ITS ACTION PLAN

FRAMEWORK SERVICE CONTRACT TREN/G4/FV-2008/475/01

D2.3 – Questionnaire Results

Action B - EU-wide real-time traffic information services

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1. Public consultation

1.1. Context

In December 2013, the EC launched a public consultation titled “The provision of EU-wide real-time traffic information services under Directive 2010/40/EU (the "ITS Directive"), on Your Voice in Europe. Your Voice in Europe is the European Commission’s “single access point” to a wide variety of consultations, discussions and other tools, which enable citizens and stakeholders to play an active role in the European policy-making process.

The hyperlink to the consultation website was distributed by DG MOVE through existing mailing lists with identified stakeholder partners. The recipients were invited to distribute the link further. The consultation was also advertised on the website of DG MOVE and at a number of events to which DG MOVE representatives participated.

The objective of this consultation is to collect the opinions of stakeholders and interested parties including EU citizens and private and public organisations on the issues related to the provision of EU-wide real-time traffic information services. The replies submitted to this consultation will be taken into consideration for the development of the relevant specifications under Directive 2010/40/EU (the "ITS Directive").

1.2. Methodology and approach

The questionnaire prepared by DG MOVE contained 38 multiple choice questions, 25 open questions, 3 options to provide additional free text to multiple-choice questions, and the option to upload relevant documents.

The EC provided the data to the study team in an Excel file, with raw data per question. The study team has analysed the results of the public consultation with the goal to achieve maximum insight in the results within the limited time available for the analysis.

The methodology dealt with the weighting of the responses of different respondent groups, and representativeness of the responses, and how to take this into account into the analysis.

For the analysis, double entries were removed. Then all responses were split to the different ‘capacities’ (answer to question 1.3 of the questionnaire) and ‘type of organisations’ (question 1.6 and 1.17) of the

respondents. This provided better insight in the differences in opinions of the various stakeholder groups.

1.3. Reading Guide

This document presents the results of the online public survey and constitutes deliverable D2.3.

This chapter provides a description of the context of the consultation, an overview of the methodology and approach for the analysis, and details the profiles of the respondents.

Chapter 2 presents the results of the different questions. The analysis follows the structure of the questionnaire.

Chapter 3 outlines the main results of this public consultation.

Finally Annex A contains the hard copy of the questionnaire.

Acronyms used in the document are explained on page 41.

1.4. Respondents

In total 101 people and organisations completed the questionnaire.

The following three figures show the distribution of respondents per country, per capacity and per stakeholder group/organisation type. The latter category is used throughout the report when opinions or specific quotes are sought.

The responses came from a total of 25 countries, 22 of which are Member States of the European Union.

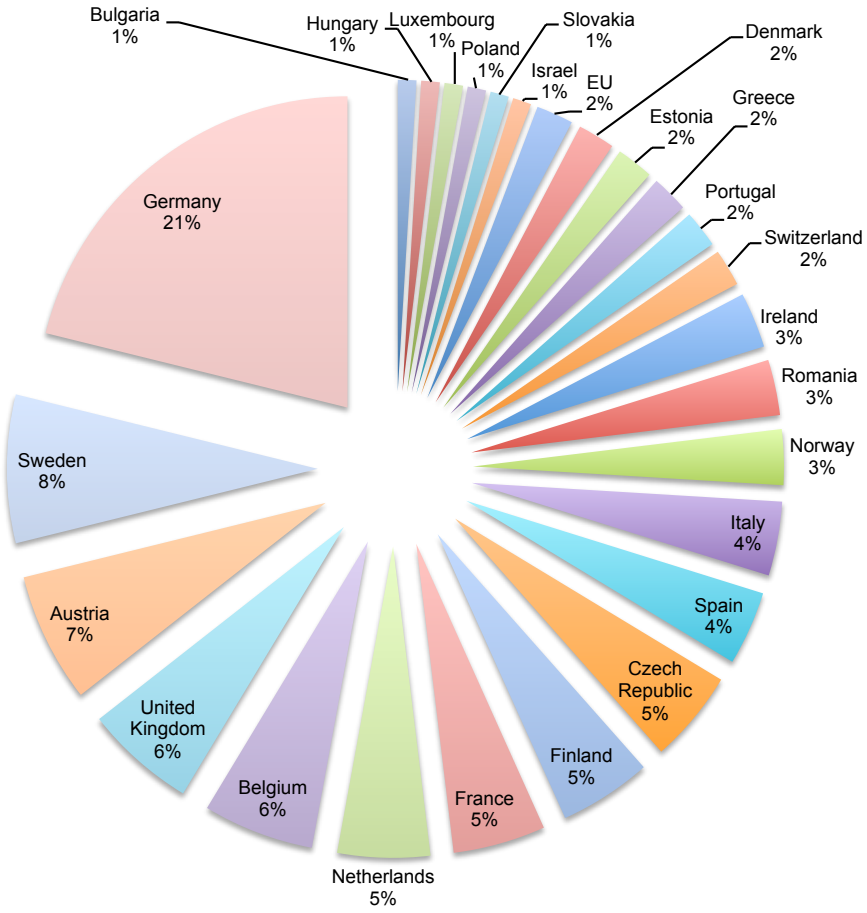

Figure 1: Origin of respondents

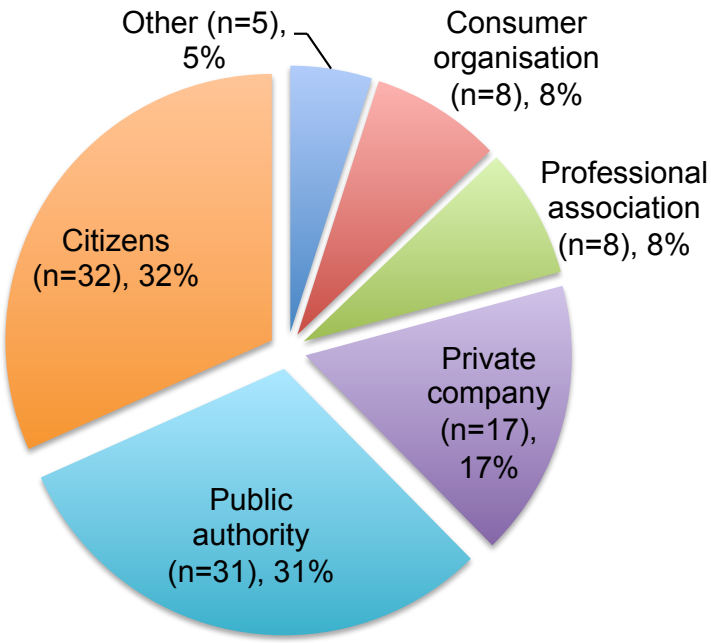

Figure 2: Roles of the respondents

Figure 3 shows the split between respondents answering the questionnaire in their own capacity and in their professional capacity. It should be noted that some of the stakeholder roles identified in the sample population should not be considered fully representative for the full population. E.g. based on the feedback in the free text responses, it is clear that 'citizens' in general are ITS professionals that speak for themselves.

The sample population provides a good mix of all stakeholders in the traffic information value chain, with 20 stakeholder groups (divided by organisation type) represented among the respondents to the consultation. It should be noted that the respondents were allowed to choose multiple categories.

Despite the fact that the sample is important and relatively balanced, it should be noted that the sample cannot be considered statistically representative.

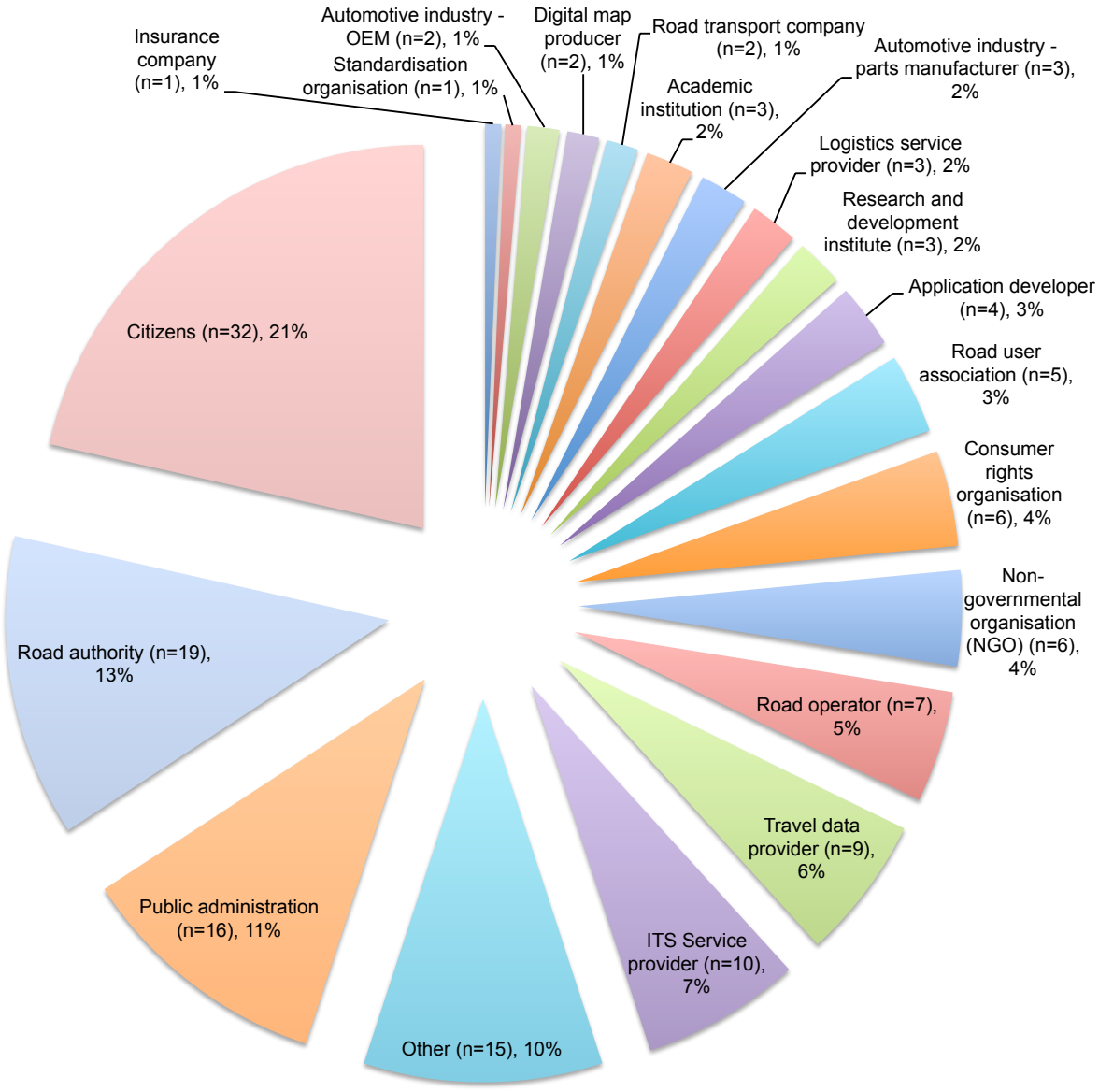

Figure 3: Types of organisations of the respondents

2. Analysis of the responses

The questionnaire in the survey was structured in four main parts: information about respondents; situation perceived by the citizens; scope, process and impacts of RTTI services; implementation of EU-wide RTTI services. The analysis follows the same structure. The information about respondents is found in the previous section.

2.1. Citizens' perception of current situation regarding the provision of RTTI services

The following sections summarizes and illustrate the main findings of the 19 questions of this section addressed to citizens only:

Regarding the current situation of the provision of RTTI services,

- Almost all citizens (97%) have access to RTTI services.
- Most often through Radio (75%), VMS (47%) and smartphone application (50%). Digital radio is only received by 6,25% of the respondents.
- The large majority (75%) has free access to RTTI, and 12,5% through a specific paid subscription.
- Routing advice (65%) and road works (59%) are the most easily accessed type of information, followed by speed limits (44%), expected delays (44%) and estimated travel times (47%). End of queue is available for only 19% of the respondents.
- End-users consider all kinds of RTTI very important, important or at least useful.

