Mobility as a Service: code of practice

RoSPA's response to Department for Transport's consultation

May 2022

Response to Department for Transport's consultation: Mobility as a Service: code of practice

Introduction

This is the response of The Royal Society for the Prevention of Accidents (RoSPA) to the Department for Transport's consultation on Mobility as a Service code of practice. It has been produced following consultation with RoSPA's National Road Safety Committee. We have no objection to our response being reproduced or attributed.

The consultation seeks views on the content that could be included in a mobility as a service (MaaS) code of practice. The Department are proposing that a MaaS code of practice could be used to:

- provide guidelines for new entrants to the market and incumbent MaaS platform providers to aid navigation around the relevant legislation
- support new businesses in the MaaS industry to make decisions in line with government goals
- encourage MaaS platform providers to include carbon data for each route offered, helping consumers choose lower carbon journeys
- provide best practice examples of MaaS solutions
- assist local authorities in developing or considering MaaS platforms to operate in their areas, developing local solutions that build on nationally agreed standards.

Response to Department for Transport's consultation: Mobility as a Service: code of practice

Personal details

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Are you responding as an individual or on behalf of an organisation?

On behalf of an organisation.

Organisation details

Name of organisation.

The Royal Society for the Prevention of Accidents (RoSPA).

Your area of work is?

Third sector (charity).

MaaS Code of practice

In your view how can we ensure the code of practice is relevant for:
- **commercial MaaS platform providers?**
- **local authorities?**
- **sub-national transport bodies?**
- **Transport operators?**
- **Transport users?**

RoSPA response

RoSPA is not a commercial platform provider, local authority, sub-national transport body or transport operator, and it is therefore difficult to comment on what is needed to make the code of practice relevant to these groups.

For us, central government needs to set a regulatory operating framework to ensure security of personal data and safe operating procedures. The code of practice could go some way to communicating this information with the relevant groups.

Information about competition, the format data needs to be recorded in and the need to encourage active and sustainable travel modes is likely to be particularly important for commercial platform providers. For local authorities, sub-national transport bodies and transport operators, we would expect that practical advice on implementation is likely to be relevant, particularly in areas where there may be less demand, such as rural areas. Examples of best practice and case studies are likely to be beneficial for these organisations and groups. To align with the Government target that all short journeys will be walked or cycled in towns and cities by 2030, advice on how sustainable and active travel can be encouraged will also be vital.

Local Authorities have a key role to play in ensuring the correct infrastructure is in place; for example safe drop off and collection points, land use planning and local service providers if a tendered or subsidised service. Therefore, information about the regulation of this and best practice will be required.

RoSPA would not necessarily expect that transport users would regularly refer to the code of practice, unless they have concerns about how the service is being operated. Therefore, from the user perspective, it is likely to be important to include information about what actions consumers can take in the event that things go wrong. Those who have accessibility requirements may also need to refer to the code to know what to expect on their journey, and the measures that can be put in place to support people with additional transport needs. An accessibility section with this information would therefore be required. It could also be beneficial to have a summary of the document that is more readable for members of the public. This should also be provided in alternative formats e.g. Braille or audio format.

In your view, what issues do you feel would not be appropriate to include in a code of practice for MaaS?

RoSPA response

RoSPA believes that the proposals of what could be covered within the Code of Practice are sensible.

Data

MaaS is a digital, data driven business model that relies on the ability to access timely and accurate data relating to:

- Service timetables
- Routes
- Fares
- Ticketing

To help users choose lower carbon journeys, we think the inclusion of carbon data for each route offered should be available for MaaS platform providers to access.

For MaaS to work, data sharing arrangements need to be in place between transport operators and MaaS platform providers plus the data shared must be of sufficient quality to provide the user with the most accurate travel information.

We want to understand what role, if any, a code of practice can play in supporting data issues in order to increase MaaS use.

What, in your view, if any, should be the role of a code of practice in addressing data:

- **Issues overall to facilitate MaaS?**
- **Sharing arrangements to facilitate MaaS?**
- **Quality to facilitate MaaS?**

RoSPA response

RoSPA is not in a position to comment on all of the above, although we agree that the information included in the Code of Practice should make clear that data shared should be of sufficient quality to provide the most accurate travel information to the user for the service to be successful. Information on any regulation to be adhered to should also be included.

Do you believe there are benefits to data standardisation for MaaS?

RoSPA response

Yes.

What benefits?

