



## Parallel A: Logistics Service Platforms

### Freight information services: an ecosystem approach

Paolo Paganelli

Bluegreen Strategy (I)

8/11/2012

# Agenda

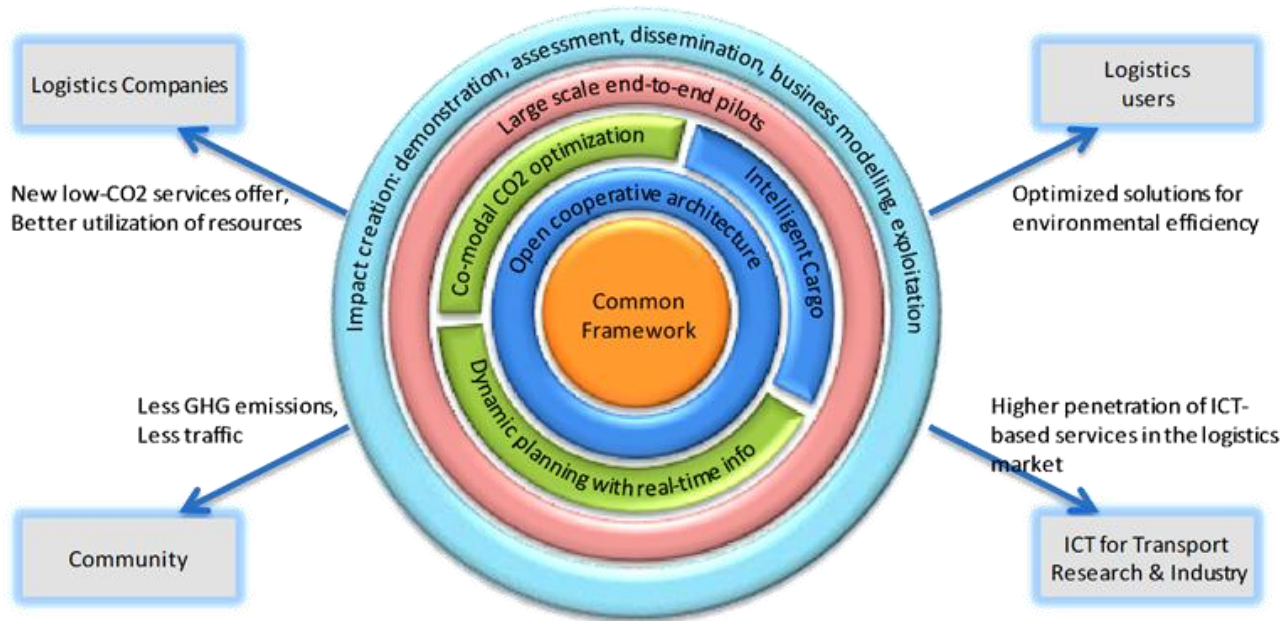


- iCargo vision and approach.
- The ecosystem concept.
- iCargo ecosystem functions.
- Business models evolution.

