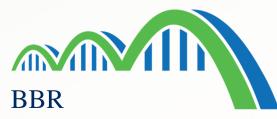
BBR – Infrastructure



Benelux Business Roundtable

May 31st, 2017

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- Introduction: recap of the first phase and past work
- The value of a good infrastructure
- Synthesis of priority areas going forward
- Proposed next steps

Actions undertaken since September and objectives of today's session



Today we present a synthesis of the input from a broad range of stakeholders – Thank you for your contribution!



Key questions from companies and organizations

How can the Benelux countries that are facing similar competitive threats put in place a common strategy?

Where is the sense of urgency? The figures are simply alarming!

How can national infrastructure decisions take into account Benelux (and international) connectivity?

> How do we maximally leverage EU/EIB facilities?

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Good infrastructure is critical to support economic growth

Infrastructure investments boost economic growth and creates jobs

Which explains why transport is closely correlated to GDP

 Cost
 Benefit

 1.0
 : 1.2 - 1.4

Provincie Limburg, project for railway Mol
 Weert, 2017 & VBO Report, 2016

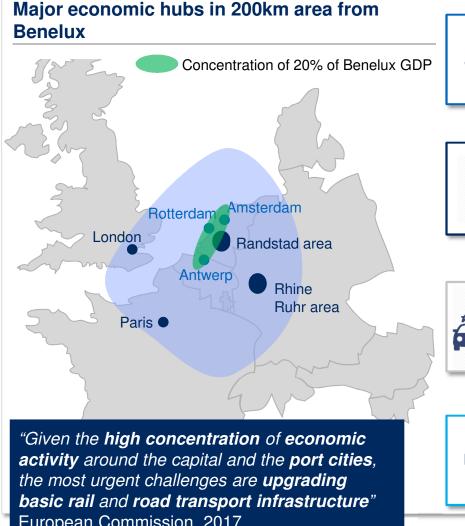
"Necessary transport infrastructure investments until 2020 could **create** up to **4 million jobs** in Europe"

- European Commission, 2017

GDP grows by a factor **2x faster** than traffic intensity - Federal highway administration, 2012

SOURCE: European Commission working document, Building infrastructure to strengthen Europe's economy (EC doc) Country Report Belgium 2017; VMT: FHWA,1995 (Table VM-201); FHWA, 2012; BTS, 2012 (Table 1-35); GDP: BEA, 2012 (Current-dollar and "real" GDP file as of February 29, 2012), Global Institute Report : *Bridging global infrastructure gaps,* 7 June 2016

In Benelux, infrastructure is key as there is a high concentration of GDP on the coast, that needs to be transported through high-density areas



The 2 busiest ports of Europe are in Benelux (Rotterdam and Antwerp)



About 20% of Benelux GDP is concentrated in Antwerp, Rotterdam and **Amsterdam** area¹



Transport density of Benelux is 1.7 times higher than Germany and 3.9 times higher than France²

European Commission, 2017

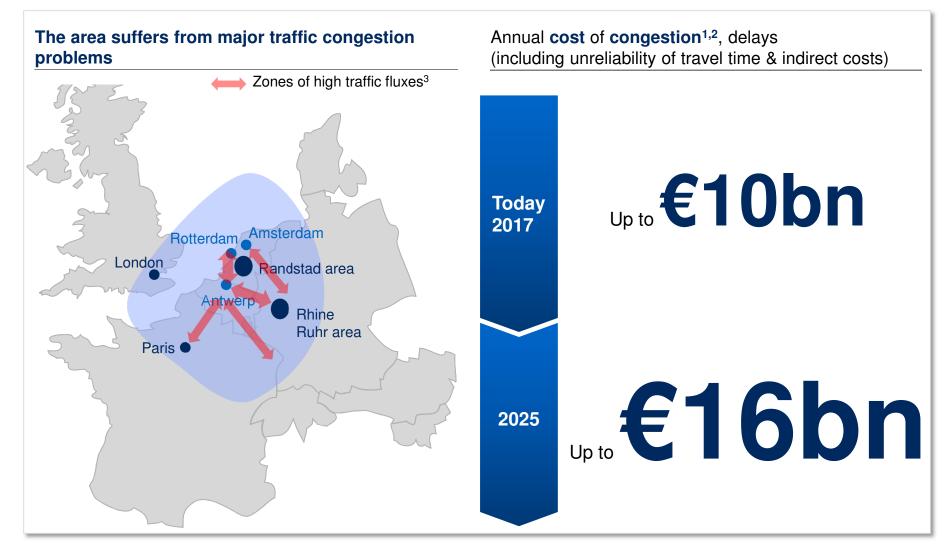


Added value of companies in the transport and storage sector 1.4 times higher than European average