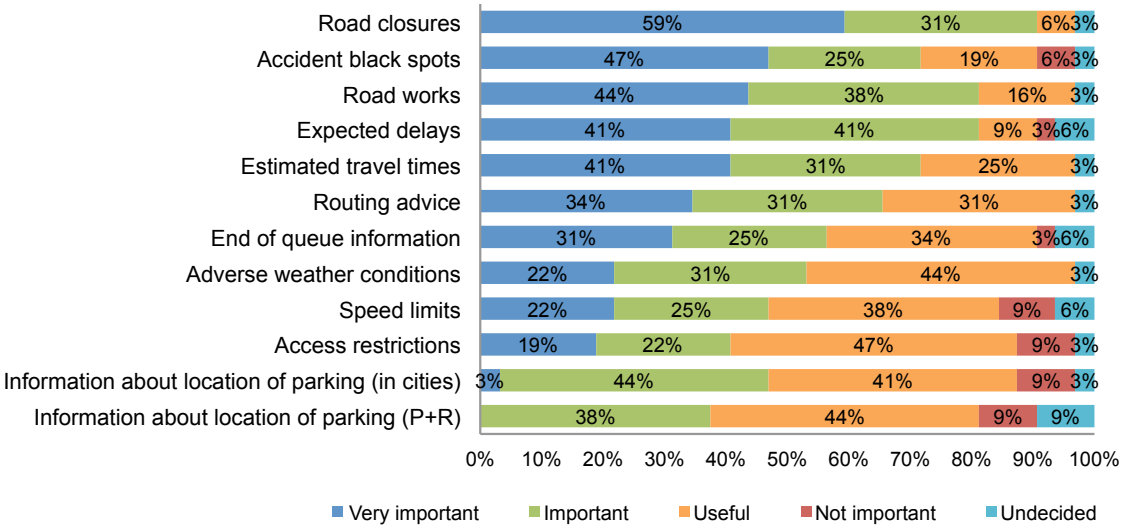

Figure 4: Importance of the different types of RTTI (n=32)

- Citizens have difficulties to estimate the reliability of information: for all types of information, 30% are undecided, 20% think RTTI is not reliable and 50% finds it reliable or very reliable.
- Most of the citizens (44%) are satisfied or partly satisfied (38%) with the geographical coverage of RTTI services. In general they ask for wider coverage on urban and inter-urban roads, not only motorways.
- The content of RTTI services is only satisfying for 31% of the citizens, and partly satisfying for 56% of the respondents. The comments of the citizens indicate that the content of RTTI should be more up-to-date and precise, in order to support the drivers with real alternative routing advices.

- While the different quality fields of RTTI services are in general satisfying for the citizens (previous statements), they clearly require this quality to be improved, in particular the reliability (for 81% of the citizens).

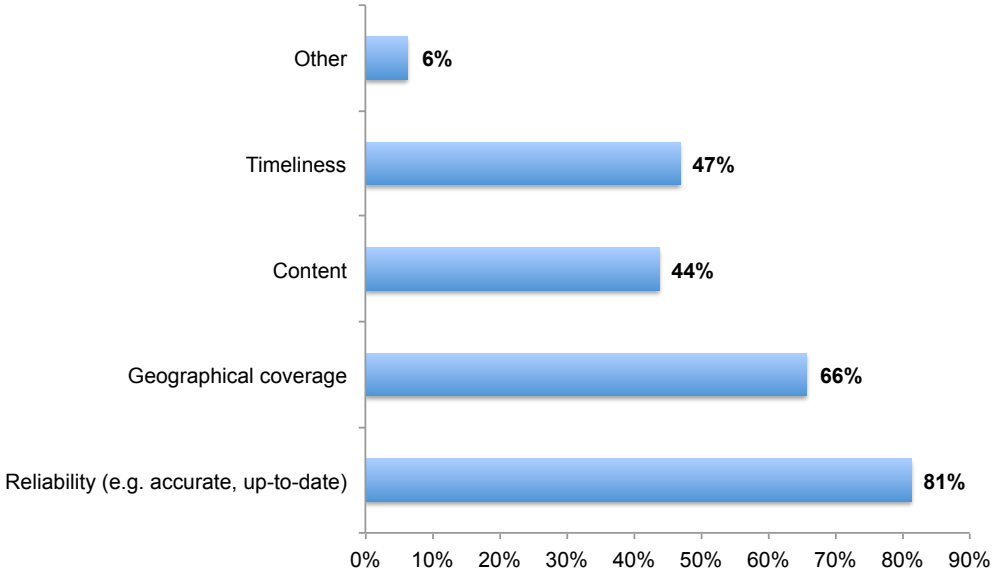

Figure 5: Fields of improvements of the quality of RTTI services (n=32)

- The large majority (81%) declares that RTTI is somehow affecting their own travel behaviour. 75% of them states that they might change route, 53% they might change departure times, and 34% they might change mode of transport.

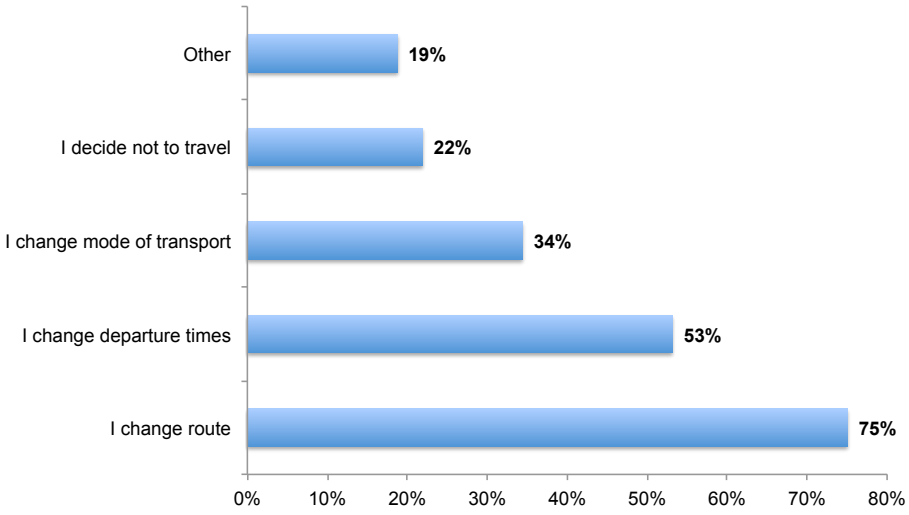

Figure 6: Behaviour's change based on RTTI services (=32)

2.2. Scope, process and Impact of the provisions

The following chapters summarize and illustrate the main findings of the 36 questions of the section scope, process and impact of the provisions.

2.2.1. SCOPE OF THE PROVISION OF RTTI SERVICES

- All types of stakeholders largely support the importance of ensuring the provision of EU-wide RTTI services.

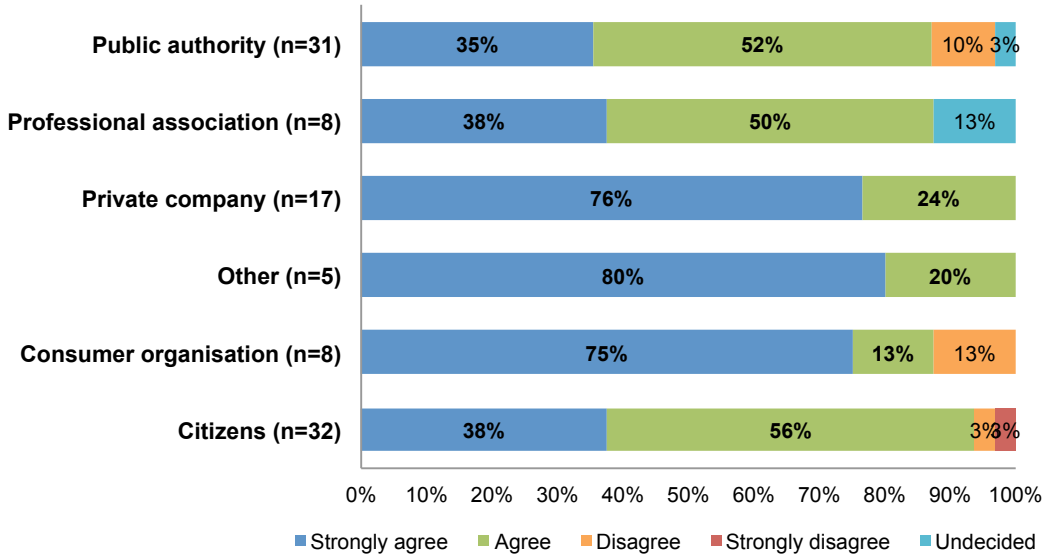

Figure 7: Ensuring the provision of EU-wide RTTI services is important

- The quality criteria for RTTI that are the best ranked are Time accuracy, Usefulness, Geographical accuracy and Timeliness.

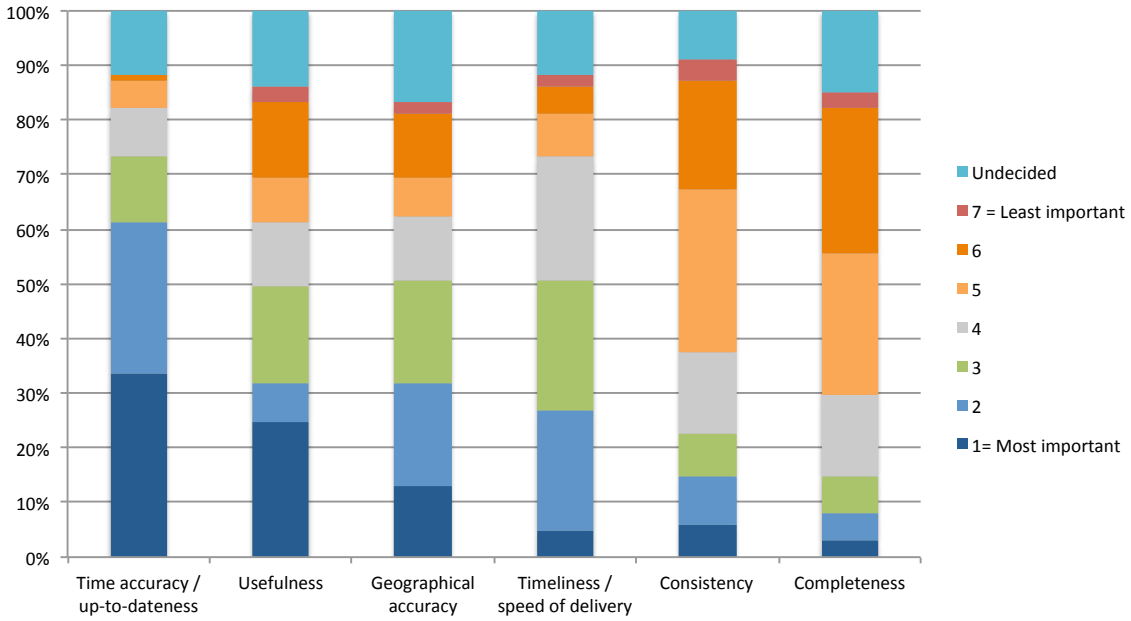

Figure 8: Comparative importance of quality criteria for RTTI

In addition stakeholders add several highly important quality criteria:

- Reliability
- Coverage
- General accuracy or error probability

- The road coverage for RTTI provision to end-users that are the most selected ones are along all motorways and major national roads across the EU, and within major European urban areas.

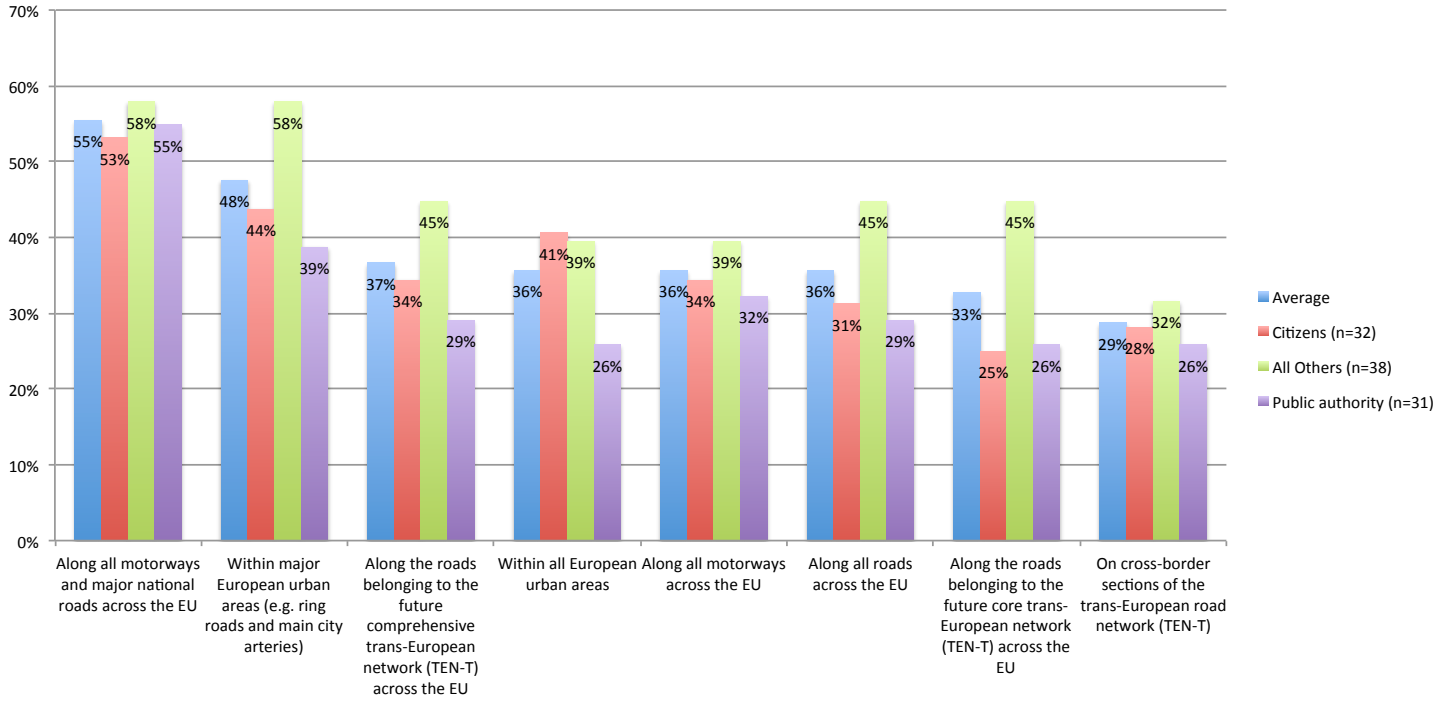

Figure 9: Road coverage for RTTI provision

2.2.2. FREQUENCY OF UPDATE OF RTTI DATA

The respondents were asked to estimate the current frequency of updates of RTTI static data, according to their information.

