

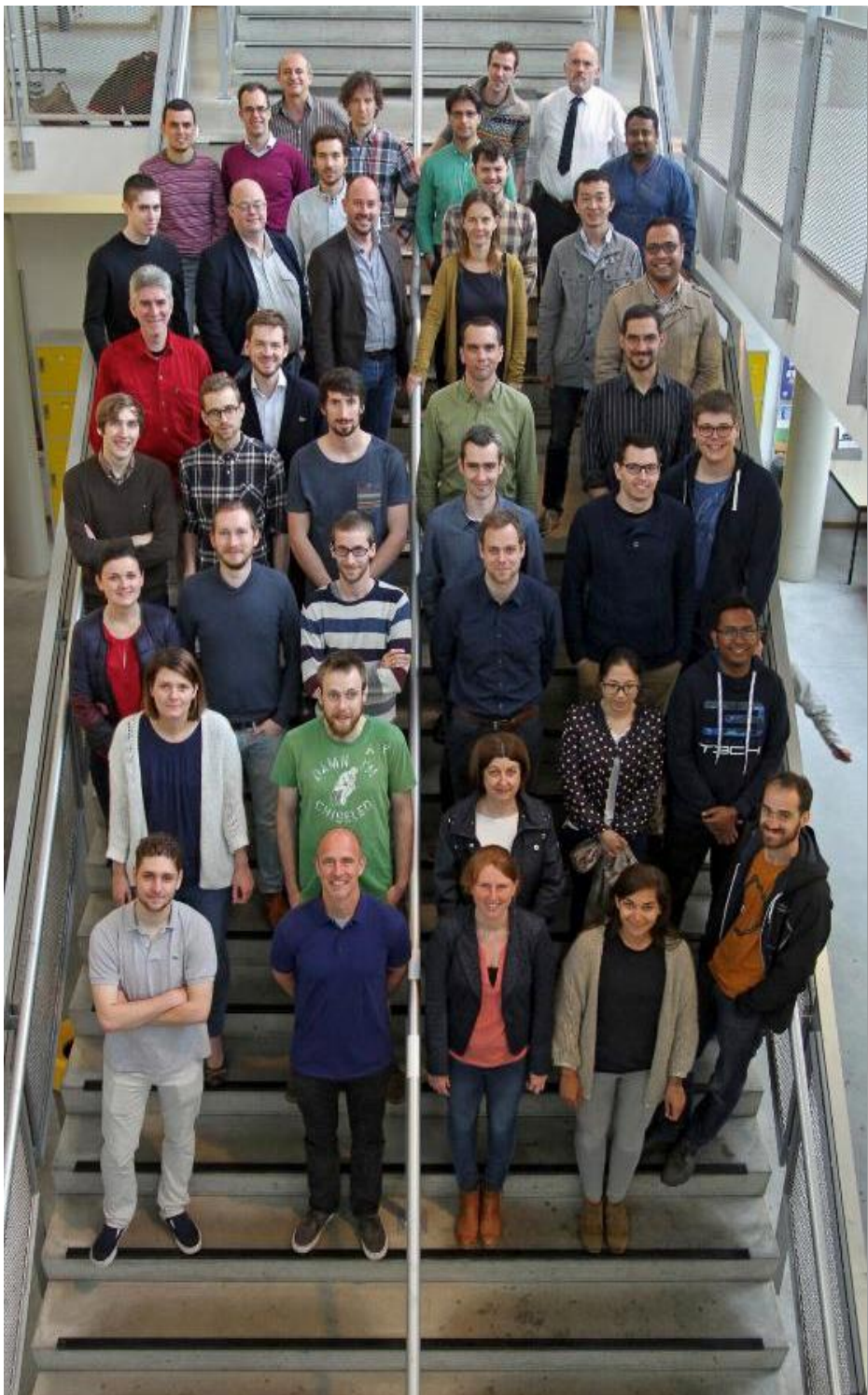
The four waves in the inland waterways sector

Models and approaches to support the transition

Waterways for smart transport | 04/10/2016

Cathy Macharis | director MOBI





MOBI team

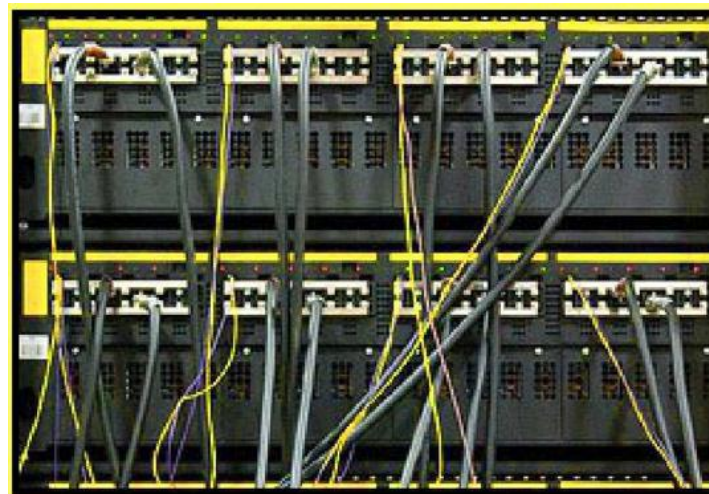
Mobility, Logistics
and Automotive
Technology

