Sustainable Logistics and the Policy Conundrum

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The public sector has a legitimate interest in the freight and logistics sector due to its key role in maintaining the efficiency of the economy and creating and supporting employment. However, this interest is not just because of the benefits, but also because of the net externalities that are generated by road freight movements in the form of road traffic congestion, carbon emissions that contribute to global warming and emissions of pollutants that reduce air quality and harm human health.

As energy is increasingly generated from renewable sources and industrial activity becomes less carbon intensive, the increasing importance of the transport sector as a high emissions contributor to the climate moves further up the list of issues to be addressed by governments. As a result, policy makers are increasingly required to take an interest in freight transport and explore interventions that reduce negative impacts and promote the use of more sustainable modes.

As well as addressing the climate challenge, a key objective of transport policy makers focuses on improving transport access and connectivity for citizens whilst at the same time (ideally) delivering economic growth and business efficiency. This is especially true in the freight sector and key to this, is developing a greater understanding of business productivity. Freight policies should focus on delivering opportunities that will allow increases in businesses efficiency whilst reducing the negative externalities of freight to the wider community. This is especially important in an urban environment where addressing congestion and environmental concerns together with the general improvements of public spaces are an increasing important imperative for decision makers at all levels of government.

Arguably, the relatively ad hoc poorly thought out and implemented measures often used by governments do not improve the efficiency of the urban freight network. They often have the opposite effect, adversely impacting freight deliveries and collections through

increased costs (time and money), therefore reducing business efficiency. To date most policy discussion and interventions have been focused on intermodal switching of large volume long distance freight movements, primarily from road to rail. In the urban context however, there is a strong argument that policy has simply focused on addressing 'problems', rather than taking a far more proactive approach to urban freight issues.

The Edinburgh Napier University & SEStran research team through the SURFLOGH project have been examining the provision of urban sustainable logistics such as sustainable last/first mile solutions, micro consolidation depots, locker systems and mobile consolidation options served by cycle logistics and electric vans.

Smaller volume and shorter distance freight movements driven by the macro online/internet shopping trend are an increasingly important component of the logistics mix, an importance that has only been heightened by the current Covid-19 pandemic and resultant lockdown. If the main transport mechanism for the 'urban' logistics movements remains the 'white van' powered by an internal combustion engine (ICE) then as the volume of business grows the negative externalities (congestion & emissions) will also grow.
In order to build a more sustainable transport system an understanding of when and how businesses and consumers can be encouraged to switch to more sustainable modes of freight transport is extremely important to transport policy development. This not only relates to focusing on the last mile but also presents opportunities to examine the potential to produce modal shift from earlier stages in the supply chain, and thereby utilising the first mile as the only mile.

The next stage of the Edinburgh pilot therefore is to focus on combining the ideas of micro consolidation centres, locker systems, cargo bike logistics and locally/community focused networks, hence linking up speciality local businesses with a wider community focused clientele, with the ability to offer a range of local produce delivered in one package. The work continues…