

Horizontal Collaboration: A New Logistics Paradigm

TRI = VIZOR
THE WORLD'S FIRST CROSS SUPPLY CHAIN® ORCHESTRATOR™

ECITL Zaragoza, October 24th 2013

Sven Verstrepen – TRI-VIZOR nv



- ≡ World's First Cross Supply Chain Orchestrator™
- ≡ Since November 2008
- ≡ Neutral and independent
- ≡ Spin-off of the University of Antwerp
- ≡ Strategic Advisory Board with captains of industry

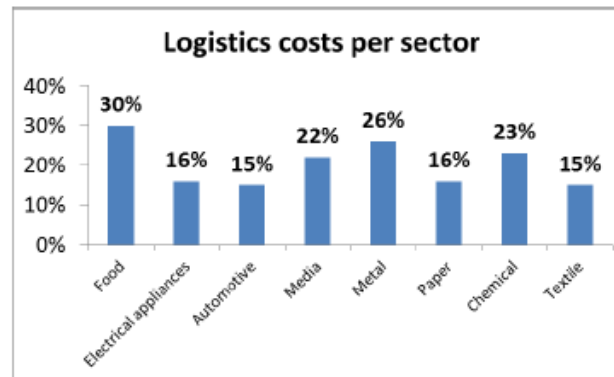
Member of the “CO₃ Consortium”



NDL



- Logistics industry in Europe → 14% of GDP¹. Six countries out of the global top-10 logistic performers are from the EU in 2012²
- Transportation is responsible for around a quarter of EU greenhouse gas emissions³
- On average, logistics costs account for 10-15% of the final cost of the finished product⁴.



High potential contribution to European competitiveness and sustainability targets (Cost, CO₂ and energy savings)

¹ COM(2007) 607 final. "Freight Transport Logistics Action Plan" European Commission, Brussels, 18.10.2007

² Worldbank.org "Connecting to Compete 2012" http://siteresources.worldbank.org/TRADE/Resources/239070-1336654966193/LPI_2012_final.pdf.

³ http://ec.europa.eu/clima/policies/transport/index_en.htm

⁴ European Logistics Association (2007)

- ≡ **24%** of freight vehicles in the EU are running empty
- ≡ Average loading of the rest is **57%**
- ≡ Overall efficiency: **43%** ☹️
- ≡ Flow imbalance can only explain half of this loss

How long can this continue?




- ≡ Regulation
- ≡ Innovation & Technology
- ≡ Multimodality

≡ **Horizontal collaboration**

- Requires
- ≡ New type of co-operations (co-opetition)
 - ≡ New logistics actors: orchestrators,...
 - ≡ New type of multilateral contracts
 - ≡ Trust
 - ≡ Know-how

Market opportunity and vision

A 10% to 30%  efficiency in EU logistics sector
=
€ 100 – 300 billion cost relief for European industry

Make European industry resilient by a true “people, planet, profit” oriented logistics and supply chain sector.

A sector that is economically, environmental and socially sustainable contributing to both industry competitiveness and the EU policy targets

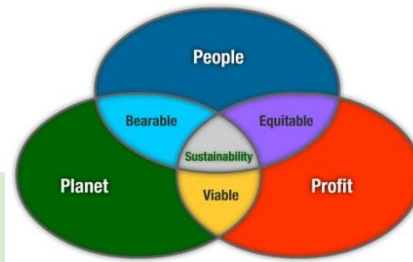
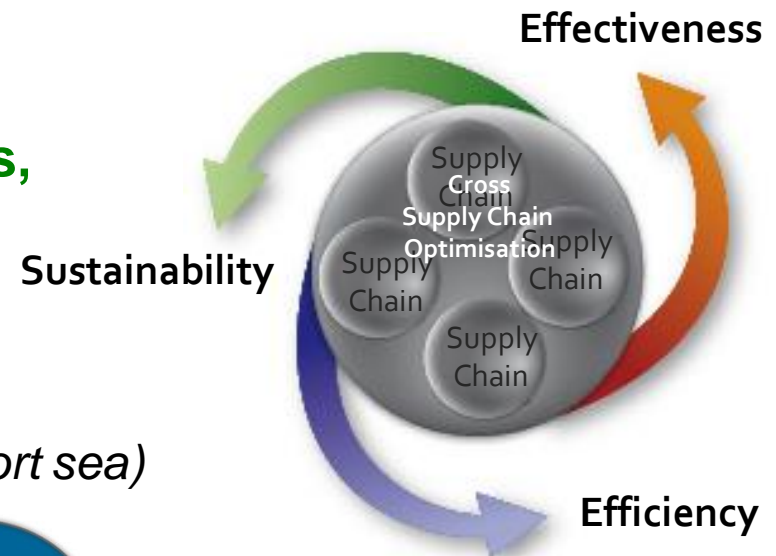
EU Transport Policy Vision (EC 2011):

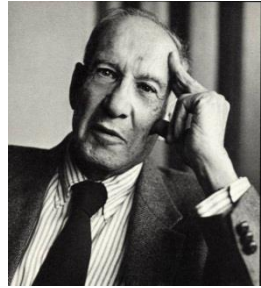
- Reduce Europe's dependence on imported oil
- Cut carbon emissions in transport by 60% by 2050
- Modal shift: 30% off road by 2030 – 50 % by 2050
- Multi-modal: European corridor network (low carbon/green)

What is needed?

