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*An ecosystem for freight information
services: the iCargo project*

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- **Collaborative planning**, for pooling and sharing resources across the logistic chain.
- **Logistic chain composition** based on services, for integrating the different available transport and logistic services.
- **Re-planning of logistic chains by (or on behalf of) the client**, in case of goals changes or events happen during the execution time.
- **Optimization of the use of resources** of the logistic chain, allowing the Logistic Service Providers to be more situational aware and so to optimize the use of transport resources.
- **Monitoring the environmental footprint**, providing smart tools and shared methodologies for environmental data gathering and reporting.

- **Logistic chain composition** “ECITL is sponsored by iCargo Project”
 - Collaborative planning support (information services support to the “physical internet”).
 - Open logistic network based on common definition of transport *and* logistic services.
 - Taking into account 3 dimensions: cost, effectiveness, emissions.
- **Logistic network awareness**
 - Monitoring infrastructure based on Intelligent Cargo, vehicle and infrastructure connectivity.
 - Re-planning triggered by automated monitoring and deviations.
 - Dynamic alignment of individual service providers plans.
- **Emissions monitoring**
 - Monitoring infrastructure includes collection of energy consumption data.
 - Real-time calculation of emissions at shipment level.

Key messages in the iCargo vision



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- Logistic networks are opened up
 - Resources (transport services, logistic services, value-added services) are discoverable and easily integrated in door-to-door solutions.
 - Decentralized approach vs. proprietary logistic network.
- Search and integration of logistics services is no longer a specialist activity.
- Intermediation is not needed if logistic networks are opened up. No need of proprietary networks managers (3PL, marketplace).
- Interoperability is no longer a solution, it is a problem solved (commodity)
 - Common semantics for basic transport services concepts.
 - Automated support for cross-standard mediation.
- Integration know-how and interoperability platforms are no longer strong value propositions (if they ever have been).

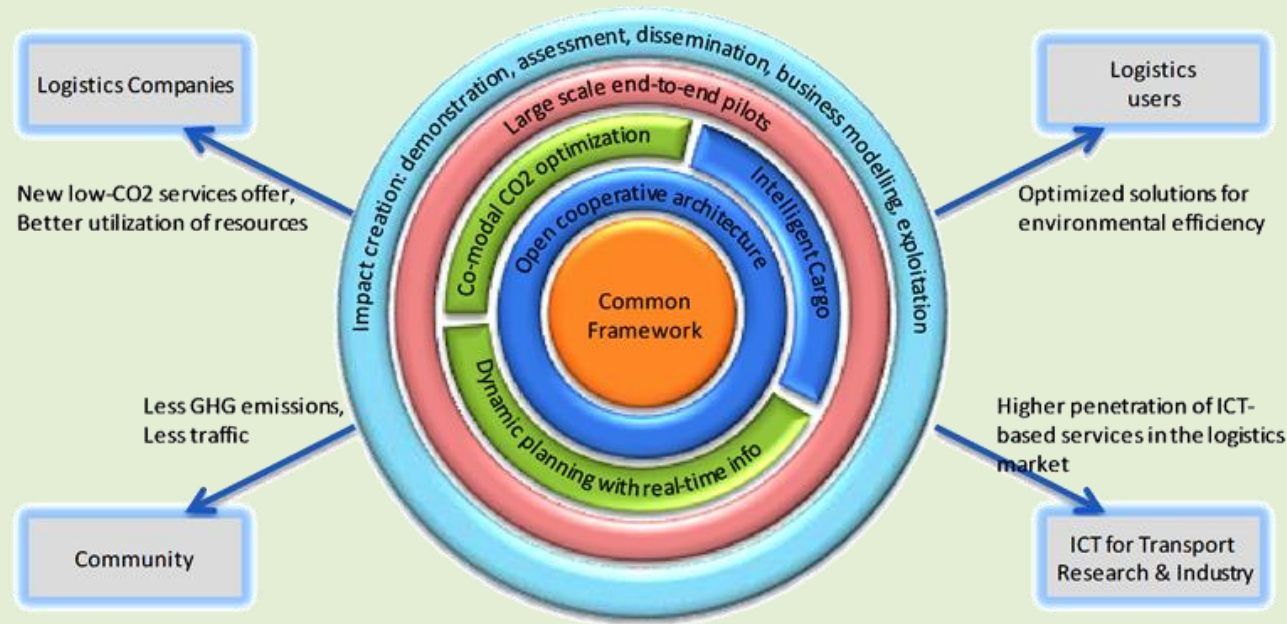
Partners



The iCargo integrated project



Objective: To build an open affordable information architecture that allows real world objects, existing systems, and new applications to efficiently co-operate, enabling more cost effective and lower-CO₂ logistic processes.



