

Euromax Terminal Rotterdam: evolving every day



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Five years after it was opened, the Euromax Terminal Rotterdam remains one of the most modern container terminals in the world. This is because since its operational commissioning in 2010, service and performance have constantly been raised to a higher level – an ongoing process that will never stop.

Terminal characteristics

Euromax Terminal Rotterdam is situated at the northwest corner of the Maasvlakte, directly at the entrance to the port of Rotterdam. Deep-draught ultra large container ships can call at the terminal 24/7 without any restrictions. Our quay is 1.5 kilometres long, with the possibility to extend that to 4.2 kilometres in following phases. The depth along the quay is 16.8 metres; as the size of vessels increases, this can easily be further deepened to 19.6 metres.

Equipment used

On the quay, we use twelve semi-automatic ship-to-shore quay cranes with a reach of 24 containers. All twelve ship-to-shore cranes have a second trolley for further speeding up the crane cycles. That really makes a substantial difference. 96 diesel-electric AGVs – suitable for twin-carrying – transport the containers back and forth between quay and stack. Behind each quay crane there's space to position four AGVs side by side so that operations can always continue.

Hinterland modes of transport

We have four separate cranes for the handling of feeders and barges, which are divided on both sides of the 12 ship-to-shore quay cranes. Trains are handled at our on-dock rail terminal with six 750-metre long rail tracks and two cranes. Also, truck

handling has been extensively automated. Truck drivers which have been properly pre-notified by their companies and can identify themselves with the fraud-proof CargoCard containing their biometric details do not need to exit their cabin to take care of the formalities. Furthermore, their containers are discharged and loaded at the stack by remote control handling from our terminal building.

Productivity

The terminal is one of the highest performers in the Hamburg - Le Havre range, and since its opening everything at the terminal has been geared to constantly further improving speed and efficiency. In recent years, we have made tremendous progress in this respect and we will unabatedly continue these efforts.

We are fully focused on the continuous implementation of new functionalities that lead to productivity improvements. Of great importance in that respect is the close collaboration with the shipping lines, since the actual productivity depends on stowage of the ship. We very regularly consult with the headquarters, the European head offices and the offices of the shipping lines in Rotterdam. That works well. Also if something requires urgent attention, we quickly contact each other. If necessary, we will drop everything to meet.

We have embedded the structural improvement of performance at the Euromax Terminal through multi-disciplinary improvement teams that, in line with the globally renowned Lean Six Sigma methodology, identify a specific point of improvement and then sink their teeth into this. In this way, many facets of the terminal – often invisible to the outside world – have been raised to an even higher level in recent years. More than 30 different

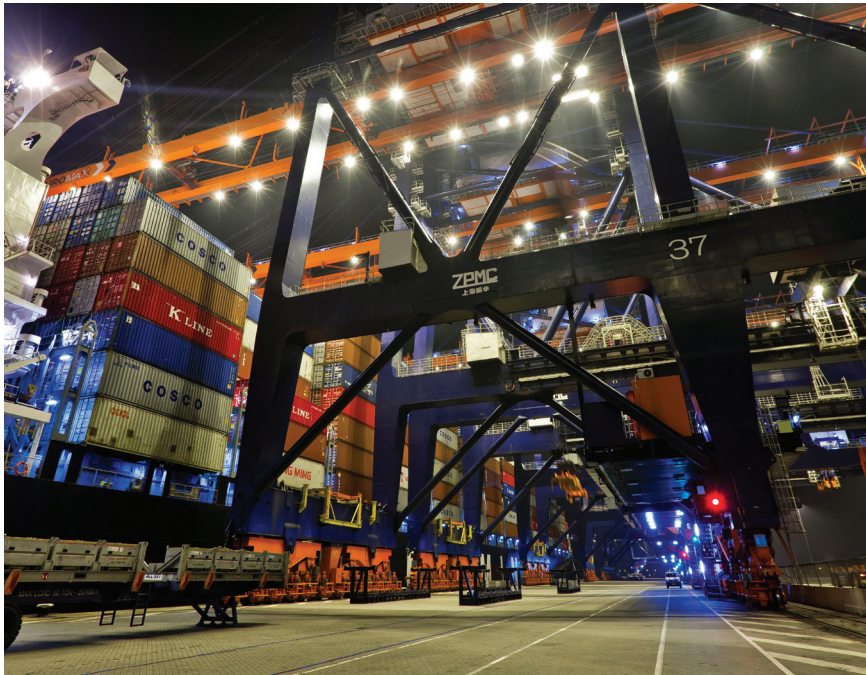
projects have already been successfully completed. Thirteen such programmes are currently still underway. From improving the performance of the ARMG cranes in the stack, to optimising planning and monitoring and much more.