- For all types of data, half of the respondents on average didn't answer the question which suggests they have no idea. For better visual interpretation, the graphic displayed below excludes the answers "Undecided".
- For most types of data, private companies are less optimistic than public authorities on the frequency of updates, with the exception of accidents black spot.
- All stakeholders groups agreed for Short terms road works and Road closure updates.

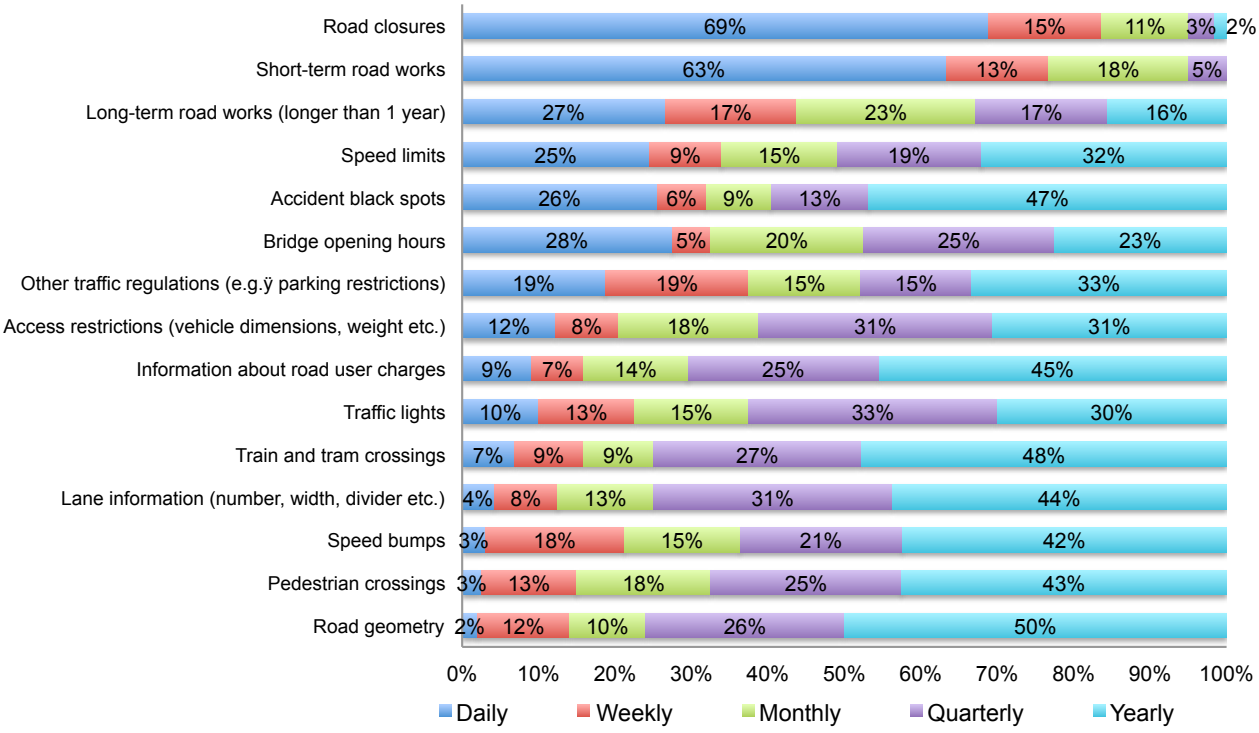

Figure 10: Estimation of frequency of updates per type of RTTI data

The respondents were then asked to specify the required frequency of updates of RTTI static data.

- There are between 11 and 25% of undecided, equally distributed amongst all stakeholders group. For better visual interpretation, the graphic displayed below excludes the answers “Undecided”. The rankings for each type of RTTI to the previous question is indicated with a #.
- For the first ranked type of data (i.e. road closures, short-term road works and long-term road works), all stakeholder groups agreed.
- For the other types of data (in particular other traffic regulations, traffic lights, all crossings, and speed bumps), private companies ask for more frequently updated data in comparison to public authorities. This is even truer for Accidents black spots.

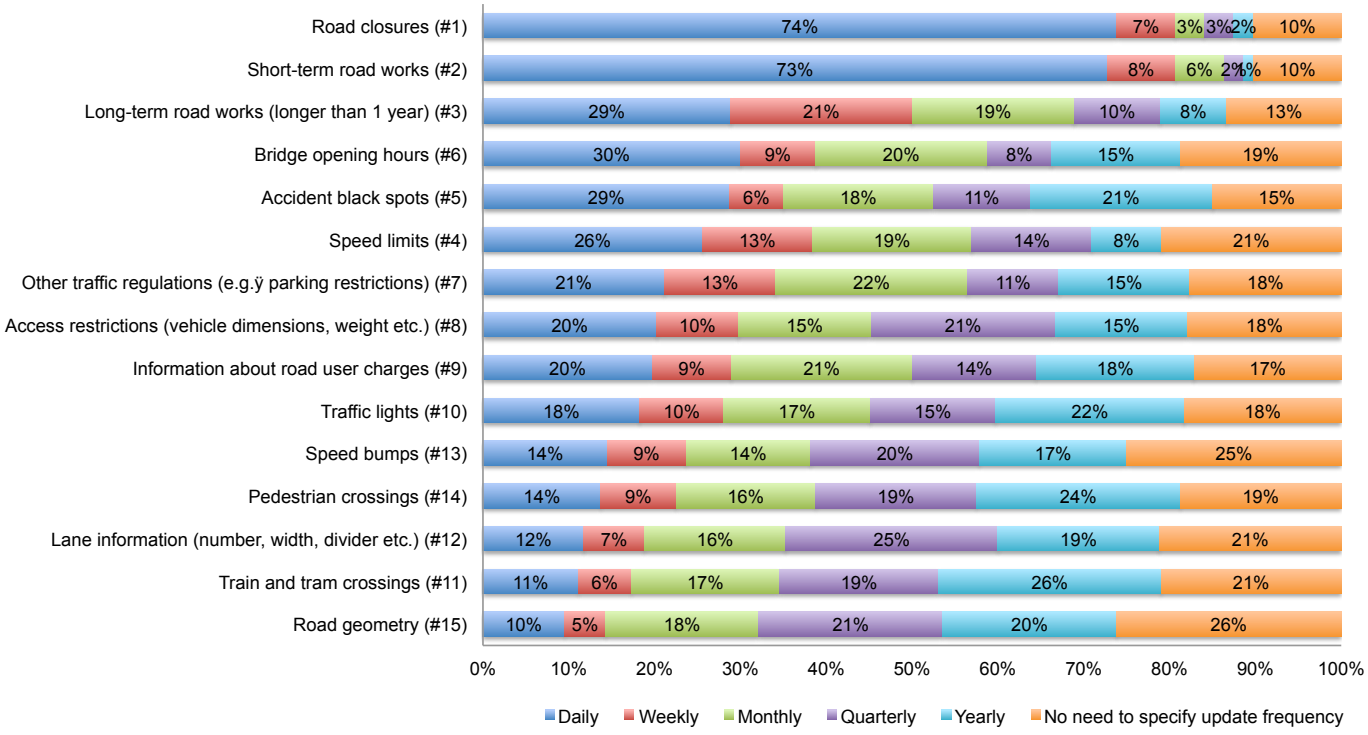

Figure 11: Specification of updates per types of RTTI static data

The next question asked the respondents whether the update frequency provided by digital map producers is appropriate for RTTI services.

- On average, one third of the respondents find it appropriate, one third find it not appropriate and one third are undecided.
- When looking at the distribution of the groups of stakeholders, this proportion differs amongst the main roles in the RTTI value chain. In addition, while 100% of the digital map producer find it appropriate, 100% of the road transport professionals find it inappropriate.

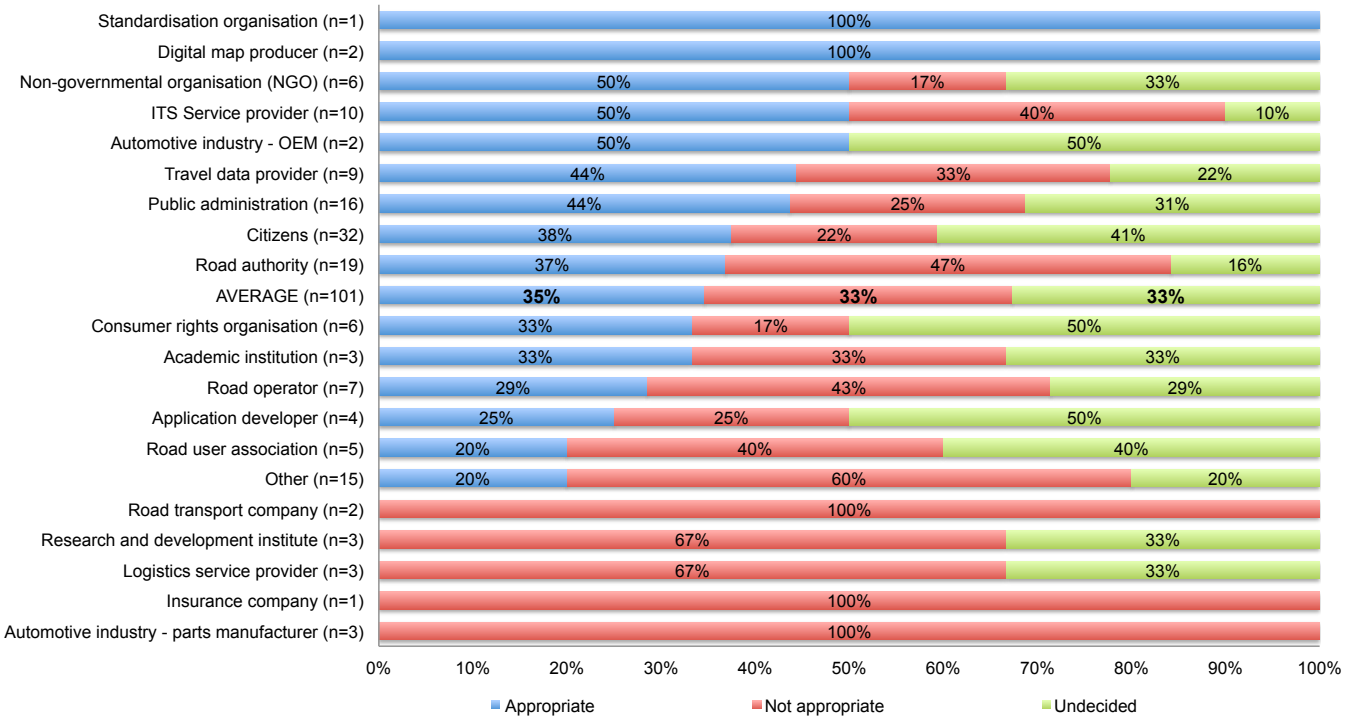

Figure 12: Update frequency of digital map for the purpose of RTTI services

- Some stakeholders add further remarks, such as:
  - *The update frequency depends on the purpose of the information" (Private company).*
  - *"The current problem is, that map providers need up to 1 year for processing data coming from public authorities. The required update frequency would be up to 5 minutes, especially for road closures, variable speed limits, or short-term road works that happen by accident and that are not planned." (R&D institute)*

2.2.3. SCOPE OF DATA TO BE MADE AVAILABLE

The respondents were asked about the importance of the availability of several types of data for the generation and the provision of RTTI services.

