



Goodhubs 500; on our way to hyperconnected city logistics

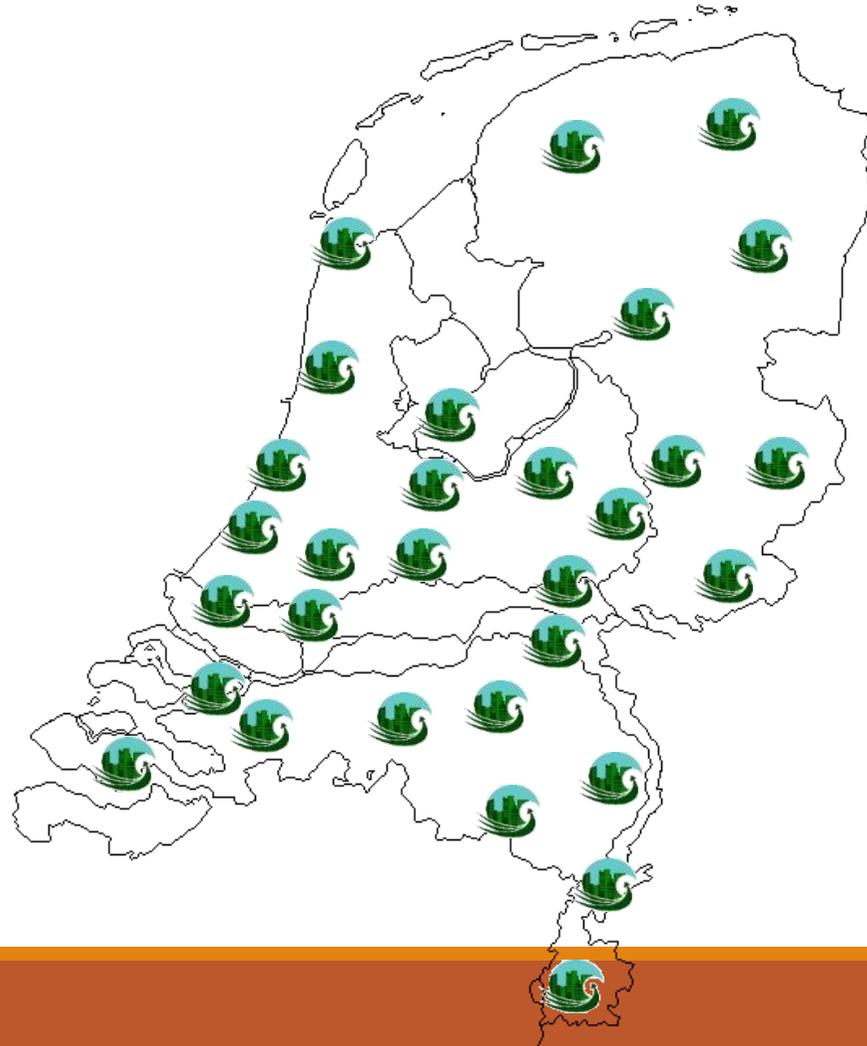
HURDLES AND CHANCES

Content

- Short introduction on Goederenhubs NL and GoodHubs 500
- Core concepts of HCL; where do we stand and what are hurdles
- Are we on the right track?