Key assets

Sustainable logistics



Battery Innovation Centre



Electric and hybrid vehicles



Urban mobility



Our expert tools



Vrije Universiteit Brussel

MAMCA©



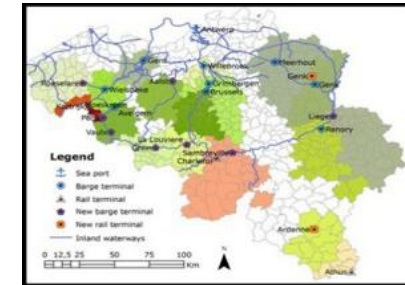
Business Modelling



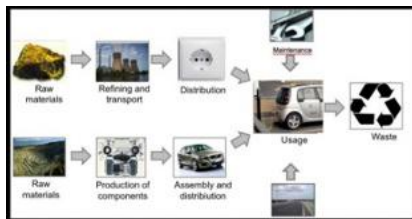
Battery models



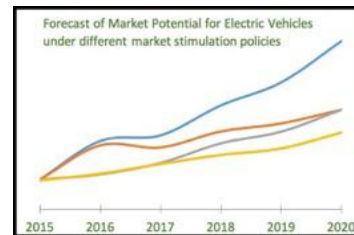
LAMBIT



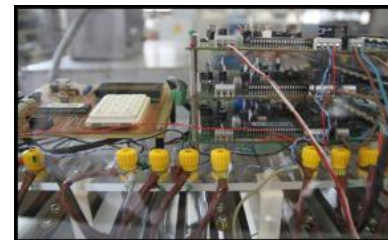
LCA



Consumer behaviour



Power electronics



TRABAM



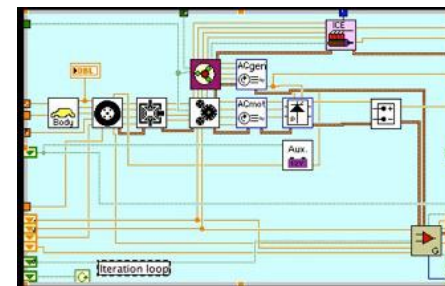
ECC



Big Data



VSP



Location Analysis

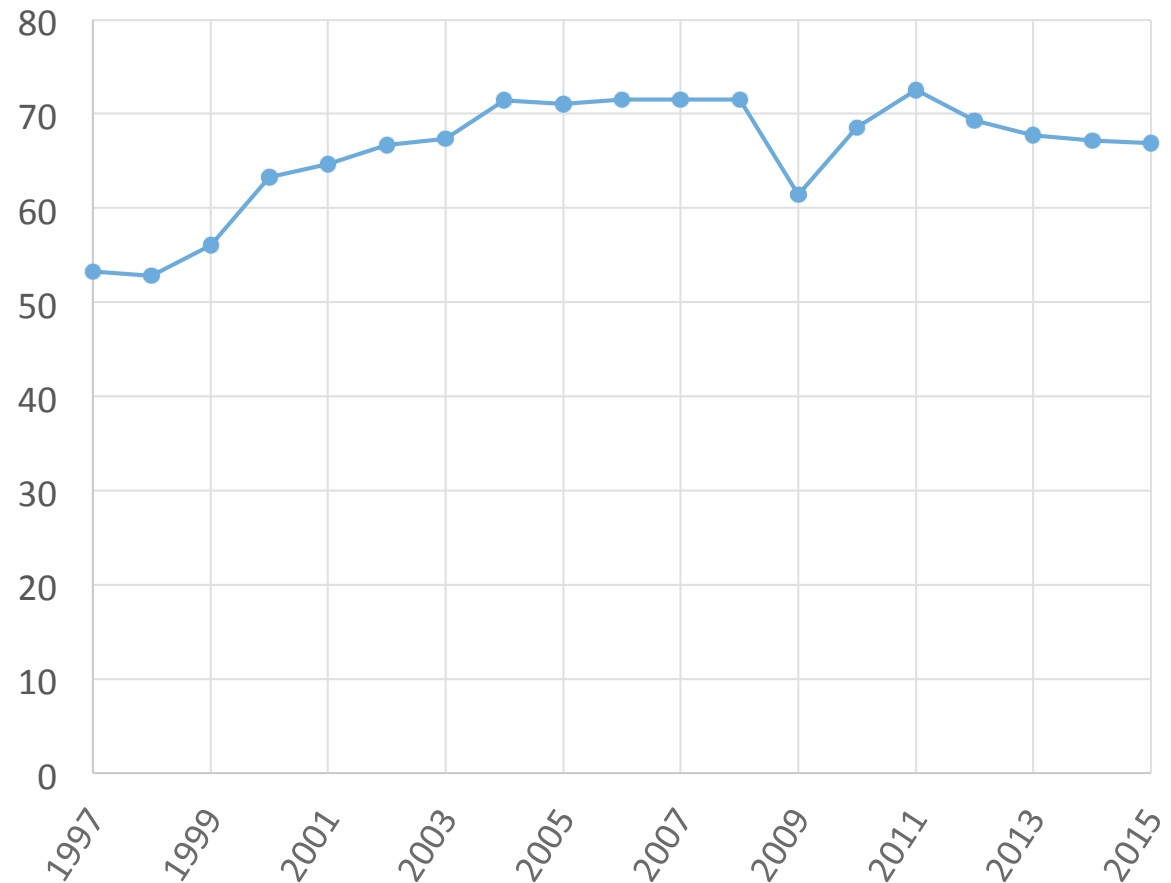


1st wave: Bulk



x million

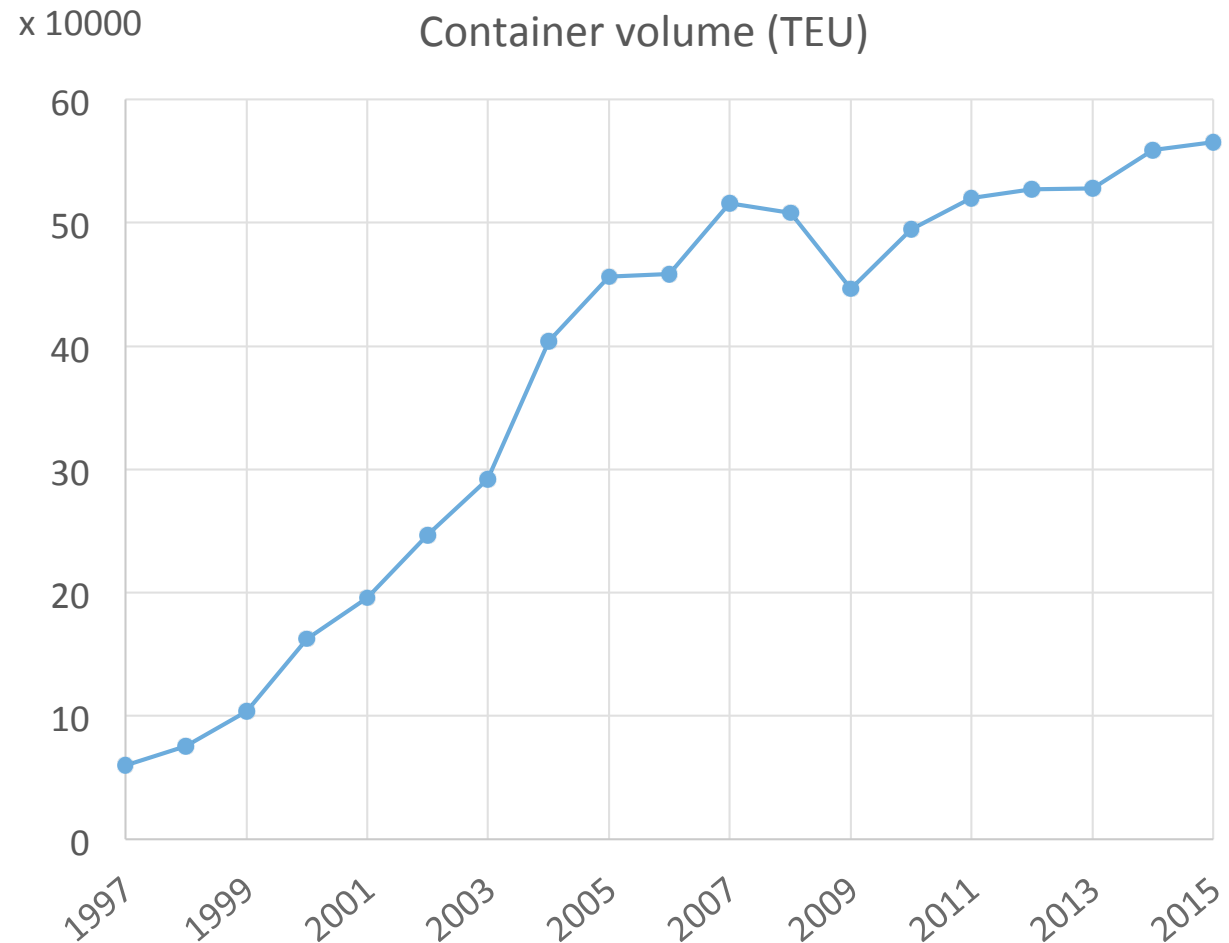
Total volume (ton)



