WEEKLY VOLUME: 80,000 CONTAINERS IS EQUIVALENT TO BELOW NUMBER OF CALLS

- **TRANSISHIPMENT**
  - 100 feeder calls
  - 30 deep-sea calls

- **HINTERLAND TRANSPORT**
  - 17,500 trucks
  - 150 train calls
  - 325 barge calls
ECONOMIES OF SCALE

YEAR
2017

TEU
21.413
LARGE CALL-SIZES

Challenge:
Take: 18,000 TEU vessels and 3 ports

- Loading: 18,000 TEU
- Unloading: 18,000 TEU
- Total: 36,000 TEU

- Per port: 12,000 TEU
- Equals: 7,500 moves
HINTERLAND; THE COMPETITIVE EDGE

- Demand for reliable and sustainable hinterland transport
- Hinterland transport competitive factor
- Modal split requirements/demands
- Better utilisation infrastructure
- Difficulty at present to make rail and barge more competitive
- Larger vessels $\rightarrow$ larger call-sizes; more pressure on efficiency at terminals
INVESTMENT IN SCALE

– Port investments:
  – Dredging
  – Quay walls
– Terminal investments:
  – Equipment, yard capacity
  – Systems, Automation,

Logistics
  – Redefine the hinterland
HINTERLAND: SUSTAINABLE & EFFICIENT TRANSPORT

Logistics have to be based on:

- High frequent, fast, efficient and sustainable connections
- A network of inland terminals connected to the main port
- All modalities per corridor

This requires:

- Volume
- Real time information
- Data
EUROPEAN GATEWAY SERVICES
INTRODUCING A NEW CONCEPT

– Paying attention not only to shipping lines but also logistic service providers and shippers.

– Develop an intermodal inland network and concentrate container volumes on the main corridors to and from deepsea terminals.

– Focus mainly on barge and rail.
- Shifting from pull to push
- Focus on available capacity
- Regardless of mode of transport
HINTERLAND: ALL MODALITIES

Truck

Rail

Barge

Feeder
BUT ALL MODALITIES EFFICIENTLY
Real time planning of modalities:

- Increase planning flexibility:
  - Modality
  - Route
  - Transport leadtime

- Objectives:
  - Increase utilization rate
  - Greater reliability
  - More flexibility
  - Improved sustainability

CURRENTLY: 50% BY TRUCK
DELIVERY TIME
USING THE NETWORK: ROUTING
USING AVAILABLE MODALITIES & CAPACITIES
IMPLEMENTING SYNCHROMODALITY

– Planning becomes too complex for manual planners

– Terminal planning → Monomodal transport planning → Multimodal transport planning → Overall Network planning

– Need for supporting planning tools → Synchromodal Trip Optimizer (STO)

– Resistance by manual planners

– Routing / Timing / Choices seem illogical
SYNCHROMODAL TRIP OPTIMIZER

Digital Self Service

Integration layer

Demand (Orders)

Synchromodal Trip Optimizing

Supply (Slots/Voyages)

Object planning & Transport

- Barge Operator
- Rail Operator
- Truck Operator

Terminal Operation

- Terminal X
- Terminal Y
- Terminal Z

HUTCHISON PORTS ECT ROTTERDAM
IMPLEMENTATION

- Gaming; synchromania with customers, internally, ……
- STO ~synchromodal trip optimizer
- Early adapters
- Pilots
- Pricing; service differentiation
CHALLENGES/BOTTLENECKS

- Reluctance to change
- Stick to existing relations
- Lack of general overview
- A-modal booking
  - Impact on documentation
  - Insurance, Customs
- Flexible planning is more complex
- Information exchange
- Dynamic Pricing
- Trust
A MODAL SHIFT NEEDS A MENTAL SHIFT