



Good Practice N°13

Business models for intermodal transport

KombiConsult GmbH, 04/2013

Contents

- Good practice form
- Introduction (summary)
- Starting position (gaps and challenges)
- Concept and components
(technical-functional description)
- Application cases
- Conclusions and benefits
- Further exploitation
- Contact
- Disclaimer

Good practice form

Good practice name	Business models for intermodal transport
Type	(1) Understanding Market Requirements
Involved actors	(1) Intermodal operator (2) Railway operator
Commercial / Functional application area	Intermodal transport rail/road
Geographical application area	Europe
Status / Time period	In operation
COSMOS contact	Klaus-Uwe Sondermann (KombiConsult) email usondermann@kombiconsult.com phone +49 69 244 32 93 172

Introduction (summary)

Almost any intermodal transport solution needs to compete with a road-only service, with a direct truck transportation and with quite simply “shipper” to “trucker” relationships.

At a first glance intermodal transport is more complex, since not only the loading units are changing the modes of transport but also the responsibilities are handed over to “third” parties.

Even if wording of the roles has changed the fundamental question has to be answered: **Which is the most effective business model for intermodal transport?**

The present “good practice” investigates the driving principles and provides practical example cases.

The basic analysis was financed by the UIC in the scope of the UIC Report on Combined Transport 2012.*



EUROPE

*www.uic.org

Source: KombiConsult analysis

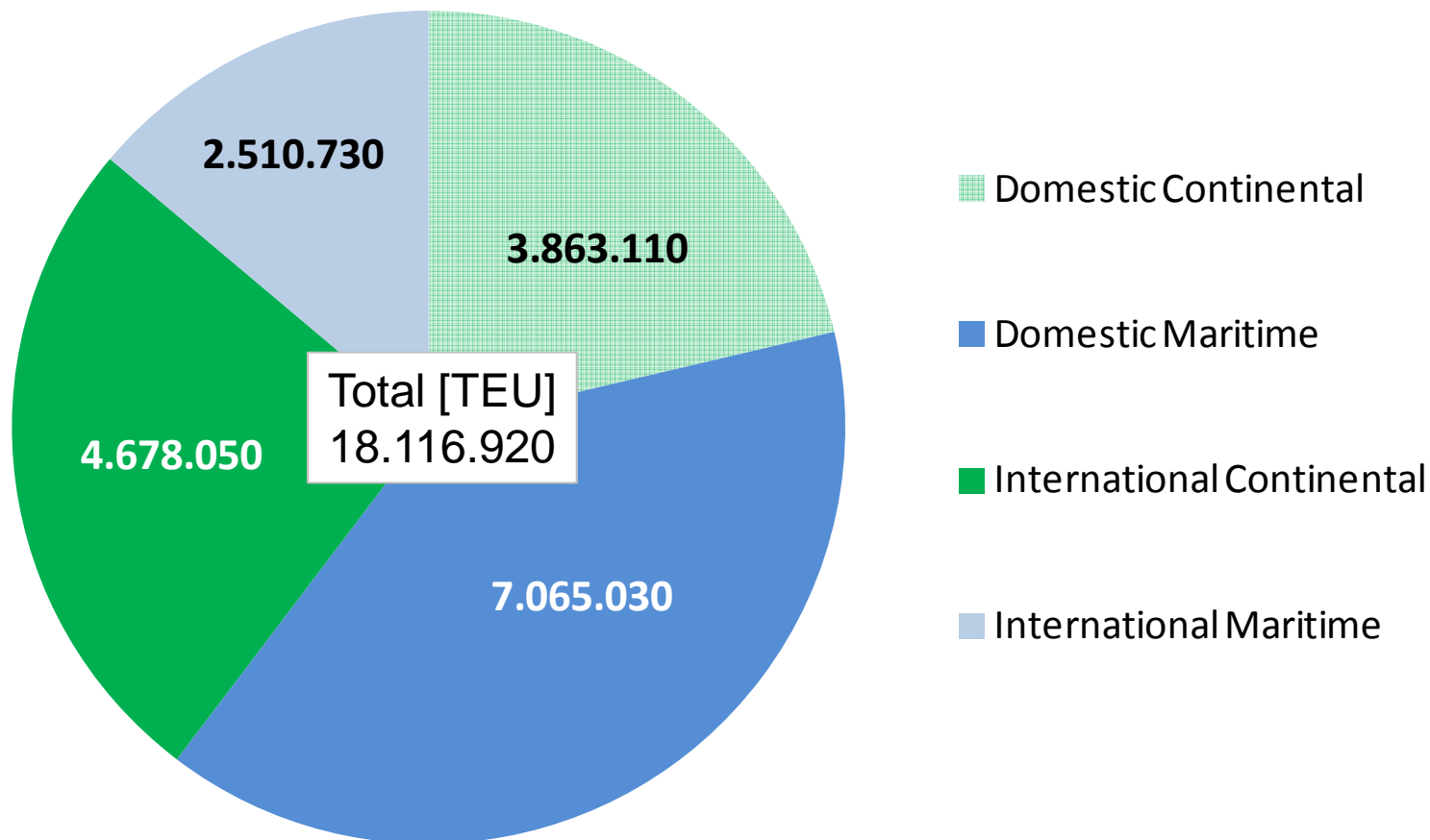
Starting position – challenges for intermodal transport suppliers

- **Access to assets** such as loading units, intermodal wagon, locomotives, terminal handling capacity, infrastructure slots
- **Bundling of freight** – in both directions (balance flows) – to allow for
 - Regular (daily) and reliable (punctual) **train services**
 - At the times geared to **customers needs** (i.e. late departures – early arrivals in domestic continental transport)
- **Volatility** with respect to ship arrival/departures and seasonal deviations of the transport volumes
- **Long time contracts/commitments** on the supply side in contrast to required **flexibility** on the demand side