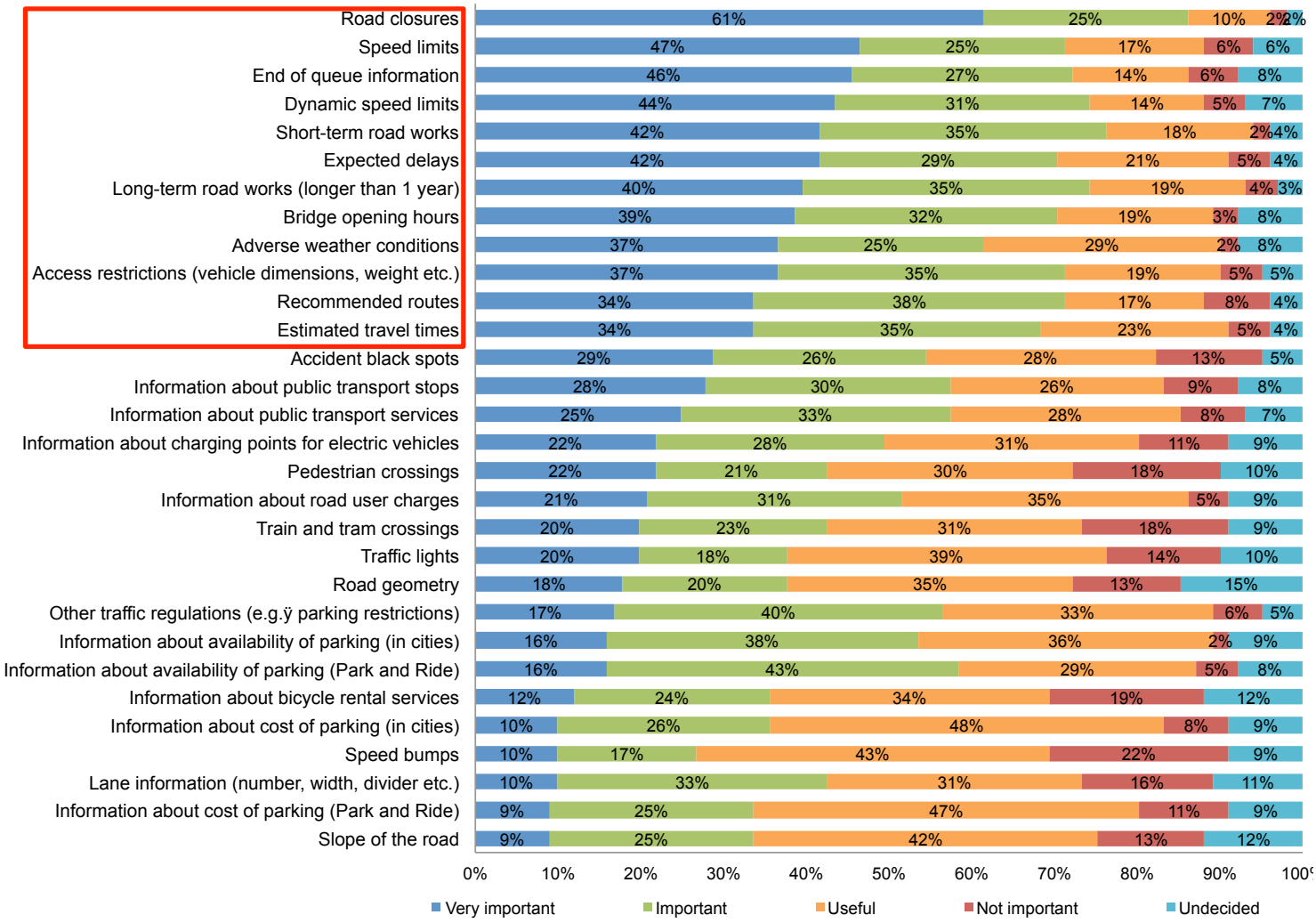

Figure 13: Importance of the availability of RTTI data

- All data types are considered as at least useful by a very large majority of respondents (>70%).
- 12 types of data (see red box) are highlighted by a large majority of the participants (>60%), and considered as at least important.
- For most of the types of data, the different groups of stakeholders agreed. However for four types, the answers were relatively different. Information related to public transport stops and services as well bicycle rental services were more promoted by public authorities than

by private companies and professional associations. To a greater extent the analysis reveals the same divergence for bicycles rental services. Further, private companies and others strongly support the availability of traffic lights data, while public authorities find it useful.

Several stakeholders add further RTTI to be provided to users:

- *"Incidents and events information: Accidents, stray animal, wrong direction…" (Private company)*
- *"Truck parking information" (Professional association)*
- *"Cycling routes" (NGO)*
- *"Data to assist mobility-impaired travellers including accessible parking, stopping points and accessible public transport associated with parking (to enable accessible end-to-end journeys)" (Public authority)*
- *"Point of Interest and local amenities" (Private company)*

2.2.4. ROLES AND RESPONSIBILITIES FOR RTTI COLLECTION

Figure 14 indicates the responses to the question: *"Would you agree that road authorities and/or road operators should have the responsibility to collect an agreed set of data for the roads that they are responsible for?"*

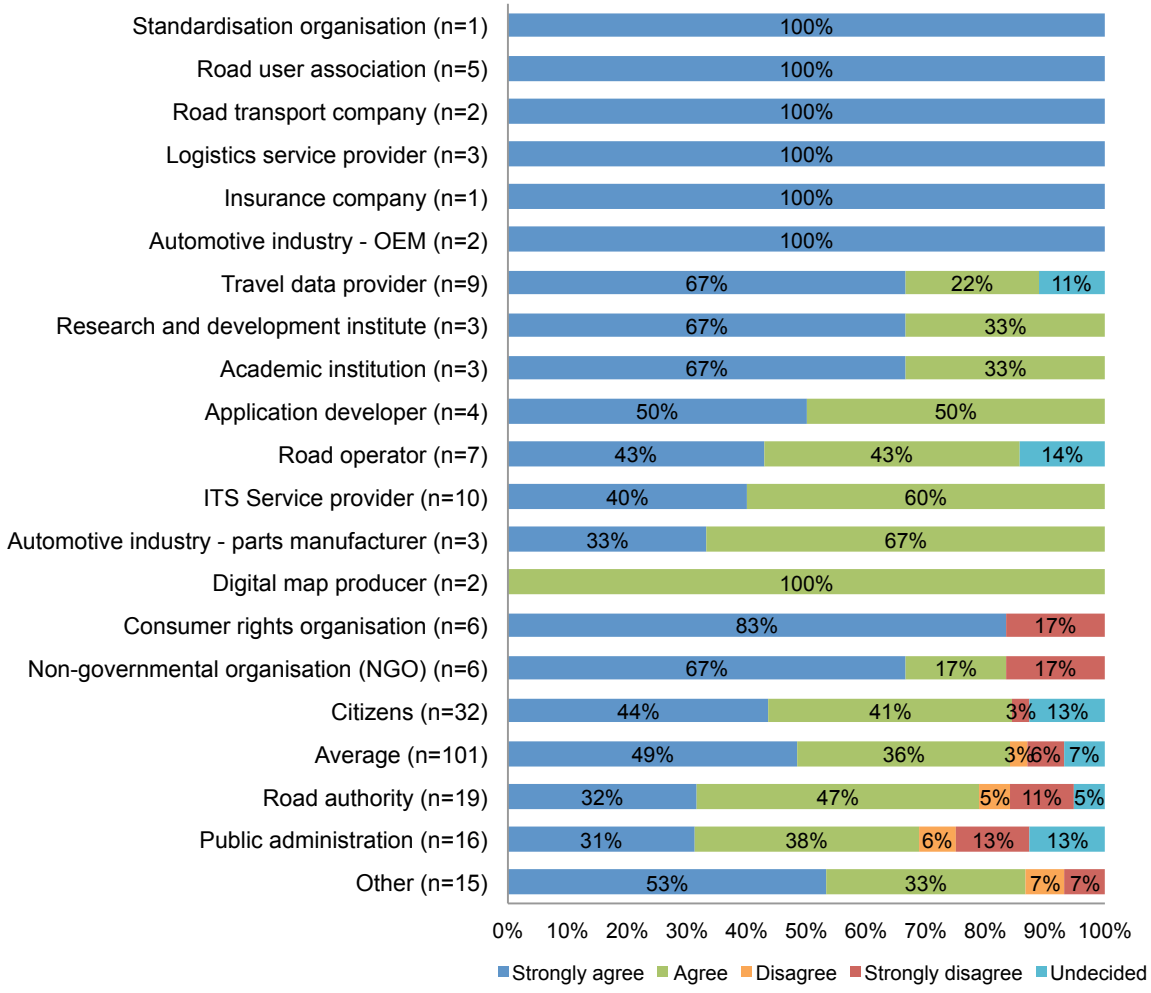

Figure 14: Responsibility of road operators/authority to collect an agreed set of data

- A large majority of the respondents supports this statement. Some of the respondents disagree (3%) or fully disagree (6%), for example several Road authorities and public administration.

The respondents were then asked to indicate the importance of this collection by road operators/authority per types of data.

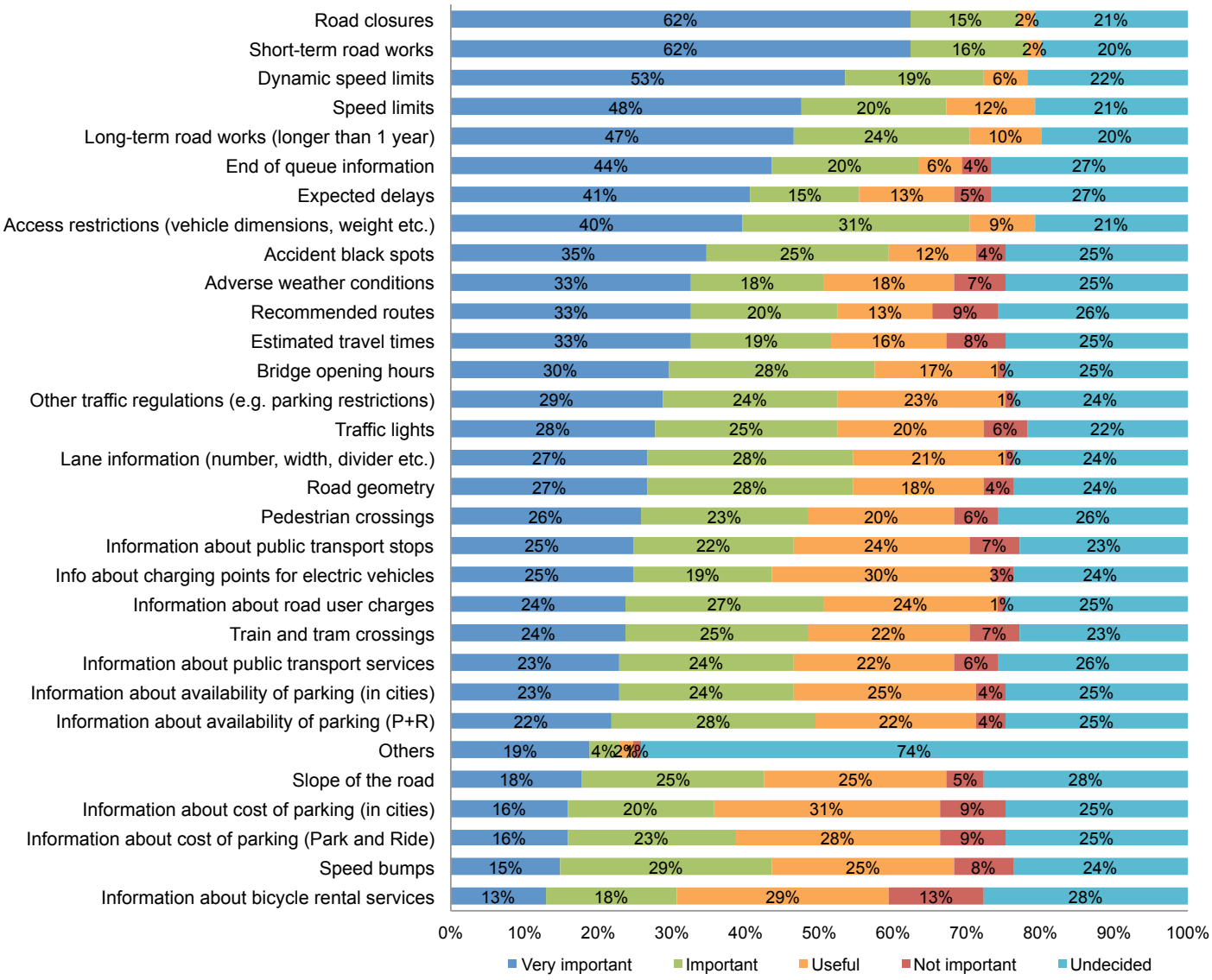

Figure 15: Type of data Road operators/authorities should collect

- On average there are between 11% and 25% of undecided respondents, equally distributed amongst all stakeholders group.
- The type of data that are most voted for are Road Closure, all Road works, all Speed limits, Access restrictions, End of queue information and Expected delays.
- For most types of information, the different stakeholders group answered the same way, notably for Expected delays, End of queue information, and Estimated travel times.

