TOWARDS A SUSTAINABLE AND INTEGRATED EUROPEAN MULTIMODAL TRANSPORT SYSTEM

High-level Conference on European Multimodal Freight Transport, Sofia, Bulgaria 2018-03-20

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Principal Strategic Customer Engagements
Ericsson AB

ERICSSON – A GLOBAL SHIPPER

50+
countries with Supply staff

12
production sites

1400
warehouses

3M
boxes shipped yearly

100K
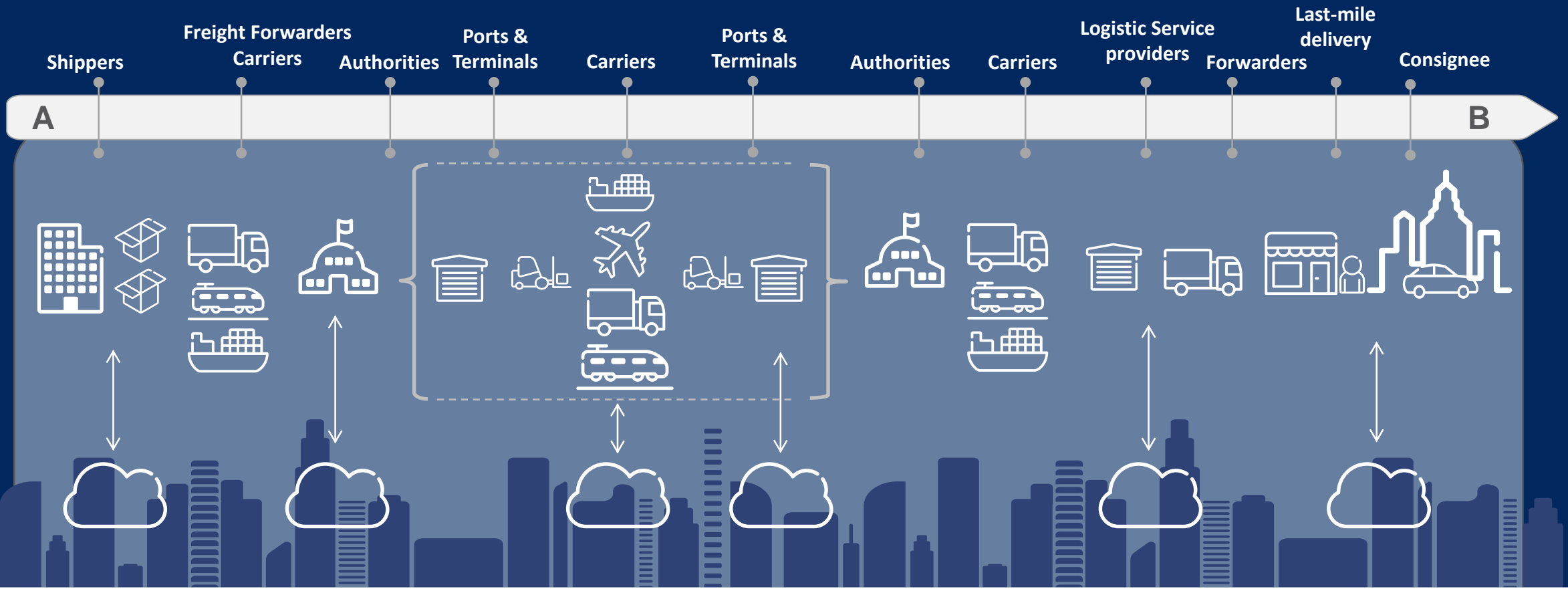tons shipped yearly

1.5M
sales orders yearly

DB SCHENKER DHL UPS TNT

PANALPINA on 6 continents KUEHNE+NAGEL FedEx

1 Radio Base Station unit every 15 second

EVERYONE IS CONNECTED
BUT NOT TO EACH OTHER

Shippers

Freight Forwarders
Carriers

Authorities

Ports &
Terminals

Carriers

Ports &
Terminals

Authorities

Carriers

Logistic Service
providers

Forwarders

Last-mile
delivery

Consignee

A

B

No overview

Fragmented low margin market

EVERYONE IS CONNECTED
BUT NOT TO EACH OTHER

Shippers | Freight Forwarders Carriers | Authorities | Ports & Terminals | Carriers | Ports & Terminals | Authorities | Carriers | Logistic Service providers | Forwarders | Last-mile delivery | Consignee

