

How to bring together the
world of urban transport
and that of cybersecurity

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Multi Modal transport systems vs Cybersecurity

- ITS sector evolution, revolution
 - Societal
 - Technical
 - Accessibility
 - New modes
 - MaaS
 - Regulation
- CyberSecurity
 - **From** „Niche domain“ for experts
 - **To** Mainstream domain

2 worlds of Standardisation

- **ITS**

- CEN

- Transmodel

- SIRI

- NeTEx

- ...

- Private efforts

- Mobility Data Suite

- GTFS

- GTFS/RT

- GBFS

- **Cybersecurity**

- ISO Efforts

- ISO 27000 serie

- Common Criteria

- European Effort

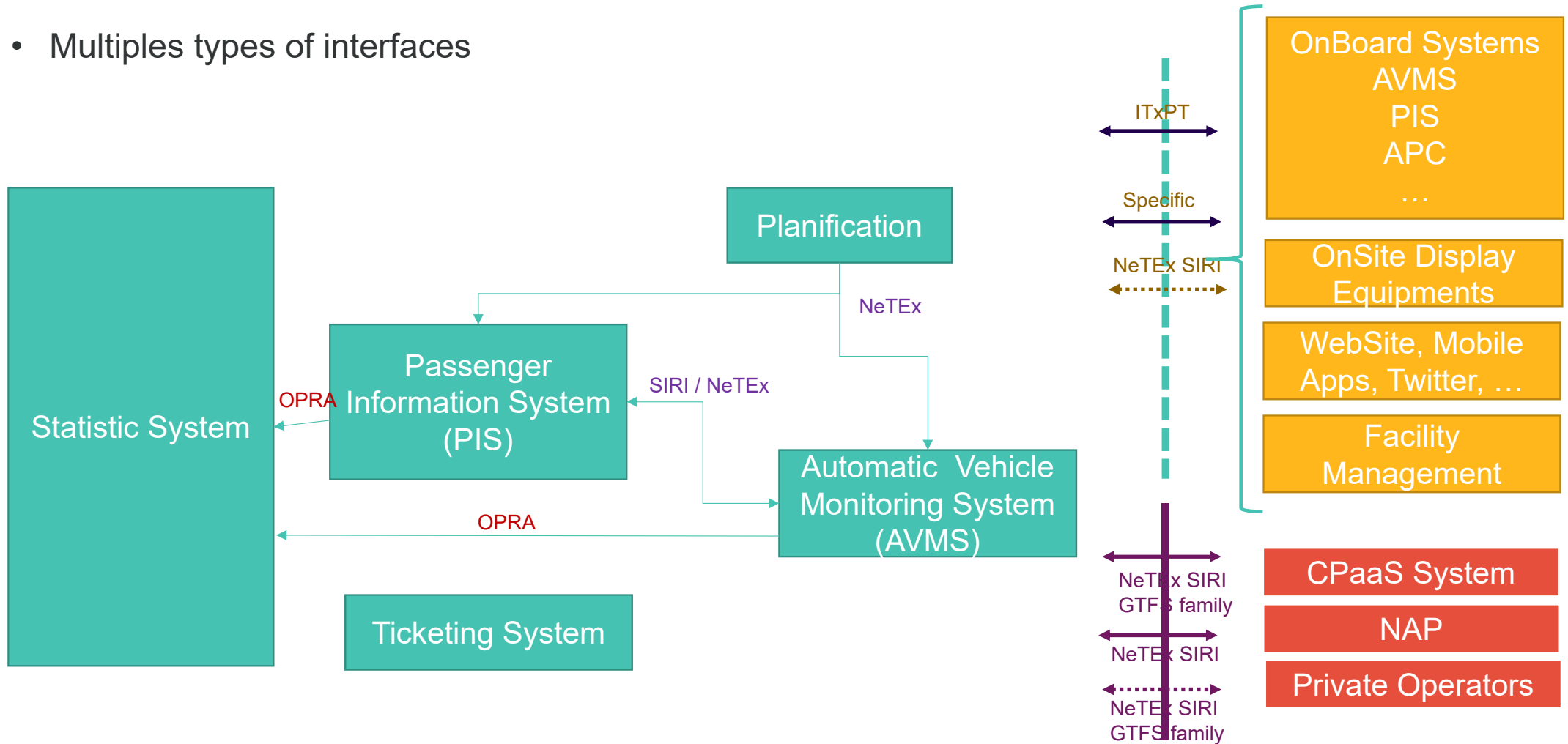
- ENISA

- EUCS

- National Efforts

Multi modal Transport Systems (MTPS) specificities

- Multiples types of interfaces



Multi modal Transport Systems specificities : Basic Assets