Goederenhubs NL: open urban hubs



Alkmaar, Almere, Amersfoort

Amsterdam, Arnhem, Bergen op Zoom

Breda, Den Haag, Deventer

Dordrecht, Eindhoven, Enschede

Goeree Overflakkee, Gouda, Groningen

Haarlem, 's-Hertogenbosch, Hilversum

Leeuwarden, Leiden, Maastricht

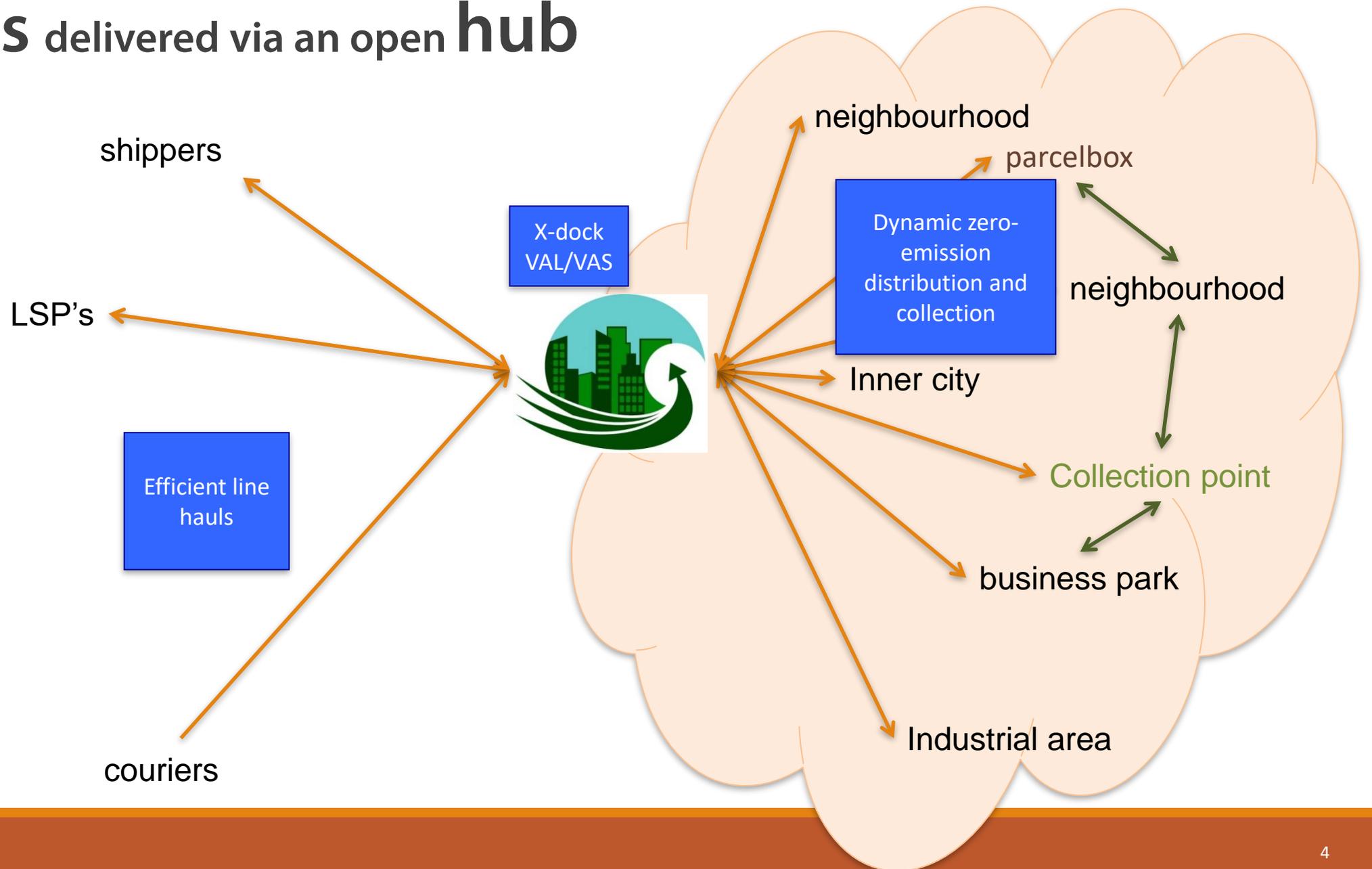
Middelburg, Nijmegen, Roermond

Rotterdam, Tilburg, Utrecht

Venlo, Zoetermeer, Zwolle