- Improve **efficiency, effectiveness, sustainability** simultaneously

- *Consolidate and reduce freight flows*
- *Scale up for intermodal (rail/barge/short sea)*
- *Disruptive innovation!*



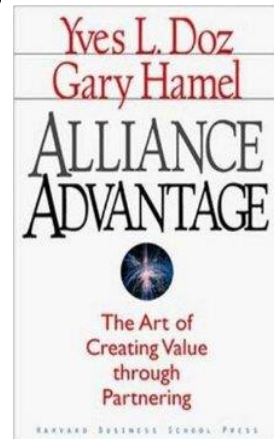


Peter Drucker:
Cooperation,
Coordination and
Communication
(1993)

Welcome to the age of « co-opetition » !

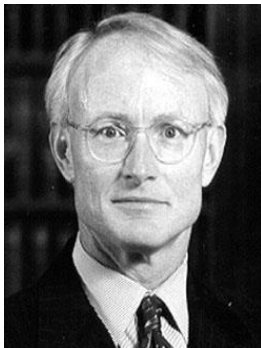
≡ Vertical collaboration (1980- ...):

- ≡ Between subsequent actors in the *same supply chain*
- ≡ Between suppliers, manufacturers and customers
- ≡ EOQ, outsourcing, VMI
- ≡ Driven by ICT (extended enterprise)

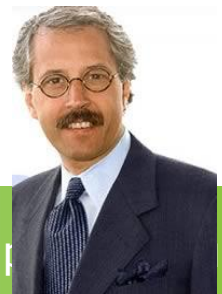


≡ Horizontal collaboration (2006 -...):

- ≡ Between companies in the *same market*
- ≡ Alliances, partnerships, clusters, network organisations (Gary Hamel, 1998)
- ≡ Collaborate in some markets, compete in others
- ≡ “New frontier” or “paradigm shift”



Michael Porter:
Clusters and the New
Economics of
Competition
(1998)



