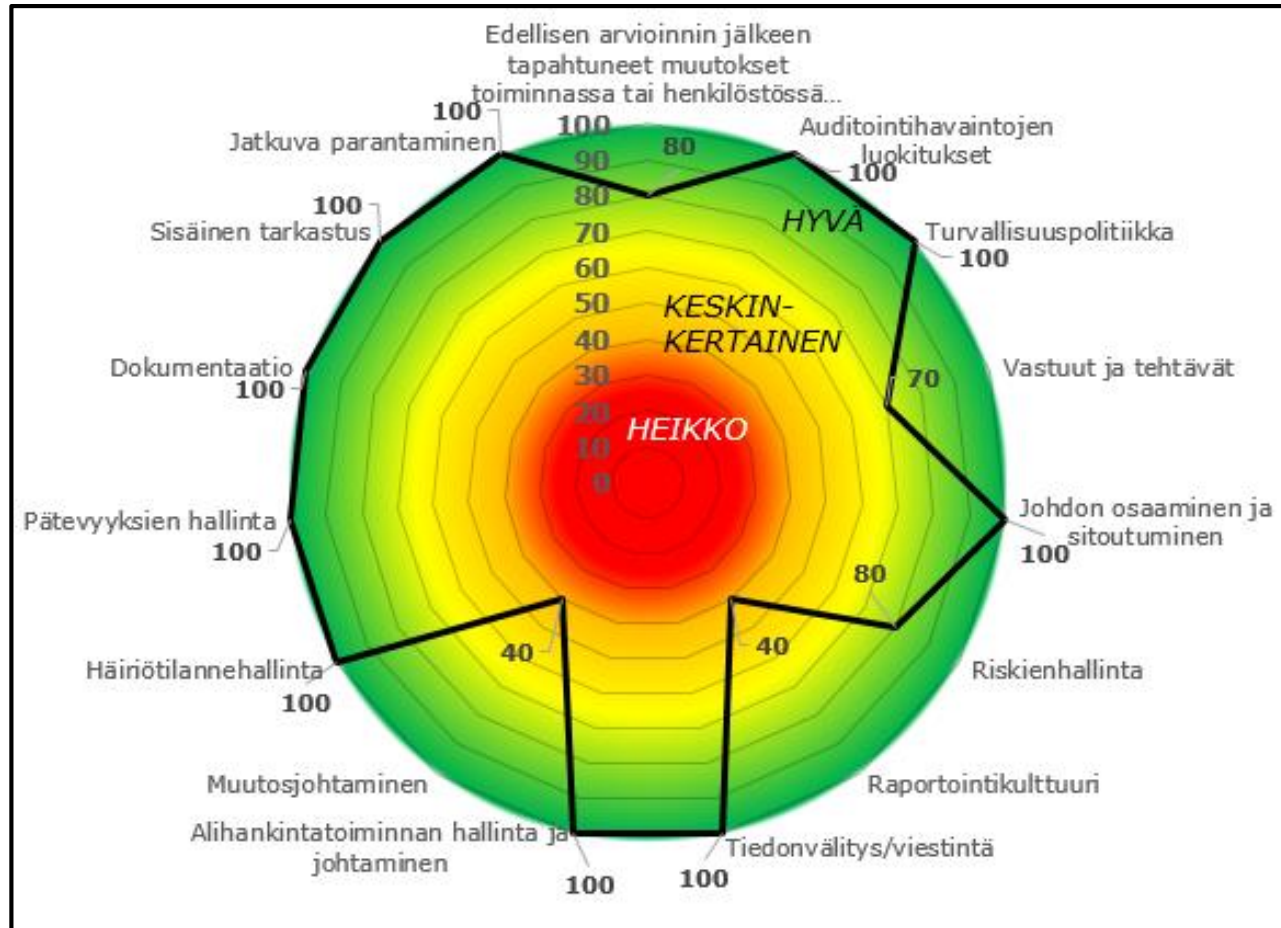
- Operations and minor approval applications and their supplementary documentation
- Operations manuals and their appendices
- Audit, inspection
- Analysis of occurrence reports





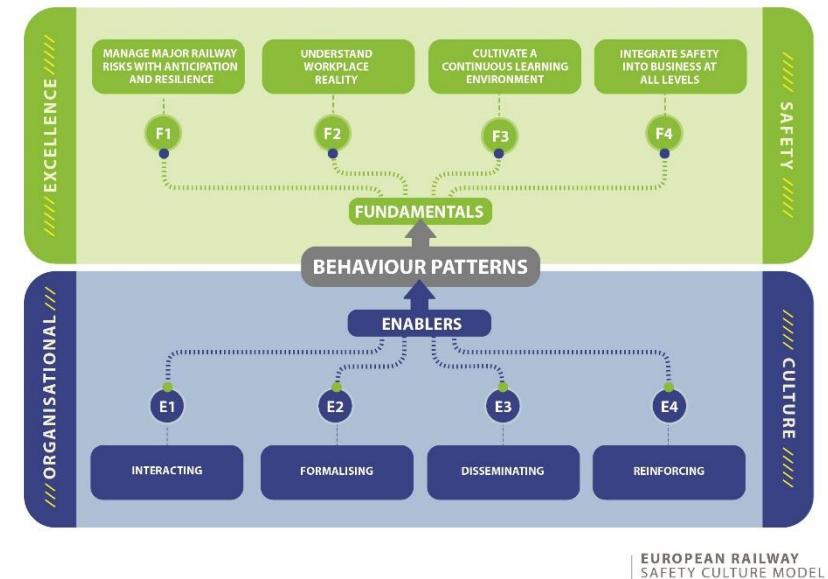
# Resulting to

- Combination of different data and information
  - On operational, organisational and culture levels
  - About SMS, personnel competence, technical conditions of transport, operations



# Safety culture model

- ERA model for evaluation of safety culture
- Finnish NSA piloting the model
- The same organisations as in safety climate survey
- Different size organisations piloted
- Part of SMS auditing but a different evaluator
- Safety culture workshops for all the inspectors and all the piloted organisations



# Experiences and lessons learned

- Need to train people and having expertise both at NSA and sector
- The whole of the sector doing that already
- Sector very active and positive, including the management
- Need for exchange of views







# Trafi

Finnish Transport Safety Agency

**Finnish Transport Safety Agency**

Kumpulantie 9, 00520 Helsinki

PO Box 320, FI-00101 Helsinki, Finland

Telephone +358 29 534 5000

[www.trafi.fi](http://www.trafi.fi)