RoSPA response

As data currently is not required to adhere to any common standards when shared with MaaS platform providers, currently, it can be difficult and costly to reuse or process the data in different applications and to compare it. RoSPA believes that by adopting a common standard, this difficulty could be overcome. It would also ensure that data is of a high quality and standard.

As the paper states, data standardisation is also a valuable tool in understanding the shift towards more sustainable modes of transport. Passenger numbers and the uptake of new modes of transport can help us to understand if users are switching from private car use to more sustainable modes of travel such as public transport and active travel, from one sustainable mode to another, or creating entirely new journeys.

Current issues, without the presence of a common standard for data include incomplete and inconsistent data, such as the lack of available real-time data to help consumers plan their journeys more effectively, which leads to a poor experience for the consumer. Having data that adheres to a specific standard and that can be shared will allow the user to be able to make more informed choices about travel.

In your view what, if any, challenges to accessing standardised data exist now or will exist in the future?

RoSPA response

RoSPA is not in a position to comment.

How, in your view, should data sharing arrangements between transport operators and MaaS platform providers be managed?

RoSPA response

RoSPA is not in a position to comment.

In your view are there any challenges to sharing data?

RoSPA response

RoSPA is not in a position to comment.

Do you believe there are there other data issues, beyond data sharing and data standardisation, that our code of practice could address?

RoSPA response

RoSPA is not in a position to comment.

Multimodal ticketing

Alongside the ability to plan a journey using multiple modes of transport, MaaS can offer the ability for customers to purchase a ticket for their journey through the MaaS application, using either:

- pay-as-you-go

- subscription models.

For this to work, however, passengers need to be able to receive their tickets in a convenient, digital format, and MaaS providers need to be able to integrate with operator retailing systems.

We want to know how a code of practice can help MaaS platform providers, local authorities and transport operators overcome:

- the challenges to offering ticketing

- integrating with multiple modes

In your view, are there any barriers to creating multimodal ticketing schemes?

RoSPA response

Yes.

What do you believe are the barriers to creating multimodal ticketing schemes?

RoSPA response

Although RoSPA is not able to provide solutions to the challenges, we would expect that the key challenge will be operators of different types of transport aligning how tickets are issued to passengers to provide a smooth customer experience. It could be beneficial to set up a working group with MaaS platform providers and transport operators to discuss how these challenges can be overcome and to agree processes.

In your view what role, if any, can the code of practice play in supporting multimodal ticketing?

RoSPA response

RoSPA believes that the role of the code of practice will be to offer best practice guidance on how multimodal ticketing can be achieved. RoSPA would expect that this will draw on the experience of rail, where digital ticketing is well established.

Accessibility and inclusion

MaaS has the potential to make travel more accessible and inclusive by:

- offering journeys for everyone tailored to individual needs

- taking away the barriers experienced by disabled passengers

- simplifying journey planning

- making travel more:
  - integrated
  - safer
  - comfortable
  - cost efficient

However, multimodal journeys planned and paid for through a MaaS platform could present challenges for users if:

- they do not provide appropriate assistance for passengers transferring between modes

- when planning journeys they do not take into account passenger needs such as step-free access

- We want to understand the ways in which a code of practice can help provide guidelines on accessible and inclusive travel.

How, in your view, can MaaS platform providers ensure:
- **Their systems are accessible and inclusive to all users**
- **The journeys they provide are accessible and inclusive to all users?**

RoSPA response

RoSPA agrees with the Government's ambition, as set out in the 2018 Inclusive Transport Strategy, that disabled people should have the same access to transport as everyone else, so they can travel confidently, easily, and without extra cost. This applies to both the use of the platform and in terms of accessibility and making a journey.

Mobility as a Service business models must promote inclusivity to all sectors of society. If implemented effectively, new mobility services could widen the affordability, availability and accessibility of traditional and emerging types of transport. It could also improve social inclusion, such as reducing loneliness through encouraging the use of public transport and ride sharing. Information on how to book journeys will need to be available in accessible formats (not just digital) for those with additional transport needs, and as not to deter less confident users from booking journeys.

The platform for booking itself must be accessible to all. For example, if MaaS is delivered exclusively through a digital interface (e.g. smartphone apps, web-based service) it will prevent some people from accessing the service[1]. MaaS's reliance on registration and digital mobile applications, for example, might further exclude social groups experiencing difficulties in handling new technologies. There is evidence that older age groups are not comfortable with using applications on smartphones, especially taxi-hailing apps, and have anxieties about online transactions[2]. Furthermore there remains a 'capability' question for older age groups in using app-based platforms[3] casting doubt that older age groups would be adopters of MaaS.

