

Horizontally integrated import flows



HORIZONTALLY INTEGRATED IMPORT FLOWS

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The best practise has been compiled by Blue Rock Logistics,
in co-operation with:

- Döhler
- OCT
- Brabant Intermodal
- BOM
- REWIN

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Horizontally integrated import flows

Limited information about the ETAs of incoming sea containers, high detention and demurrage costs, an unpredictable reception process. A familiar situation? Shippers can achieve great efficiency wins through integrating customs and logistics processes. This involves various specializations that are often organized by different departments. „Streamlining customs and logistics processes” sounds complicated. It is certainly not easy, but there are already shippers who are very successful in this. Döhler in Oosterhout is such a shipper. This white paper details their approach. An approach that can be followed by other shippers too.

Starting situation at Döhler
Until 2012, customs and
logistics had been organized
as separate processes.

CUSTOMS

Döhler operates a customs warehouse. This means that incoming goods from other countries do not need to be cleared until the final destination has been determined (for example processing in production or export). When incoming goods first arrive in the EU, usually in the Port of Rotterdam, they are registered via the Transit system and procedures. Until 2012, Döhler's goods were transported from Rotterdam to Oosterhout accompanied by a NCTS declaration NCTS declaration T1 form. Upon receipt of the goods in Oosterhout, the customs Transit system had to be updated.

LOGISTICS

Various inefficiencies existed in the logistics process, like limited insight into the arrival data for incoming containers. Much time went into searching the Internet, calling suppliers and carriers, etc. The shipping company typically only sent out a notification once the container had arrived and been in the port for a number of days. Then a NCTS declaration T1 had to be created, taking another day. The result being that significant detention and demurrage costs had to be paid and that the containers were in the Port of Rotterdam longer than was strictly necessary.

From the Port of Rotterdam incoming containers are often transported by barge to the inland container terminal in Oosterhout. This is followed by a shuttle service between the terminal and the Döhler location in Oosterhout. Because no structural exchange of information between the inland container terminal and Döhler was in place, the containers were delivered to Döhler arbitrarily. The reception process was characterized by great peaks in the necessary capacity for the unloading and internal reception processes, due to which there were great fluctuations between idleness and overtime.

A SUMMARY OF THE PROBLEMS IN THE OLD SITUATION

- Transporting customs goods with a NCTS declaration T1 form costs money and lengthens the lead-time
- Updating customs of every arrival accompanied by a NCTS declaration T1 requires time and resources
- Limited insight into the arrival of containers makes planning of the reception processes in advance almost impossible
- Extensive searching for containers, on the internet, calling suppliers, carriers, etc.
- High detention and demurrage costs due to delays
- Great fluctuations in the arrival of containers caused an unpredictable reception process

REASON

Döhler has traditionally had a close relationship with the customs authorities in the Netherlands. This is essential because the company is dependent on import and export. Based on this existing relationship, new opportunities for paperless communication were explored.

The opportunity arose in which the customs warehouse in Oosterhout could be virtually extended to the Port of Rotterdam via the so-called DEN license (clearing procedures via a customs warehouse). A NCTS declaration T1 document for incoming containers is then no longer necessary. Instead of this, information can be exchanged electronically through Portbase, the Port of Rotterdam's information system. Subsequently, Portbase communicates with customs, the shipping lines and the inland container terminal. The question arose within Döhler's logistics department: which new possibilities would arise due to the electronic customs processes and how could these advantages be utilized in the daily logistics operation?



THE NEW PROCESS

Customs and logistics processes are integrated and redesigned.

Most important changes

A software module has been created as an add-on for Döhler's existing SAP system.

This system covers the following functions:

