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DB SCHENKER Consulting

Logistics and system effects

Mini-symposium EMS2

Schenker Consulting | Viktor Åkesson | Gothenburg | 2020-01-22

Agenda

1 “Logistics” and “System effects”

2 Swedish road map for HCT road

3 Transporters’ interest and involvement

4 Multimodal challenges and needs

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”Logistics and system effects” is one of the work packages within the HCT-program in Sweden

Infrastructure (Swedish Transport Administration)

Legal framework (Swedish Transport Agency)

Traffic safety (Safer)

Performance Based Standards (VTI)

International collaboration (CLOSER)

HCT-program (CLOSER)

“The program aims to create the prerequisites for the introduction of HCT on a designated part of the Swedish road network by describing and developing permissions and issues, developing needs, possible solutions and test and demonstrate these”

Follow-up (Royal Institute of Technology)

Access control and compliance (Lund University)

Logistics and system effects (Schenker Consulting)

Type vehicles (Volvo/Scania)

Demonstrations (Skogforsk)

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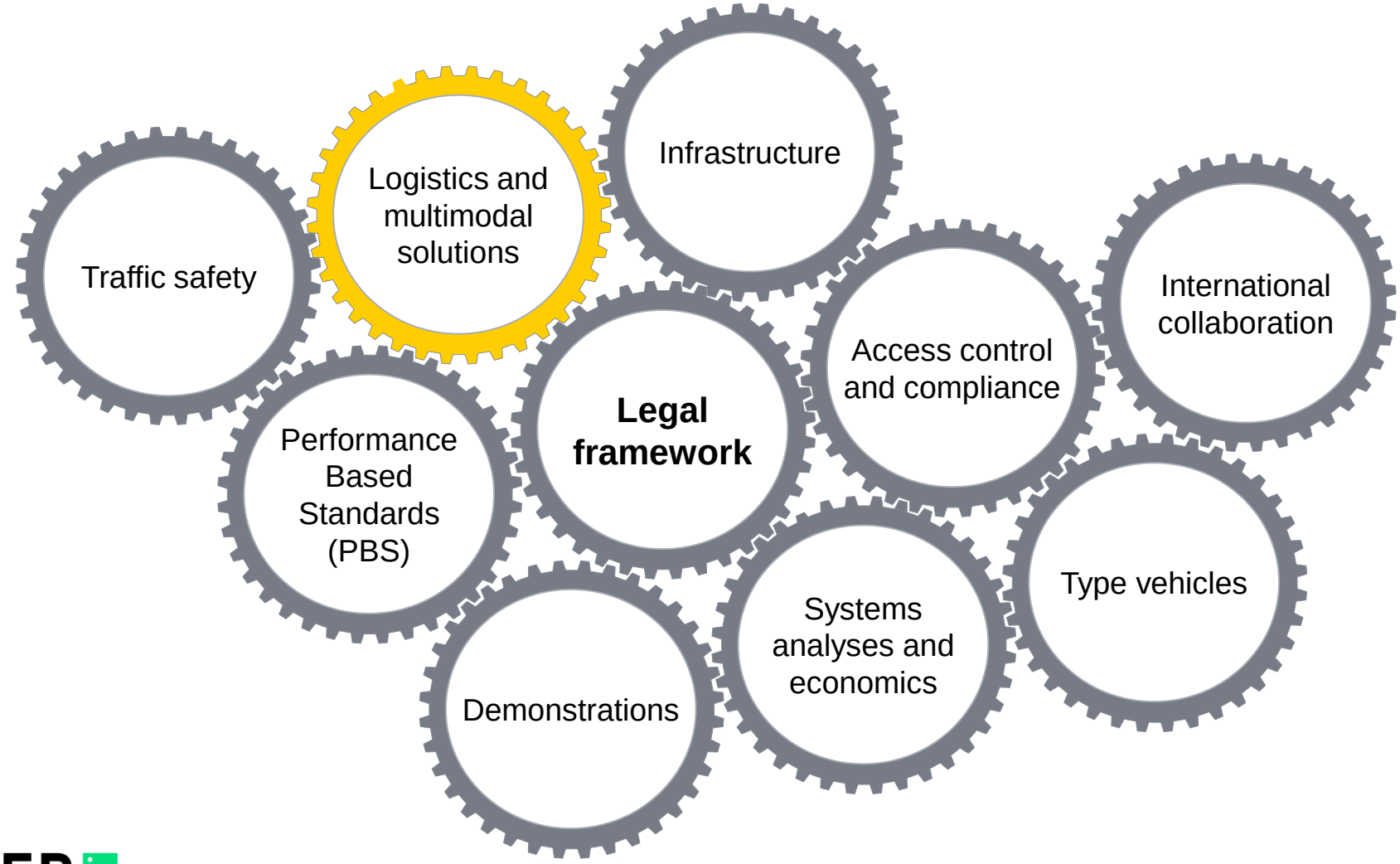
Traffic safety
Logistics and multimodal solutions
Infrastructure
International collaboration
Access control and compliance
Performance Based Standards (PBS)
Legal framework
Type vehicles
Systems analyses and economics
Demonstrations