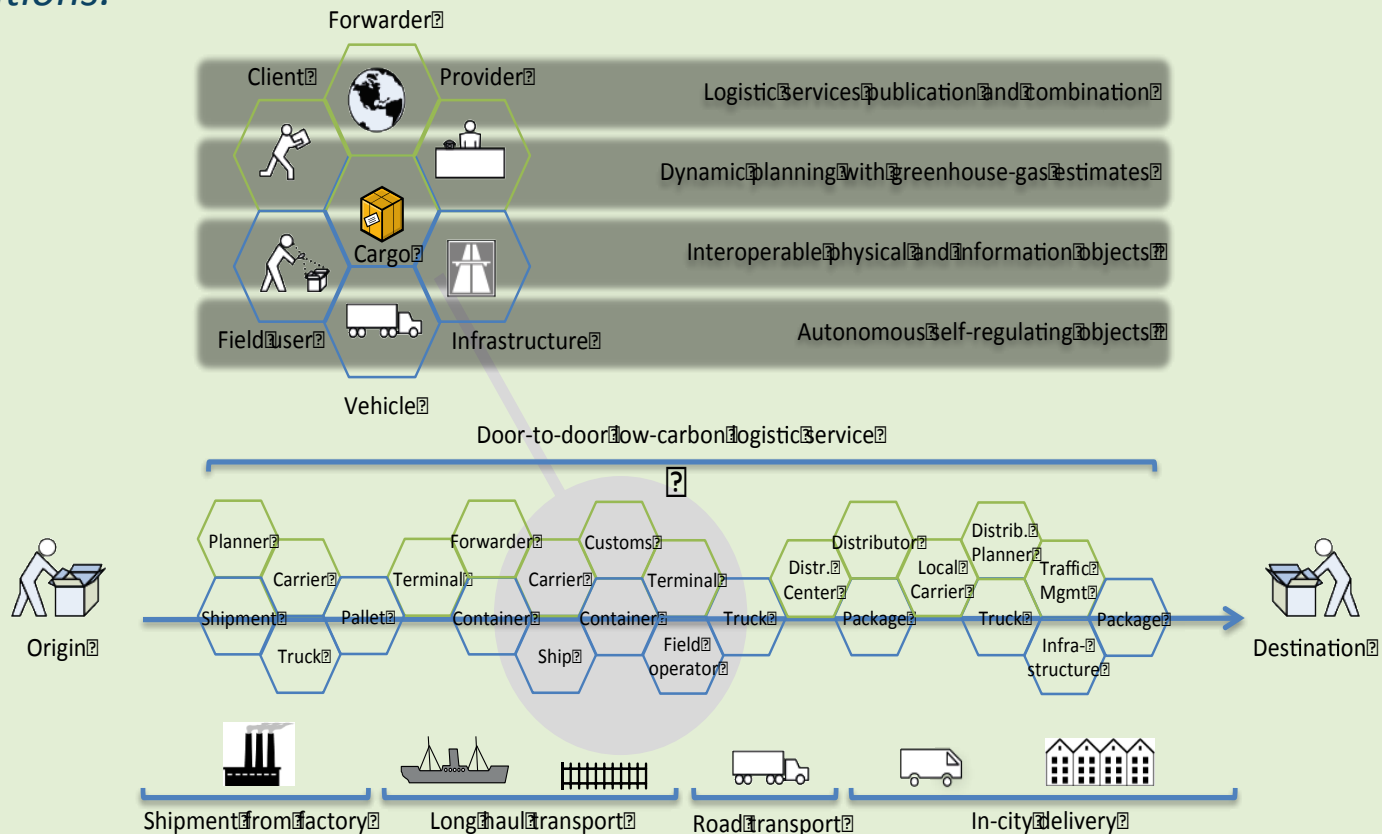
Consortium:



The iCargo Vision



By 2020, efficient, low-carbon end-to-end transport and “**ECITL** is sponsored by iCargo Project” executed and completed cooperatively in a global freight business ecosystem, based on fully interoperable cargo, vehicle, infrastructure and freight management systems, supporting optimal resources usage and real-time alignment of intermodal plans with on-going operations.



The iCargo approach



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Achieve the iCargo vision through an **open freight management ecosystem**.

A business ecosystem is an “intentional community of economic actors” having in common protocols, interfaces and an overall business goal.