Source: KombiConsult analysis

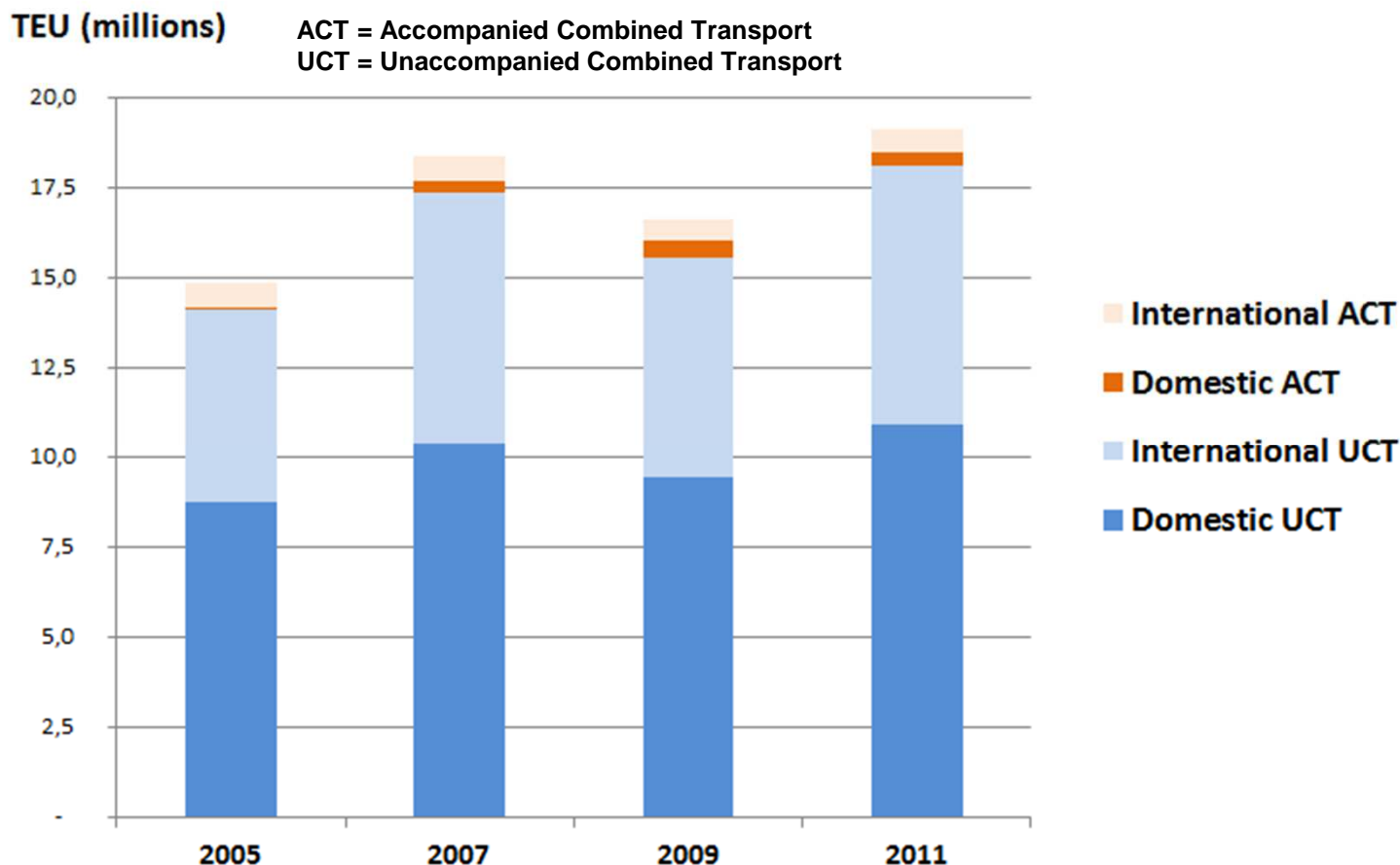
Starting position – TEU carried by CT sector / market segment

Status: 2011



Source: KombiConsult analysis, CT service providers, UIRR, national offices for statistics

Starting position – TEU carried by CT sector / market segment Development 2005-2011



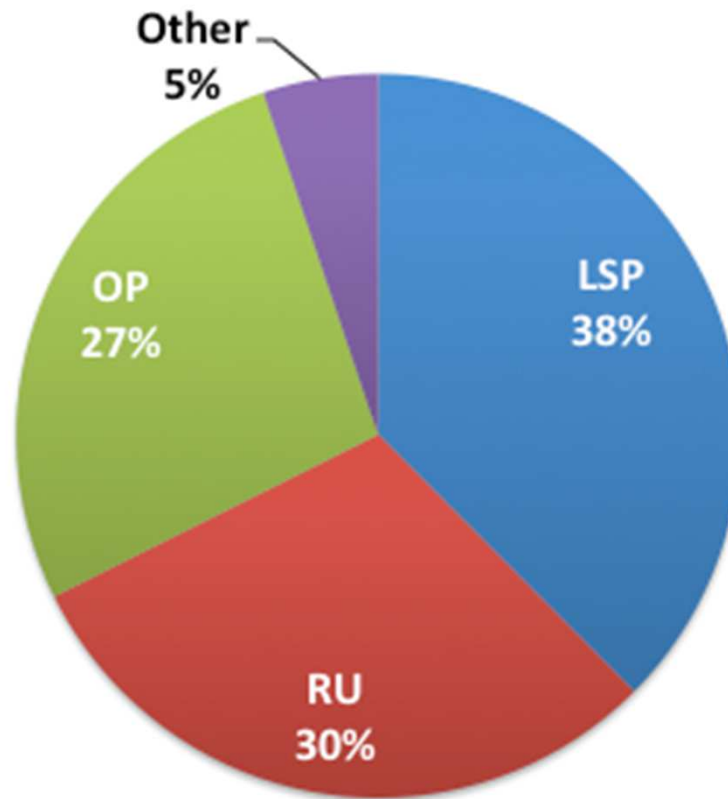
Source: KombiConsult analysis, CT service providers, UIRR, national offices for statistics, partly estimates