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The goal for year 2030 is that 80% of the transport work on road is performed by HCT-vehicles (year 2020: 5% and year 2025: 45%) and that the energy consumption is 10% lower per tonne kilometre than for road transports year 2018.

2030

BK1 and the most important first/last miles allow 74 ton

Legal and institutional framework for all HCT concepts

Taxes and incentives shall promote the transition to HCT

The most important stretches for transports of loading units allow 34,5 meter and a few 90 tons

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Milestones for Logistics and multimodal solutions

Year 2020:

- More demonstrations with longer vehicles and multimodal concepts, e.g. combined sequential combi and parallell combi where actors share risks with other types of contracts than are common today
- Commodity- and line of business specific demonstration projects have been initiated

Year 2025:

- Cross-border combi transports involving HCT within the Nordic countries are tested
- Logistics service providers and commodity owners have adjusted their terminal- and warehouse structures and transport planning to HCT, especially for carriages with two or more trailers
- Horizontal cooperations have been established between several commodity owners, logistics service providers and operators to ensure high and even fill rate
- Offer on transport in corridor where the goods are distributed in real-time on transport modes with free capacity in order to optimize the system. Requires a corridor logistics service provider – amodal.

Year 2030:

- Most carriages with two trailers have one trailer or dolly with an electric engine and battery for hybrid operation
- Some of these motorized trailers can autonomously move themselves on the terminal area and automatically dock to the terminal or the truck
- A smaller number of fully autonomous HCT-vehicles are trafficing dedicated roads
- A smaller number of HCT-vehicles are trafficing electric roads

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DHL and **DB Schenker** are prominent in the field

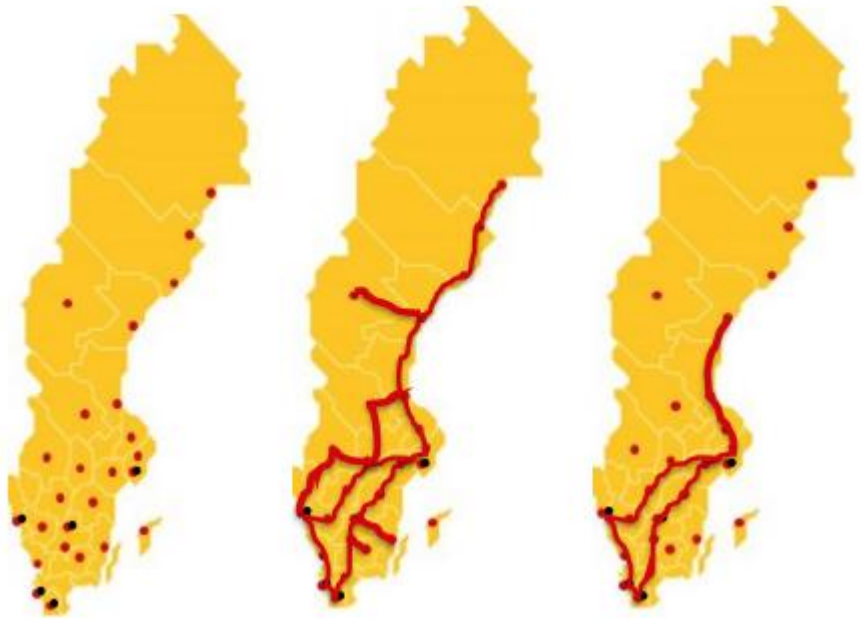
- Tests at DB Schenker have showcased numerous benefits

	Tests DB Schenker	Government
Socio-economic benefits	✓	✓
Lower fuel consumption – reduced CO_2e emissions	✓	✓
Fewer trucks on the roads – help with driver shortages	✓	
Fewer fronts on the roads – increased road safety	✓	✓
Happy drivers	✓	
Low impact on terminal processes	✓	

DHL and DB Schenker are prominent in the field

- Study at DHL showed that longer vehicles are not beneficial everywhere

Three scenarios



A B C

Result

	A	B	C
Cost reduction DHL	0	+8%	-5%
CO_2-emissions	0	-3%	-7%
Socio-economic costs	0	-15%	-8%

