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
The CO3 project is financed by the European Commission

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Logistics industry in Europe → 14% of GDP\(^1\). Six countries out of the global top-10 logistic performers are from the EU in 2012\(^2\)

Transportation is responsible for around a quarter of EU greenhouse gas emissions\(^3\)

On average, logistics costs account for 10-15% of the final cost of the finished product\(^4\).

High potential contribution to European competitiveness and sustainability targets (Cost, CO\(_2\) and energy savings)

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\(^3\) [http://ec.europa.eu/clima/policies/transport/index_en.htm](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?
How to react?

- 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, environmentally 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!
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
  ≡ Collaborate in some markets, compete in others
  ≡ “New frontier” or “paradigm shift”
Co-loading between JSP – Hammerwerk
Net cost reduction -10% ; carbon footprint -30%
Healthcare – FMCG roundtrips 13% cost reduction
The CO3 project is financed by the European Commission.

North – South Closed Loop (FTL)

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3 simple steps to create horizontal collaboration

Phase I. ➔ Phase II. ➔ Phase III.

IDENTIFICATION ➔ PREPARATION ➔ OPERATION

« 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

Identification

- Mapping & Matching
  - Mapping: Quickscan Analysis
  - Analyses: Giventis ELG-Web™
  - CO3 Flow Database (EMEA)
  - Initiate contact

Preparation

- Collaboration Concept
  - Giventis ELG-Web™
  - Business Case New Concept
    - Total Logistics Cost
    - Inventory policies
    - Service level
    - CO₂ calculation
    - Gainsharing
  - CO3 Shapley calculator

Operation

- Community Management
  - Multilateral contract
  - TRI-VIZOR Cross Supply Chain Cockpit®
  - Expansion

GO/NO GO

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Critical mass: creating a “universal” freight flow database
Identification

Smart Matching tools ("Big Data")
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### Cross Supply Chain Cockpit

**Cross Supply Chain Cockpit**

**TRI-VIZOR © 2012**

#### ORDER DATA
- Shippers
  - XML
  - e-mail
  - Booking platform (Transwide,...)

#### CAPACITY DATA
- Carriers / 3PLs

#### TARIFF DATA
- Carriers / 3PLs

### Reporting

### Invoicing

### Supply Chain Visibility

#### Community Management Meeting

#### Community Portal

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**Consolidation**

**Comment for 80290770:**

**Comment for 80289894:**

**Comment for 80292249:**

**Comment for 80292257:**

**Comment for 80293243:**

**Comment for 80293165:**

**Comment for 80293162:**

**Comment for 80290769:**

**Comment for 80289994:**

**Comment for 80291328:**

**Comment for 80291327:**

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**XML e-mail Booking platform (Transwide,...)**

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**References**

**Country**

**Units**

**Actual**

- **19/10/2011**
  - Y
  - €263.07
  - €50.00

- **20/10/2011**
  - Y
  - €853.69

- **26/10/2011**
  - N
  - €610.49
  - €50.00

- **27/10/2011**
  - Y
  - €477.79
  - €50.00

- **31/10/2011**
  - N
  - €52.73
  - €0.00

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**Invoice Information**

**Order Information**

**Shipper**

**View from 16/10/2011 till 31/10/2011**

**Invoiced on with number 2011039**

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**Downstream**

**Upstream**

**Consolidation**

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**Comment for 80290974:**

**Comment for 80290975:**

**Comment for 80291328:**

**Comment for 80291327:**

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**Comment for 80290975:**

**Comment for 80291327:**

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**Invoice Attachment**

**Invoice Information**

**Order Information**

**Shipper**

**View from 16/10/2011 till 31/10/2011**

**Invoiced on with number 2011039**

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**Comment for 80290975:**

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**Comment for 80291328:**

**Comment for 80291327:**

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**Comment for 80290975:**

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**Comment for 80291328:**

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**Comment for 80291327:**

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**Comment for 80290975:**
State of the Art Cloud Computing

- **Core Databases**: Contain all master and community data. Running in SQL Azure.
- **Worker Agents**: Contribute different tasks to maintain data & platform validity.
- **ESH_CSCC**: Web service for communication with the Cross Supply Chain Cockpit (CSCC).
- **ESH_PMS**: Website that provides management interface and reports.
- **SQL Azure Reporting CTP**: Holds all predefined reports and exportable documents.
- **Microsoft Dynamics**: ESH_CRM Bridge (FUTURE) - Web service for communication with Microsoft Dynamics CRM 2011 for exchange customer data and invoicing.
- **Community Portal (CSP)**: Follow up the Business Process via their own personal community Portal.
**Fair gain sharing:**

Shapley value is always right

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

IT’S MY MONEY!!
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)
Legal context

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

**CO**

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Conclusions

≡ 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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