Source data: Promotie Binnenvaart Vlaanderen, 2016

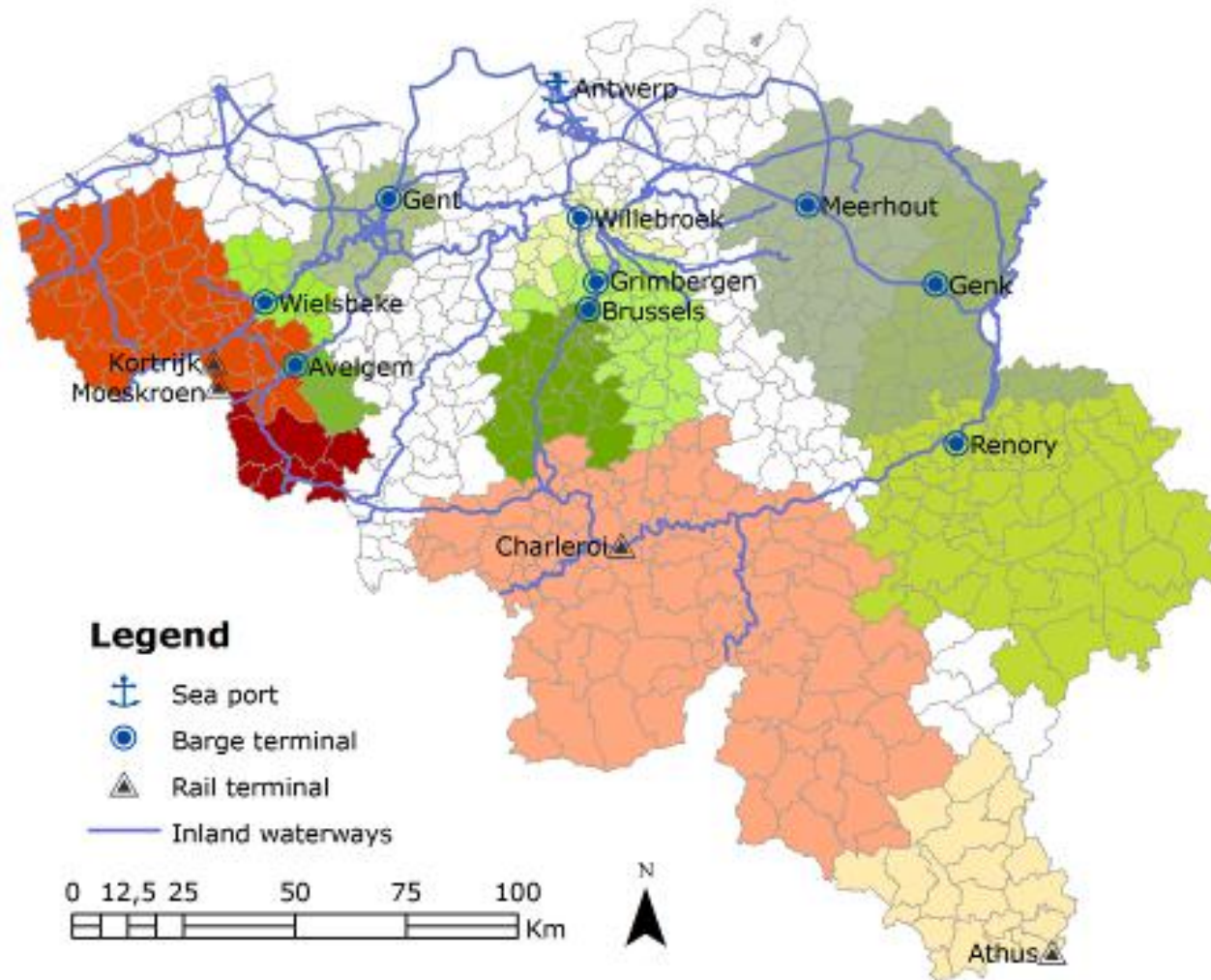
2nd wave: Containers

'nineteens revival'