HCT is not profitable on all stretches
– a matter of balancing

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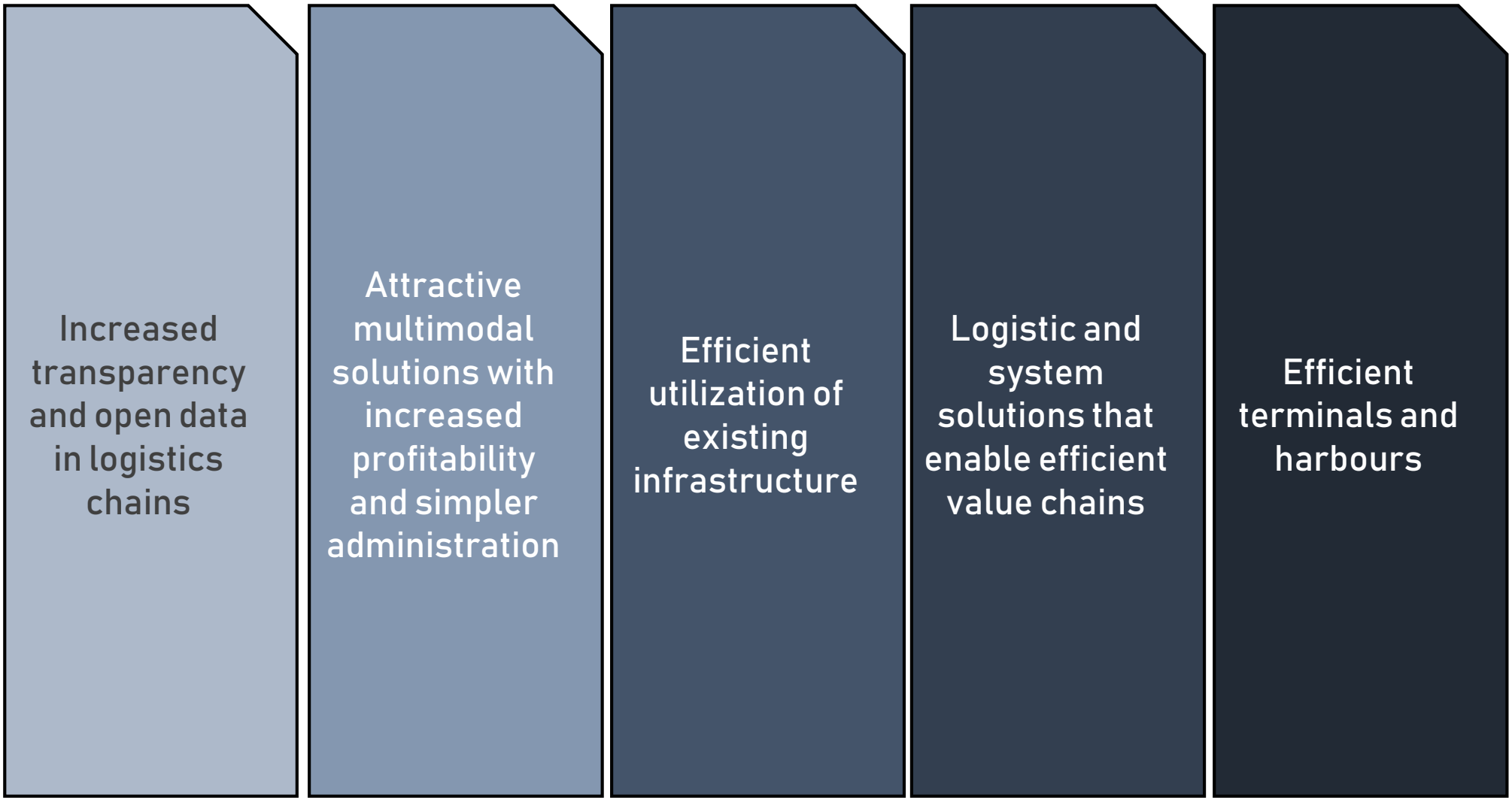
How can longer vehicles increase the attractiveness for more railway and maritime?



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We need to focus our research and efforts on particularly these five objects

Needs

Work for a simpler and more transparent application process for test / trial activities with HCT

More knowledge and research on possible business and collaboration models

Create increased transparency and opportunities to share information between actors in a multimodal chain for increased planning (dynamic decision-making) and as support for profit/cost sharing between actors

Incentives for increased transfer to multimodal solutions

New logistics solutions with support for the introduction of HCT longer vehicles

THANK YOU FOR THE ATTENTION!

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