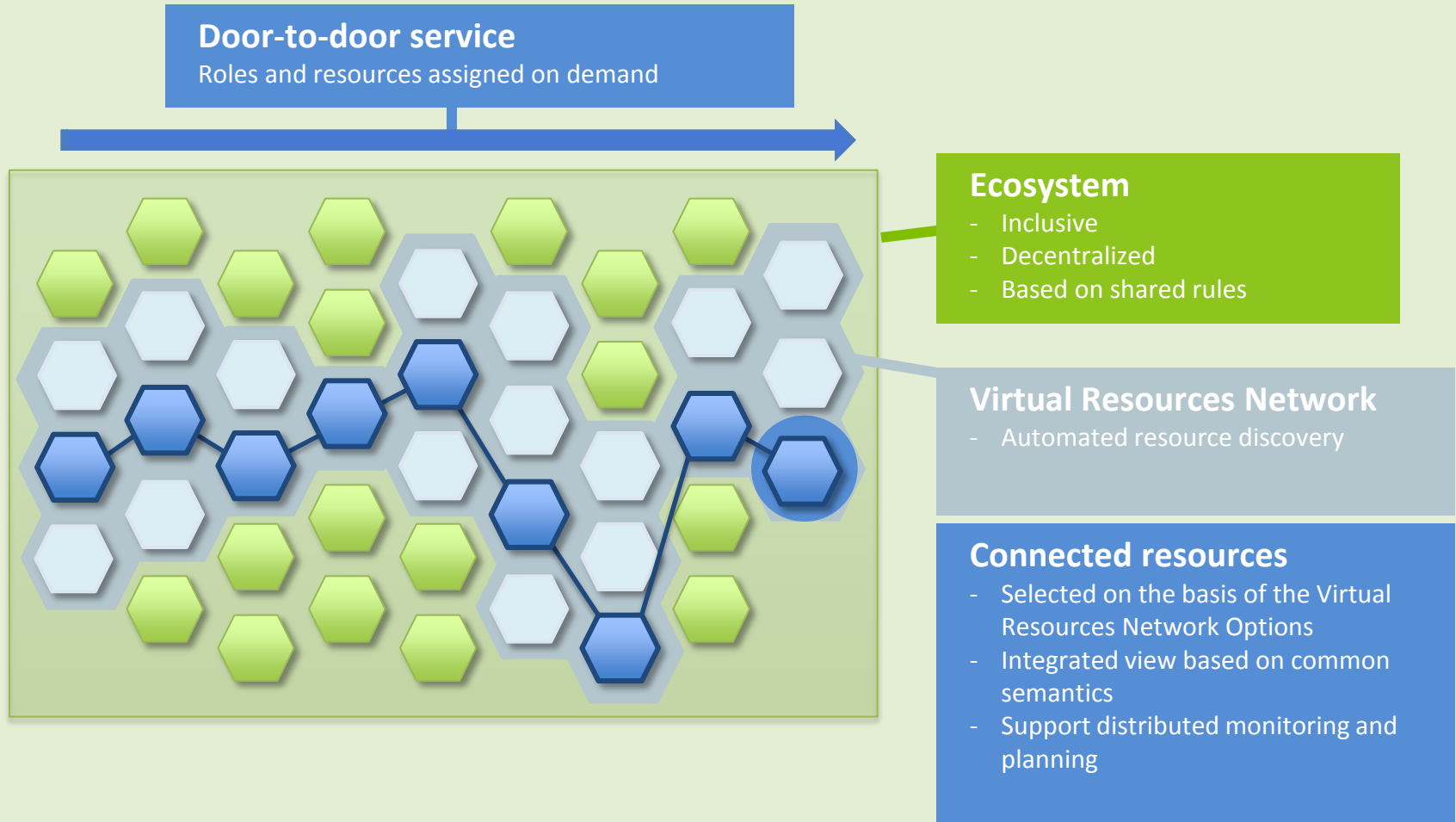
In the case of iCargo this is the provision of *door-to-door low-carbon logistic services*, i.e., services that:

- cover an entire supply chain or a significant portion of it,
- produce less CO₂ than alternatives,
- make use of the iCargo ecosystem to combine services through different transport modes and providers.

