Transport Service

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Briefing Note

Economy & Place Policy Development Committee

The Future of Road Transport

Introduction

1. Road transport is about to undergo the most comprehensive change, probably since the move from horse-draw transport to the internal combustion engine. This will fundamentally affect the way transport operates in cities, the way people access transport and the role of the Council as operator of the city's transport network.

Discussion

2. This note and presentation aims to provide an overview of the technologies that are emerging in transport and affect they, and wider changes in society will have on local transport use and provision. Obviously, non of this can be predicted with any certainty and it is to some extent the author's personal opinion, but this represents current national perspective on the likely changes we will see in the coming ten years;

    - The rise of computing and the reduction in the size and cost of computing power will allow far more 'things' to have some degree of intelligence, this is the so-called 'internet of things'

    - As we move into 4G and soon 5G communications, there will be huge rise in 'always on' devices that constantly provide and receive data from the network

    - The rise in high powered computing and the reduction in the costs of data storage (especially cloud storage) will lead to massively more intelligence and data sharing about our daily lives and the services we use and decisions we make

3. This will all lead to huge changes in our use of technology and the effect this has on our lives. Transport is likely to be an early adopter of this change. This is already being seen in the market disrupting influence of companies like Uber, the development of autonomous vehicles and the rise of 'mobility as a service' initiatives;

- Starting with the Millennial generation, the coming generations will be much less fixed on the idea of car ownership and the ideas of personal travel that have prevailed for the last century. The almost ubiquity of the smart phone, and the growing belief that all daily services can be met via it will fundamentally change peoples behaviour and the model of vehicle ownership are used to.

4. This raises huge challenges for the City, in terms of how we develop and plan the road network, and how we manage the development of the City more generally;

    - The needs of vehicles will change as autonomy becomes more commonplace. The shape and design of our roads and their physical appearance will need of radically change to accommodate the needs of new types of vehicle

    - The assumptions we make about private car ownership, their use and the way in which they are accommodated in new developments will need to be examined.

    - There could be a move to more individualised 'demand responsive' public transport provision as mobility as a service solutions become prevalent. This will affect traditional public transport provision and this will need to evolve to meet changing demands and expectations

    - The rise of electric vehicles now appears to be certain to occur. This will have impacts on how vehicles are used and parked and the ways in which power is distributed around the City

    - As driver aids, and then autonomy becomes more common in vehicles, so opportunities for those not currently able to drive, through age or disability will arise. There is a potential for such technologies to reduce social isolation and raise levels of independence in some sections of society. Conversely, this could increase the use of personal transport and add additional pressures in urban areas such as York.

5. As we move towards new technology. It is likely that the regulatory framework that governs use and management of the road transport network will change. However, the basis on the Council's powers in the highways and transport acts is not likely to change in the short or medium term. The Council will have to understand the technological and societal changes that are coming and how it reacts to them.