Co-loading between JSP – Hammerwerk

Net cost reduction -10% ; carbon footprint -30%

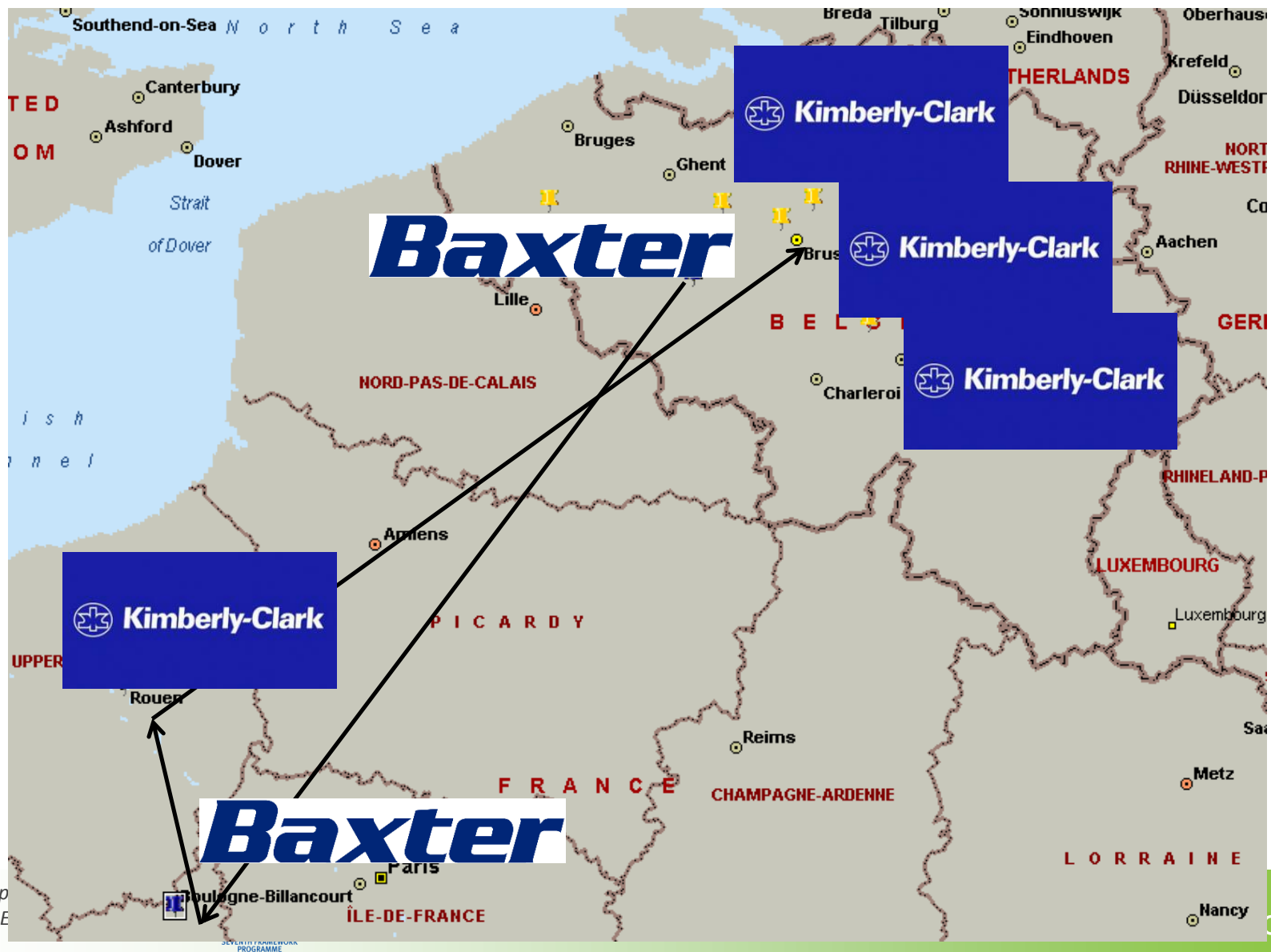


The CO3 project is financed by the
European Commission



www.co3-project.eu

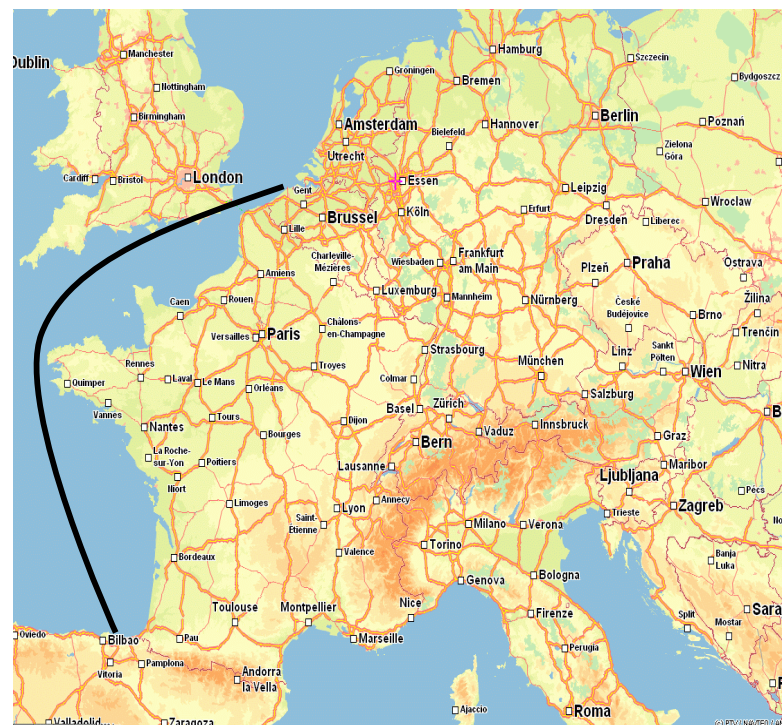
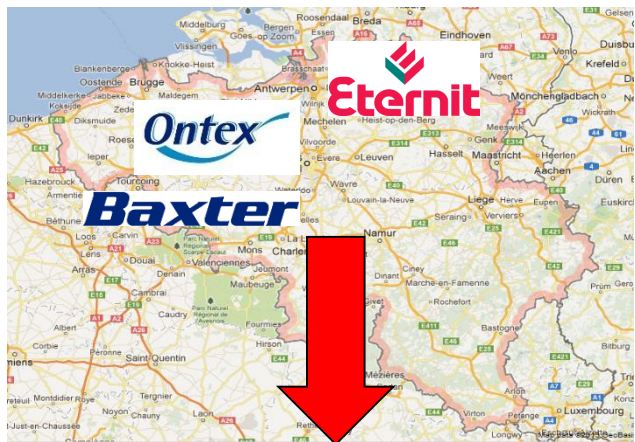
Healthcare – FMCG roundtrips 13% cost reduction





Collaboration
Concepts for
Co-modality

North – South Closed Loop (FTL)



The CO3 project is financed by the
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www.co3-project.eu



3 simple steps to create horizontal collaboration



« Successful collaboration is not a matter of
chance...

it is the result of a process.»

