ABSTRACT (ENG)

In a nautical context, the term 'delay' has different interpretations. This causes each chain partner in the nautical chain operation to use its own definition of a delay. While solid chain operation can reduce delays, factors still exist that can affect this nautical chain such as weather conditions, defects and obstructions that may cause any delays.

Before a delay can be recorded or analyzed, a good data processing and exchanging system must exist. In the Port of Zeebrugge this system is called ZEDIS. It is important to make a critical assessment of the quality of this data before it can be used in a study of delays. A study of recorded delays based on 'vlotheidsindicatoren', tracked by the MBZ, illustrates the causes of delays and distinguishes delays according to four periods, allowing seasonal related trend to be noticed.

Specific traffics such as LNG and container shipping demand for increased deployment of tugs and cause disruption in a part of the nautical access, making the arrival and departure of several of these ships a complex process. An extensive case illustrates the complexity and consequences of delays for the remaining traffic in the Port of Zeebrugge.

In addition to the data analyses, efficiency can also be found in other aspects such as the working attitude of various port employees, functionality of ICT related aspects, such as software and communication between the various partners.

Beside the Port of Zeebrugge, North Sea Port uses the 'GTiTool' which provides a transparent representation of bottlenecks and priority rules regarding the lock. In addition, the Port of Rotterdam has introduced 'PortXChange', a shared communication platform.