NETHERLANDS MARITIME TECHNOLOGY

H2020 Challenge 4 Waterborne
call 2016 topic MG-2.3
"New and improved transport concepts in waterborne transport"

MIBE 2015
Maritime and Innovation Brokerage Event 2015
10-11 November 2015
Rotterdam, The Netherlands

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NETHERLANDS MARITIME TECHNOLOGY

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020

Call MG-2.3

NETHERLANDS MARITIME TECHNOLOGY

(concise) CHALLENGE:

- overcome the traditional barriers between transport modes

- to work on the greening, expansion and optimisation of the entire (waterborne) transport chain, including in the urban environment

- to contribute to the EU´s energy union through new energy transportation concepts for natural gas (in particular in short sea trades), including discharging and safety considerations

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(rearranged) SCOPE:

- New or much improved systems for waterborne operations, feedering and short sea vessels, addressing one or several of the following issues:
  - ✓ smart connections to deep sea shipping and inland waterways transport,
  - ✓ new unitised multi-modal cargo concepts,
  - ✓ and reliable transport services even in extreme seasonal weather conditions.

- Automation in all waterborne operations, including in short sea trades and in inland navigation (with a view to bringing about a Digital Inland Waterway Transport Area) and in the urban environment; this may include
  - ✓ remotely controlled and autonomous vessels and docking systems
  - ✓ and the regulatory developments necessary to implement joint operations of conventional and unmanned vessels.

- New cost-efficient vessel concepts for the transport and distribution of natural gas, including safe discharging

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(re-arranged) IMPACT

- Measurable contributions to a more efficient waterborne transport,
  - ✓ fully integrated into multimodal transport or energy supply chains in Europe,
  - ✓ through the proof of concept for new and significantly improved transport systems
  - ✓ including a full cost-benefit analysis and a quantitative and qualitative comparison to current systems.

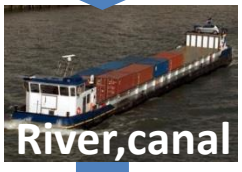
- Concepts for the automation of waterborne transport operations will be proven
  - ✓ including an assessment of cost-benefits
  - ✓ and the impact on the waterborne work environment and the skills requirements
  - ✓ Where feasible solutions will be made available directly to operators, in particular SMEs

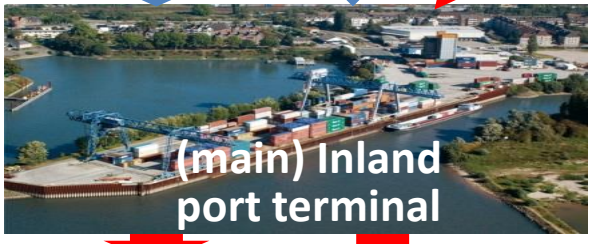
THE PICTURE

Feedering

Barrier: Bottleneck 1

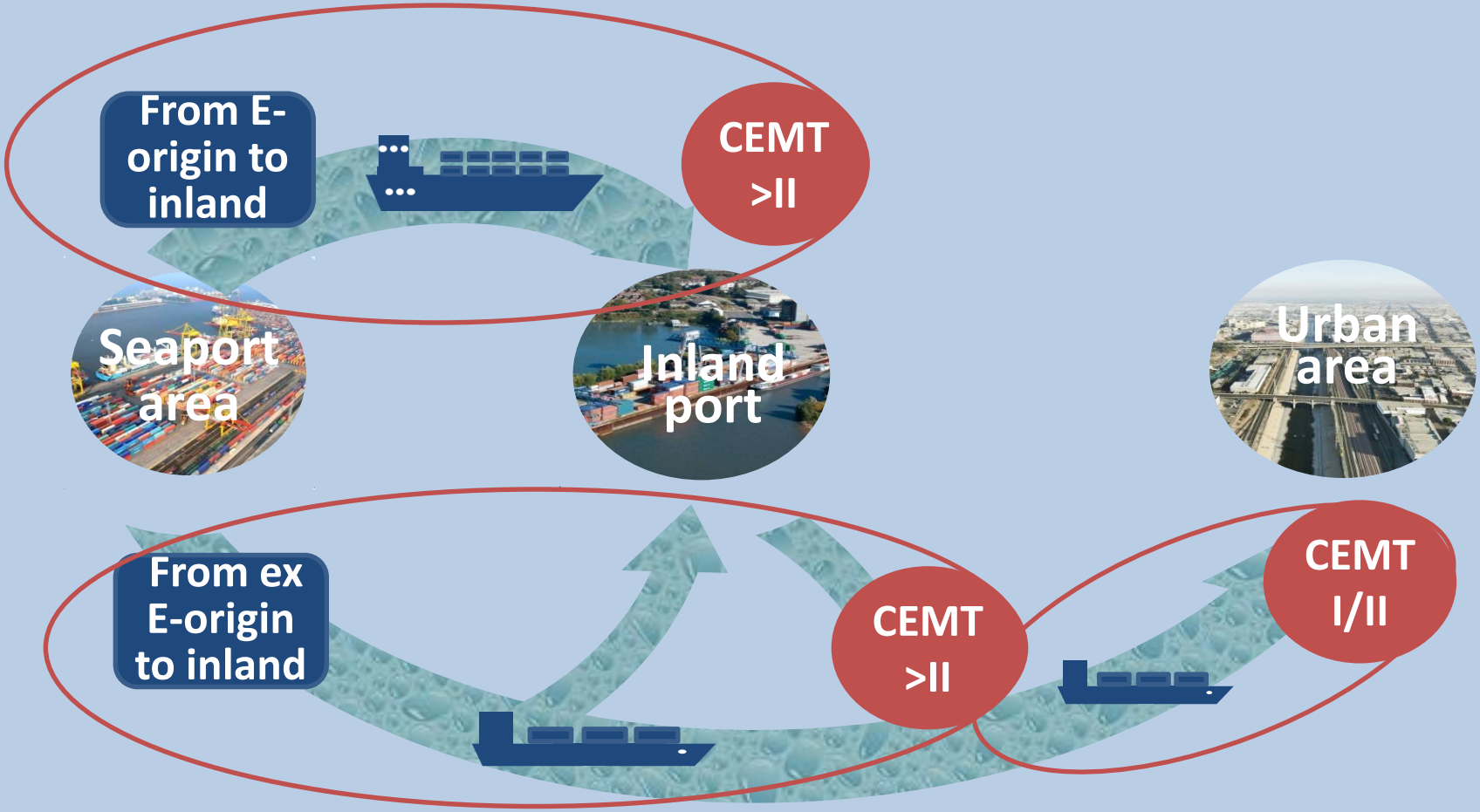
Barrier: Bottleneck 2





WATERBORNE TRANSPORT SYSTEM CONTAINS:

- Two major flows sea-inland: from E- and ex-E destinations
- Three hubs: sea ports, inland ports, urban areas
- Three pathways: sea, CEMT > II, CEMT I/II
- Three vessel types: sea, inland > CEMT II, inland CEMTI/II



NETHERLANDS MARITIME TECHNOLOGY

EFFICIENT TRANSPORT OPERATIONS PRINCIPLES :

1. Freight on the move, least stops/storage/handlings
2. Largest freight volume in one transport
3. Get directly to destination
4. Weather / environment resilience
5. Track/trace


Your Turn!