Introducing a new role: “Neutral trustee”

- The trustee is an essential new player to manage horizontal collaboration
- It performs multiple functions (dependent on the scenario and requirements):
 - **Offline:** Neutral external support to the collaborating shippers
 - **Online:** Neutral real-time coordination of daily collaboration process

Examples of offline functions:

- Matchmaking
- Create critical mass
- Stability and fair gain sharing
- Legal compliance
- Entry and exit
- Conflict resolution
- Data confidentiality

Examples of online functions:

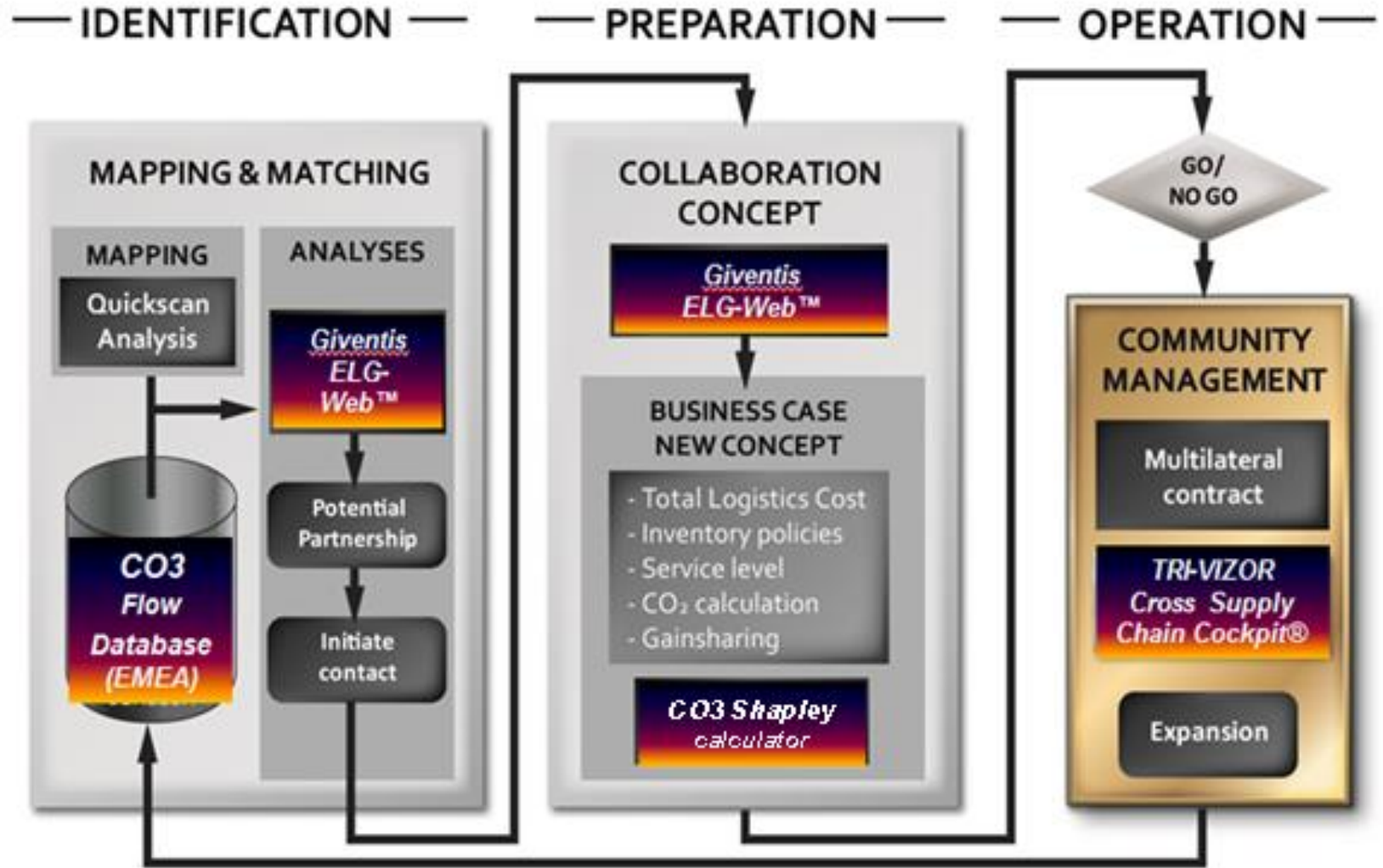
- Loads combination and synchronization
- Prioritization
- Real-time network orchestration
- ICT Interfaces
- Incident management
- “Collaborative Control Tower”