Starting position – business models in combined transport

- **Combined transport operators (OP)** supplying mostly multi-user CT services on account of third parties
- **Logistics service providers (LSP)** such as forwarding agents or shipping lines operating dedicated or multi-user CT services
- **Railway undertakings (RU)** providing proprietary CT services in addition to rail traction services
- **Shippers, terminal and port operators (Others)** supplying CT services to strengthen core business and/or distribution logistics

Source: KombiConsult analysis; Report on Combined Transport 2012

Starting position – Business models of European CT suppliers Status: 2011



Total n° of unaccompanied
CT service providers:
136

OP = Combined transport operators

LSP = Logistics service providers

RU = Railway undertakings

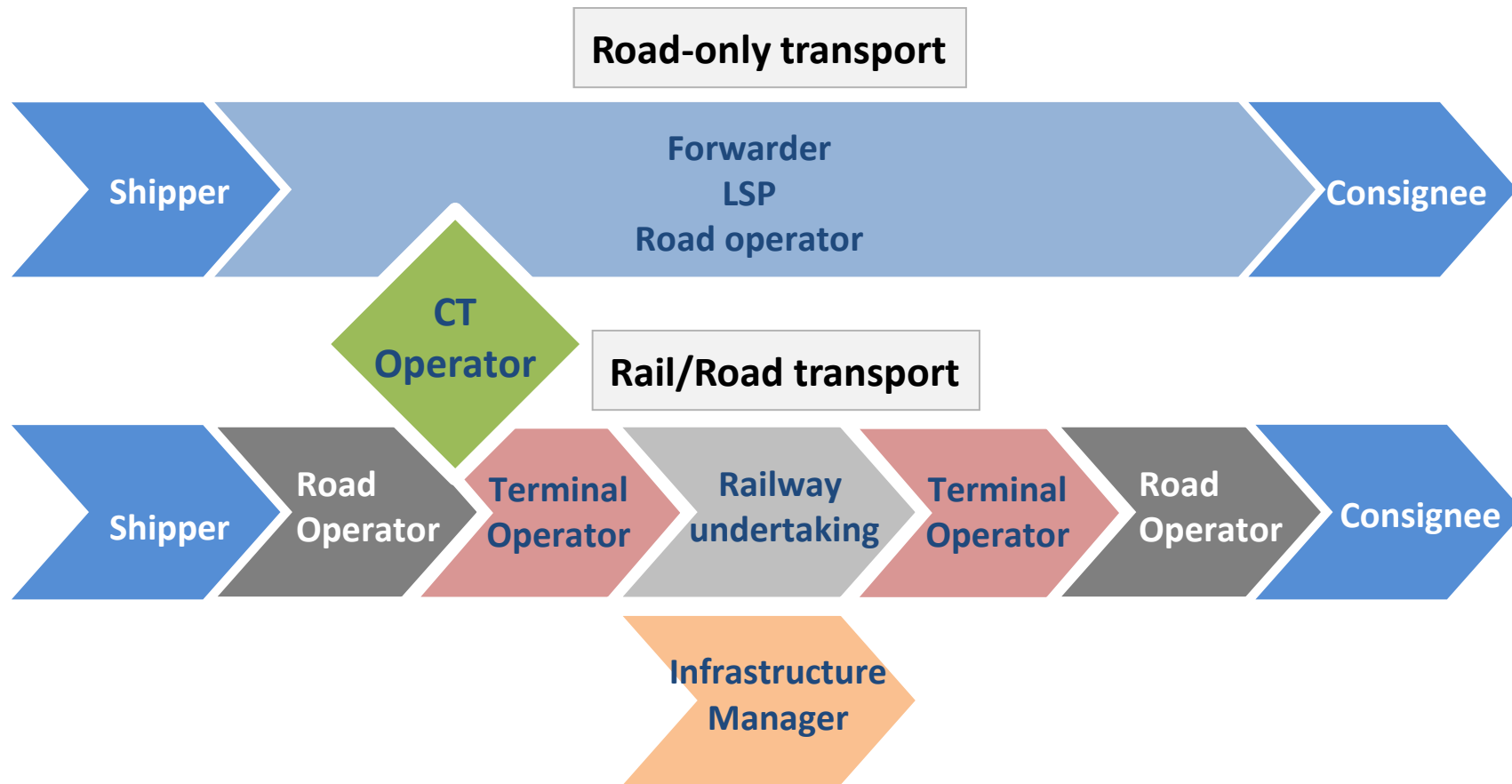
Other = Shippers, terminal and port operators

Source: KombiConsult analysis; Report on Combined Transport 2012

Starting position – challenges for intermodal service suppliers

- **Until late 90s** combined rail/road transport was only a small market.
 - In the whole of Europe some **30 specialized companies** – disregarding railways operating rail traction services – were supplying specialized CT services.
 - **The 2012 Report** has identified a total of **135 companies** which provided unaccompanied CT services in 2011; 19 additional companies compared to previous report. A few new companies were just beginning to operate in niche markets.
- Saying this, the **growth of the unaccompanied CT industry** is mainly resulting from new entrants even if, in the year 2011, some historical combined transport operators have actually disappeared
- The trend towards an **increasing number of logistics companies** establishing themselves as operators of CT services could again be recognized in the 2012 survey. About 50 of the 136 CT service providers identified can be allocated to this business model, ten more than in the previous 2010 survey.

