PRESENTATION SLOE CONTAINER TERMINAL

- THE NGICT SYSTEM OFFERS EXCELLENT OPPORTUNITIES TO REALIZE A DEEPSEA CONTAINER TERMINAL IN THE FLUSHING PORT AREA

- THE NGICT SYSTEM BENEFITS TERMINAL OPERATOR, SHIPPING COMPANIES, RAILWAY COMPANY, TRUCK TRANSPORT AND INLAND BARGE TRANSPORT

- MINIMAL SPACE OCCUPATION; HIGHEST STACK DENSITY, FASTEST PROCESSING PERFORMANCE AND PRODUCTIVITY , SHORTEST BERTH TIMES, MOST ECONOMICAL RETURN ON INVESTMENT

WHICH WILL BE SHOWED IN THE FOLLOWING PRESENTATION OF THE SCT

PRESENTATION SLOE CONTAINER TERMINAL

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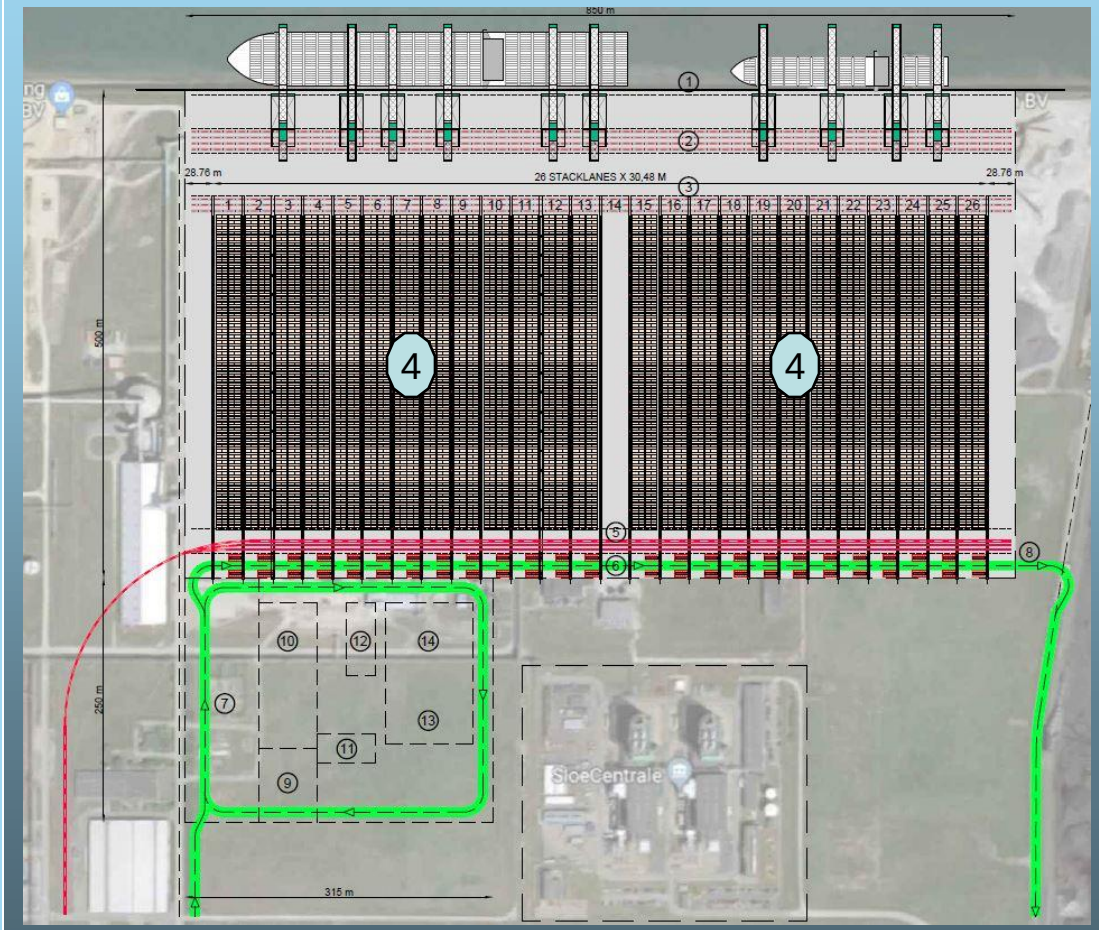
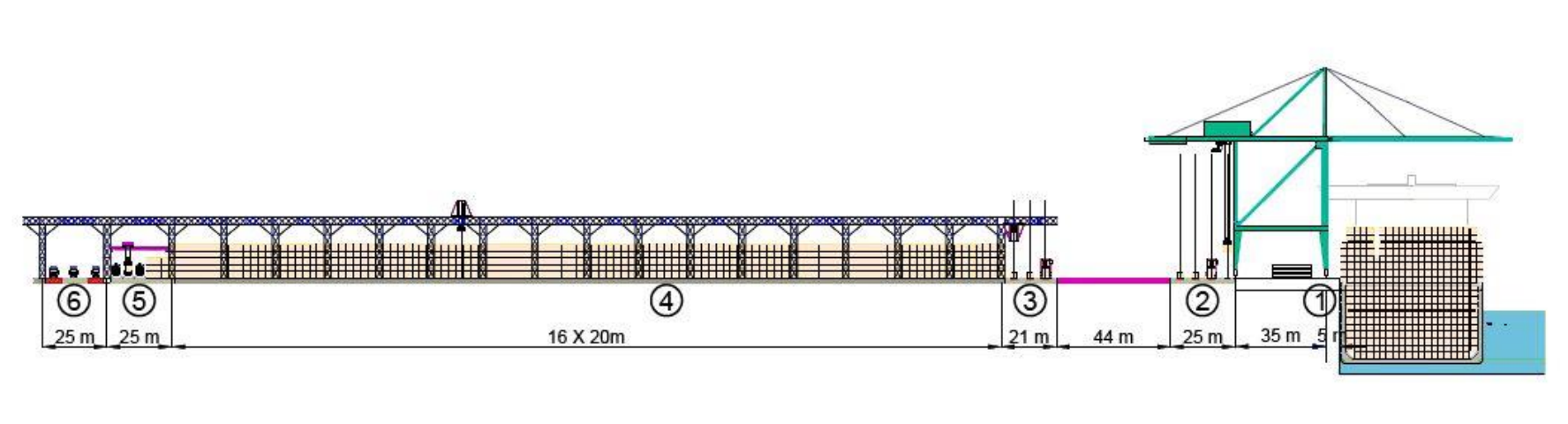