# 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-CO<sub>2</sub> logistic processes.



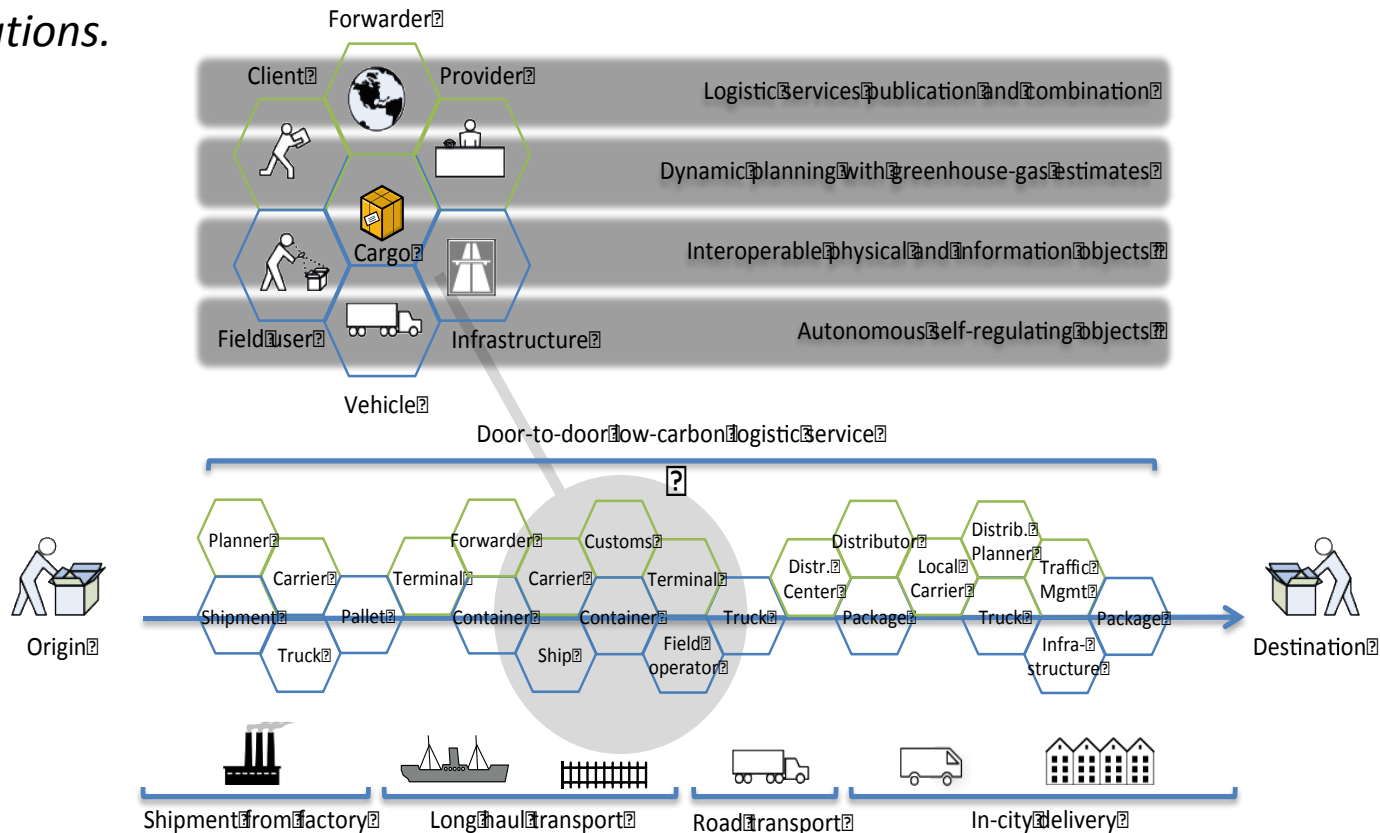
Consortium:



# The iCargo Vision



*By 2020, efficient, low-carbon end-to-end transport and logistics services will be planned, 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.*