Starting position – roles in the physical transport (supply) chain



Source: KombiConsult analysis

Concept and components – CT operators' role

- In the early days, the **CT operator** was a new type of specialized logistic service provider designed as a **connecting link or arbitrator** between the supply side (= railways) and the demand side
- CT operators were requested to **address the needs of potential customers** - shippers, forwarding agents, road operators, shipping lines – towards railways and convey the capabilities of a rail-based CT service back to the market
- To serve these purposes CT operators were **established as legally and economically independent companies** with shareholders from the forwarding and road transport industry and railways
- Over time, the **role of CT operators has developed** and seen them more heavily involved in service definition. They still retail the service capacity to the market

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – CT operators' business model (commonly applied model)

- CT operators **set up CT services on account of third parties**. They don't move shipments of their own or provide own CT loading units.
- CT operators increasingly **operate block trains**
- CT operators **retail capacity to their customers**. In most cases they operate multi-user services. They also run “company trains” that are dedicated to a single user who takes over the economic risk.
- CT operators' aim is to **keep assets low**. From an operational view, they purchase rail traction from railways who in turn buy train paths from infrastructure managers (IM); they buy the terminal slot from terminal operator directly or as a package from railway undertaking.
- Many CT operators **control a fleet of intermodal wagons** but they also rely on rentals from railways and specialist companies

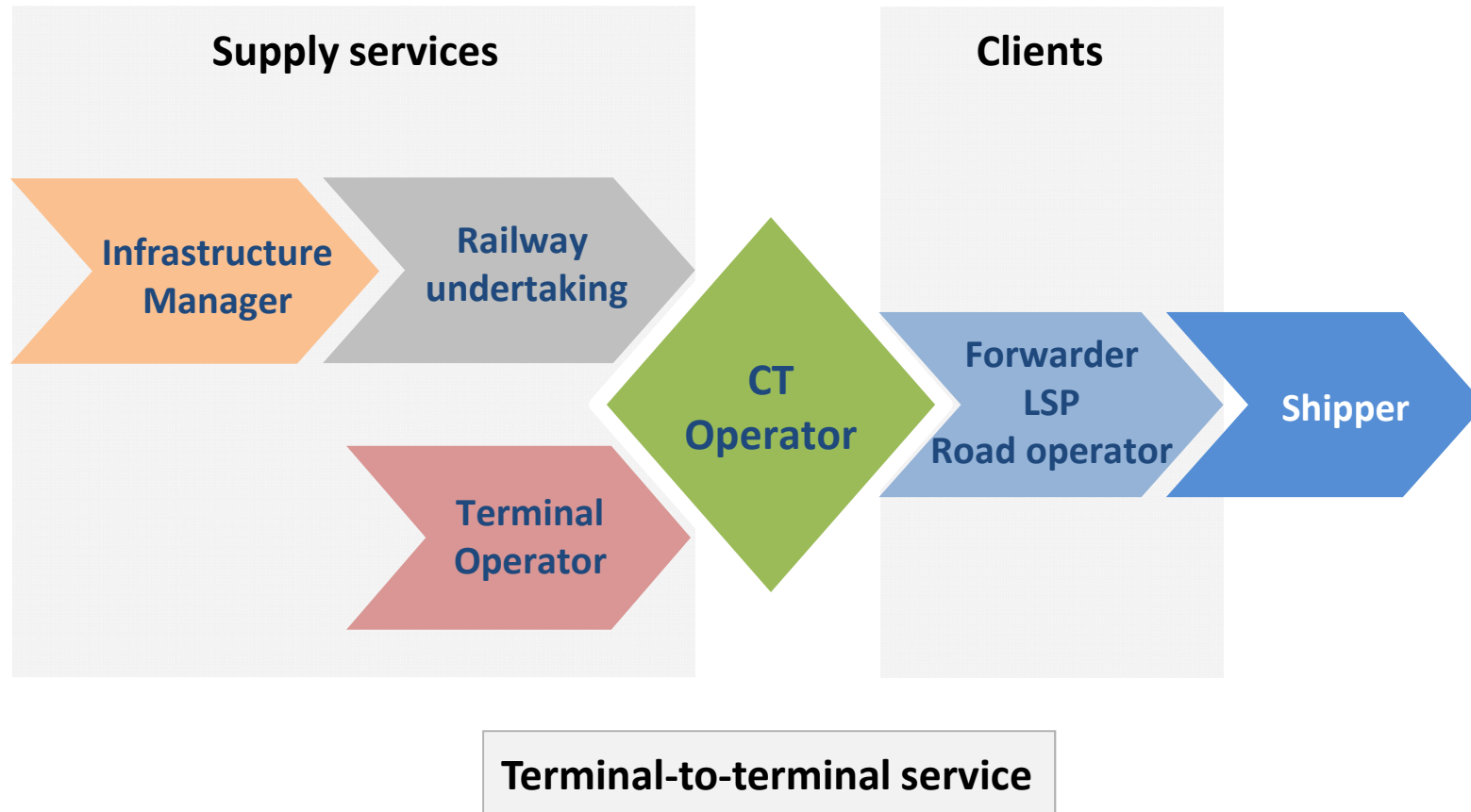
Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – CT operators (continental transport)

- The **key target customers** of CT operators supplying continental CT services are **logistic service providers** - forwarders and road operators – who design door-to-door logistics for shippers.
- They **use own or rented CT equipment**, organize and – eventually – carry out the **pick-up and delivery of CT loading units by truck**.
- Hence CT operators for continental services **deliver terminal-to-terminal transport services** comprising of the following components of the CT supply and value chain:
 - **Rail transport** of the loading units of their clients including the provision of wagons;
 - **Terminal handling** (transshipment) of loading units on both ends of the rail journey;
 - **Administrative clearance** of pick-up and delivery trucks (check-in/check-out) and the **technical and safety check** of loading units at both terminals.

