Horizontal Collaboration in Transport and Logistics

CAR POOLING FOR CARGO

28th International Supply Chain Conference

Berlin, Germany October 19-21, 2011
European distribution

1990 - 2005
traditional central EDC structure

2005 - ...
Hybrid EDC structure
World Economic Forum

- 24% of good vehicles in the EU are running empty
- Average loading of the rest is 57%
- Overall efficiency: 43% 😞
- Flow imbalance could only explain half of this loss
How do we solve this?

- Regulation
- Innovation
- Multimodality

- Horizontal Collaboration

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

≡Before 2006: Trade off between 2 supply chain forces

Efficiency  Supply Chain Optimisation  Effectiveness
Before 2006: Trade off between 2 supply chain forces

After 2006 (*) : Trade off between 3 supply chain forces reduces further optimization potential

(*) 2006: An Inconvenient Truth; The Stern Report;...
Only cross-company collaboration, consolidation and bundling of flows can simultaneously improve efficiency, effectiveness and sustainability.
Bundling and Consolidation

Point-to-Point: simple
Low effectiveness
Low efficiency
Low sustainability

Decoupling: challenging
High effectiveness
High efficiency through volume
High sustainability
Welcome to the age of « co-opetition » !

- **Vertical collaboration (1980-2006):**
  - 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”?
What’s in a name?

“A partnership is a tailored business relationship based upon mutual trust, openness, shared risk and shared rewards that yields a competitive advantage, resulting in business performance greater than would be achieved by the firms individually.”

(Lambert & Gardner, 1999)
Future Supply Chain 2016

≡ Global Commerce Initiative & Capgemini
≡ Joint work of 24 major FMCG companies
≡ New sustainable supply chain architecture: collaborative warehousing and distribution
≡ Time to act is now!
UCB forges unique transport partnership with industry peer

For internal use only

For internal use only

UCB has partnered with a health care company to optimise efficiencies in transport logistics with clear benefits to patients, the environment and our bottom line.

Following several months of alignment and negotiation, UCB signed an agreement with Baxter to create European transport synergies and eventually develop a fully-functional framework for consolidating and synchronising their freight flows. This is the first time two pharmaceutical companies have ever entered such an agreement.

The benefits of this collaboration to UCB include more frequent and faster deliveries of medicines to patients, a 30 percent reduction in carbon footprint per destination and an average of 10 percent reduction in cost per shipment.

The pilot project begins with destinations in Eastern Europe as this region presents UCB with more remote and challenging transport routes. The aim is to expand this collaboration to cover transport logistics across Europe. UCB also looks forward to inviting other partners in the future.

UCB and Baxter are presenting a paper about this unprecedented type of partnership at the "Horizontal Collaboration in the Supply Chain Summit" in Brussels (May 19-20.)
University of Antwerp spin-off company TRI-VIZOR previously detected significant bundling and synergy potential between the European transport networks for temperature sensitive products of both healthcare multinationals. Subsequently, the neutral cross supply chain orchestrator brought UCB and Baxter around the table to forge a unique horizontal partnership for collaborative logistics.

**ORCHESTRATION IS?**

- **Synchronizing** supply chains of multiple shippers and generate substantial gains
- Consolidation in **geography** and **time**
- **Smart bundling**
- Managing the consolidation **from a shipper’s perspective**

**ORCHESTRATION GUARANTEES**

- **Impartial** approach for community of shippers
- **Anti-trust compliance**: full transparency
- **Correct gain-sharing**
- Maximum **stability** of community based on contracts with clear exit and volume strategies for each member
THE ORCHESTRATOR IS ...