Goods delivered via an open hub



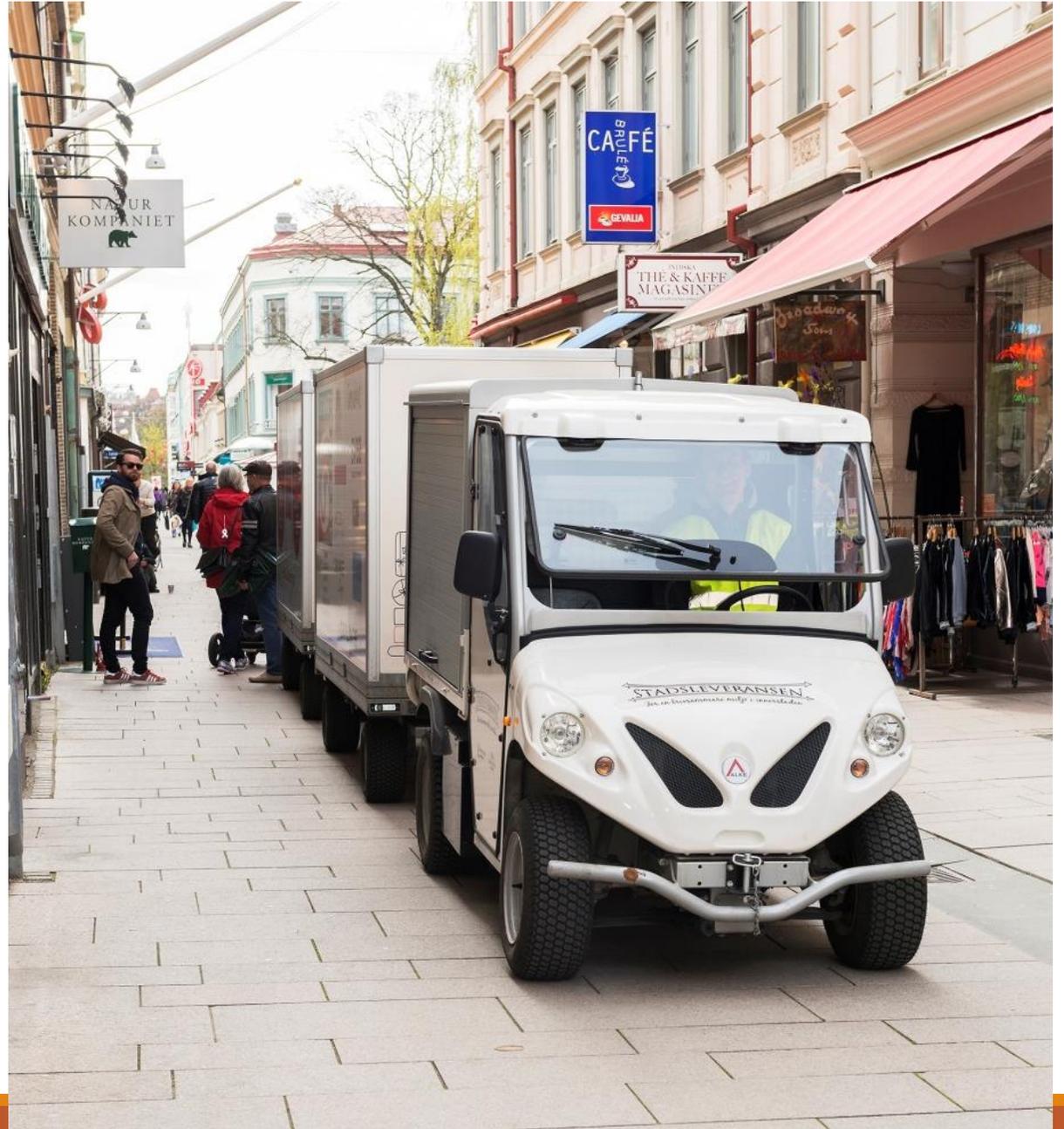
The Goodhubs 500 cooperation

- 500 cities with local open citylogistic bundling initiatives
- are grouping together to grow into a new logistic ecosystem
- by working with the same protocol
- GoodHubs 500 can contract European shippers
- and make hyperconnected city logistics come true
- You want to try?