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – CT operators (continental transport)



Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – CT operators (maritime transport)

CT operators, serving the maritime CT market, are required to **offer a full-service package of a port-to-door service** for marine containers. They should be able to deliver each component of the CT supply and value chain even if not every client requires it. That is to say:

- **Rail transport** of marine containers including the provision of wagons;
- **Terminal handling** of the containers at the inland terminal, whereas the responsibility of the transshipment of containers at the port-related rail terminal is at the shipping line (the cost of the transshipment between seaport terminal and any hinterland mode of transport is included in the “Terminal Handling Charge – THC”);
- **Administrative clearance** of pick-up and delivery trucks and the technical and safety check of containers at the inland terminal;
- **Pre- or post-haulage of containers** by road at the inland terminal including the pick-up or delivery of empty containers at depots;
- **Customs clearances.**

Concept and components – merchant / carrier haulage

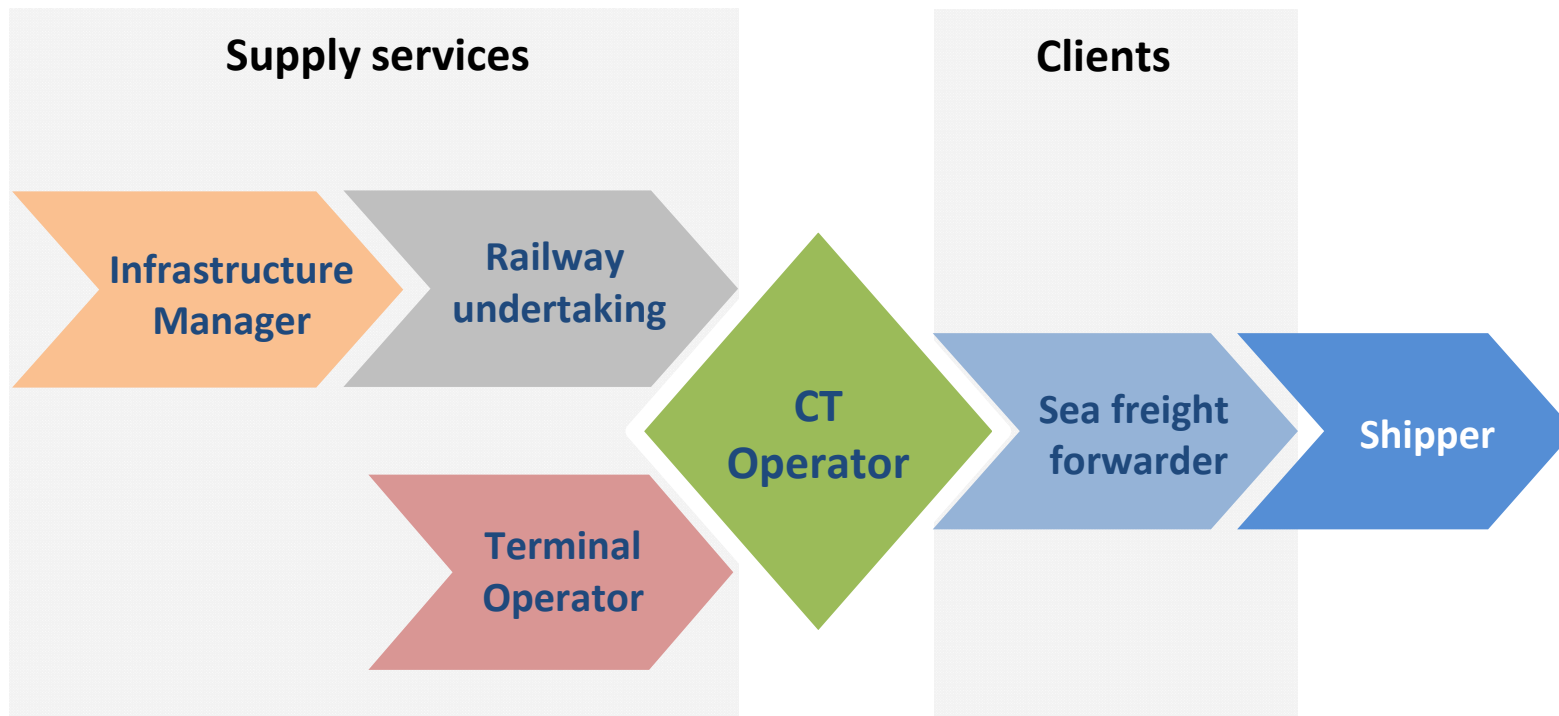
Maritime transport knows **two types** of processing the movement of the container depending on who controls the inland haulage:

- In the case of **merchant haulage** a shipper (= merchant) takes control of the door-to-door transport and negotiates the terms both of sea and hinterland transport directly with a shipping line. Most typically, the shipper however contracts the operations out to a sea freight forwarder who – in case of a CT service – becomes the client of a CT operator.
- **Carrier haulage** is the movement of the container under the control of the shipping line (= carrier) using a haulage contractor nominated by the shipping line. If the carrier uses a CT service supplied by a CT operator he may procure for the full port-to-door logistics or only some components such as the port-to-(inland) terminal transport.

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – CT operators (maritime transport)