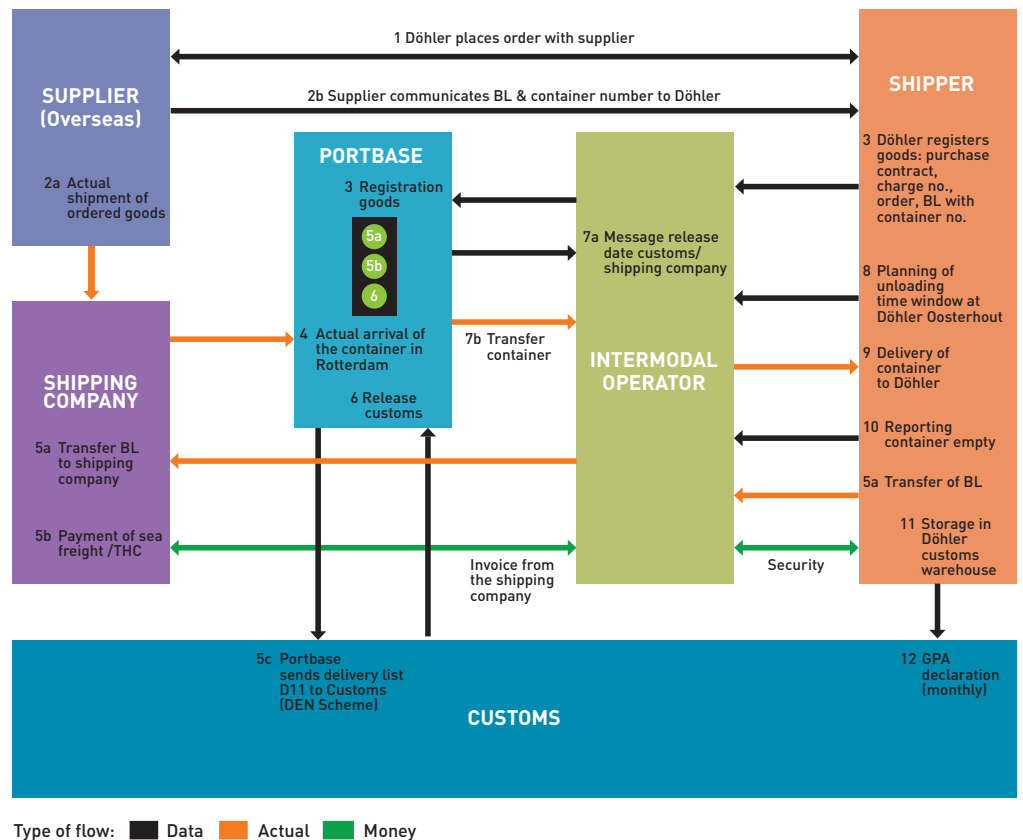
- Messages are sent to Portbase (through the Intermodal Operator).
- An overview of estimated arrival times (ETA) for containers is provided through updates of the Intermodal Operator & Portbase.
- The preparation of a reception planning.
- Declaration of all customs related transactions only to be sent once a month through the GPA system (in the former situation an update to the transit system had to be completed for each receipt of goods).
- Calculation of customs duties (accruals).

Intermodal Operators now have a more important role. They have an overview of the entire import flow. Through the integration with Portbase, the Intermodal Operator has a clear view of the processes in the Port of Rotterdam (including customs) and also a clear view of the hinterland transport and arrival process at Döhler, thanks to the message exchange with the Döhler SAP system. This means that Döhler only needs to communicate with the Intermodal Operator.

Any update of an ETA by the Intermodal Operator becomes visible for Döhler in real-time. Conversely, the Intermodal Operator has insight into the last version of the planning for the reception process at Döhler. Additionally there is alignment about returning empty containers. This resulted in a reduction of the cycle time for the containers at the plant.

HORIZONTALLY INTEGRATED IMPORT PROCESS

Employing the so-called DEN scheme (local clearing procedure customs warehouse) extended warehouse



THE ENTIRE PROCESS IS DEPICTED SCHEMATICALLY HERE:

1. Döhler places an order with a supplier. Suppliers are in South America and Africa.
2. The supplier dispatches the goods and sends the BL to Döhler
3. Döhler registers the goods electronically through Portbase (via the Intermodal Operator).
4. Actual arrival of the container in the Port of Rotterdam. The shipping line can release the goods once processes 5 and 6 have been completed.
5. a. Döhler supplies, through the Intermodal Operator, the shipping line with the BL; b. Döhler pays for the sea freight through the customs forwarder; c. Portbase sends delivery list to customs.
6. Customs releases the goods.
7. a. Portbase sends message, through the Intermodal Operator, to Döhler concerning clearance; b. The container is transferred to the Intermodal Operator.
8. Döhler prepares a reception planning through which the Intermodal Operator knows when each container has to be delivered.
9. The container is actually delivered by the Intermodal Operator's shuttle service.
10. The container is reported empty by the Intermodal Operator. This is important, because from this moment on no extra costs (in the form of demurrage costs) can be charged to Döhler.
11. Storage in Döhler's customs warehouse.
12. A monthly declaration is submitted for the goods that have been processed in the production or exported.