- An impartial, neutral trustee and referee for the community
- A pro-active Community Manager
- Mandated to realize maximum gains for the community
- Synchronizes the supply chains of the shippers of the community
- Able to select the best-fit flows
- Responsible for continuous improvement in the community
- Expanding the community with new flows

THE ORCHESTRATOR PROVIDES

- An adequate legal framework with multilateral contracts
- The adequate toolset to setup and manage communities
- Dedicated mechanisms for gain sharing
- A freight payment process

→Trust!
Cross Supply Chain®
Consolidation Methodology

--- IDENTIFICATION ---

MAPPING & MATCHING

Mapping
Quickscan Analysis

Cross Supply Chain®
Database
WORLD
EMEA
BENELUX

ANALYSES

Cross Supply Chain Flow Matcher
Potential Partnership
Initiate contact

--- PREPARATION ---

COLLABORATION CONCEPT

Cross Supply Chain®
Flow Analyzer

BUSINESS CASE
NEW CONCEPT

- Total Logistics Cost
- Inventory policies
- Service level
- CO2 calculation
- Gainsharing

Legal Framework

--- OPERATION ---

GO/ NO GO

COMMUNITY MANAGEMENT

Multilateral contract

Cross Supply Chain Cockpit

Expansion
Critical mass: towards a “universal” freight flow database
Multilateral contract

Tri-partite multilateral contract

Extended Carrier Contract

Clauses with mechanisms for
- Gain sharing
- Volume variations
- Entry/Exit

Mandate

Contract of means

Order status, POD
Invoice, Reporting

Individual orders

- Invoicing services
- Planning
- Gain sharing calculations
- Community management
- Expansion, entries & exits

- Reporting Services
- Continuous improvement
- Advisory

Orchestration Services

POD, Invoice

Combined orders, Reporting

Shipper 1

Shipper 2

Shipper n

Carrier

Clauses

POD, Invoice

Combined orders, Reporting
Multilateral contract

- **Integration** of contracts – 1 (tri-partite) multilateral contract between Shippers, Orchestrator and Carrier
- **Reasonable and fair** role, responsibility and liability determination
- Based on **full transparency**
- Creating **comfort** for each community member
- **Maximum community gain** as common ultimate goal
- For 3 years, preferably
Multilateral contract

- **Tri-partite between Shippers, Orchestrator and Carrier**, whereas:
  - Collaboration agreement disclosed to EC for discussion
  - Cargo volumes only disclosed to Orchestrator, not among shippers
- 2 majors chapters
  - Contract of means (achievement): full management of shippers collaboration realized by Orchestrator
  - Extended carriage contracts between shippers and carriers: Orchestrator acts as mandatory/intermediary.
Extended Carrier Contract

- Traditional carrier contract
- Yearly evaluation/re-negotiations of the 3PL, based on KPI’s
- Extensions:
  - Multiple shippers
  - Mechanisms for volume variations, gain sharing and entry/exit
- Orchestrator operates in mandate in carrier contract:
  - Optimization of carrier contract
  - Involvement of orchestrator in negotiation with carrier
  - Orchestrator operates “on behalf of” and “for the account of”
EU antitrust rules

≡ National and European legislation:
   ≡ Trade laws (National Councils for Competition)
   ≡ Article 101/102 EC Treaty (European Commission)

≡ European commission is generally supportive of collaborative supply chain initiatives which result in CO₂ reduction and reduced road congestion

≡ Market disturbance is strictly forbidden:
   ≡ Price fixing
   ≡ Monopolies
   ≡ Cartels
   ≡ Market dominance

≡ Indicative thresholds: 15 mio (individual) of 40 mio (combined) EUR
   ≡ Unlikely to get in the way of “normal” logistics partnerships

≡ Risk management
   ≡ When in doubt or before any large project, seek legal advice!
≡ Scoping to 8 destinations (Eastern Europe)
≡ Feasibility analysis
≡ Consolidation concept:
  ≡ multiple pick-up / multiple drop
  ≡ Combining FTL-LTL
  ≡ Temperature controlled 15-25
≡ Positive Business Case
December 2010