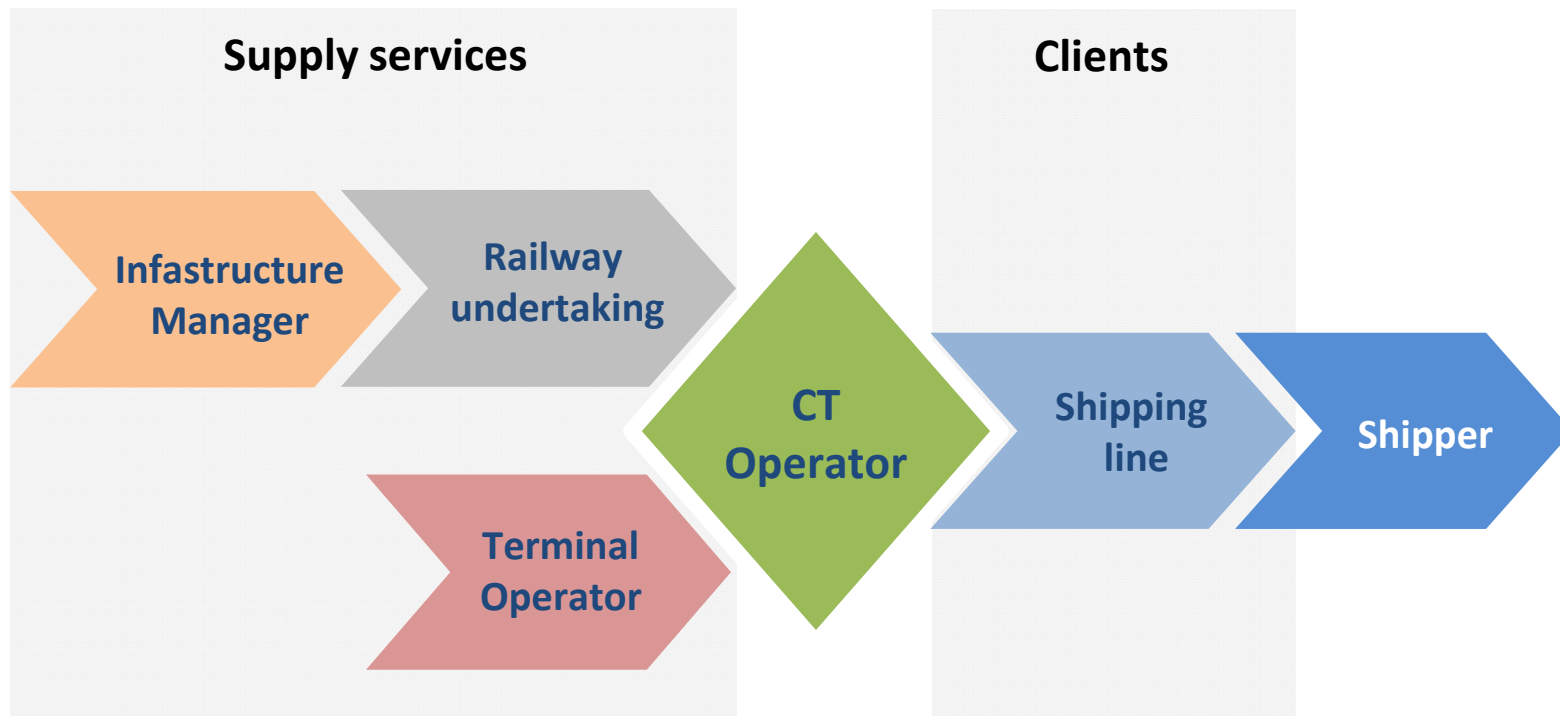
Merchant haulage



Merchant haulage: port-to-door service

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – CT operators (maritime transport) Carrier haulage



Carrier haulage: port-to-door service

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – logistics service provider in operator role (1)

- For a long time demand and supply side of CT services could clearly be distinguished and actors attributed to one or the other category.
- Since a decade more and more logistics service providers (LSPs; e.g. forwarders, shipping lines or barge operators, traditionally on demand side) have entered the CT market and developed **a new business model as logistics service provider in operator role**
- Evolution step 1: **Proprietary CT services** with own shipments;
step 2: transport capacity offered to other users (better utilisation);
step 3: LSPs in operator role offer specific CT services to 3rd parties.
- Some of these new operators even push the integration further e.g.
 - by applying for a **licence as railway undertaking** or – more often –
 - getting hold of terminal handling facilities.

Source: KombiConsult analysis; Report on Combined Transport 2012

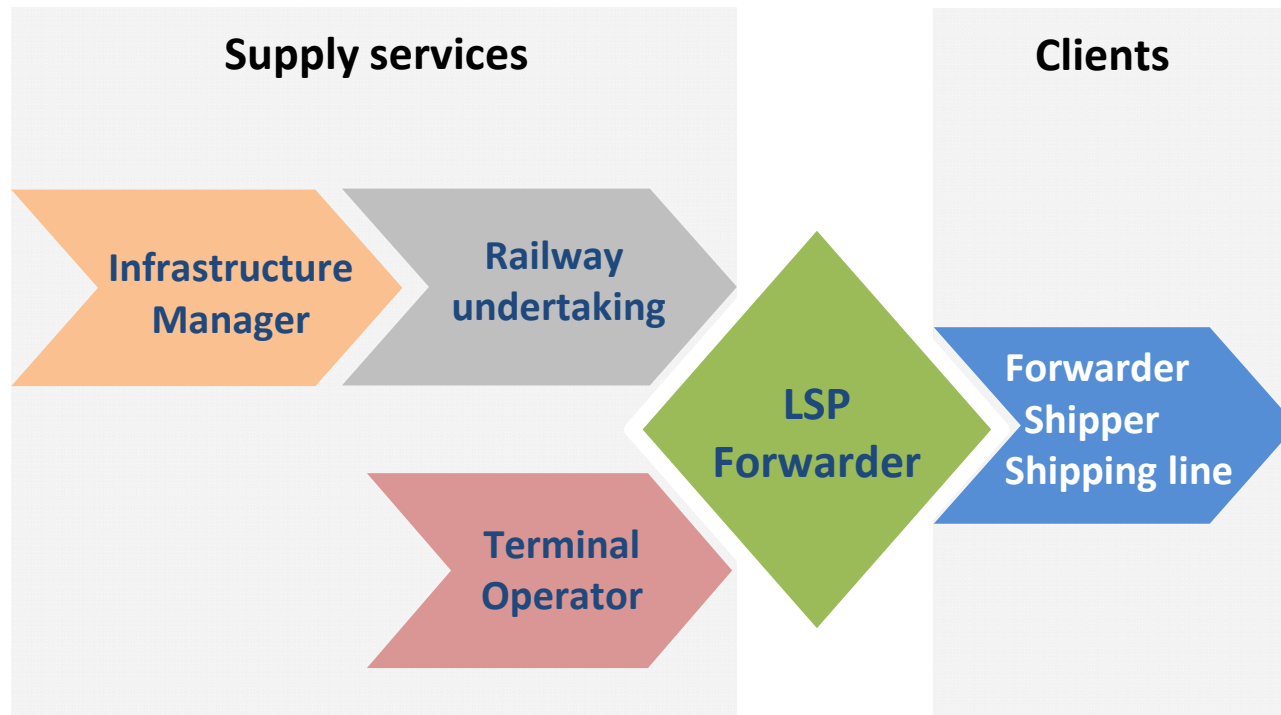
Concept and components – logistics service provider in operator role (2)