1. New quay wall length 850 m draft 16.50 m
2. Transfer between STS cranes and (A) SHC
3. Transfer between (A) SHC and NG-OHBC
4. Stack area: 25 stack lanes c.t.c. 30,48 m[1] stack capacity by 100% occupation = 57.000 TEU (5 layers)
5. Railway: 3 tracks + dedicated stack + 3 Overhead Rail Cranes
6. 50 Truck transfer points between NG-OHBC and truck
7. Main gate IN (inclusive truck parking)
8. Gate OUT
9. Chassis area
10. Workshop repair / maintenance equipment
11. Main building with parking personnel
12. Calamity area
13. Freight station
14. Workshop containers: cleaning, repair, lashing

PRESENTATION SLOE CONTAINER TERMINAL



PRESENTATION SLOE CONTAINER TERMINAL

TECHNICAL DATA:

QUAY LENGTH	850 m[1]
OPERATIONAL TERMINAL AREA	42,50 hectare (gross)
ADDITIONAL AREA	7,87 hectare
STACK AREA	25,44 hectare (net)

STACK CAPACITY BY 100% OCCUPATION:

- 11.400 TGS x 5 LAYERS = 57.000 TEU INCLUSIVE REEFERS AND EMPTIES

TEU FACTOR 1,65 (ASSUMPTION)

PRESENTATION SLOE CONTAINER TERMINAL

A. QUESTIMATE PERFORMANCE
BASED ON STACK CAPACITY AND DWELL TIME

1. AVERAGE DWELL TIME = 6 DAYS
TERMINAL OPERATIONAL = 360 DAYS / YEAR (= 8.640 HOURS)
AVERAGE STACK OCCUPATION 70% X 57.000 = 39.900 TEU
POSSIBLE THROUGHPUT 39.900 x 360 / 6 = 2.394.000 TEU / YEAR
(= 2,4 M TEU)