Mobility as a Service platforms must also allow users to specify that they are disabled or have any additional transport needs. For example, some users will require wheelchair accessible vehicles or an assistance dog on their journey. Allowing users to communicate this when booking their journey will help to ensure that assistance is available and that the user is able to board an appropriate vehicle. Support will be needed at each stage of the journey.

In terms of making the journey, operators must ensure that appropriate assistance is available for passengers transferring between modes. Where passengers, including disabled passengers, need assistance to use a particular mode or to transfer between modes within a MaaS journey (such as the Passenger Assistance service for disabled people wishing to take a train), this should be factored in to the MaaS offer.

The service must also ensure older and disabled people can get into and out of the vehicle safely and with reasonable ease and comfort. Accessible information (not just in a digital format) should be provided. Support at points of departure and arrival are also important. It may be daunting for some first-time users of MaaS to know how to organise their journey and pay for a ticket, and so travel training will be especially important. Independent travel training will also be important for those with additional needs to ensure that they can complete their journey safely.

As is the case currently, drivers and staff at transport hubs should be responsible for assisting older or disabled passengers to board and alight the vehicle in relative ease and comfort. Staff at transport hubs will be able to provide information on how to book journeys and convey any information about any changes that may need to be made to the user's journey in the event of a delay or cancellation.

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[1] The Institution of Engineering and Technology. Could Mobility as a Service solve our transport problems? https://www.theiet.org/media/3666/mobility-as-a-service-report.pdf

[2] Shirgaokar cited in Pangbourne et al. Questioning mobility as a service: Unanticipated implications for society and governance. Transportation Research Part A: Policy and Practice. Volume 131, January 2020, Pages 35-49.

[3] Fitt cited in Pangbourne et al. Questioning mobility as a service: Unanticipated implications for society and governance. Transportation Research Part A: Policy and Practice. Volume 131, January 2020, Pages 35-49.

How, if at all, do you think a code of practice can help to ensure that MaaS is inclusive for those who may struggle with access (including examples such as those without a smart phone or access to a bank account)?

RoSPA response

As the paper states, the Code of Practice should make clear the current regulations that operators should adhere to, and where necessary, provide expectations of requirements where these are not clear (e.g., moving between different modes). The code of practice could also provide guidance on accessibility features that should be included in MaaS platforms.

In your view are there other ways our code of practice can help provide guidelines on accessibility?

RoSPA response

RoSPA has no further comment.

Consumer protection

We want to ensure consumers receive the same level of service and protection when undertaking a multimodal journey purchased through a MaaS platform as when undertaking a single mode journey.

We want to understand if a code of practice could help to:

1. Clarify roles and responsibilities within existing legislation.
2. Offer good practice solutions for tackling the interface between modes when it comes to consumer protection.

Do you think the code of practice should play a role in addressing consumer protection needs for multimodal journeys?

RoSPA response

Yes.

What role?

RoSPA response

RoSPA agrees that the code of practice will need to play a role in addressing consumer protection needs for multimodal journeys, but is not in a position to comment on what that role should be. Information must be provided on how consumers can address issues should there be a problem.

Algorithmic bias

MaaS platforms use algorithms to determine which journey options are displayed to the user, and in which order they are presented.

Algorithmic bias occurs when these algorithms produce results that are intentionally skewed:

1. Away from consumer or public policy interests.
2. Towards the commercial objectives of one or more providers.

MaaS algorithms can also produce insights that lead to unfair discrimination.

To help meet decarbonisation objectives, we propose the code of practice could encourage MaaS providers to promote:

- active travel such as walking and cycling

- sustainable modes of transport through the inclusion of carbon data for each route offered

We want to understand if a code of practice could encourage MaaS providers to avoid:

1. Algorithmic bias.
2. Unfair discrimination.

How, if at all, in your view can MaaS platforms encourage:

- **sustainable travel options**
- **active travel options (for example walking and cycling)?**

RoSPA response

New mobility business models will influence consumer travel choices. With intelligent design and incentive structures, MaaS could reduce car ownership and move people towards active and sustainable modes. In turn, this has the potential to reduce carbon and air pollutant emissions and reduce congestion through more efficient use of road space.

However, not all Mobility as a Service providers consistently offer active travel. Where this is the case, a user may choose to take a taxi rather than cycle 5km, as keeping a separate bike-share scheme membership is

inconvenient. A key drawback to the absence of active travel in existing packaged MaaS products is the consequent lack of evidence to support the claims that bundling access to transport via MaaS packages improves transport sustainability[4].