By establishing CT services these operators extended their existing value chain and gained an **integration of the supply chain**. At the same time they “eliminated” the broker function of the CT operator. Depending on the CT sector covered (continental / maritime) and the requirements of their customers (other LSPs, shippers or shipping lines) they may **deliver door-to-door** or **terminal-to-terminal services**. Consequently, their services may cover the **entire range of the CT supply chain**, as follows:

- Own and third party **road haulage**
- **Terminal handling** incl. administrative clearance of pick-up / delivery trucks (check-in / check-out) and technical / safety checks of containers at the inland terminal.
- **Road pick-up and delivery services**
- **Supplementary logistics services** e.g. Customs clearances, depot, ...

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – logistics service provider in operator role (3)



Door-to-door and terminal-to-terminal services

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – railway undertaking in operator role (1)

Virtually all incumbent European railway undertakings and a great number of new entrants are involved in CT services as train operating companies. Additionally, many railways are moving third party shipments on rail freight services, designed and operated by themselves. With regard to their function in CT supply chains and the scope of services, **two main categories of railways** can be distinguished:

- (1) Most incumbent railway undertakings have maintained a **network of domestic and international wagonload services**. These systems generally enable customers to ship CT units like any other cargo. If a railway doesn't offer specifically designed CT services and market them actively thus limiting itself to a rather "passive" role in CT such a railway will **not be considered as a CT operator**.

Source: KombiConsult analysis; Report on Combined Transport 2012

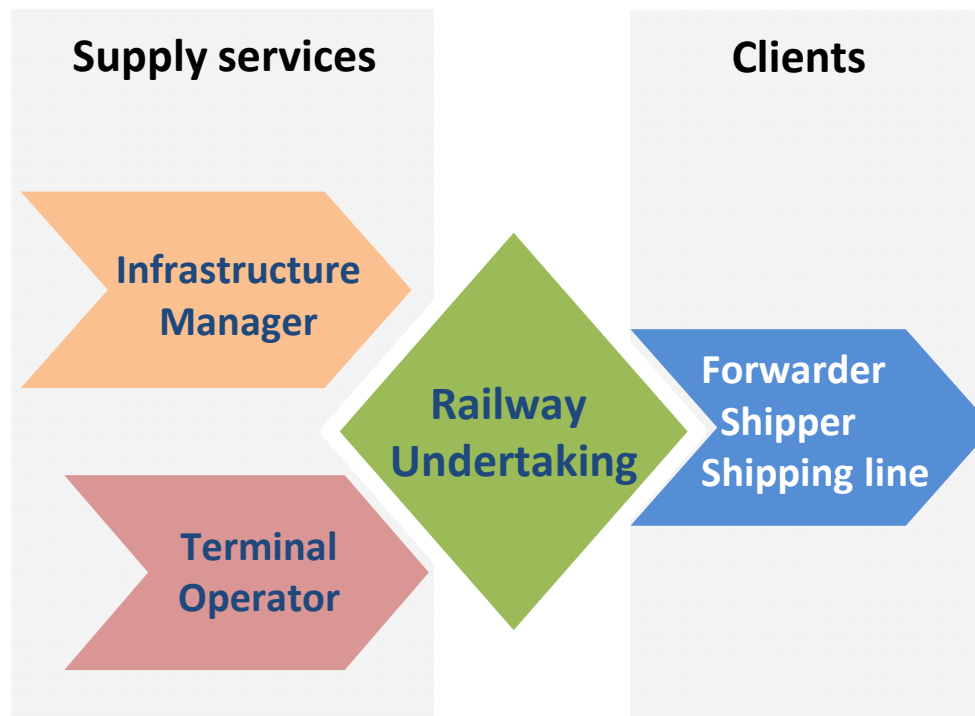
Concept and components – railway undertaking in operator role (2)

(2) In contrast to that there are quite a lot of railway undertakings that design, operate and sell dedicated CT services and can therefore be regarded as CT service providers. Their business model **railway undertaking in operator role** resembles very much the business model adopted by logistics service providers in so far as they establish a direct connection with customers thus bypassing the operator

Railways as CT operators may **supply the full range of CT services** required by the segment served (maritime, continental, domestic or international CT services) or decide to **focus on certain market segments and services**. Consequently, door-to-door, port-to-door or terminal-to-terminal services can be part of their portfolio. They may also operate **multi-user CT systems** as well as company trains.

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – railway undertaking in operator role (3)



Door-to-door and terminal-to-terminal services

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components –

Terminal / port operators and shippers in operator role (1)

- Recent years supply evidence that the efforts for a vertical integration of the CT supply chain is not limited to railway undertakings and logistics service providers. Even shippers and operators of sea port terminals or inland ports, the traditional customers or suppliers of sub-services for CT trains, have entered the market. In most cases the parent company doesn't keep the CT service activity within its organisation but seeks to **establish a specialised subsidiary**, which takes on the role of a CT operator
- By doing so, the **terminal and port operators** primarily intend to secure and stimulate their core business by **implementing more and improved CT services** from and to their operating locations