**Cooperation in Europe provides
next steps in bringing PI to life**

We challenge companies:

“Open up your hub”



Core concepts of HCL*

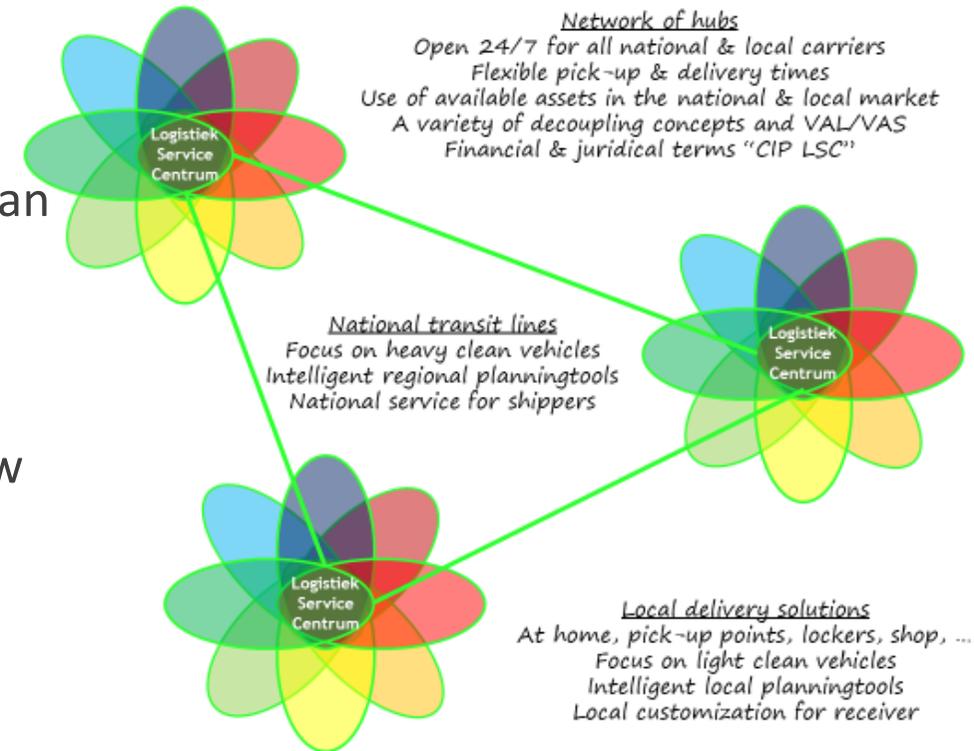
WHERE DO WE STAND AND WHAT ARE HURDLES?

* = T.G. CRAINIC AND B. MONTREUIL, PHYSICAL INTERNET ENABLED HYPERCONNECTED CITY LOGISTICS

Interconnected cities as nodes of European Log Web

Chance/status quo: GoodHubs 500 can connect 500 European cities to be part of the European logistics web

Hurdle: To find the launching European shipper to show how hyperconnected city logistics works in real life



Interconnect cities by systems standardization

Chance/status quo: GoodHubs 500 has developed standardized services, opening hours, contracts, demands on ZE fleet, demands on logistic infrastructure, harmonized labels, 1 IT interface for 500 cities