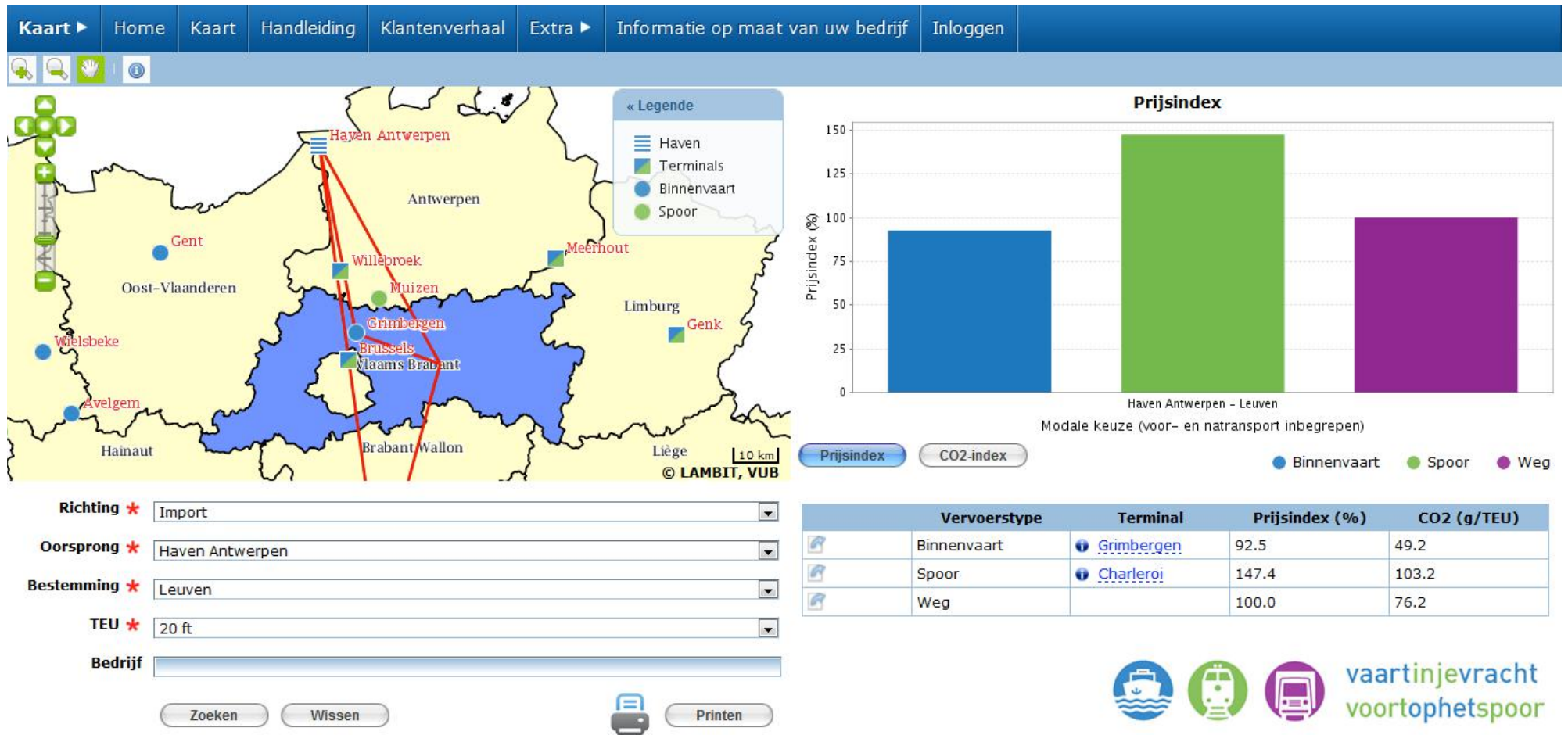
Source data: Promotie Binnenvaart Vlaanderen, 2016

2nd wave model: LAMBIT



Source: VUB- MOBI, 2010

2nd wave: LAMBIT is online!



www.vaartinjevracht.be

Source: VUB- MOBI, 2012

3rd wave: Pallets

'the millennial'



Potential:

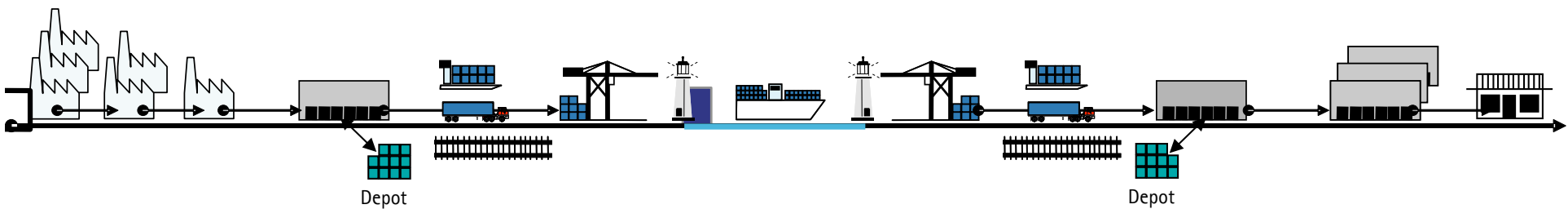
Belgian (road) pallet volume tripled container volume in 2011!