- The types of data that are the less unanimous are Road geometry, bridge opening hours and information about availability of parking (Park and Ride).

Several stakeholders add further remarks:

- Road authority should collect in addition information related to:
  - *"Greenhouse gas & ozone concentration" (Private company)*
  - *"Truck parking information" (Professional association)*
  - *"Cycling routes" (Public authority, NGO)*
  - *"Data to assist mobility-impaired travellers including accessible parking, stopping points and accessible public transport associated with parking (to enable accessible end-to-end journeys)" (Public authority)*

- Some public authorities were undecided or disagreed with the previous questions because they worried about putting a too great burden on road authorities.

Figure 16 merges the answers of all respondents to the question: *"In addition to data collected by road authorities and/or road operators, do you think that other stakeholders (e.g. service providers) should collect data, and which type of data?*

- On average, there is a large share of undecided respondent (between 28% and 34% of respondents), composed mostly by citizens and professional associations.
- The type of data that are most voted for are End of queue information, Expected delays, Estimated travel times, Road closures, Recommended Routes, Adverse weather information, and all parking related information. In addition the different stakeholder groups answered almost exactly the same way for these types of data.
- The more discordant types of data are multimodal information (Public transport related information and bicycle related information).

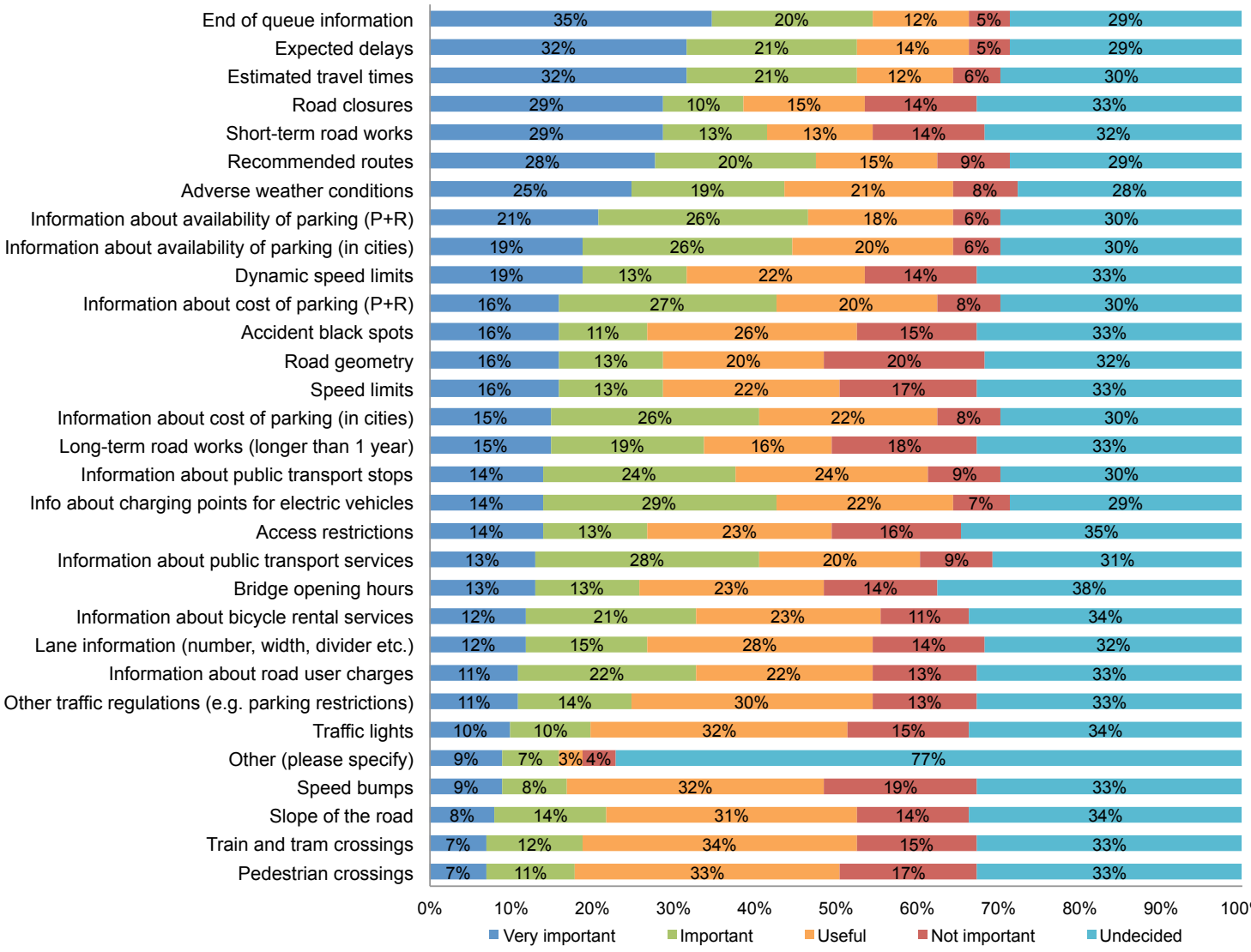

Figure 16: Types of data service providers should collect in addition

In addition several stakeholders add comments:

- *"It is highly important that data is collected by the road users as well. For example the best information about current weather conditions and friction on-the-spot can cost-effectively only be collected by the road users" (Public authority)*
- *"Other stakeholders **should not** be mandated to collect data in addition to that collected by Road Authorities. Other providers should be allowed to operate a 'normal' commercial market for other data." (Private company)*

2.2.5. ROLES AND RESPONSIBILITIES FOR RTTI SHARING

Question 3.13 inquired the participants about their agreement whether *road authorities and/or road operators should have the responsibility to make available to digital maps producers and/or ITS service providers an agreed set of data that they collect (either for free or for appropriate financial compensation)*.

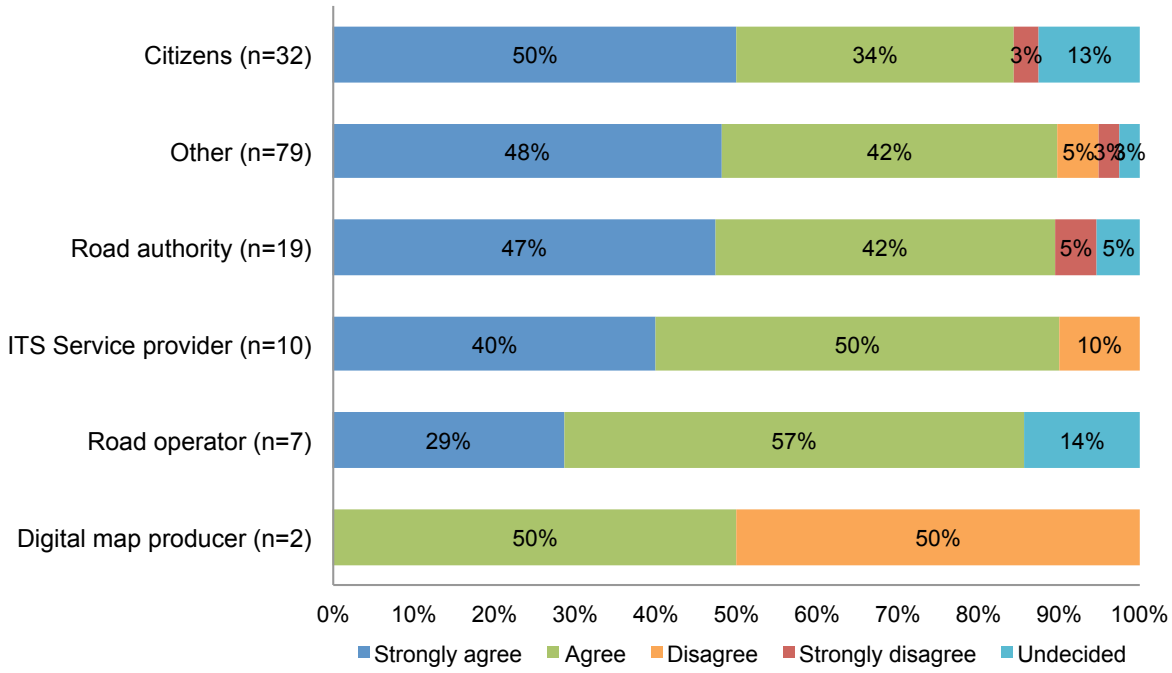

Figure 17: Responsibility of road operators/authority to make available an agreed set of data

- Figure 17 demonstrates a broad consensus on all groups, except Digital map producer.
- In addition, several stakeholders add comments:
  - *"Yes they should because only road operators are aware of planned and scheduled short and long term work and road closures*" (Private company)
  - *"the road authority could buy RTTI data from commercial providers, for their purposes. Provision of traffic information to other companies, like map providers, should be done on a commercial basis between the supplier of the traffic information and the potential customers"* (Private company)
  - *"Data shall be made available by getting in parallel a guarantee that the information is provided with minimum delay to travellers. Digital map producers and/or ITS service*

providers should have the obligation, to use the data (and especially official routing information, where available) without additional interpretation. This would enable road authorities to use their traffic management measures most efficiently." (Public authority)

- *"Data should be provided only when it is legally, commercially and technically feasible to do so"* (Public authority)

2.2.6. TECHNICAL CONDITIONS FOR RTTI SHARING

Figure 18 indicates the response to the question: *"Would you agree that road authorities and/or road operators should make available the agreed set of data in a pre-defined format?"*

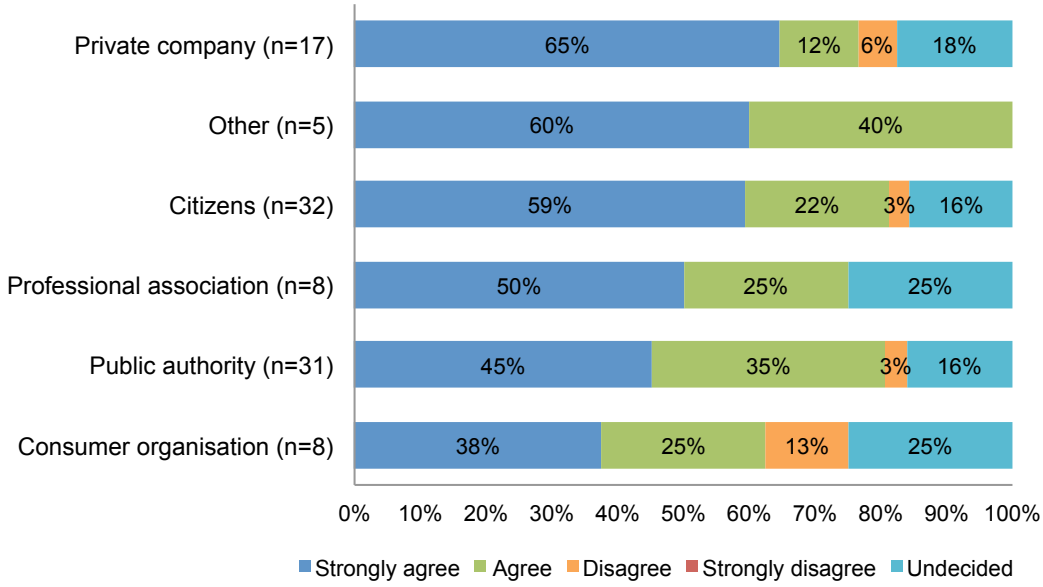

Figure 18: Opinions about sharing the agreed set of data in pre-defined format

- All stakeholders' groups largely support this proposal. Amongst the comments, several highlight these points:
  - *"Existing European standards for such data exchange should be used wherever possible as these should produce economies of scale" (Public authority)*
  - *"A standardized format is easier to implement by the different suppliers of ITS applications/ITS service providers. It also guarantees that there are no differences from one country to another or from one road operator to another" (Public authority)*
  - *"Best is a common standard (e.g. DATEX II), minimum machine-readable format". (Professional association)*

The respondents were then asked if they agree that "*to facilitate access to road, traffic and real-time traffic data, Member States should set up national access points providing access to data collected and stored by road authorities, road operators, ITS service providers and digital map producers operating on their territory*".