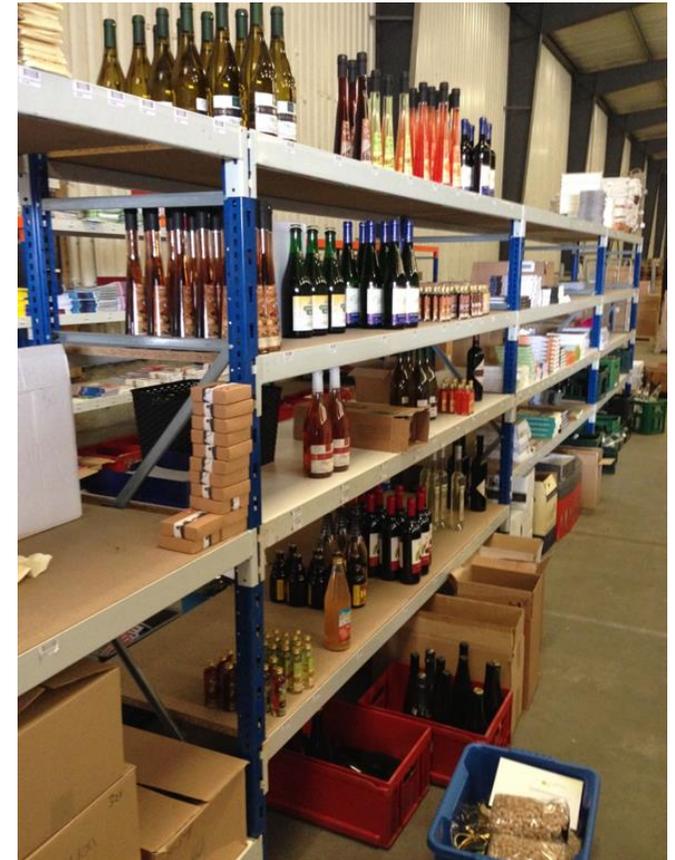
Hurdle: To balance the need for uniform EU city logistic tariffs with the differences in prizes of the services locally. Who is going to set the standards and how are providers being paid?



Interconnect the multi-faceted activities of CL

Chance/status quo: not only cross docking and distribution, but interconnecting the whole of the city logistics system: value added services and logistics, supply, storage

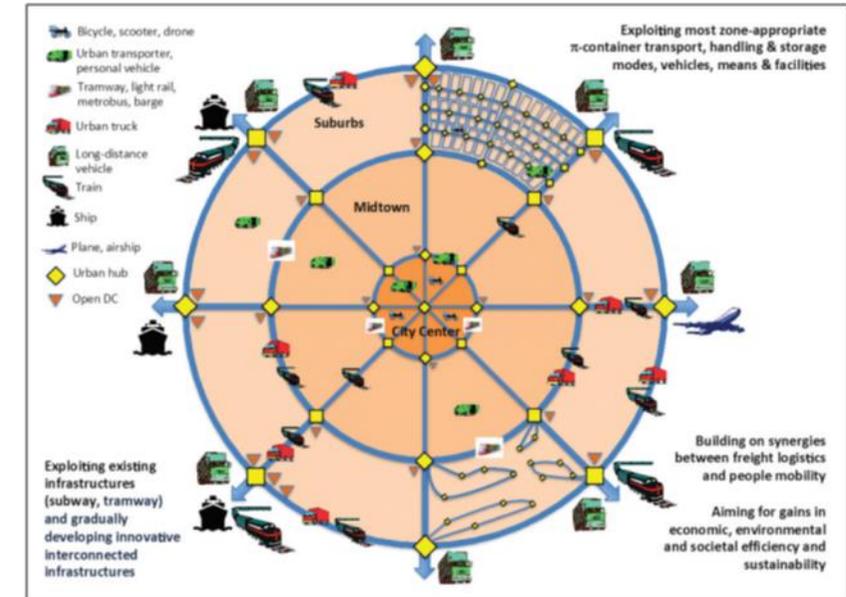
Hurdle: we as city hubs can be open, but how do we open up companies that act in the same city logistics network. How do we change their logistics behavior and share data, space in warehouses, space in trucks and vans?