Three additional major projects are also currently underway at the Euromax Terminal, including further streamlining the landside handling, the phased introduction of dual cycling for simultaneously loading and discharging two containers in one crane cycle, and the implementation of Optical Character Recognition (OCR) on all quay cranes.

OCR makes it possible to fully record the number, type size, presence of seal, door direction and any damages for each container automatically. It is the next step towards the true round-the-clock deployment of equipment and achieving an optimal output. With a single crane, theoretically at the same time having two containers in the spreader, four containers on the stacker table and two in the second trolley – whilst both discharging and loading are simultaneously taking place – keeping track of everything is becoming increasingly more complex for the shore radioman. OCR can assume many of his tasks and will be primarily supportive.”

Technical measures

We definitely also boost productivity through organisational measures. A recent example is the rule which we introduced in the course of 2015 that required barges to have a minimum call size of ten containers. A significant percentage of barges calling at the Euromax Terminal were carrying less. With an average switching time on the quayside of fifteen minutes between the departure of one ship and the arrival of the next, we managed to achieve double-



digit handling capacity gains by working with barge operators to adhere to stricter requirements. Although initially mixed reactions were received from the market, overall customers do understand the necessity of this measure and notice the positive effects.

Along the same lines is our approach to the amount of empties in the stack. Each shipping line has its own policies, but in general they consider it practical to have a specific number of empties available close to the deep-sea ship. Too many empties clogging up the stack however negatively impacts our productivity. This is another issue which we therefore address and discuss with shipping lines. You see, we firmly believe that putting the customer first entails much more than simply doing what is asked or letting happen what happens. What matters here is that we closely work together to achieve the best possible result, with clear benefits for all parties.

Making a difference

The Euromax Terminal has been organised in a fully process-oriented manner.

The operational processes have been arranged in such a way that they do not depend on single individuals. However, quality employees and experience are still of utmost importance. We have seen a considerable influx of new staff recently and have deliberately selected some high calibre fresh graduates. This creates a good mix with the operational experience that is already present within our organisation. In that respect, we explicitly expect the recent recruits to use their fresh outsider's perspective to offer a significant contribution to further improvement projects already achieved by the organisation.

Throughout the entire organisation, many initiatives are constantly developed and re-calibrated to continually improve performance. We regularly also use what we call a 'learning ship'. Here, a supervisor and operational staff get together to evaluate the handling of a recently departed ship. What went well? What could be improved? These hands-on experiences always constitute invaluable learning opportunities.

About the author

François Bello joined Europe Container Terminals (ECT) in 2004 as an operations expert.

As of 2008 he has been responsible for the start-up and further development of Euromax Terminal Rotterdam. Prior to ECT François worked for several companies in the Port of Rotterdam all related to Maritime, Transport and Logistics services. François studied at the faculty of Mechanical Engineering at the Technical University of Delft and specialized himself in Shipping, Transport & Logistics Technology. He has over 15 years of experience in the field of transport and logistics both in the Netherlands as abroad.

About the organisation



ECT is a member of the Hutchison Port Holdings (HPH) Group. HPH, a subsidiary of the multinational conglomerate CK Hutchison Holdings, is the world's leading port investor, developer and operator. The HPH network of port operations comprises 319 berths in 52 ports, spanning 26 countries throughout Asia, the Middle East, Africa, Europe, the Americas and Australasia. Over the years, HPH has expanded internationally into other logistics, transportation-related businesses. These include cruise ship terminals, airport operations, distribution centres, rail services, and ship repair facilities. In 2014, the HPH port network handled a combined throughput of 82.9 million TEU worldwide.

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