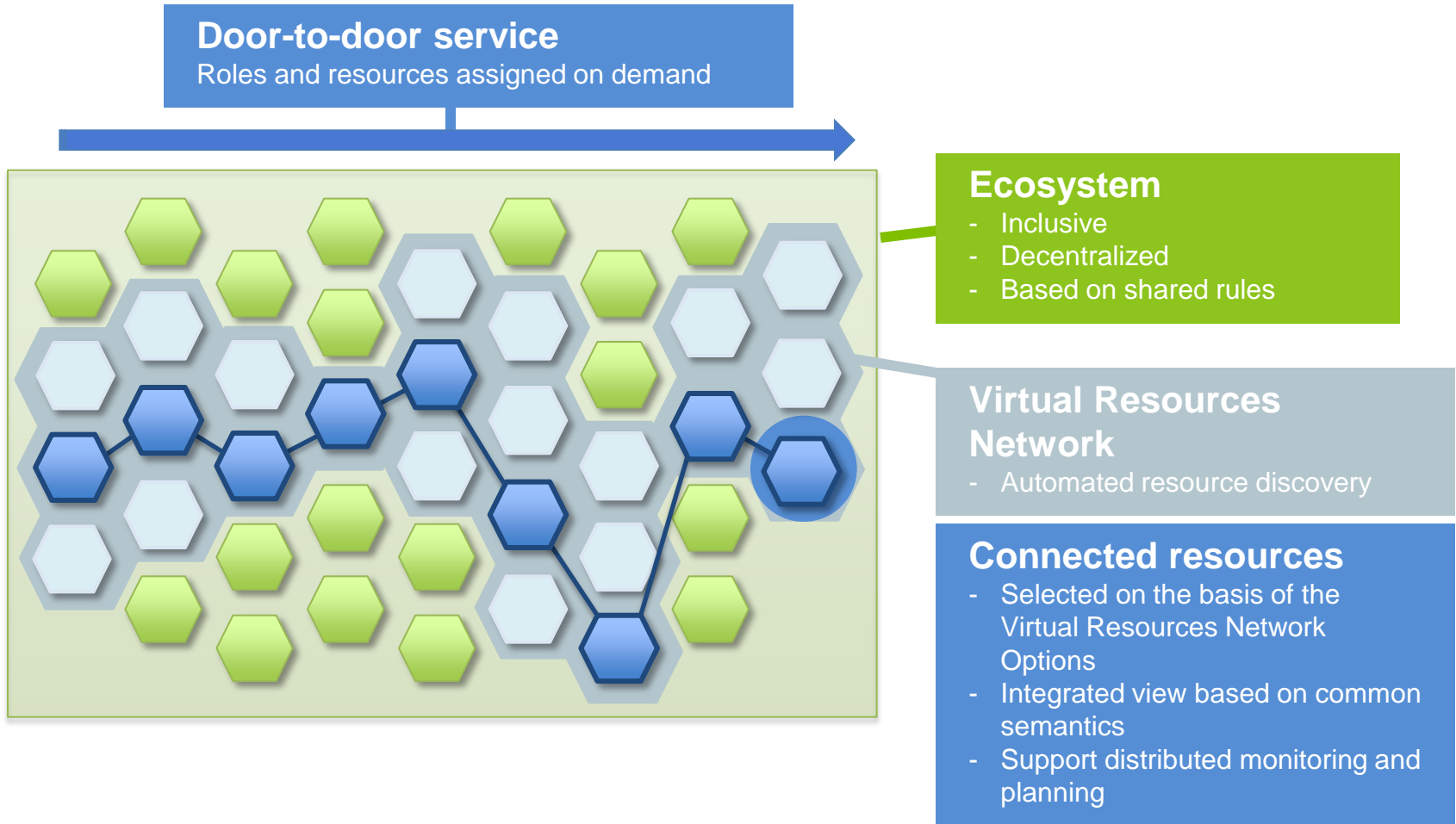
Achieve the iCargo vision through an **open freight management ecosystem**.

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 CO<sub>2</sub> than alternatives,
- make use of the iCargo ecosystem to combine services through different transport modes and providers.