In Flanders: 2013-2016 165.400 ton/yr. due to aid measure

In Brussels: 12.000 ton in 2015

Source data: ADSEI, 2012 and Waterwegen en Zeekanaal, 2016

Massification \Rightarrow atomisation



Inland waterways in city logistics



Source: smartcitystudio



Source: horeca entree.nl

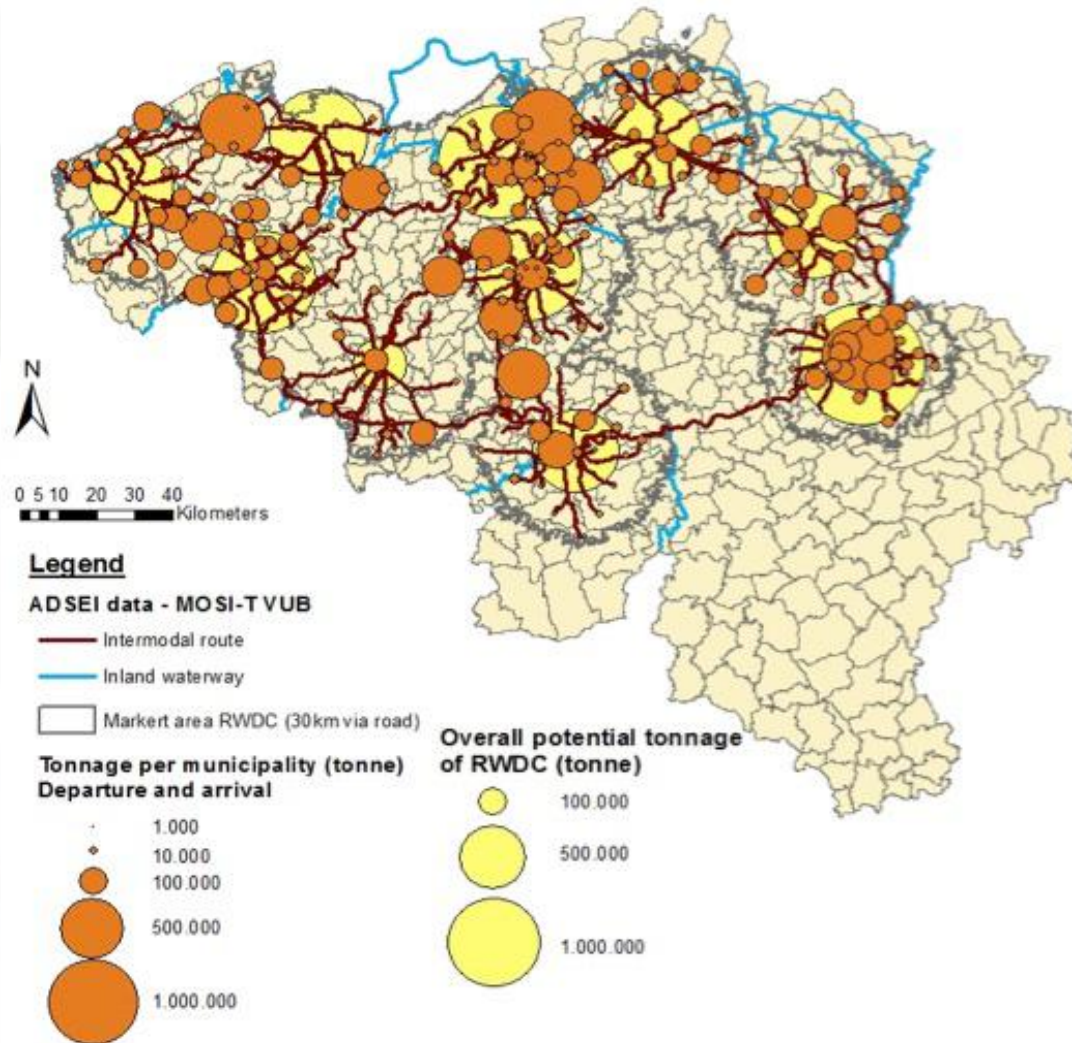


Source: slimenschoondestad.nl



Source: lefigaro

Pallets on the inland waterways?