8

1 Direct and indirect GDP generated by Antwerp (65bn\$), Rotterdam (130bn\$) and Amsterdam (47bn\$) ;data from Federaan Planbureau, Port of Rotterdam. PWC 2 Traffic density measured as the number of people transported*kilometers/country area and tons of transported goods*kilometers/country area over a year, source: SOURCE: External Costs of Transport in Europe (CE Delft, 2008): Eurostat, 2016 Benelux report; freight transport, OECD, Federaal Planbureau, Port of Rotterdam Facts & Figures (website), "Global city GDP rankings 2008-2025". Pricewaterhouse Coopers

In Benelux, congestion is already causing inefficiencies, resulting in high costs supported by all three countries



1 Incl costs from the unreliability of travel time, fallback costs, indirect costs 2 Based on computation for Netherlands, keeping the same proportion as the economic costs of traffic from INRIX report; max based on numbers from OESO calc, files would be 2% of GDP in BE 3 Based on main routes for transport in Europe from Stockcargo EU

SOURCE: European Commission working document, Country Report Belgium 2017, Hoofdrapport nationale markt en capacititsanalyse NMCA 2017; Transport & Mobility Leuven, 2015; EU Transport Scoreboard 2016; Europe's traffic Hotspots – Measuring the impact of congestion in Europe, INRIX Reasearch, 2016; OESO report 9

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Identified opportunities to tackle the issue of transportation infrastructure and support economic growth

2

Improve existing infrastructure

Strengthen, expand and better utilize existing infrastructure to strengthen north-south and east-west trade around the largest European ports





Only ~25% of respondents are satisfied with the availability of (crossborder) ground transport infrastructure in Benelux

Leverage new technologies

Creation of a **platform** to enable the **development** of **innovative solutions** (digital, advanced analytics)





About **75% of respondents** believe that latest technologies are **not used enough** in transport infrastructure Strengthen coordination and share best practices

3

Tighten the collaboration across the 3 countries to share best practices on innovative solutions and develop infrastructure together





About **70% of respondents** believe investments have not been coordinated across Benelux countries



Description

Strengthen, expand and better utilize existing infrastructure to strengthen north-south and east-west trade around the largest **European ports**



Expand the north-east connectivity to get the goods into mainland Europe through



Strengthening existing **pipeline** network between **Antwerp** and Rotterdam (e.g. potential connection of Antwerp to CO2 pipeline being developed in Rotterdam)



IIII Railway link 11 Antwerp Breda



Rejuvenate the BeNeLux train



Strengthen the east-west connectivity to get the goods from the seaside into mainland Europe through: Railway link Iron Rhine



Improve fluidity of traffic through **new technologies**, e.g., connected cars, dynamic traffic guidance systems

1 Computed based on length, duration and number of occurrences of traffic jams, multiplied by the value of time, see INRIX report SOURCE: Europe's traffic Hotspots - Measuring the impact of congestion in Europe, INRIX Reasearch, 2016



Description

Public entities to create the legal and regulatory framework, and provide all 'public' data to create a platform on which different data sources can be connected to enable the development of innovative solutions, e.g.



Improve cross border traffic fluidity



Enable cross modal flow optimization



Reduce empty trucks trips from ~20 to 10%



Enable unified cross-border tolling that also differentiates depending on time of day and user type

3 Strengthen coordination and share best practices

Description

Tighten the collaboration across the three BeNeLux countries to share best practices on innovative solutions / projects and develop key solutions / infrastructure together, e.g.



Setup true **cross-border** collaboration through projects that are eligible for EIB/TEN-T **funding** and develop 5 (PPP) cross-border projects in the next 5 years (e.g, MaaS, rail connections)



Procure new technologies together to benefit from scale synergies (e.g. smart traffic lights)



Create **parallel consortia** in other BeNeLux countries, such as the programs 'Beter Benutten', 'Talking Traffic'; consortia to develop commercially viable solutions to be used in other countries



eCMR: enhance **cooperation** in the fields of logistics and **innovation**, facilitate through **pilot projects** the use of **digital freight documents** and other paperless freight document

1 Cost amounts to 181 million € for the Netherlands, was scaled to Benelux using tons of goods transported * km for Benelux countries vs Netherlands alone (source: External Costs of Transport in Europe , CE Delft 2008) SOURCE: eCMR, BBR Report

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What do you think?



Discuss recommendations developed by BBR infrastructure group

Endorse next steps suggested by BBR infrastructure group