2. AVERAGE DWELL TIME = 7 DAYS
TERMINAL OPERATIONAL = 360 DAYS / YEAR (= 8.640 HOURS)
AVERAGE STACK OCCUPATION 70% X 57.000 = 39.900 TEU
POSSIBLE THROUGHPUT 39.900 x 360 / 7 = 2.052.000 TEU / YEAR
(= 2,0 M TEU)

NOTE:
NGICT – OHBC HAS THE HIGHEST STACK DENSITY COMPARED TO ALL CURRENT SYSTEMS

PRESENTATION SLOE CONTAINER TERMINAL

B. QUESTIMATE PERFORMANCE BASED ON QUAY PRODUCTIVITY

1. 10 STS CRANES; AVERAGE 25 MV / H x 1,65 = 41,25 TEU / HOUR / CRANE
   STS OPERATIONAL TIME 60% x 8.640 HOURS = 5.184 HOURS
   QUAY PRODUCTIVITY = 10 x 41,25 x 5.184 = 2.138.400 TEU / YEAR

2. 10 STS CRANES; AVERAGE 20 MV / H x 1,65 = 33 TEU / HOUR / CRANE
   STS OPERATIONAL TIME 60% x 8.640 HOURS = 5.184 HOURS
   QUAY PRODUCTIVITY = 10 x 33 x 5.184 = 1.710.720 TEU / YEAR

NOTE:
NGICT – OHBC HAS THE FASTEST STACK OPERATIONS COMPARED TO ALL CURRENT SYSTEMS
NGICT – OHBC IS ALWAYS ABLE TO FOLLOW THE HIGHEST QUAY PRODUCTIVITY WITHOUT CONGESTION

PRESENTATION SLOE CONTAINER TERMINAL

C. QUESTIMATE PERFORMANCE BASED ON QUAY OCCUPATION

1. ASSUME AVERAGE CALL-SIZE = 2.750 TEU
   IN CASE OF THROUGHPUT OF 2 M TEU:
   2.000.000 / 2.750 = 727 VESSELS / YEAR = 2,0 VESSELS / DAY

BERTH TIME PER VESSEL DEPENDS ON THE NUMBER AND PRODUCTIVITY OF STS CRANES

ASSUMPTIONS:

- 5 STS x 33 TEU / H → 2.750 / 165 = 16,7 HOUR
- 5 STS x 41,25 TEU / H → 2.750 / 206 = 13,3 HOUR
- 4 STS x 33 TEU / H → 2.750 / 132 = 20,8 HOUR
- 4 STS x 41,25 TEU / H → 2.750 / 165 = 16,7 HOUR
- 3 STS x 33 TEU / H → 2.750 / 99 = 27,8 HOUR
- 3 STS x 41,25 TEU / H → 2.750 / 124 = 22,2 HOUR

CONCLUSION: 2 VESSELS PER DAY CAN BE HANDLED EASILY

NOTE:
ALL FIGURES HAVE TO BE VALIDATED BY SIMULATION IN A LATER STAGE

PRESENTATION SLOE CONTAINER TERMINAL

(PRELIMINARY) CONCLUSIONS

IF THIS NEW SCT WILL BE BUILT ACCORDING TO THE NGICT SYSTEM THE RESULT CAN BE:

- THROUGHPUT APPROX. 2,0 TO 2,4 MILLION TEU / YEAR
- ABLE TO HANDLE:
  - DEEPSEA VESSELS UP TO 360 M LONG
  - INLAND BARGES UP TO JOWI-CLASS 135 M LONG
  - TRAIN UP TO 700 M LONG; 3 OR MORE TRACKS POSSIBLE
  - TRUCKS 50 TRANSFER POINTS

- HIGHEST AUTOMATION LEVEL POSSIBLE:
  - STS CRANES SEMI-AUTOMATED
  - OHBC FULLY AUTOMATED
  - SHC FULLY AUTOMATED
  - ORC FULLY AUTOMATED (OVERHEAD RAILCRANE)