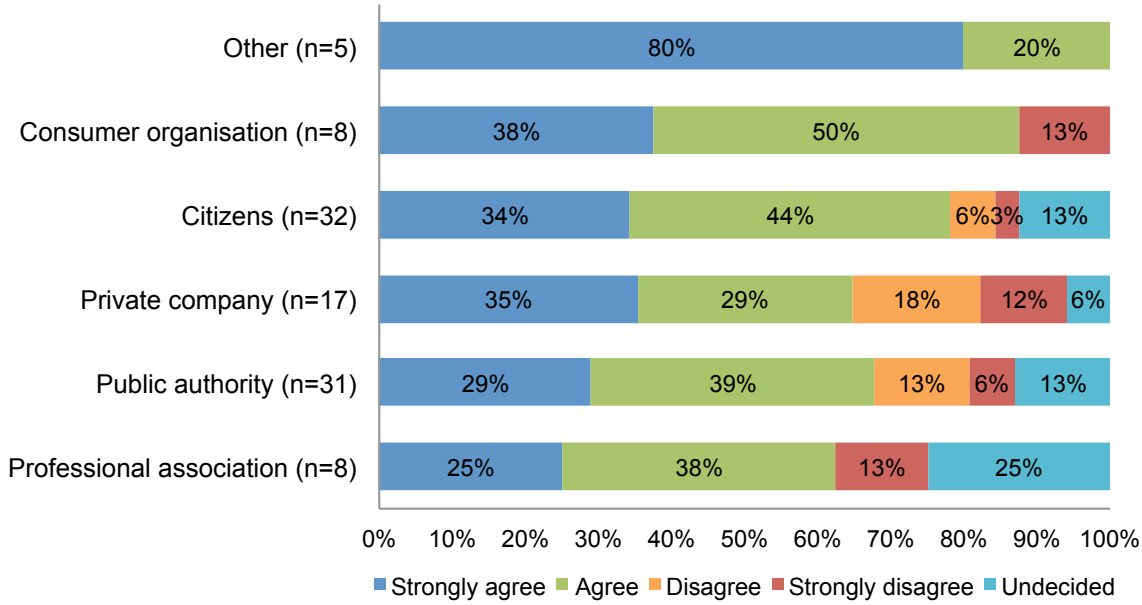

Figure 19: Set of national access point by MS

- All stakeholders' groups largely agree with this idea.
- Concerning the views on this topic and the related costs for setting up such access points, the following statements were made:
  - *"A national contact point should not mean one national database" (Public authority)*
  - *"Each Member State should be left to decide how to organise access to this data. Mandating a particular form of access will lead to unnecessary expenditure and effort." (Public authority)*
  - *"A National Data access point would add additional layers of bureaucracy and delays in publishing data. It would also increase the number of potential failure points in the data transfer process." (Private company)*
  - *"Cost depends strongly on the type of access point that Member State will implement: e.g. a "registry type" access point of simple links to "data holder sites" is expected to cost less than a "data repository/warehouse type" access point."* (Public authority)

2.2.8. COMMERCIAL CONDITIONS OF EXCHANGES OF RTTI

Figure 20 illustrates the share of respondents per groups that agree or fully agree with the two proposals that:

- RTTI generated by any service provider (public or private) should be made available **to public road authorities** under specific agreements as needed (including possible financial compensation)
- RTTI generated by any service provider (public or private) should be made available **to public or private road operators** under specific agreements as needed (including possible financial compensation).

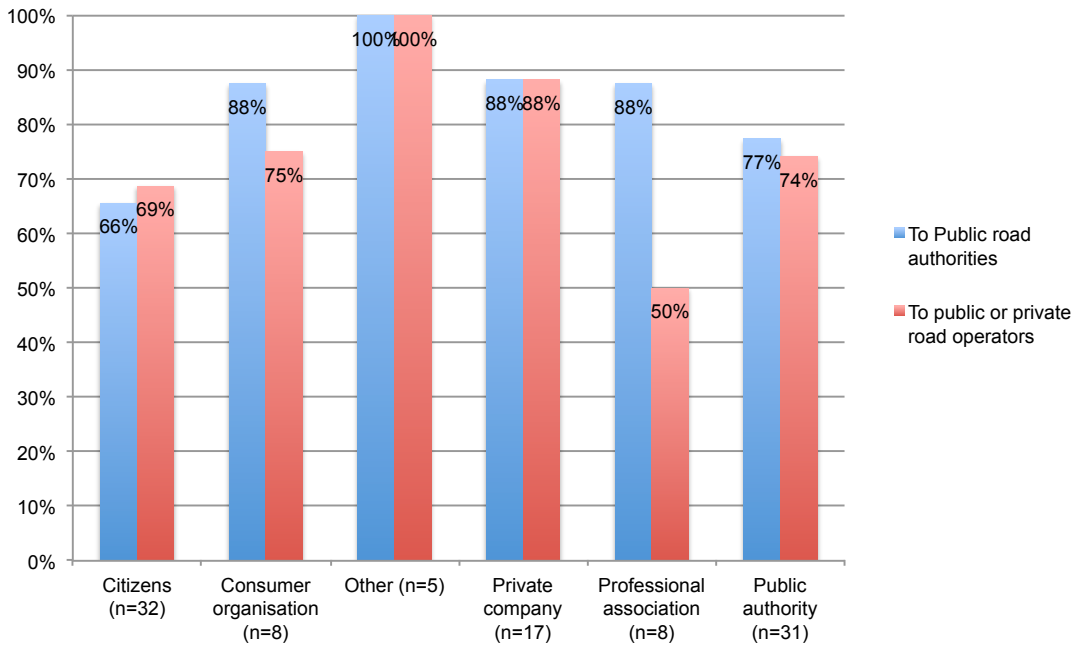

Figure 20: Share of respondents that agree or strongly agree with the proposal

All group of stakeholders agree with the two proposals. The second one is a little less supported. Amongst the additional explanations, the following remarks were raised:

- It is relevant for safety related RTTI data only (Public authority, Private company)
- The bilateral exchanges are beneficial for all as it allows validation and verification procedures on data quality. Both data exchanges need to be under reasonable costs (Professional association)
- This should not undermine the principle of commercial innovation and competition, and should only be done on the basis of voluntary agreement (Private company, Public authority)

The next questions build on the previous questions, and asked whether appropriate safeguards are needed to ensure that the data is only used to manage the road infrastructure, or to manage road traffic. The figure displays the share of respondents that agree or fully agree.

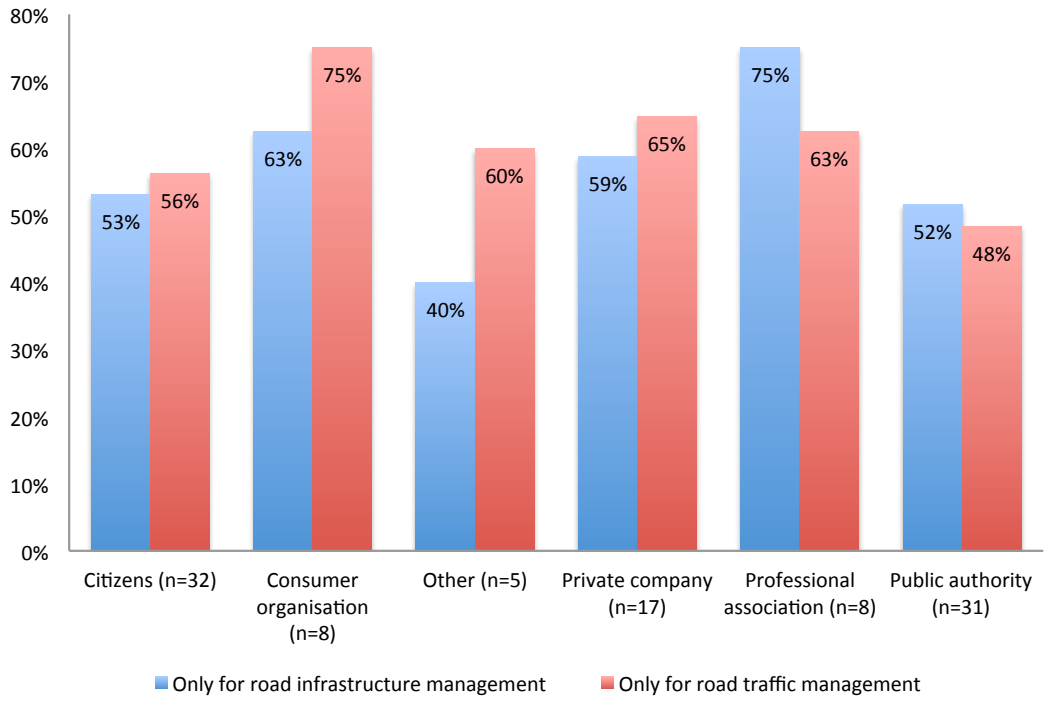

Figure 21: Share of agreed respondents

On average all groups of stakeholders agreed with the two proposals. Amongst the additional explanations, several comments were added:

- Other uses could make sense if agreed between the different parties (Public authority)
- No other uses should be possible (Public authority)
- Any safeguards around third party data used by public road authorities could be contrary to their duty under the national transposition of the PSI Directive. (NGO)
- The use of data has to be specifically agreed upon in the agreement with the service providers (Private company)
- Control might be difficult or costly (Public authority)
- Personal data protection issues are very important (Citizen)

Finally Figure 22 summarizes the response to the question: *Would you agree that RTTI generated by any service provider (public or private) should be made available* ***to other service providers in a non-discriminatory way*** *under specific agreements as needed (including possible financial compensation) in order to enhance the quality of traffic information services to end users?*

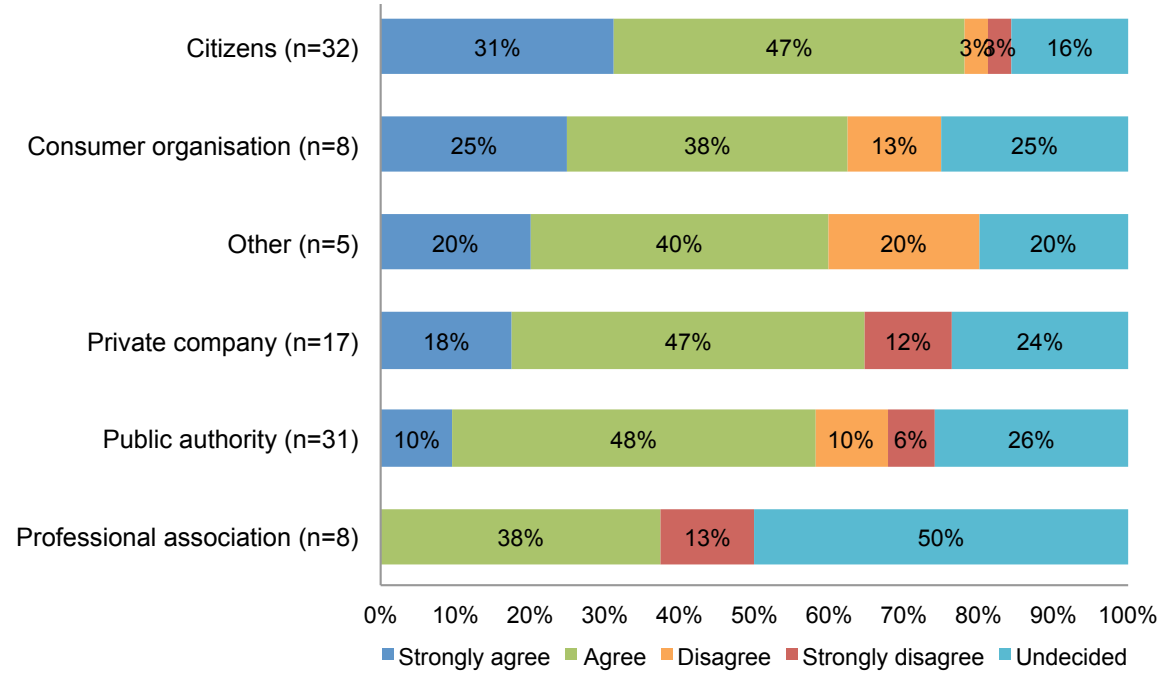

Figure 22: Non-discriminatory availability of service provider's RTTI to others service providers

- First of all it should be noted that many respondents were undecided (between 16% to 50%). All groups of respondents agreed in majority with the proposal, except professional associations.
- Yet it is interesting to see that Public authorities elaborated the major and detailed disagreements, such as:
  - "*Strongly agree for safety-related information as there is no business case, strongly disagree for all other information otherwise we are destroying business case*" (Public authority)
  - "*Mandating service providers to share information will reduce the incentive to innovate and lead to reduced quality services over the long term*" (Private company, Public authority)
  - "*It should be up to normal business negotiations, no need for such market intervention*" (Public authority)

2.2.9. IMPACTS OF RTTI SERVICES

The first question related to the impacts of the provision of RTTI services asked the respondents to differentiate positive and negative impacts.