# The iCargo ecosystem





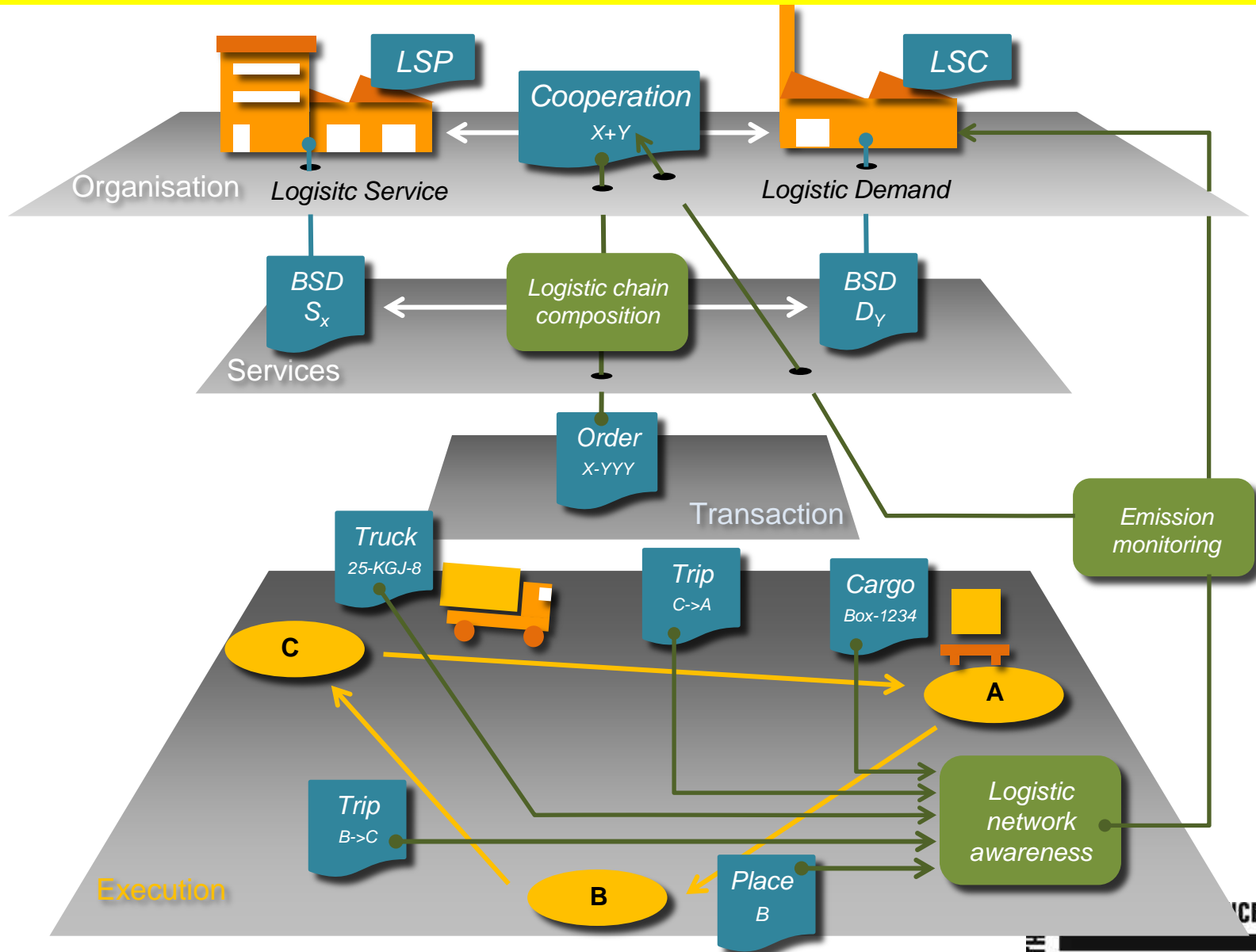
- Logistic networks are opened up
  - Resources (transport services, logistic services, value-added services) are discoverable and easily integrated in door-to-door solutions.
  - Decentralized approach vs. proprietary logistic network.
- Search and integration of logistics services is no longer a specialist 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).



- **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.