Community Management

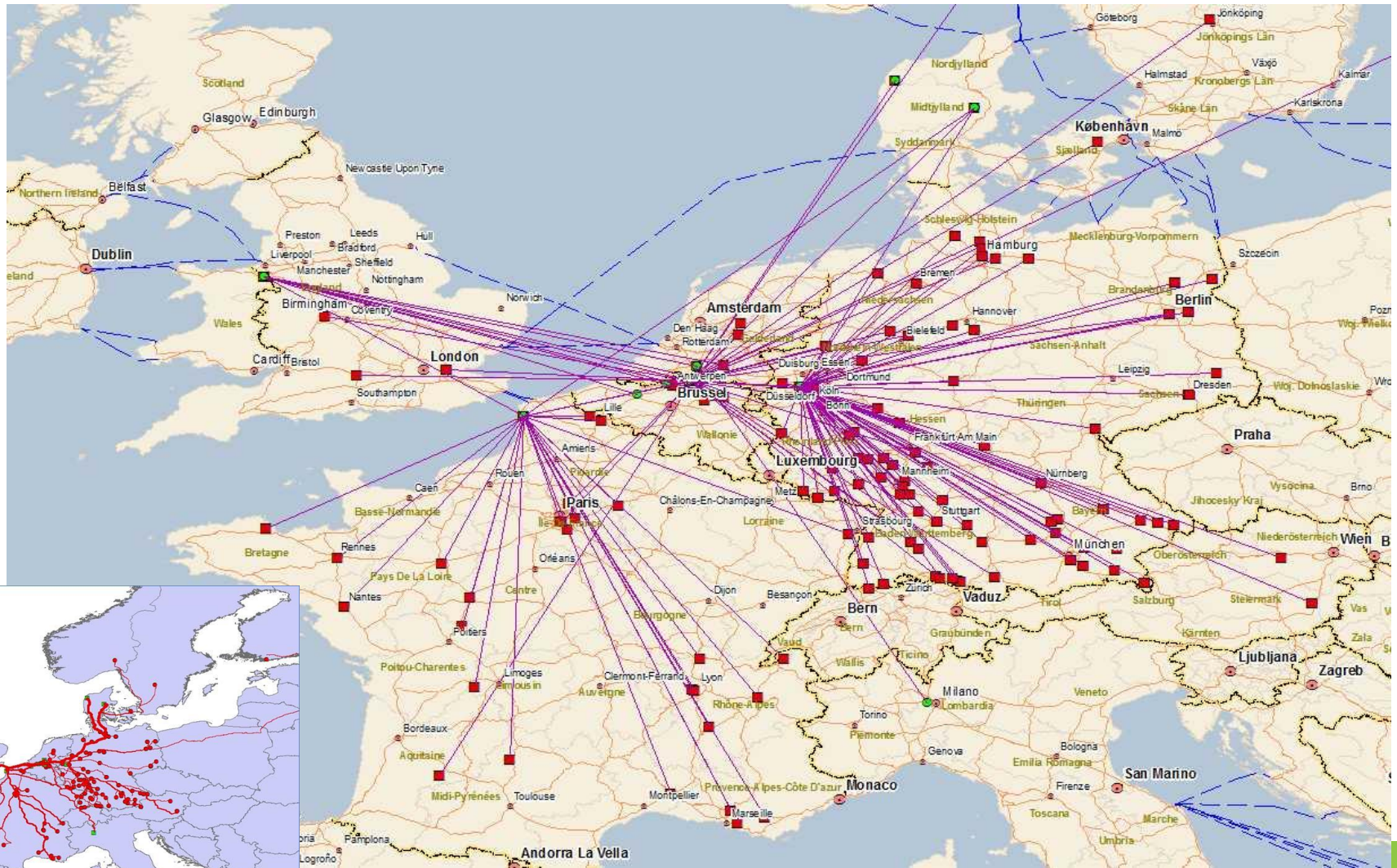
- ≡ Managing, improving and expanding the community
- ≡ Maximizing the community gains
 - ≡ **Efficiency**: Min. Total Supply Chain Cost
 - ≡ **Effectiveness**: Max. Service Level
 - ≡ **Sustainability**: Min. Carbon Footprint
- ≡ People business, powered by ICT
- ≡ Collaborative and multimodal Transport Management
- ≡ Periodic or real-time interaction