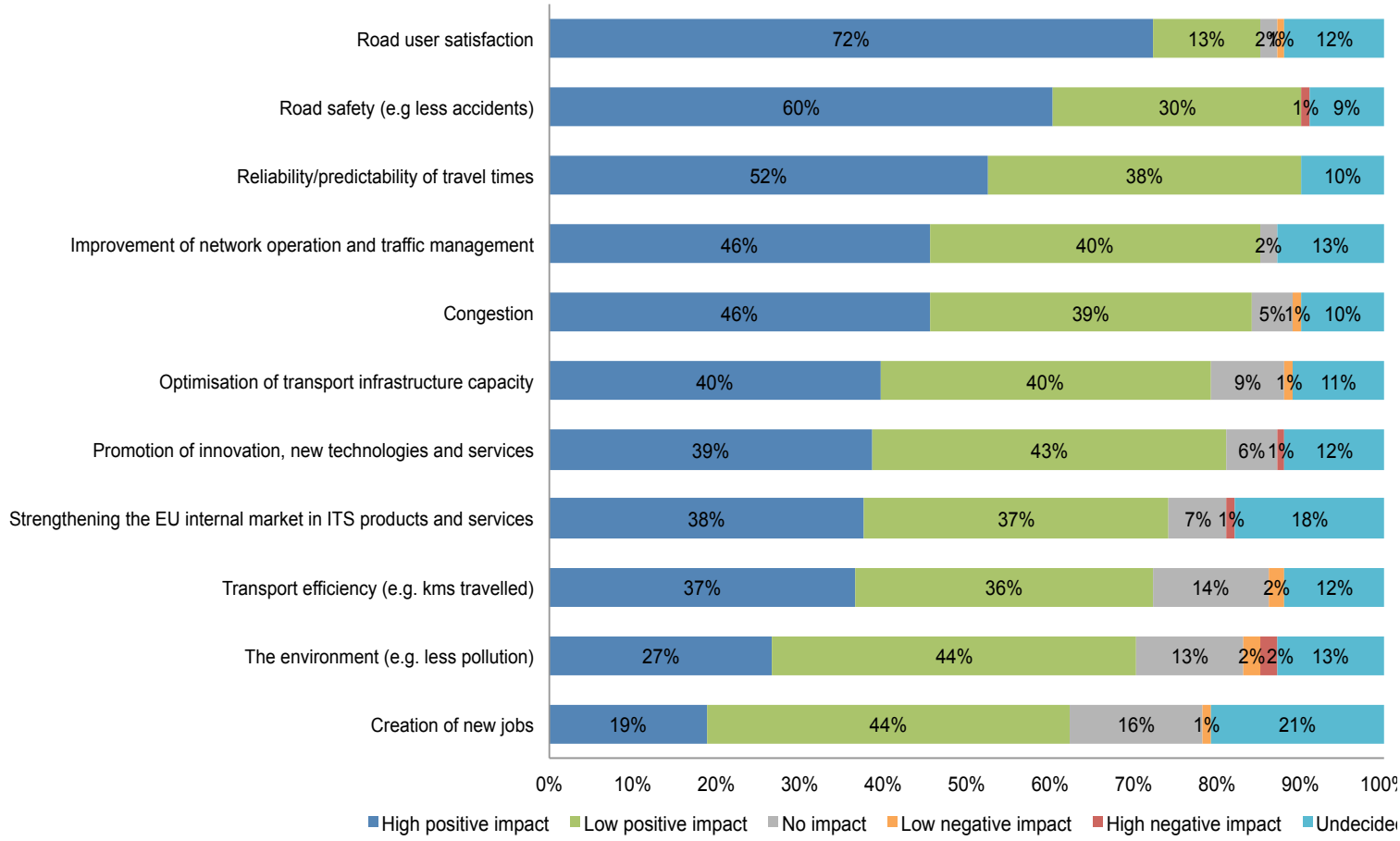

Figure 23: Assessment of impacts of the provision of RTTI services

- According to the majority of the respondents, all the impacts listed have a high or low positive impact.
- Road user satisfaction, Road safety and Reliability/predictability of travel times are the most beneficial expected impacts.
- All groups of stakeholders assess almost similarly the different impacts.
- Furthermore some stakeholders add the following impacts:
  - Unnecessary EU-wide cost burden on administrations and information providers (Professional association)
  - Positive impacts on modal split leading to an increase of public transport usage (Public authority)

In addition the participants assess if RTTI services might be a source of distraction for drivers.

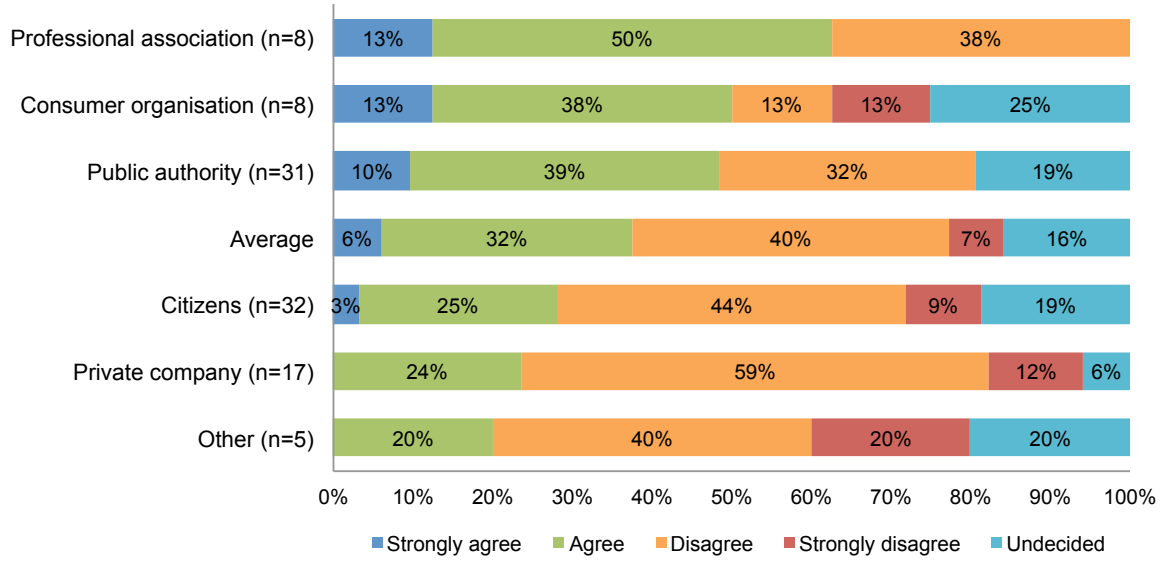

Figure 24: Assessment of RTTI services' impact on driver distraction.

- The respondents are divided on the impact of RTTI services on drivers' distraction.
- According to the explanations of all stakeholders, it strongly depends on the communication channel, on the Human-Machine Interface, and on the quantity of information.
- Yet all stakeholders agree that the main design criterion is that the RTTI service should not distract the driver.

2.3. Implementation of EU-wide RTTI services

The first question regarding EU-wide implementation of RTTI services asked the respondents whether they consider it desirable that the EU takes action to ensure the provision of EU-wide RTTI services.

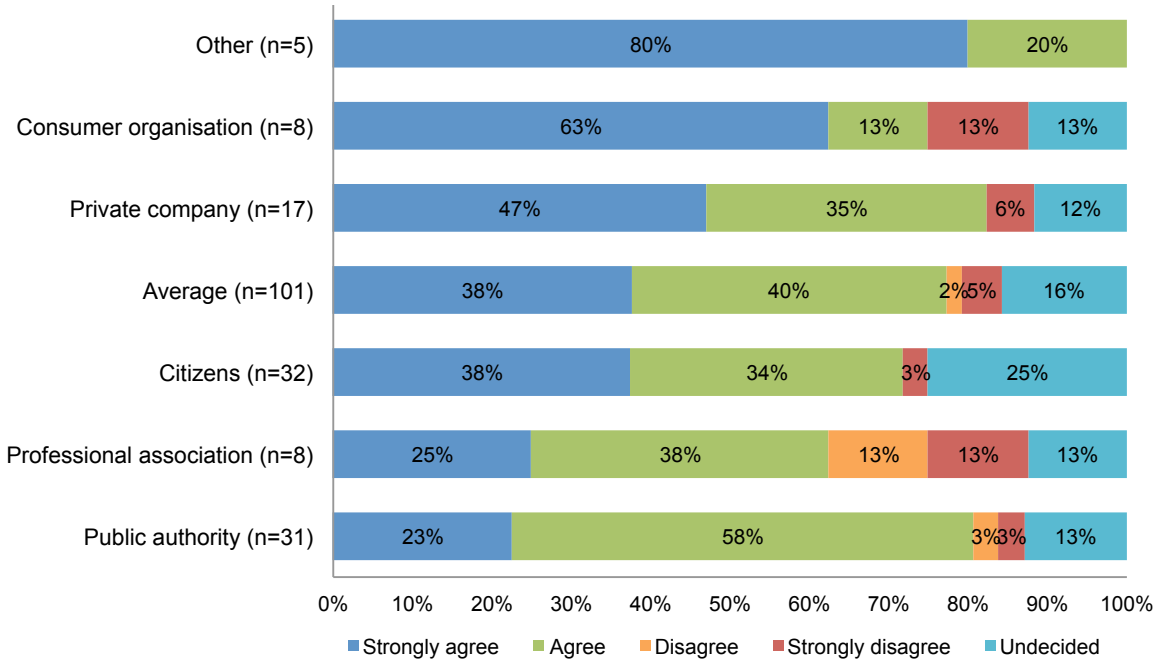

Figure 25: EU-action desired to ensure the provision of EU-wide RTTI services

- All groups agree with this statement. A notable share of respondents is undecided.

Figure 26 illustrates the response of the participants on the importance of several proposals in order to foster the provision of RTTI services to users across the EU.

