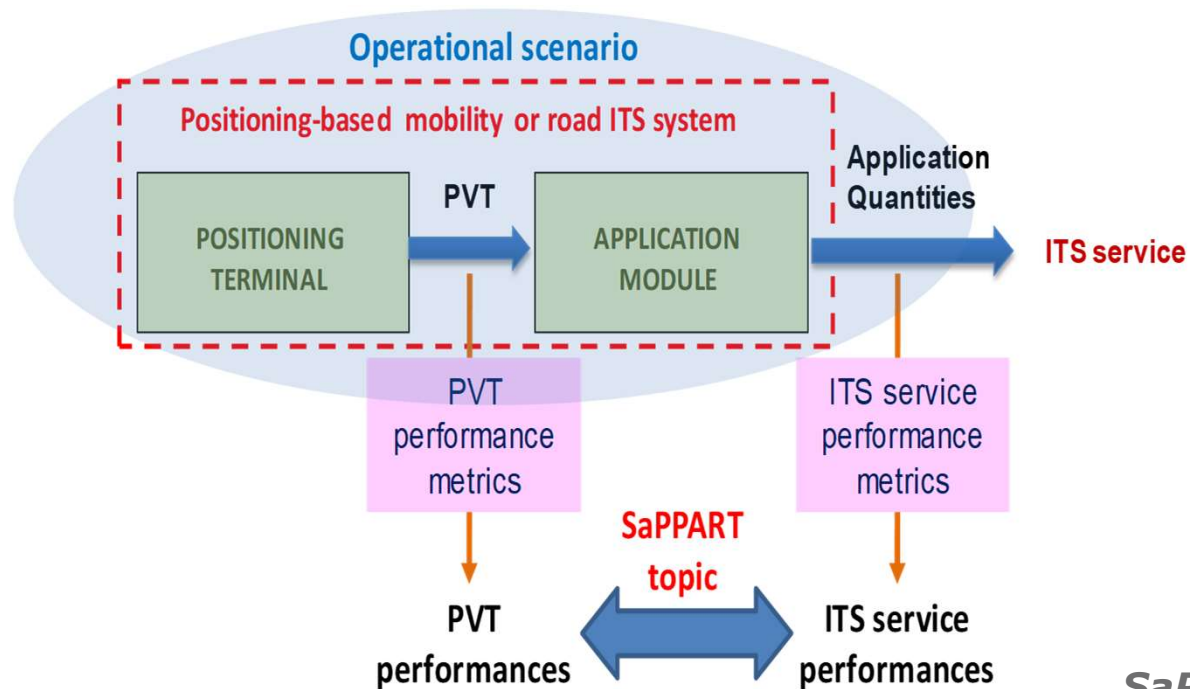


# Applications

- National infrastructure
  - Chemicals, Civil Nuclear
  - Communications, Defence
  - Emergency Services
  - Energy, Finance, Food
  - Government, Health,
  - Space, Transport, Water
  - Surveying, Location Based Services etc
- Others?

# Required performance

- Understanding of the value chain and service level
- Performance drivers (e.g. mission/service criticality)
- Need for performance cases (e.g. safety/security)



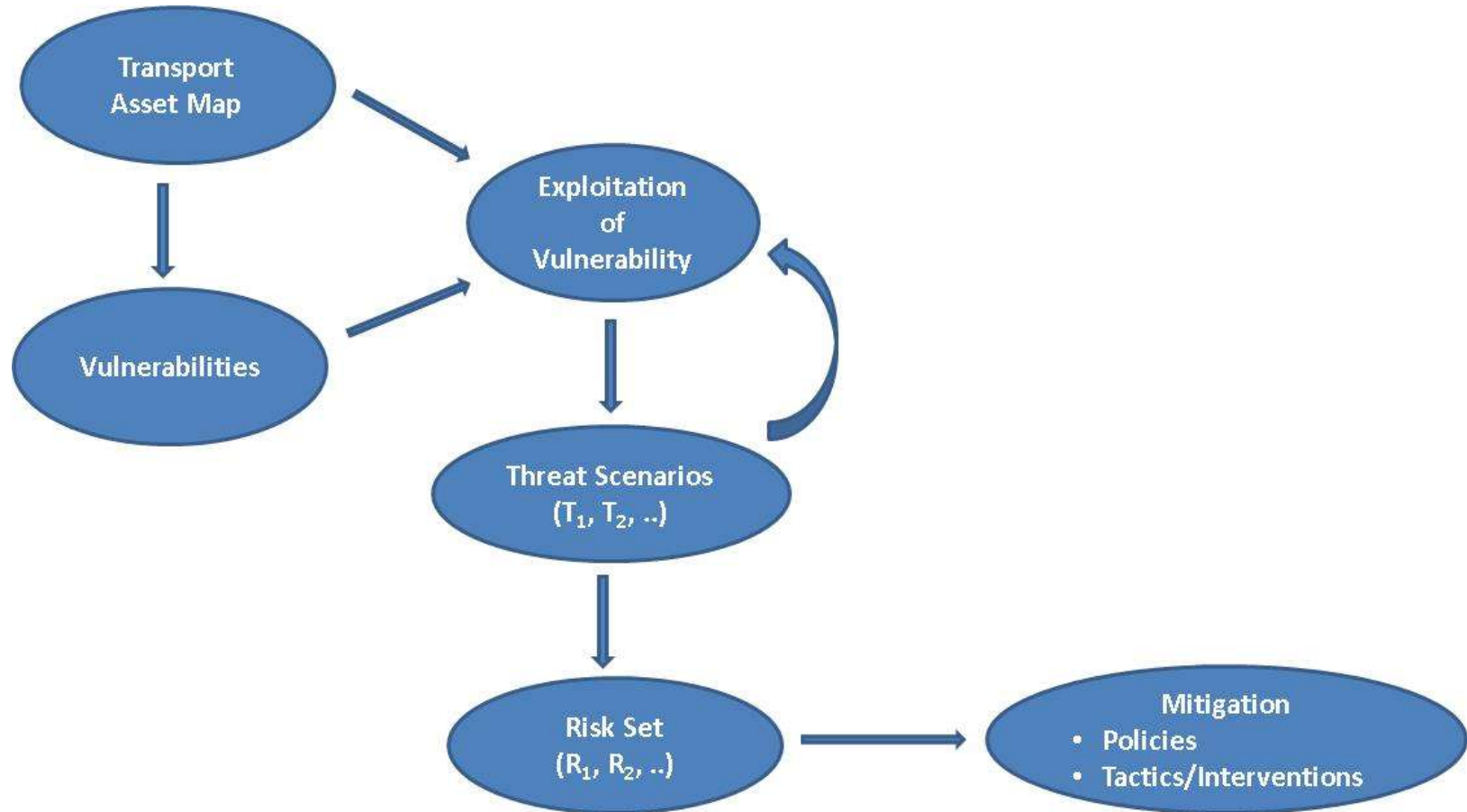
# Preliminary classification

- On the basis of required performance

# Technologies

- GNSS and its augmentations
- Alternative systems/sensors/databases
- Positioning concepts

# Vulnerabilities



RTCM Paper 088-2018-SC134-007

# Integrity

- Both server and user side integrity
- Flexible failure detection and exclusion models
- Flexible protection level computation models
- Data message content and format
- Generalised, flexible and expandable functional architecture
- Must not be too prescriptive - stifles innovation!

# Testing

- A challenge for very low percentile requirements
- Combination of analysis and demonstration
- Must be compliant with certification/approvals requirements