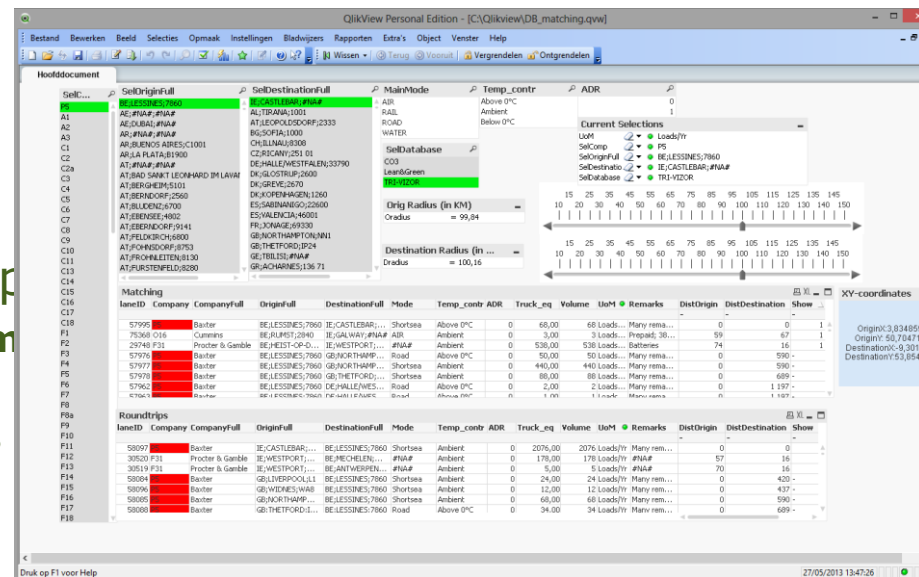
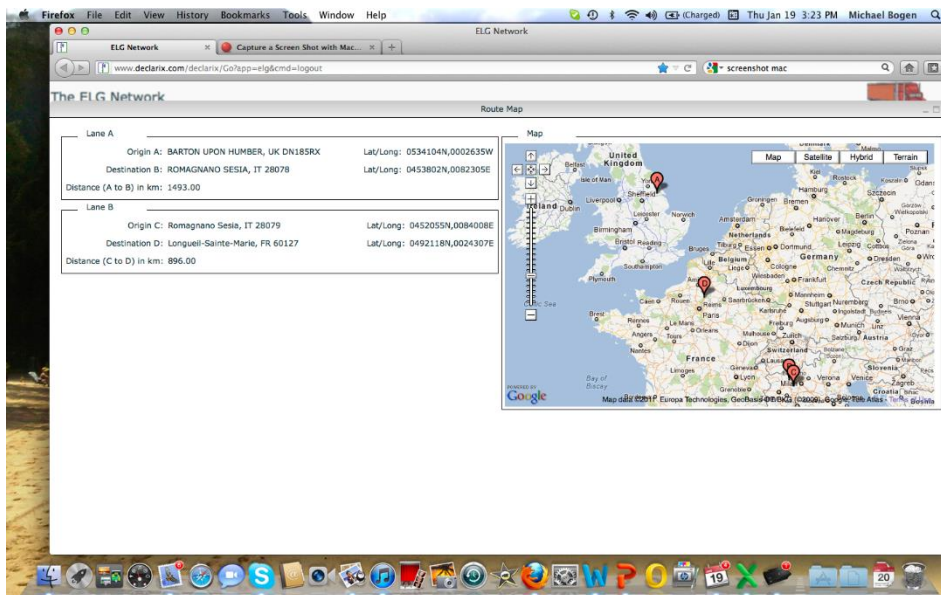
Methodology and ICT building blocks

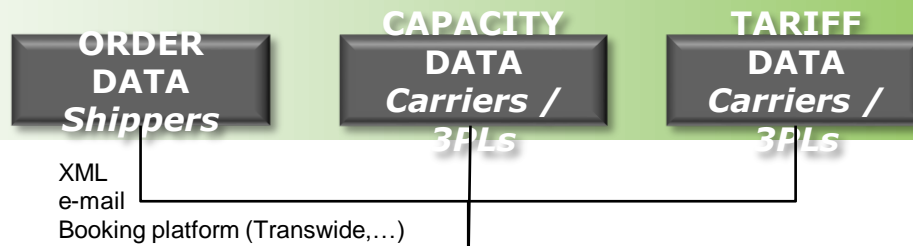


Critical mass: creating a “universal” freight flow database



Identification Smart Matching tools ("Big Data")

