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Why it will be more than challenging to make transport sustainable and why the city is the right proving ground to ignite the climate change in transport.

Transport stands for approximately 12% of global greenhouse emissions. The transport emissions are not expected to lower in the coming years as the growth of transport is still too much coupled with economic growth. So far, we didn't succeed to break this relationship and realize an accelerated reduction of transport emissions. Basically, there are three ways to reduce the transport emissions: greening, modal shift and avoidance.

In the many Green Deals that are now solemnly closed, the focus is mainly on greening the transport in urbanized areas. Low, even zero emission zones are increasingly being established in cities. Many cities are engaging to ban vehicles with classic fossil fuel in the coming years. The timelines have been set and appear to be very ambitious.

Logistics players are faced with this and are forced to join this massive change operation. In cities, many last mile operators are already shifting to cargo bikes and started with electric vans. This modal shift has only an effect on the reduction of emissions, but not on the reduction of the transport moves in the city. Moreover, a rapid electrification is not be expected as it comes at a much higher price of the electric van as compared to its fuel driven alternative. It is known that last mile operators have very thin margins. Hence, their investment power to absorb the higher electrification cost is almost inexistant. Moreover, nor the final consumer nor the last mile operator's client has demonstrated a willingness to pay a sustainability markup for emission-free deliveries so far.

Instead of solely focusing on greening transport, we should maybe first look at transport avoidance. We should be able to do more with less in transport, knowing that approximately one truck on four is driving empty and the average fill rate is hardly 57% according to the World Economic Forum. In concrete terms: make more deliveries with less vehicle kilometers. Very often, today cities are submerged by many, even very small last-mile operators crossing the city to deliver their few spread customers. The result is often seen on the street with vans from different operators who are driving around in the city and sometimes literally queueing in a row on the same street. Clearly, the livability of the city and the last mile operator is at stake. This could be smarter.

It's easier said than done, because this requires volume to be exchanged, combined and consolidated among competitors in a setting where revenue for the operator is based on driven miles. To realize that, appropriate consolidation infrastructure should be made accessible for every operator. Today, each operator installs its own consolidation center at the periphery of the city to first decouple and subsequently consolidate all incoming and outgoing volumes. As decoupling implies an interruption of the flow of goods, its additional handling cost should be offset by consolidation gains resulting from the bundling of large volumes. Hardly no single last mile operator is able to collect the required volumes for a break-even on its own. That's the reason why open-access urban consolidation points should attract many operators to result in beneficial consolidation effects.

[FIG.1]

[FIG.1] An electric van of the CULT community being loaded at the urban consolidation center at the periphery of the city (Source: TRI-VIZOR)

Only the involvement of the city authority will guarantee the open access. To determine the appropriate location(s) and the governance rules, the city authority should engage in a continued and close dialogue with the major stakeholders of the city, including the last-mile operators, organizations with deliveries and point of sales. If one is able to connect on one hand all the stakeholders and on the other hand the various initiatives to improve the livability of the city, both the efficiency and sustainability of the logistics operations can be envisaged at a time. Some innovative examples could be the roll out of an open microhub network with lockers to support shop owners in shopping districts or the breakdown of the city in logistics districts and the appointment of a preferred last-mile operator per district through public tendering.

The stakeholders' alignment and collaboration that can be realized in the city on a small scale, should serve as the proving ground and the best guarantee for sustainable transport within a city center. Ultimately this multi-stakeholder approach might be upscaled for the entire transport sector to adopt new revenue models mandatory to accelerate its sustainability.