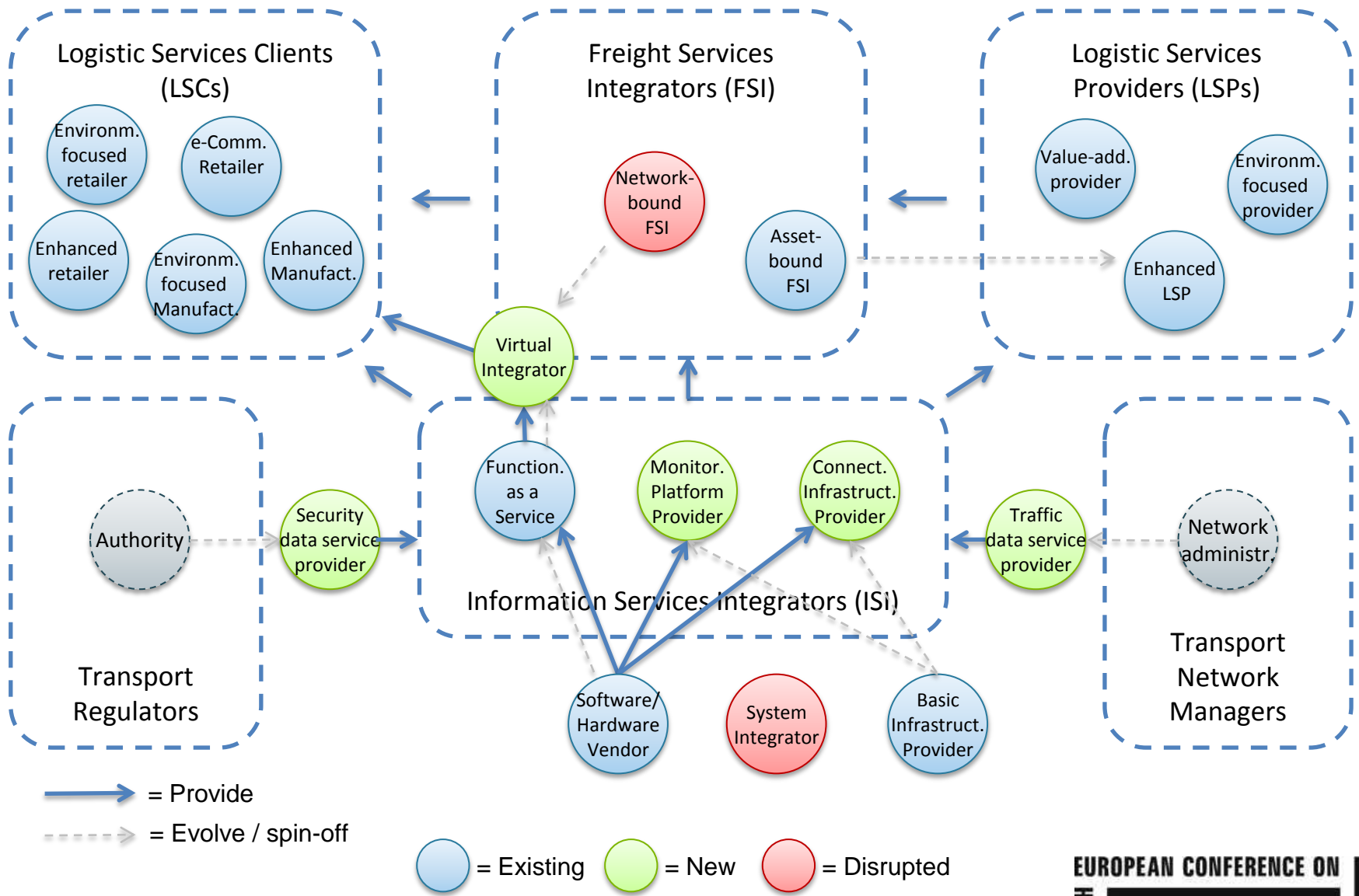
# The iCargo ecosystem at work





- **Logistic chain composition**
  - 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.