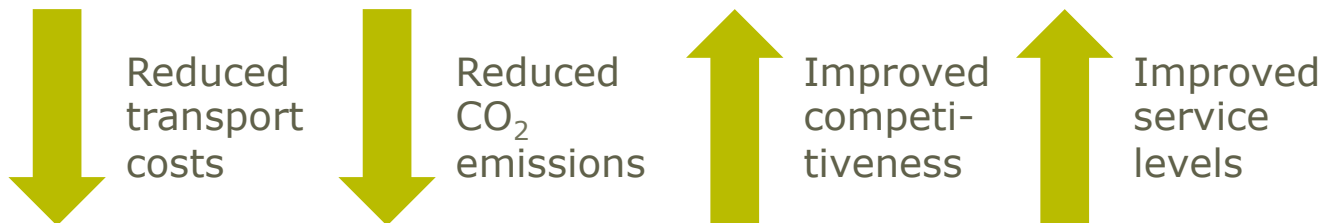


Source: VUB- MOBI

4th wave: Synchromodal transport



Source: Zeeland Connect

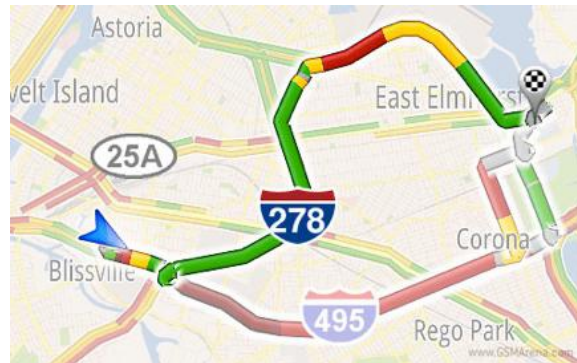


4th wave

Characteristics of synchromodality



