

MOBILITY AS A SERVICE





Intelligent transport solutions?

H3	ACT	PLAN	TRACK	PARK	OPP	THR	NEU
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The Department for Transport's [Future of Transport Programme](#) is exploring how mobility as a service (MaaS) might transform transportation. MaaS is defined as 'the integration of various modes of transport along with information and payment functions into a single mobility service'. MaaS envisions an urban resident choosing from all available transportation modes on a single platform, like an app. She can then use that app to book individual trips, or can purchase a subscription that gives her a basket of mobility services. Ultimately, MaaS is seen as an intelligent solution; the traveller simply tells the app where she wants to get to, by when, and the app makes all the choices for her. Routing and choice of mode can be updated in real time to accommodate delays or missed connections.

MaaS is prominent in current policy thinking around the world - but it has found limited traction among urban residents, even in favourable markets. In Antwerp, Belgium, for example, local law requires mobility operators to integrate with at least two MaaS platforms, but in the surrounding region of Flanders just 3% of transit tickets purchased on mobile phones are bought through a MaaS app.

A [2020 survey by Ipsos Mori on behalf of DfT](#) found that MaaS needs to offer cost efficiency and convenience to users. In addition, consumers will need confidence that MaaS delivers

-  Value for money of travel, bringing modes together in one platform
-  Accurate real-time information regarding cost-efficient travel options, alternative routes to use during travel disruption and sustainable travel options to support travel decision-making and potential modal shift.
-  Data security for personal information
-  Accessibility needs and preferences.

AUTONOMOUS VEHICLES

Delivering promise

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The Pod is an autonomous truck made by Swedish firm [Einride](#) and already being used in trials for running between warehouses, hauling logs from forests and delivering goods for Lidl. Pods use the same technology of cameras, radar, lidar (the optical equivalent of radar) and satellite-positioning as other contenders in the field, but they differ in the way they deal with the regulatory concerns which prevent fully autonomous vehicles from being let loose on public roads.

The first difference of Einride is to avoid the public roads in question. Instead, the Pod's first version operates on designated routes within the confines of enclosed, private areas such as ports and industrial parks. Here, Pods act like bigger and smarter versions of the delivery robots which already run around some factories—though by having the ability to carry 16 tonnes and with room on board for 15 industrial pallets-worth of goods they are indeed quite a lot bigger.

The second difference is Einride's approach to the word "autonomy". Some makers aim to keep humans out of the decision-making loop entirely. Others arrange things so that a normally passive human occupant can take the controls if necessary. Pods represent a third way. They always have a human in the loop to keep an eye on what is happening and to take over the driving for a difficult manoeuvre or if something goes wrong. But this human operates remotely. Having the driver sitting back at HQ rather than in the vehicle itself is a departure from convention, but not a huge one. Aerial drones are usually controlled in this way.

The radical step is that Einride believes you do not need a remote driver for each Pod. Einride already uses one person to control two Pods, but plans eventually for a single driver to look after ten. How regulators will take to that for use on open roads remains to be seen. Much will depend on how often the remote driver has to intervene. If not very often then monitoring simultaneous Pods might be considered acceptable.

FURTHER READING