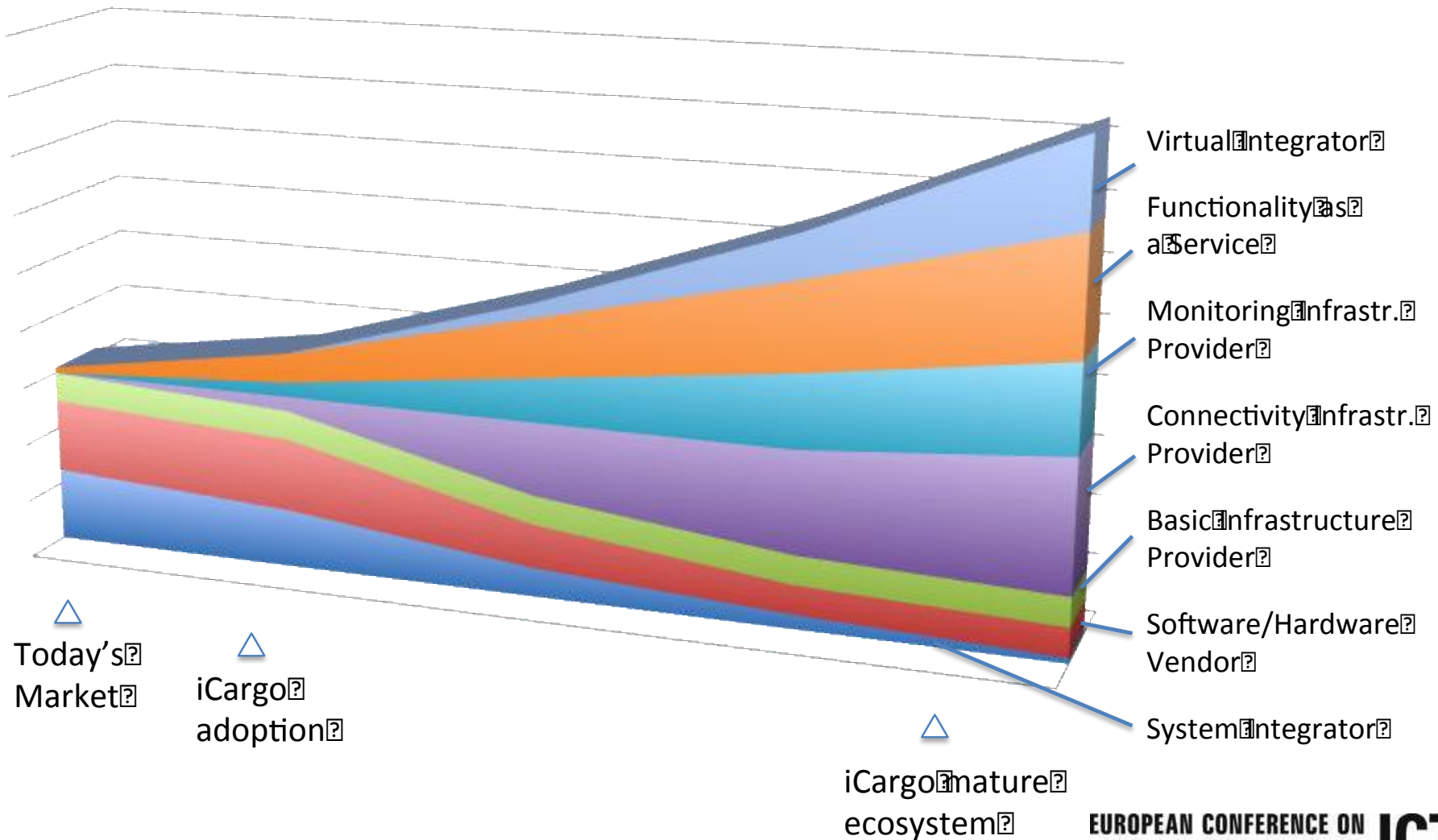
# iCargo ecosystem overview



# Market evolution: Information Services Integrators



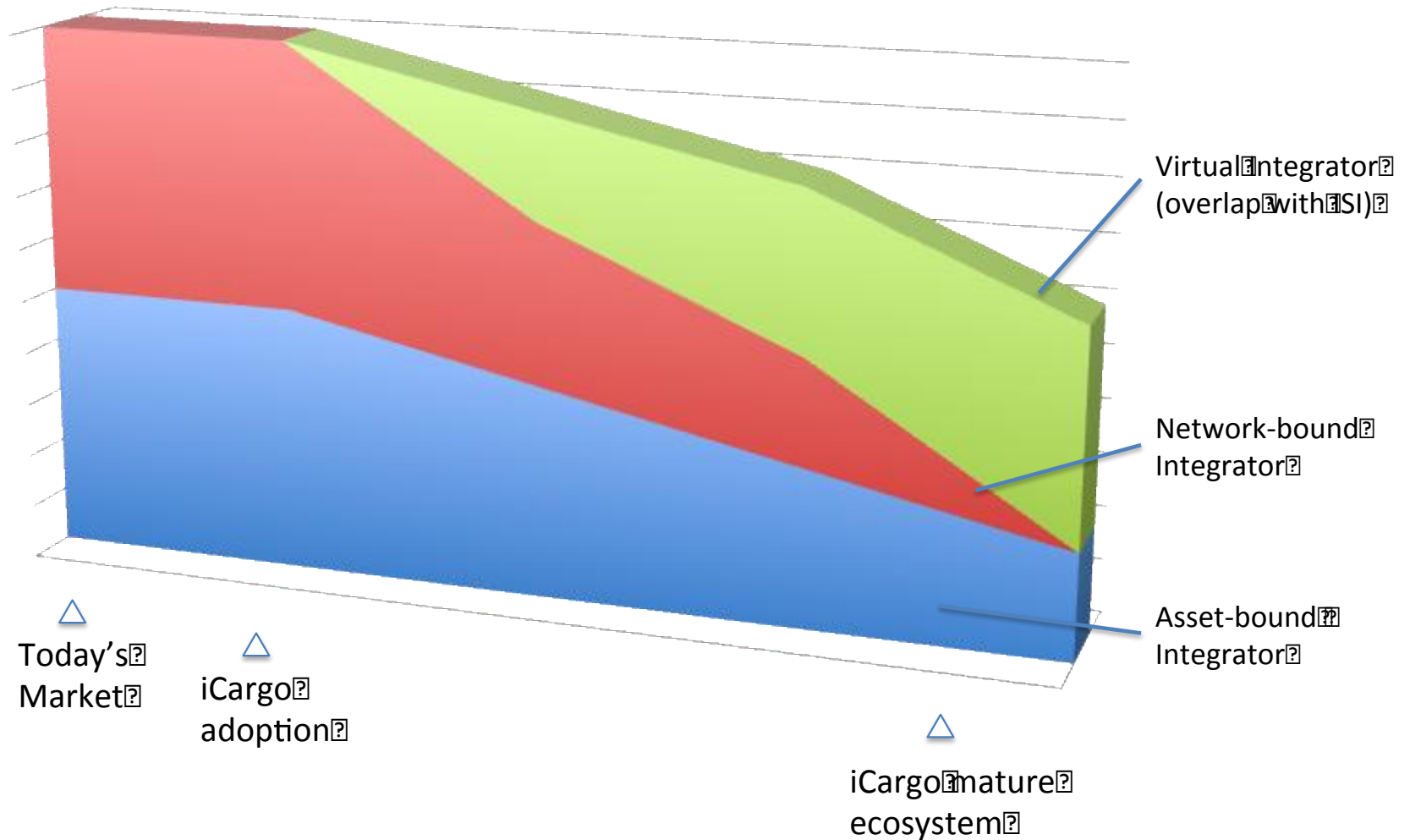
## ISI evolution in the Cargo ecosystem (market-share)



# Market evolution: Freight Services Integrators



## FSI evolution in the Cargo ecosystem (market-share)



# Conclusions and next steps



- 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.
  - Synergies:
    - To provide the legal framework and key industry players' support to “open up” logistic networks (e.g., with CO3 and WINN).
    - To introduce operational changes for the “physical internet” (e.g., with Modulushka)

Partners



Presenter

Paolo Paganelli, Bluegreen Strategy (I)  
 paolo.paganelli@bluegreenstrategy.com