Source: KombiConsult analysis; Report on Combined Transport 2012

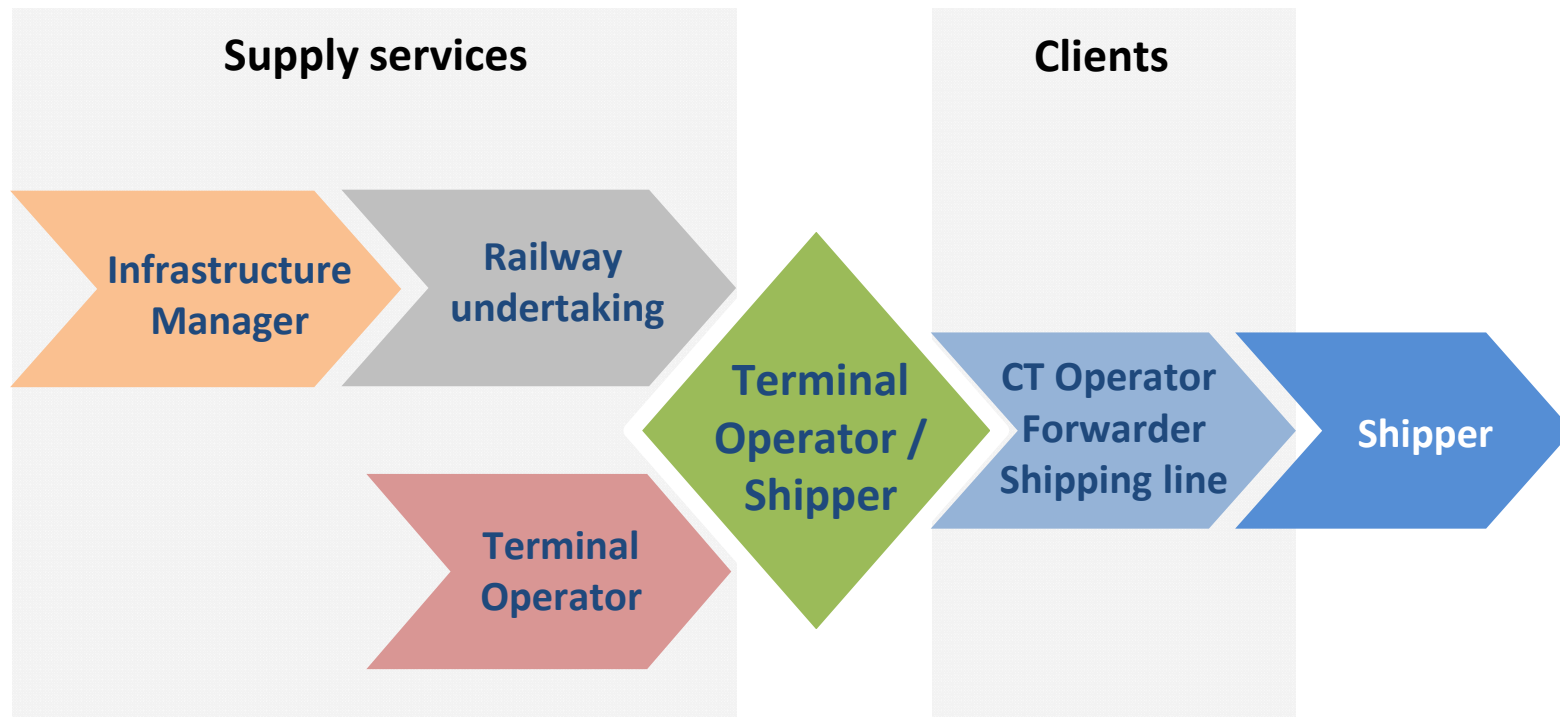
Concept and components –

Terminal / port operators and shippers in operator role (2)

- As far as **shippers** are concerned, **two types of developments** have been witnessed. Some shippers especially from the construction industry who forward or receive large volumes of cargo by conventional rail have taken the opportunity of a liberalized rail access to **establish a railway undertaking with an aim to reduce costs**. Some of them have extended their portfolio and started to offer rail traction services to third party and by extent to the CT business. For others it might have stemmed from the **necessity to have tailor-made services**. Just as terminal operators they usually outsourced the CT activities and established a CT service provider. In order to enhance the capacity utilization of CT trains they “opened” the services for other users and as a result have taken on the role of CT operators

Source: KombiConsult analysis; Report on Combined Transport 2012

Concept and components – Terminal / port operators and shippers in operator role (3)



Door-to-door and terminal-to-terminal services

Source: KombiConsult analysis; Report on Combined Transport 2012

Application cases – business cases for the described models (Examples)

Business cases	Companies
CT Operator	Adriakombi, Bohemiakombi, Crokombi, Kombiverkehr, Hupac, ...
... continental	Lorry Rail
... maritime	BoxXpress, IFB, Metrans, Polzug, Sogemar, TFG
LSPs as operator	Contargo, Emons, Ewals, Greenmodal, Hellmann, IGS, Nosta, Pöhland, Samskip Van Dieren, Wenzel
RU as operator	CFL Multimodal, ERS, Freightliner, TX Logistik
Other as operator	Comsa, Intermodal Servizi Cargo, ECT

Source: KombiConsult analysis

Conclusions and benefits

- Depending on the market segment (continental or maritime CT) and role that the user (“customer”) decides upon from his/her own perspective the **variety of business models and quantity of suppliers of intermodal services has increased recently**
- The **classical separation of roles** (e.g. asset free intermodal operator interfacing road and rail companies) is **becoming blurred** by companies extending their business or new entrants
- The sustainability of the different business models is hardly to be evaluated at general level, but at least it demonstrates the **flexibility of the intermodal market to adapt** to a changing environment

Source: KombiConsult analysis

Further exploitation

- Contacts to referenced examples (by order of appearance):

Company	Website
UIC	www.uic.org
KombiConsult	www.kombiconsult.com
Various websites of companies mentioned in the text	

Source: KombiConsult analysis

Contact

Mr. Klaus-Uwe Sondermann

KombiConsult GmbH

Zum Laurenburger Hof 76

60594 Frankfurt am Main

Email: usondermann@kombiconsult.com

Phone: +49 69 244 32 93 172



Disclaimer

The present good practice presentation has been compiled by one or more COSMOS partner and may contain business sensitive information.

You may use the content totally or selectively without changing the content of the single slides, if clearly identifying the source:

COSMOS Project, Good Practice Manual,
KombiConsult GmbH, 2013, www.cosmos-project.eu