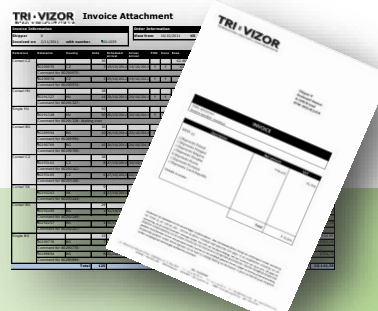




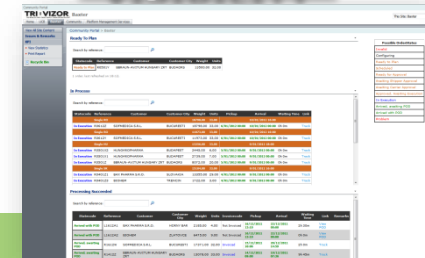
REPORTING



INVOICING



SUPPLY CHAIN VISIBILITY

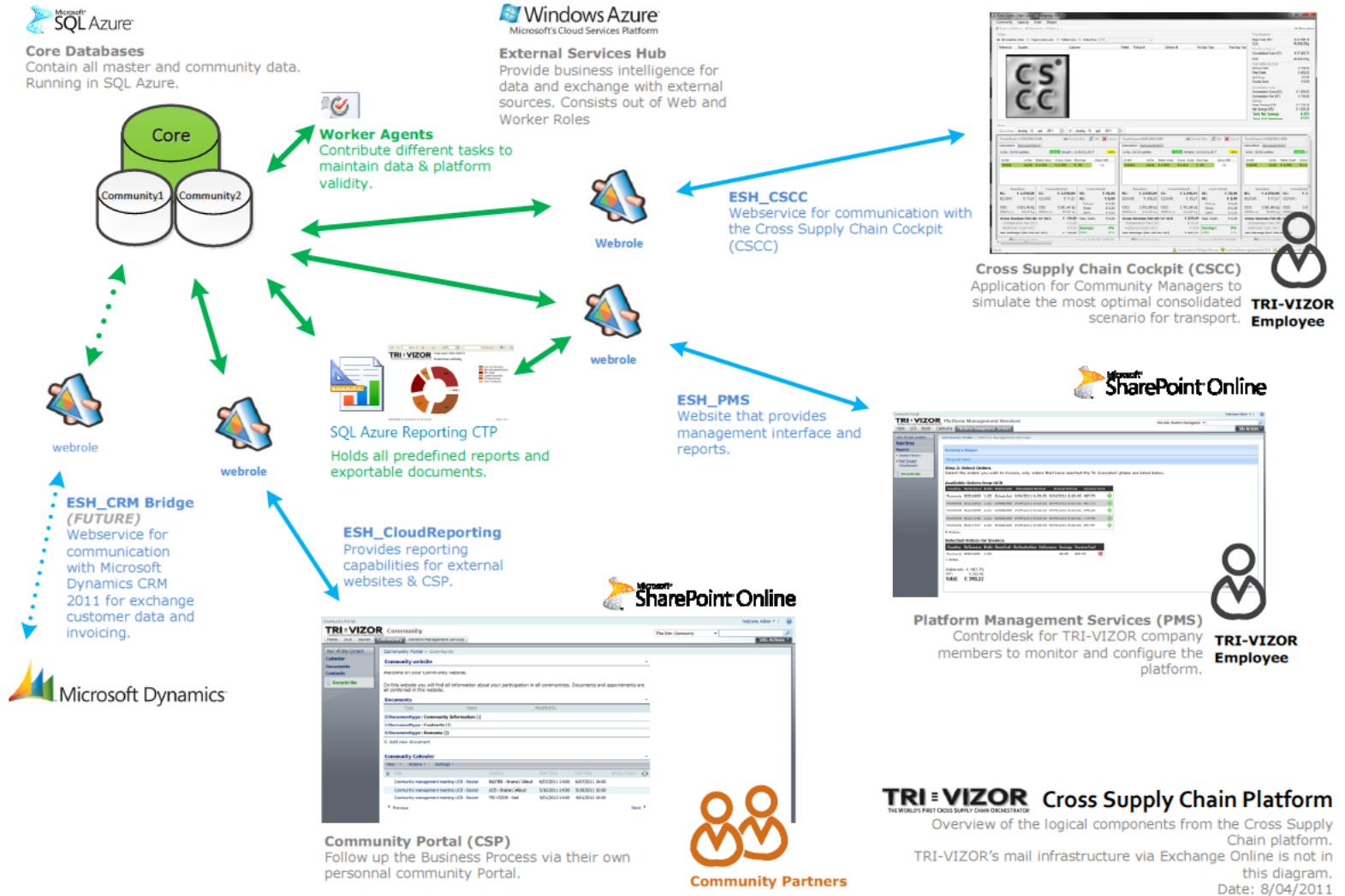




Collaboration
Concepts for
Co-modality

Microsoft

State of the Art Cloud Computing



Fair gain sharing: Shapley value is always right



$$\phi_i(v) = \sum_{S \subseteq N \setminus \{i\}} \frac{|S|! (n - |S| - 1)!}{n!} (v(S \cup \{i\}) - v(S))$$

14.1.2011

EN

Official Journal of the European Union

C 11/1

IV

(Notices)

NOTICES FROM EUROPEAN UNION INSTITUTIONS, BODIES, OFFICES AND AGENCIES

EUROPEAN COMMISSION

COMMUNICATION FROM THE COMMISSION

Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements

(Text with EEA relevance)

(2011/C 11/01)

A) Cartel prohibition (Art. 101 EU), but is not prohibiting

- ☐ cooperation between non-competitors; -> OK
- ☐ cooperation between competing companies that cannot independently carry out the project or activity covered by the cooperation - OK

B) EU Guideline (2011/C 11/01) on Art. 101 EU ‘horizontal co-operation agreements’ is not prohibiting Horizontal Collaboration, if using a **trusted party (eg ‘joint purchasing organisation’)**