Real-time



Re-routing

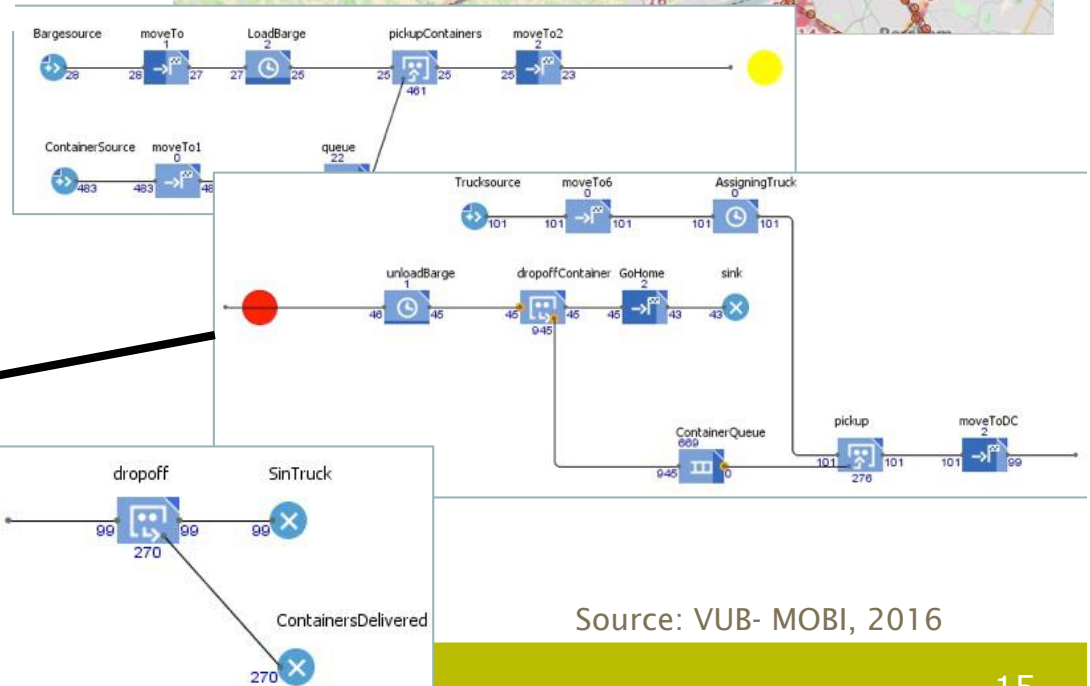
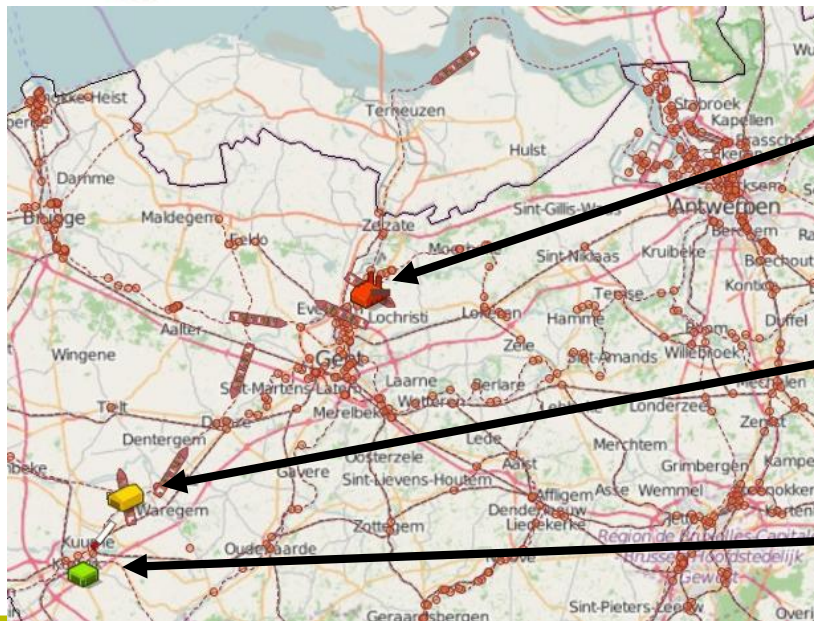
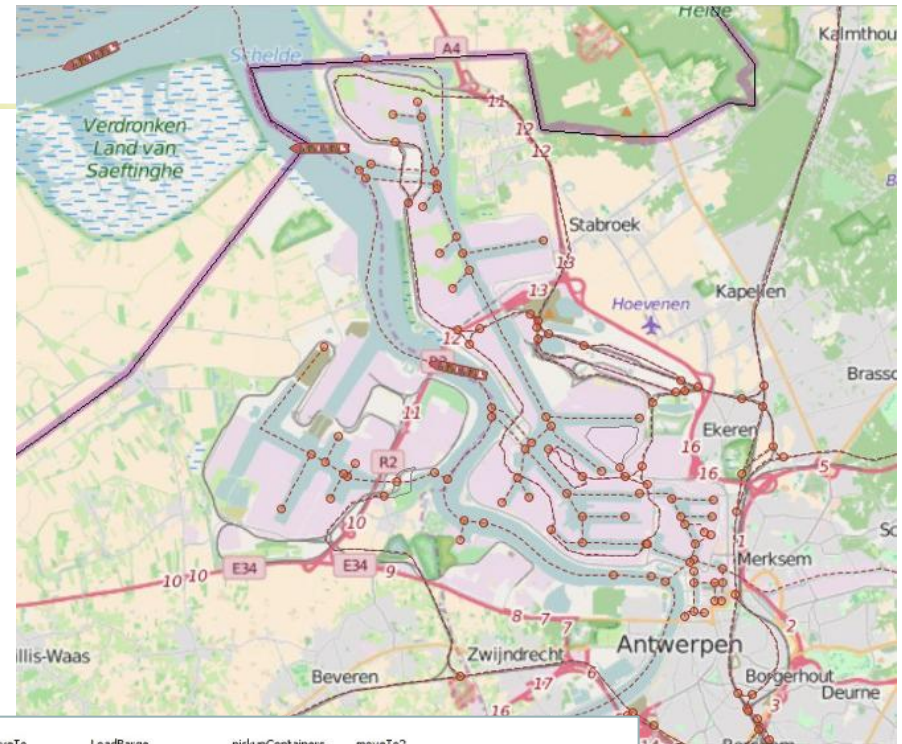
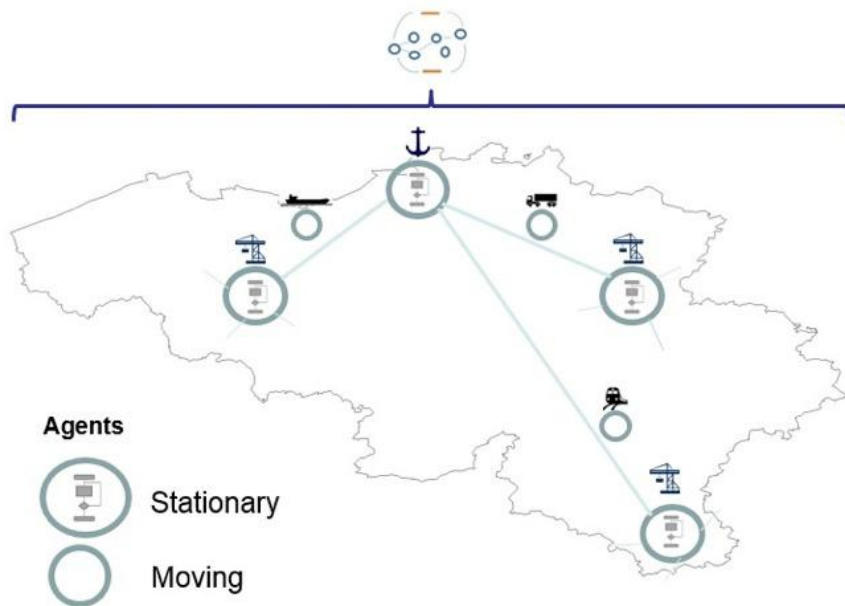