Interconnect CL networks within a city web architecture

Chance/status quo: most of the GoodHubs use single or two tiers logistics system (hub at the edge, micro hub in inner city) and distribute by road transport

Hurdle: find a financial sustainable way to connect more nodes, service the whole city, act multimodal. And how to involve the local government in creating the new logistics web



Interconnect the multiplicity of urban logistic centers

Chance/status quo: GoodHubs run urban consolidation centers. They are open from their first day on

Hurdle/challenge: why should public and private partners open up their facilities for urban logistics. What's in it for them?



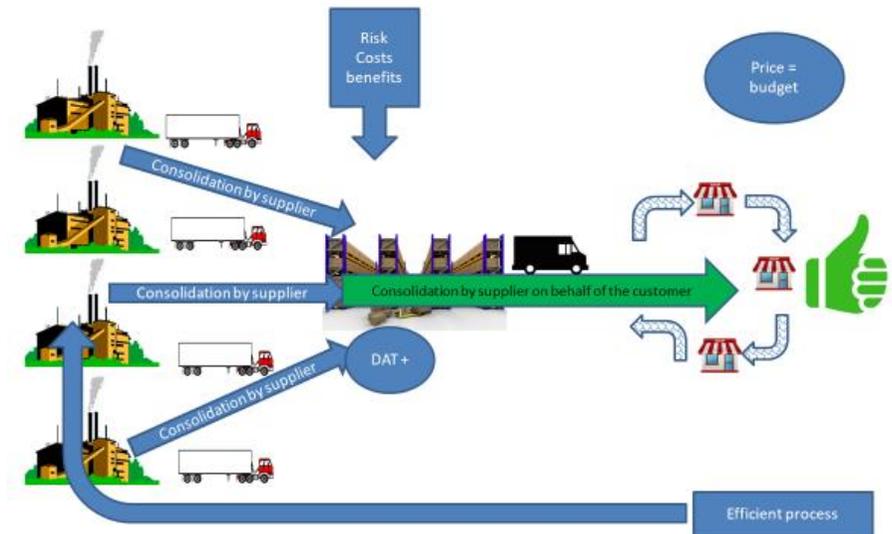
Interconnect CL stakeholders into an open system

Chance/status quo on private side: GoodHubs acts as an open system in its self and created the DAT+ commercial term for balancing the costs and benefits per leg in the supply chain;

On public side: The Green Deal Zero Emission city logistics (NL) forces to local governments to act

Hurdle/challenge: how to trickier stakeholders to contribute to the whole system.

New Incoterm DAT+ : delivered at terminal+



Interconnect goods through modular logistics containers

Chance/status quo: the use of crates and rollcages



Hurdle/challenge: all kind of different sizes of goods. No PI container can move those odd and ugly goods in an efficient way



Interconnect people mobility and freight in the city

Chance/status quo: a demonstration project on cargo hitchhiking was quite a success

Hurdle: it is illegal to carry freight in public transport in The Netherlands. So we did not continue the project. First we have to change the law.



Interconnect City Logistics with urban planning

Chance/status quo: the need for logistic space in the city is huge, but logistic space does not have a high return on investment. And space is scarce

Hurdle/challenge: to create the common vision and focus or stakeholders to plan and build the ideal hyperconnected city logistics like Crainic and Montrieul illustrated.



Are we on the right track?

Physical internet is build to make logistics more efficient and sustainable by using the metaphor of the internet.

But: the internet has it's downsides, and so has the physical internet, e.g:

Why should PI optimize the logistics of companies that do not act legal, ethical or social sustainable?

Why should PI optimize the travel of goods from far away whereas the goods are also available close by?

In other words: how do we prevent PI to support unsustainable behavior that goes against the SDG's?



To conclude

We do have all the techniques to create hyperconnected city logistics

We do need more knowledge on how to change (logistic) behavior

And we need directors who manage the standards and protocols

It's peoples work!



Thank you

For listening

For asking questions

For rethinking the PI concept and still keep on building

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