Common Framework for ICT in Transport Logistics

What are the next steps to be taken?

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Perspective towards 2020: New green logistic services needed

Trucks are not going away
  • Crude oil expected to rise to over $300 a barrel.
  • Electric freight vehicles will reach significant diffusion in urban areas only.

Environmentally-concerned customers will not overlook delivery performance
  • Market demand for customized, real-time services.
  • Logistics services provider must adapt to customer’s green policy demands.

➔ Market leaders will be the ones offering the best trade-off between speed, “greenness” and flexibility.
Perspective towards 2020: Cooperative management of resources

The new scenario requires huge investments, beyond the individual company capacity
  • New freight corridors.
  • Fleet renovation.

Critical logistics resources will have to be managed cooperatively
  • Roads, rail networks, ports.
  • Logistics facilities in urban areas.

➔ All public and private actors will have to cooperate at strategic, tactical and operational levels.
Perspective towards 2020: ICT to fight complexity and empower users

New developments in the Internet of Things will help logistics services providers:
- Monitor and handle events in real-time along the supply chain, regardless of geographical and organizational boundaries.
- Introduce a degree of self-regulation for systems that are simply too complex for humans to handle directly every event.

Common semantics and open interfaces will empower users visibility:
- Relate information and infer knowledge from a variety of sources and domains (business, traffic, environment, ...)
- Construct personalized views on the supply chain.

➔The logistics industry will have IT services at its core.
Evolution of the offer
(what the market will provide)

Intelligent logistic resources

- Interoperable
- Cheap
- Embedded

Cargo connectivity platform

- Identification
- Context detection
- Access to services

Value-added services platforms

- Intermodal freight planning and monitoring
- Demand-supply matching for truckload optimization
- Distribution and freight traffic management in the city of Lisbon
- Sea-land interface e-services at the port of Trieste
- ...

- Public
- Open
- Widespread

- Application-specific services
- Tailored to users
- Community involvement (network externalities)
Evolution of the market (who will provide what)

- Package/pallet/container makers
- Vehicle makers
- Specialized ICT vendors
- Telcos
- Infrastructures, Cities, Regions, ..
- Logistics Services Providers
- Infrastructure operators
- Associations, consortia ..

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Next steps needed (research and development)

**Intelligent logistic resources**

- Devices standardization
- Seamless connectivity (short- to long-range)
- Miniaturization
- Low power devices
- Printed electronics

**Cargo connectivity platform**

- Identification
- Context detection
- Access to services

**Value-added services platforms**

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**Public ID platforms**

- Trusted publication and access to services
- Cooperative infrastructures
- Cooperative cities

**Common data and process semantics**

- New business models