One measure to influence travel choices and encourage people to use more sustainable modes could be to provide users with contextual information about their travel choices. This could include factors such as the carbon impact of different travel options, alongside the estimated journey time and cost of their journey.

Some reports suggest that encouraging active transport within MaaS (e.g. through rewards/incentives) will lead to public health improvements[5].

Nudging and heuristics can have an influence on people's behaviour and perception of having different options available to them. For example, the default settings on many route planners often favour the car, which results in this being the first and most prominent result displayed to people. Instead, by showing sustainable modes first, or by defaulting to a more sustainable mode of travel, it can increase the salience of these options[6].

Gamification and nudging are elements of motivational techniques to be used with rewards as an incentive for recognised good travel behaviour. Further means of stimulating sustainable travel behaviour include bonus schemes, where travellers are rewarded for using shared or eco-friendly modes. For example, in Madrid, users of the MaaS system collect more points for walking, cycling and using public transport than for others mobility options. Rewards must be considered carefully, as different groups may respond to different types of rewards such as free or discounted travel or partner discounts.

A pilot of the Ubigo MaaS scheme in Gothenburg involved 70 paying households under real conditions for six months. The arrangement was that each household paid their transport costs upfront, while earning a bonus for making sustainable choices. These kinds of measures could be used to encourage sustainable travel in the UK. The results of the evaluation showed a shift towards more sustainable transport modes, as private car use reduced by 50%. Walking decreased by 5%, although cycling increased by 35%[7].

The accessibility needs of the user must also be considered. For example, it may not be feasible for someone with mobility problems, for example, to use a bike share scheme or to be expected to make a journey on foot.

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[4] Pangbourne et al. Questioning mobility as a service: Unanticipated implications for society and governance. Transportation Research Part A: Policy and Practice. Volume 131, January 2020, Pages 35-49.

[5] The Institution of Engineering and Technology. Could Mobility as a Service solve our transport problems? https://www.theiet.org/media/3666/mobility-as-a-service-report.pdf

[6] I-MOVE cited in UITP. Mobility as a Service. https://www.uitp.org/sites/default/files/cck-focus-papers-files/Report_MaaS_final.pdf. April 2019.

[7] Bundesamt für Energi cited in UITP. Mobility as a Service. https://www.uitp.org/sites/default/files/cck-focus-papers-files/Report_MaaS_final.pdf. April 2019.

What, if any, role, do you think the code of practice should play in addressing algorithmic bias?

RoSPA response

The Code of Practice could provide information on how MaaS platform providers can encourage users to opt for sustainable modes of transport, providing examples of best practice as above.

RoSPA is not in a position to comment on competition bias. It may be that regulation needs to be considered to allow for fair competition.

Competition

The emergence of new monopolies for mobility services could pose a significant threat to realising the potential of MaaS. There are a range of competition issues that may arise including:

- public and private sector monopolies

- data sharing

- the integration of transport operators onto a MaaS platform

- the risk of organisations violating existing competition laws

We want to understand the role a code of practice can play in addressing competition issues that may arise in the MaaS market.

What, if any, role do you think the code of practice can play in addressing competition issues that may arise in the MaaS market?

RoSPA response

RoSPA is not in a position to comment. However, competition must be considered. The first developer will not necessarily be the best. If the first one or two operators flood the market, having less providers could prevent another competitor from entering the market. This is true even if the new providers are able to offer a better, safer or more innovative service.

Response to Department for Transport's consultation: Mobility as a Service: code of practice

Other MaaS issues

Are you aware of any good practice in relation to:

	Yes	No	Don't know
Data		X	
Multimodal ticketing		X	
Accessibility		X	
Inclusion		X	
Consumer protection		X	
Algorithmic bias		X	
Competition		X	

RoSPA response

Where we are aware of good practice, we have included examples in our earlier responses.

What, if any, other topics do you think should be addressed through the code of practice?

RoSPA response

RoSPA has no further suggestions.

What do you think we should be doing to monitor the effectiveness of the code of practice?

RoSPA response

RoSPA is not in a position to comment.

Are there any other ways you think we should support MaaS in the future?

RoSPA response

RoSPA has no further comment.

Any other comments?

RoSPA response

RoSPA has no further comments to make on the consultation process, other than to thank the Department for the opportunity to comment. We have no objection to our response being reproduced or attributed.