A ── **B**

Critical information to share:

Track & Trace	Digitalized document handling	Optimize the Supply Chain	Fill rate
Content of box & shipments	Register & Count	Monitor Condition	Vehicle status

No overview   Fragmented low margin market

SUPPLY CHAINS' MANUAL REALITY
CURRENTLY MOSTLY NOT DIGITALIZED AND NOT CONNECTED

Current process to send a package by air

21 documents sent 40 times in 20 steps

PO

Invoice
Packing list

Invoice
Packing list
AWB
F-Manifest
H-Manifest

Invoice
Packing list
AWB
H-Manifest

AWB
Trp Invoice

Invoice
PL

DO

Cargo
Receipt

AWB
H-Manifest

ACI

Freight Arrival
notification

Customs

ED

Customs
export rel.

Customs

Invoice
Packing list
AWB
H-Manifest

Invoice
AWB
ID

DO

Customs
import rel.

AWB
Customs &
Handling fees

Customer

Disadvantages...

- It's **complicated**
- It's **expensive**
- It's **outdated**
- It's **slow**
- It's **unreliable (**

The volume of paper shipped by Ericsson each year fills a 747 freighter

TRANSFORMING TRANSPORTATION

CONNECTED
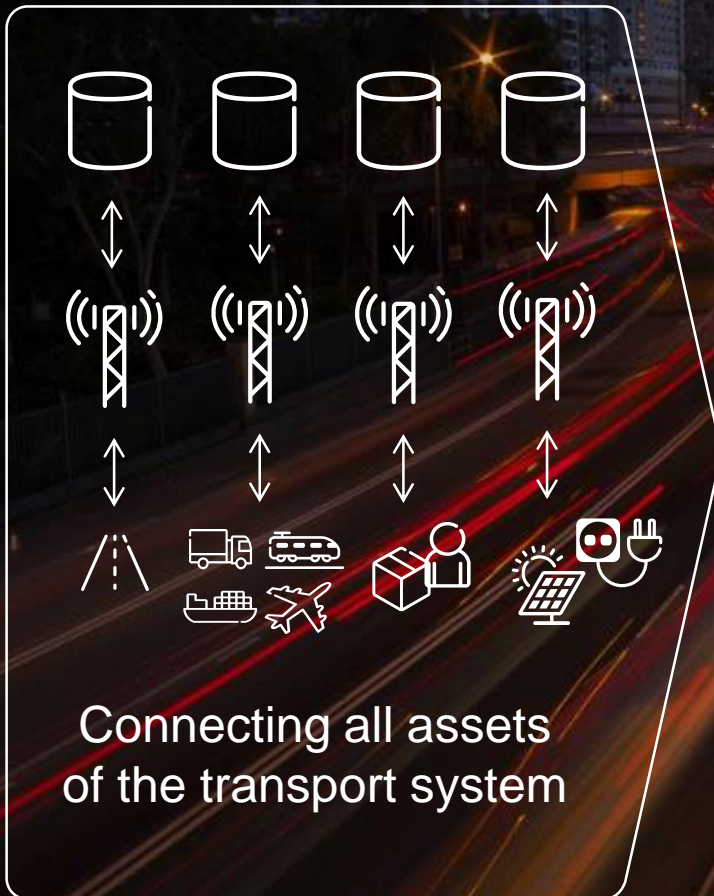
Connecting all assets of the transport system
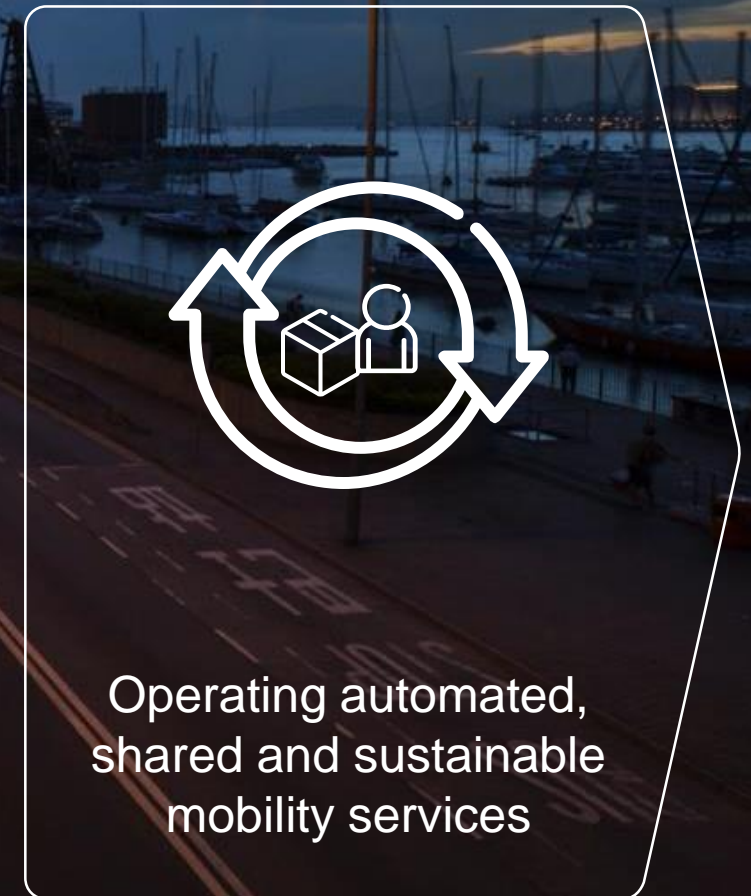
COOPERATING