BUSINESS CASE

Major savings have been achieved with this new process. The investment and savings are shown in detail below

INVESTMENT

The investment comprises the time input from Döhler's logistics and customs departments and the development of a SAP add-on software module.

Topic	Investment	Comment
Add-on software	approx. 1,000 hours	Add-on SAP system
Time required for project	approx. 1,000 hours	Customs and logistics departments have designed and implemented the new processes together
Total investment	approx. 2,000 hours	

SAVINGS

Though electronic communication between Portbase and the Intermodal Operator, Döhler now has early insight into the arrival of containers in Rotterdam and subsequently also the planned process steps following this until arrival in Oosterhout. On the basis of this insight Döhler creates a reception window planning within which the Intermodal Operator's shuttle service delivers the containers. The entire process is faster and, as a result, the storage of containers is reduced and less demurrage is incurred.

Topic	Annual savings	Comment
Better container circulation	approx. 80% lower detention and demurrage costs	Through insight into ETAs control is created and management facilitated
Distributed reception process	approx. 30% less capacity required	Time window planning guides the delivery process
More efficient deployment through planning	approx. 30% less capacity required	Less searching for ETA
NCTS declaration T1 Scrapped	100% saving	Digital process has made NCTS declaration T1 obsolete
Total annual savings	Over Euro 0.5 million	

The annual saving is more than 0.5 million Euro. The advance investment was earned back within 6 months.



HOW CAN YOU TAKE ADVANTAGE OF THIS

There are four important areas in the creation of a horizontally integrated customs and logistics process.

1. ERP add-on for logistics planning and customs transactions

ERP systems are traditionally unsuitable for supporting complex transport planning and customs processes. A practical approach is to develop an add-on that is integrated with the shipper's ERP.

Part of this add-on will be generic for all shippers, but there will also be a degree of customization because most companies have created dedicated planning and customs processes. The most important features are:

- One file for each shipment/BL, each transaction, each type of material.
- Planning of time windows (inbound) and planning of transport (outbound).
- Record of the transactions relevant for customs.
- Calculation of customs charges in connection with the monthly declaration.
- Exchange of messages with the Intermodal Operator/Portbase.

2. Shared user interface with the Intermodal Operator in connection with ETAs and Reception planning

In Döhler's new process sharing the same user interface between Döhler and the Intermodal Operator is of great added value. The question is how this can be organized if multiple shippers adopt similar processes and procedures. There is then a need for a generic application with a standard user interface in which the Intermodal Operator can share information with multiple shippers. This application will also have to employ a uniform interface for the shipper's ERP add-on.

- For small shippers: a central User Interface that the Intermodal Operator makes available to various shippers.
- For large shippers: an Interface between the central application of the Intermodal Operator and the ERP add-on for the various shippers through which information about ETAs and planned reception time windows can be shared.

3. Actual delivery of the BL to the shipping companies

Upon arrival of the containers in the port, the actual BL has to be presented to the shipping company. The Intermodal Operator could provide a service to the shippers through doing this centrally for all shippers. The effect of bundling this would result in the cost-efficient organization of this service for the Intermodal Operator. The BL is considered a legally valuable document, with which goods can be released. The actual presence of this document will remain a requirement.

4. Bank feature for the payment of sea freight to shipping companies

A central service is really necessary for the payment of any outstanding sea freight costs owed to the shipping company so that the containers can be released without delay. Currently, it is usually the (customs) forwarder who provides such a service. The Intermodal Operator could establish a cooperation with the (customs) forwarder to offer shippers a complete service.



CALL FOR ACTION

Through this best practice, we are sharing experience and knowledge in the area of customs and logistics processes with you. As you can see, there are still significant gains to be made through the innovative improvement of these processes. BOM and REWIN are continually looking for ways to support companies with the realization of opportunities in customs and logistics!

If you are interested in taking part in this initiative and profiting from the advantages of horizontally integrated logistics and customs processes, please contact:

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