≡ Important 3PL selection criteria
   ≡ All time availability (own assets)
   ≡ Pharma qualified
   ≡ Temperature controlled
   ≡ Multimodal
   ≡ Familiar with regional issues in Eastern Europe
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<thead>
<tr>
<th>ORDER DATA Shipper</th>
<th>CAPACITY DATA Carriers</th>
<th>TARIFF DATA Carriers</th>
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<tbody>
<tr>
<td>XML e-mail</td>
<td>Booking platform (Transwide,...)</td>
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### Cross Supply Chain Cockpit

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

### REPORTING

- Community Management Meeting

### INVOICING

- Community Portal

### CHAIN VISIBILITY

### WEEK 43

**Company Order No.**

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<tr>
<th>Pallets Delivery</th>
<th>Date</th>
<th>Capacity</th>
<th>Cost</th>
<th>Additional Costs</th>
<th>Total Cost</th>
<th>Pallet Price</th>
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**Total Individual Shipments**

- **32**
- **2050**
- **64,1**

**Combined Shipment X+Y**

- **32**
- **6/11/2010**
- **1440**
- **325**
- **1765**
- **55,2**
- **285,0**

**HUNGARY**

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**Total Individual Shipments**

- **33**
- **2420**
- **73,3**

**Combined Shipment X+Y**

- **33**
- **8/11/2010**
- **1440**
- **325**
- **1765**
- **53,5**
- **655,0 200**

**CZECH REPUBLIC**

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**Total Individual Shipments**

- **30**
- **2200**
- **73,3**

**Combined Shipment X+Y**

- **30**
- **8/11/2010**
- **1800**
- **325**
- **2125**
- **70,8**
- **935,0 0**

**TOTAL WEEK 43**

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**Total Individual Shipments**

- **557**
- **63300**
- **113,6**

**Combined Shipment X+Y**

- **557**
- **51369**
- **5525**
- **56894**
- **102,1**
- **6406,0 0**

### TOTAL WEEK 43 COST SAVINGS

- **Shipper X**
  - **12.972,2€**
  - **1.460,6**

- **Shipper Y**
  - **43.921,8€**
  - **4.945,4**

**TOTAL COST**

- **56.894,0€**
- **6.406,0**
State of the Art Cloud Computing
March 2011

≡ Startup lane: Romania
≡ Key: combining FTL and LTL shipments to FTL shipments with double stack when possible
≡ Practicalities
  ≡ How to realize an ideal combination scheme?
  ≡ How to obtain lead time expansion wherever possible?
First results Romania

- Lead time expansion possible if pre-notified by orchestrator
- Net cost savings: double digit
- CO2 savings: > 50% (multimodal)
- Service level improvement
First learnings and earnings
Systematically adding new destinations (Hungary, Bulgaria,...)
Continuous improvement of interfaces and processes
First talks with new community members
The making of
The World's First
Orchestrated Horizontal Collaboration
Implemented (net savings per drop)

- Romania 12%
- Hungary 18%
- Bulgaria 15%
- Slovakia 27%
- Slovenia 11%

In preparation

- Czech republic
- Poland
- Russia
- Spain
- Addition of a 3rd and 4th pharma partner
Gain sharing mechanisms, based on:
  - Baseline tariff: separate volumes
  - Consolidated tariff: combined volumes

CO2 calculations

Volume variation rules

Entry/Exit strategy (according anti-trust)

Fee structure for orchestrator
Our perspective...

- Innovative approach
- Higher customer service levels
- Need internal sponsorship
- Cultural fit
- Business fit
- Operational flexibility
- Cost avoidance
Business case model:
- FTL
- FTL cut + LTL
- LTL + LTL

Consolidation is driven by shippers

More flexibility: frequency, loading optimization, routes, modes

More discipline: customer, customer service, warehousing

QA upgrade: all trucks 15-25°C and « controlled » groupage

Single « qualified » partner guaranteeing capacity

Sustainable model
“If you want to be incrementally better: be competitive.

If you want to be exponentially better: be cooperative.”
Questions?