Enabling new multi-modal mobility services

AUTOMATED

Operating automated, shared and sustainable mobility services

DIGITALIZATION CROSS INDUSTRIES
FROM SILOS TO AN ECOSYSTEM OF ECOSYSTEMS

Customer experience — Customer Experience Management

Business models & processes — Business Model Innovation

Applications & Value-added Services
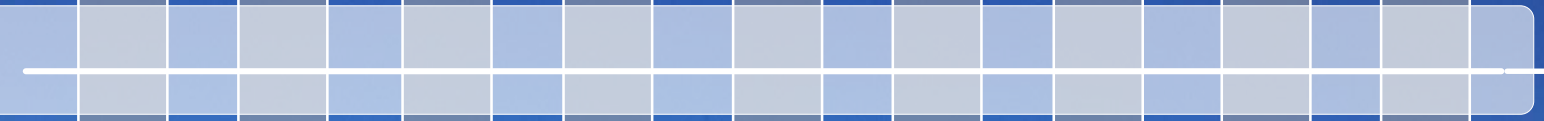
Application platform
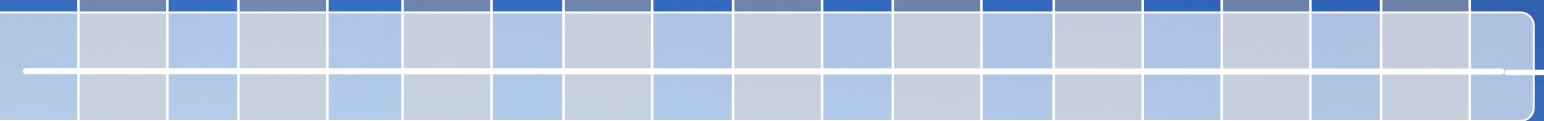
ICT infra: Cloud, Connectivity, Networks
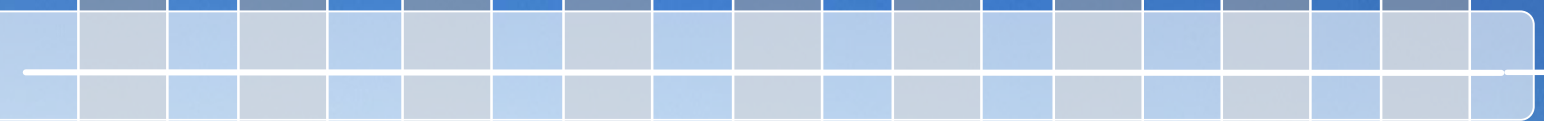
Devices & Sensors
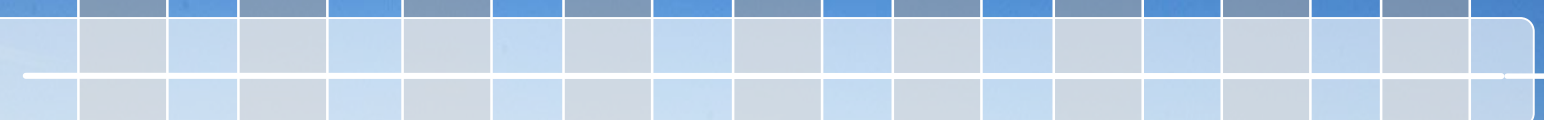
Assets: People, Things, Info: — Shared assets