Re-scheduling



A-modal booking

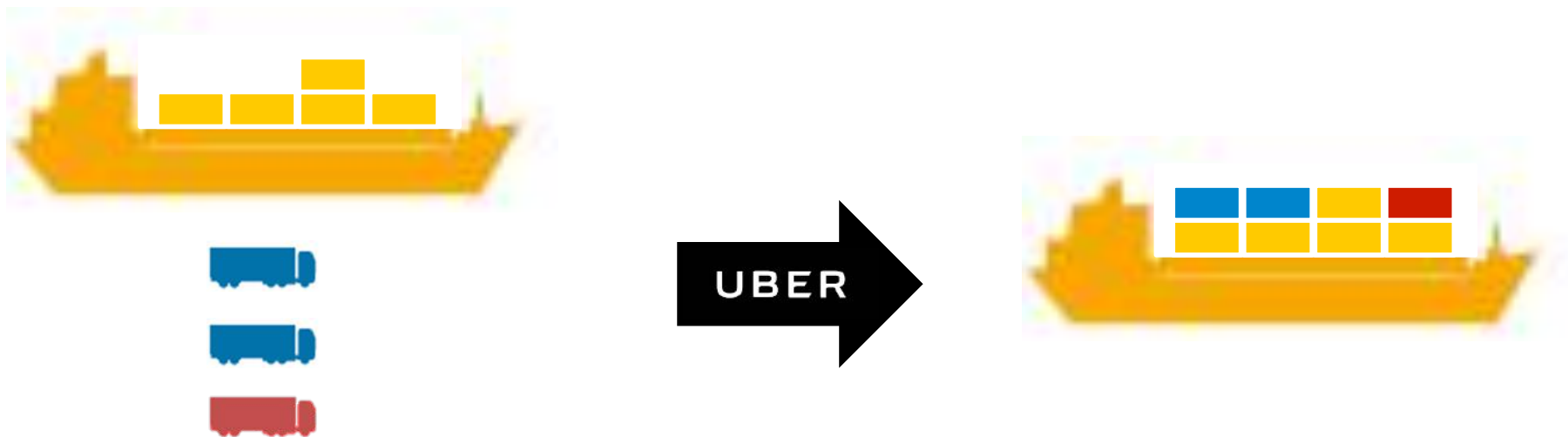
SYMBIT






Source: VUB- MOBI, 2016

Conclusion

Are we ready for an Uberisation of the inland navigation sector?



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