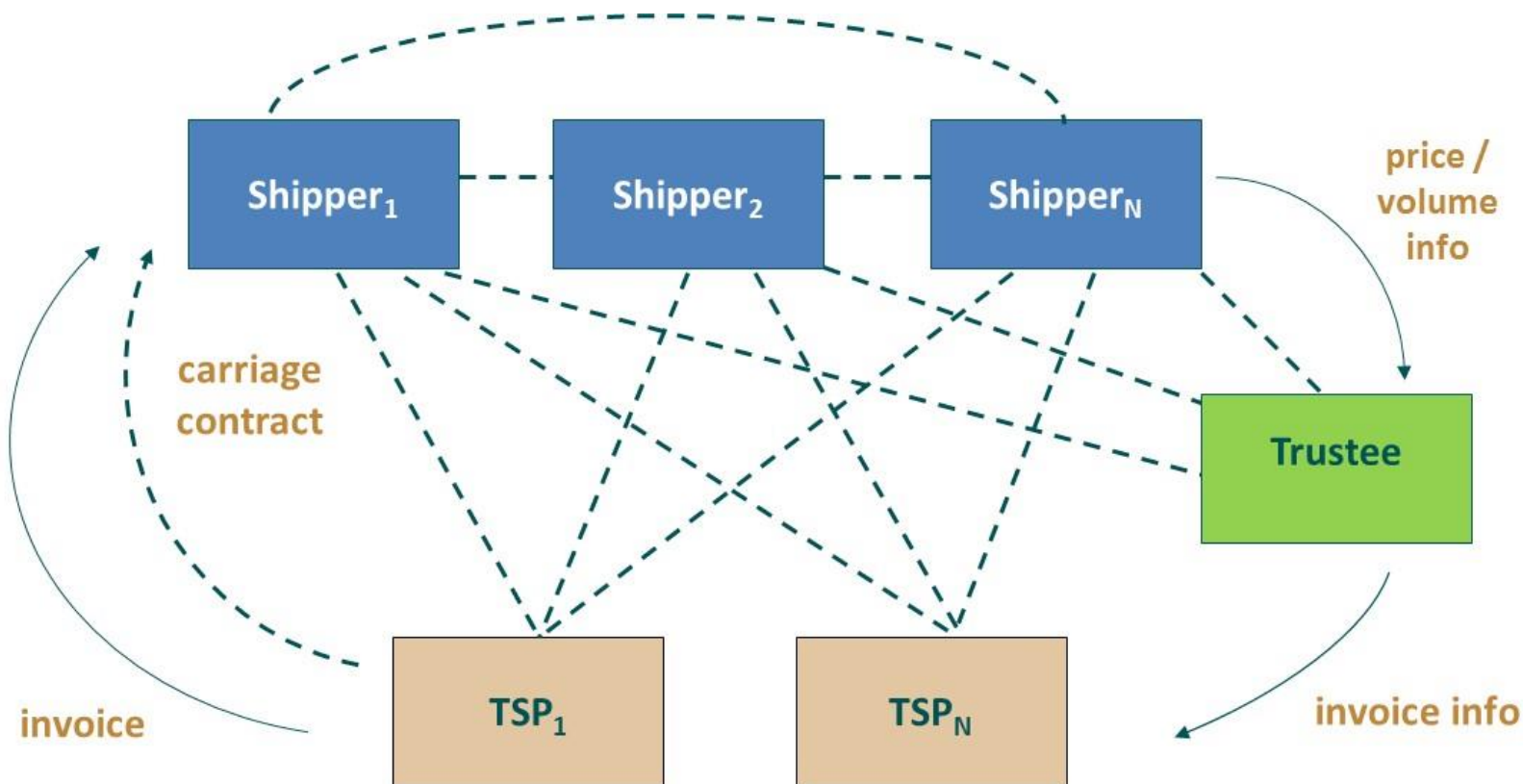
Legal role of Trustee to comply with EU law:

- ☐ no direct information exchange between the parties
- ☐ trustee does not compete with the parties on the selling market,
- ☐ all information necessary for the purchases is only disclosed to the joint purchasing organisation, not to the other parties
- ☐ example: quality specifications, quantities, delivery dates, maximum purchase prices

⇒ **Horizontal co-operation agreement is not violating EC Competition law !**

⇒ **Recommendation: Use a trustee to avoid anti-trust 😊 !**

Role of Neutral Trustee: Anti-Trust / Multilateral Agreements



- ≡ The old logistics paradigm is no longer working
- ≡ Horizontal collaboration is the “next big thing”
- ≡ EU law permits competitors to work together
- ≡ But... pay attention to legal aspects (anti-trust)
- ≡ Neutral facilitator/trustee is essential
- ≡ Big data analysis, methodology and ICT are key
- ≡ Start small, then scale up

**JUST
DO IT !**

Thank you

QUESTIONS ?

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