IoT

4G/5G

DIGITALIZATION CROSS INDUSTRIES
FROM SILOS TO AN ECOSYSTEM OF ECOSYSTEMS

Customer experience

Customer Experience Management

**Business models
& processes**

Business Model Innovation

**Applications &
Value-added Services**

Application platform

ICT infra:
Cloud, Connectivity, Networks

**Devices &
Sensors**

Assets:
People, Things, Info:

Shared assets
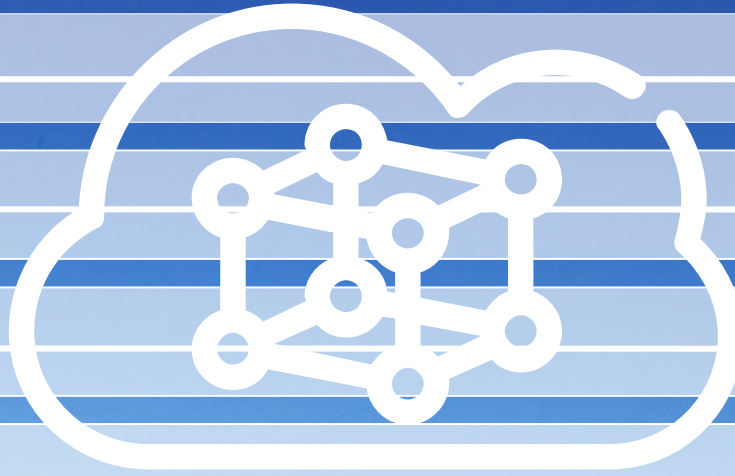
IoT

4G/5G

DIGITIZATION
A DIGITAL REPRESENTATION OF THE REAL WORLD

temp
noise
air_quality
occupancy
energy
water

vibration
temperature
traffic_intensity
surface_condition
noise_level
route_to_work

energy
water
waste
CO2_emission
machine_tear
production

heart_rate
skin_conductance
calories
gesture
mood
position
movement

location
occupancy
fuel
emissions
speed

irrigation
luminosity
nutrition
moisture
pesticides

COOPERATION!!!
CROSS MODE, CROSS SECTOR, CROSS BORDER

Reference models
for operational flows and
inter- & intra-modal hand-overs

KPIs and measure points
for commercial agreements
and regulatory focus areas.

Integrated infrastructure
Transport + Energy + Digital
- Architecture and interfaces
- Operational models
- Business models and regulations

Data sharing prerequisites
- Semantics and ontology
- Unique identifiers
- Governance model
- Security, integrity and privacy

A CHALLENGE FOR CROSS MODE TOPICS…

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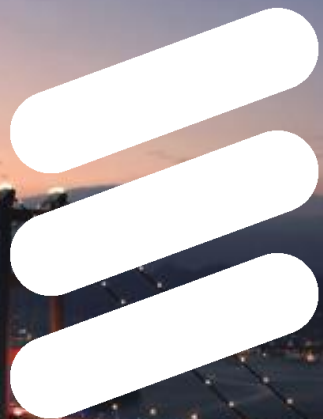| Standardization / protocol	IGO Intergovernmental organizations	Associations			EU Projects and testbeds

Reference models for operational flows ?

MEDAMoS   Cassandra

KPIs and measure points ?

STM   Nordic Way

Integrated infrastructure: Transport + Energy + Digital ?

Euridice   Secure

Data sharing prerequisites ?

And mai...