The iCargo ecosystem



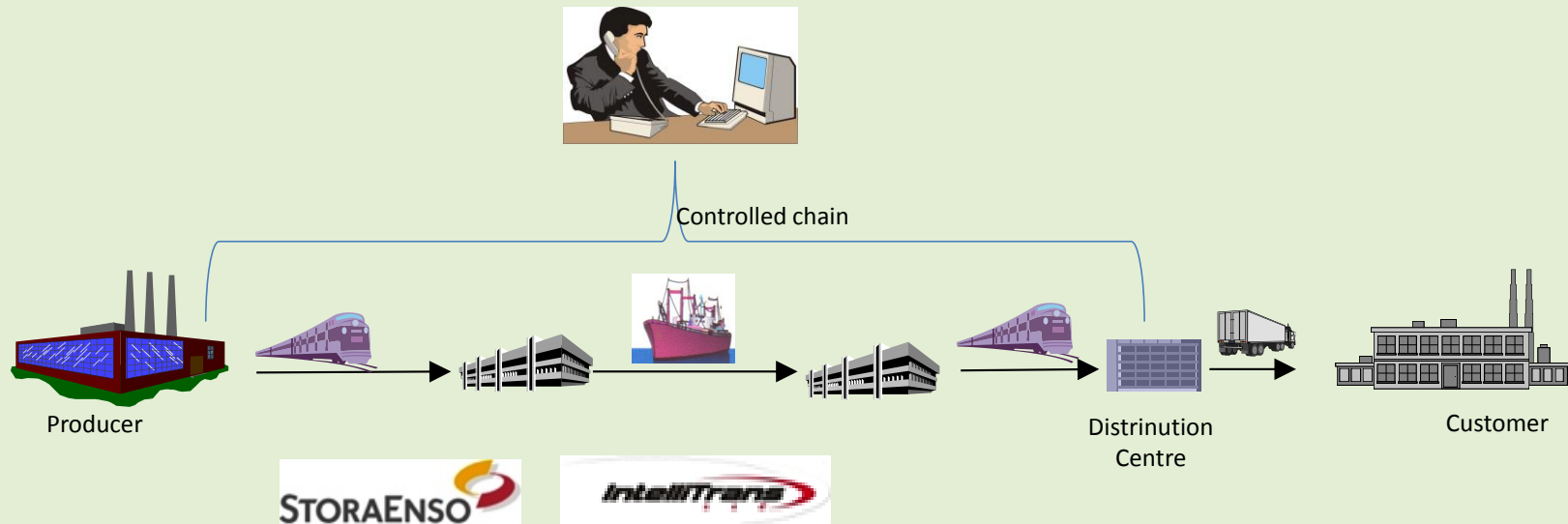
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Pilot case: green corridor

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- **Provision of co-modal door-to-door transport solutions** to manufactures, through integration of roads of the sea with hinterland services offerings, rail and last-mile distribution.



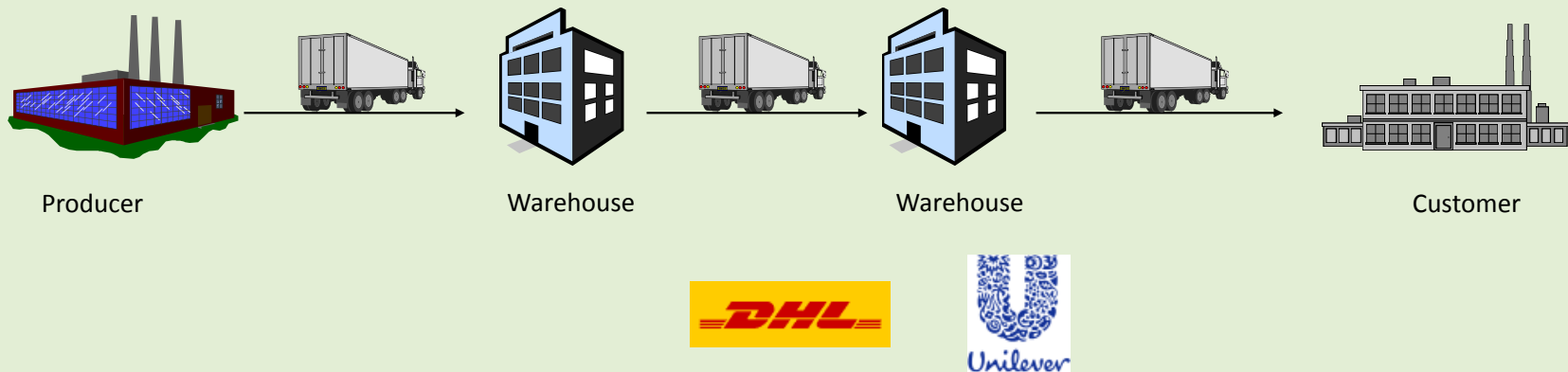
- The resulting combined services will have an **improved environmental profile**, by increasing the utilisation of the ships, and will improve the customer service through updated information and easier accessibility.

Pilot case: manufacturer-LSP cooperation



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- This Business Case aims to provide **integrated transport and cross-docking for manufacturers**, with order reconstruction at each stage based on real-time information and postponement strategies.



- To **increase load factor** of dispatched trucks in combination with the **real-time monitoring of emissions** during the transport phase.

Conclusions and next steps



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- Logistic resources can be better utilized, and emissions can be lowered, by taking an ecosystem approach.
- The iCargo ecosystem concept entails opened-up logistic networks and widespread interoperability, based on connectivity services.
- This will support logistic chain composition, dynamic planning based on awareness of logistic network execution, and emissions monitoring.
- Current business models will evolve and some will be disrupted.
- Next steps:
 - iCargo objectives: to design, implement it and to prove that it works.
 - To disseminate the results and extend the pilots.