- MPTS system specificities analysis on a Cybersecurity perspective

Hardware Assets

- Sensors-Actuators
- Power Supply
- Computational Device
- HW Interface
- IO Devices
- Storage

Data

- Backup Data
- Configuration Data
- Operation-Application Data
- System Data
- Test Data
- Audit Data

System Software

- Embedded System Firmware
- Native API
- Hypervisor
- Operating System
- Containers-VMs

Application Software

- Web-based Services
- Application Software
- DB Management Systems

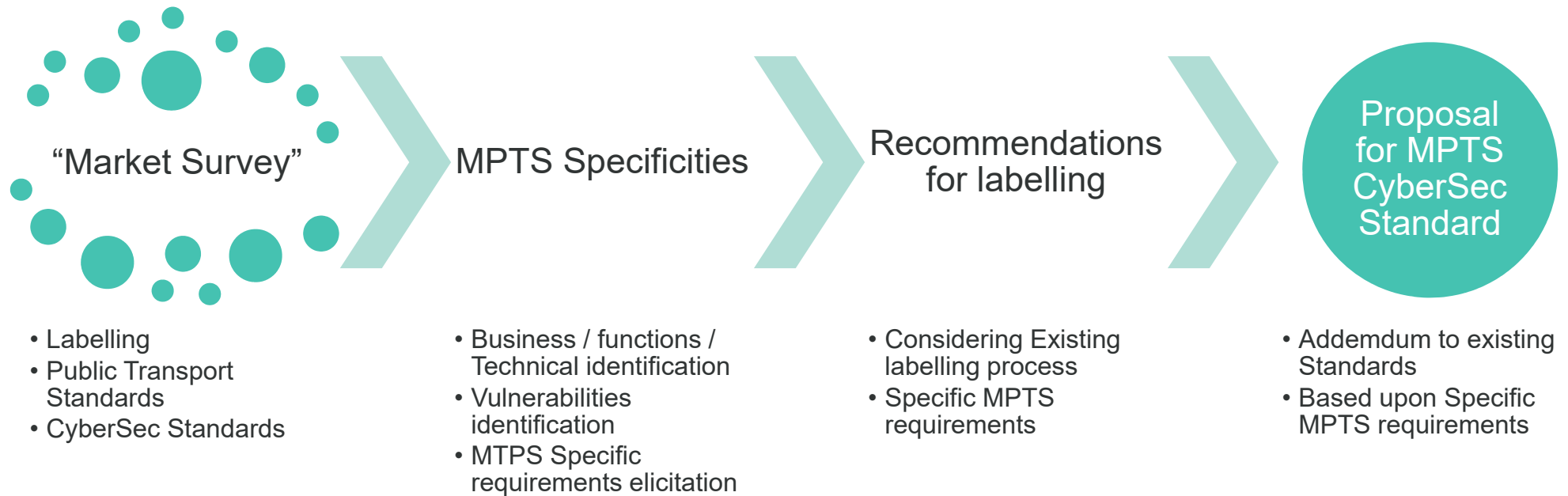
Users

- System Users
- End Users
- Contractors-Subcontractors

Communication Network

- Communication Protocol
- Network Interfaces
- Network Controller
- Network Stack

Multi modal Transport Systems specificities : Cybersecurity Analysis





Smart and
Sustainable
Mobility
for all.

its

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Thank you!