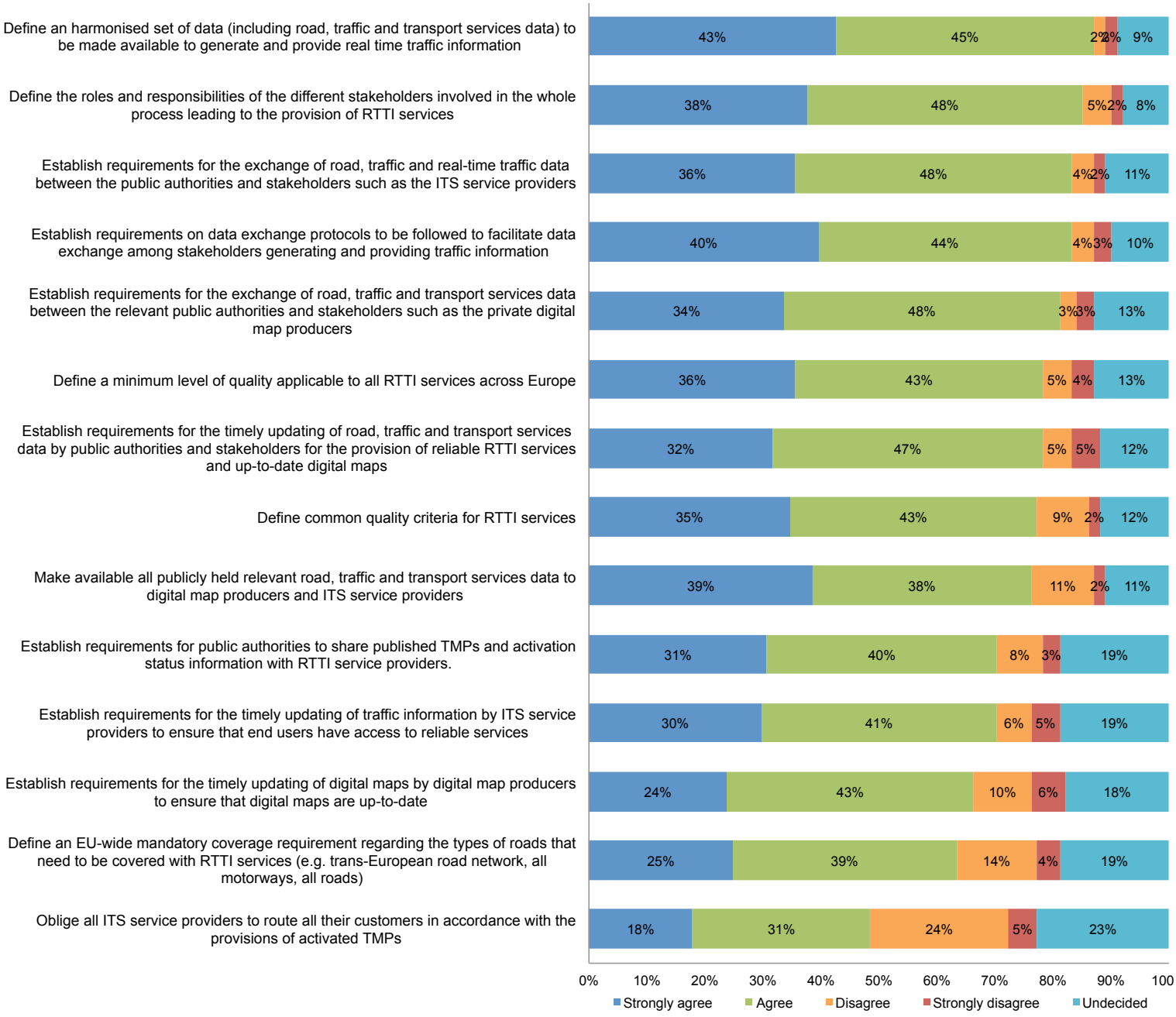

Figure 26: Agreement on proposed measures to foster EU-wide RTTI services

- Excluding the last one (Obligation for ITS service providers to route end-user according to activated TMPs), the majority of the participants agree or strongly agree with the proposed measures.
- For the different measures, these agreements are equally represented among the main groups of stakeholders.
- The only exception concerns the TMP-related measures. While private companies are largely favourable to the availability of TMPs (by 94% against 71% on average), they are 41% to disagree (against 29% on average) with the obligation to route their customers in accordance with TMPs.
- In addition, the stakeholders highlight that the EU should take other actions to ensure and foster the provision of RTTI services:
    - Large scale impact assessment and benefits analysis of RTTI services (Public authority)
    - Promotion of the use of RTTI and travel services by the end-users (Professional association)

The next question asked the participants if they agree that there is a need to establish a common EU framework (i.e. common conditions, specific requirements). The Figure 27 presents the share of respondents that agree or strongly agree with the proposals, per re-defined stakeholders groups.

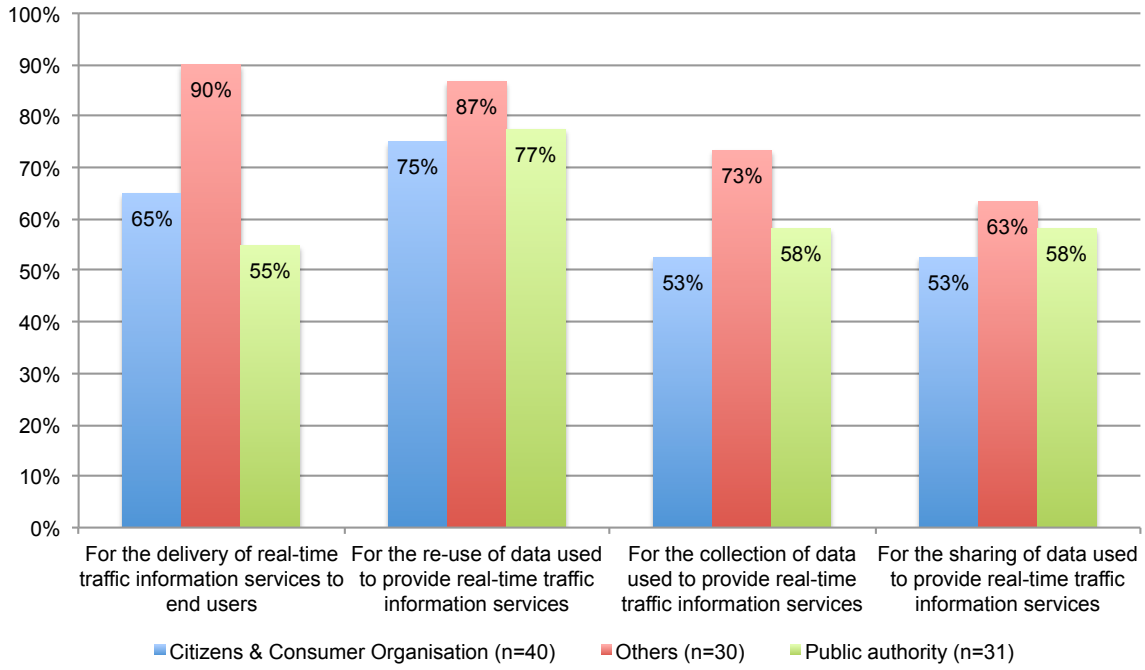

Figure 27: Agreement for a common EU framework for various data processes

- Depending on the proposal, it should be noted that on average 8% to 19% of the respondents were undecided.
- In majority the respondents agree to all the proposals, with preferences for establishing a common EU framework for data re-use and data delivery.
- In addition the stakeholders specify that a common EU Framework should focus on:
  - The ownership or re-use conditions of data generated by users of vehicles or mobile devices. (Professional association)
  - The standardisation of common interfaces, in a flexible way (Public authority)

Figure 28 presents the response to the question: *"Would you agree that the provision of the real-time traffic information services, including its content based on a pre-defined set of available data, should be left to market players to decide?"*

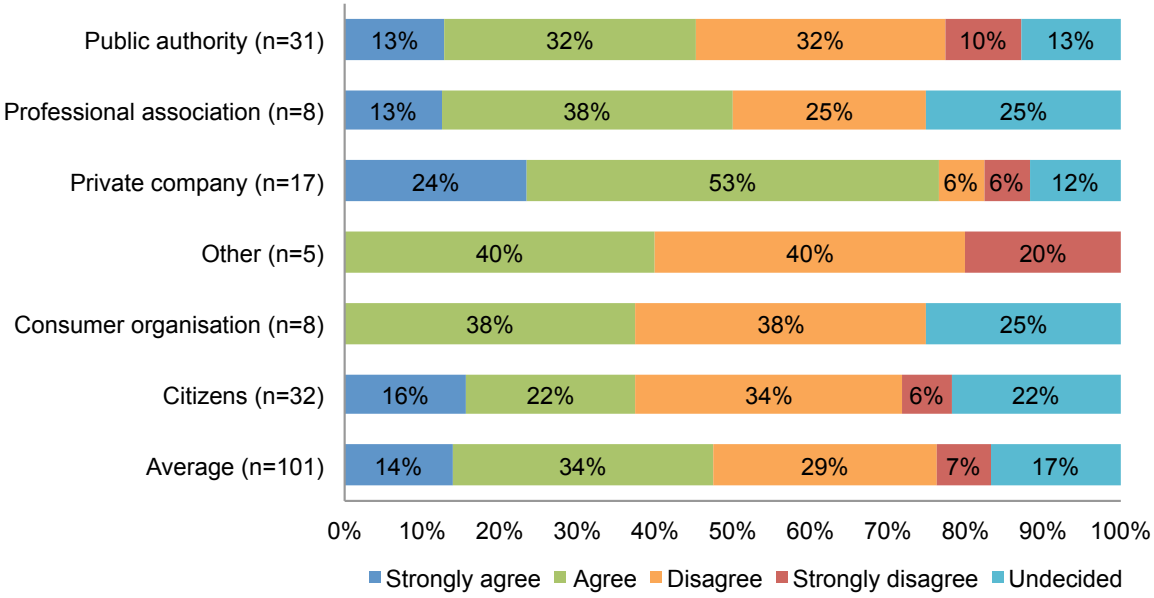

Figure 28: Provision of RTTI services should be left to market players to decide

- Except for private companies, the groups of stakeholders are divided. Unsurprisingly private companies are in majority largely in favour of this proposal.

The next question asks if the RTTI services for road should be integrated with travel information for other modes of transport.

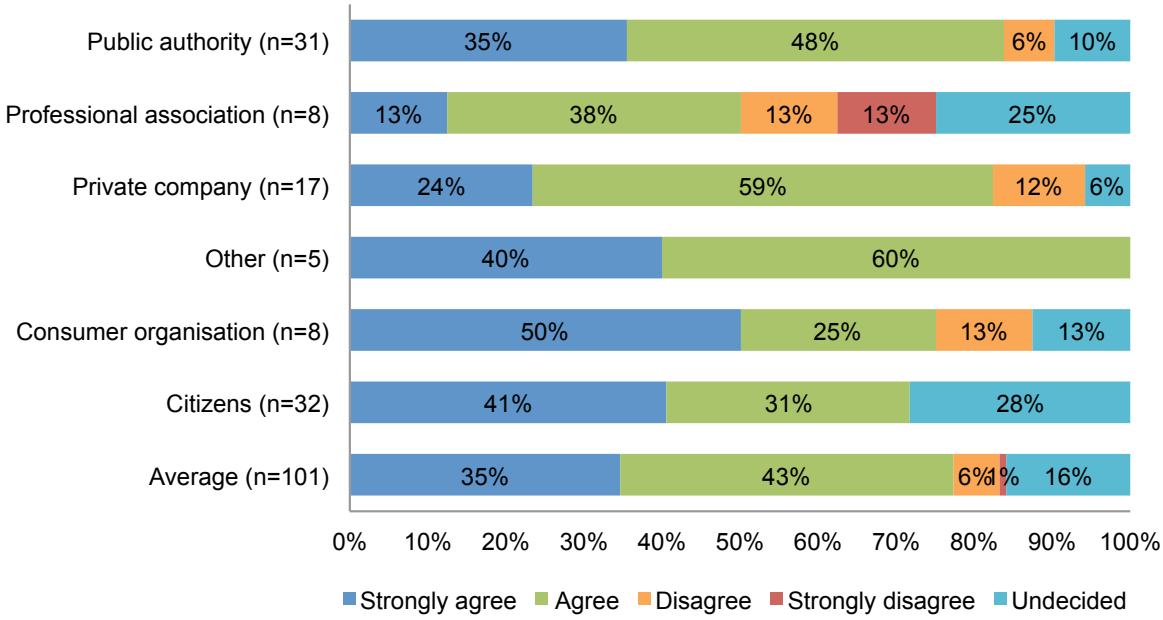

Figure 29: Integration of RTTI services with other travel information services

- The majority of the respondents agree with the proposal (78%) and highlight that multi-modal journey information is critical to enable travellers to make the best choice about their journey options, or to encourage the use of more sustainable

3. Conclusions

In total 101 people and organisations completed the questionnaire, with a good mix of all stakeholders in the traffic information value chain (with 20 stakeholder groups) and representing 22 Member States. Despite the fact that the sample is important and relatively balanced, it cannot be considered statistically representative.

The stakeholders consider time accuracy and general accuracy as the most important quality criteria. Private companies ask for more frequently updated data in comparison to public authorities, notably for Road closures and road works.

The road coverage for RTTI provision to end-users that are the most selected ones are along all motorways and major national roads across the EU, and within major European urban areas.

Respondents believe that RTTI can have high impacts on road safety on road user satisfaction, and show broad support for actions by the EC to ensure and foster the provision of EU-wide RTTI.

In particular the definition of a harmonized set of data to be made available and the definition of requirements for data exchanges between stakeholders are highly supported.

A large majority of the respondents (85%) declare that road authorities and/or road operators should have the responsibility to collect an agreed set of data for the roads that they are responsible for. According to the stakeholders, this set of data should comprise in priority Road Closure, all Road works, all Speed limits, Access restrictions, End of queue information and Expected delays.

The respondents are more divided on the types of data service providers should collect in addition. The most favoured types of data are End of queue information, Expected delays, Estimated travel times, Road closures, Recommended Routes, Adverse weather information, and all parking related information.

The survey showed broad agreement for making available to ITS service providers an agreed set of data collected by road authority/operator, in a pre-defined format. However there is no

consensus whether the definition of this set of data should be left to market players.

The respondents also support the set up of national access point for all sources of road, traffic and RTTI data, yet they do not call for a mandated type of access point (registry of link, data warehouse…).

A notable part of the respondents also agree that RTTI generated by any service provider should be available to public authorities and public or private road operators, provided that appropriate safeguards are ensured regarding its usage. In the same way, some respondents also support that RTTI generated by any service provider should be made available to other service providers in a non-discriminatory way and under specific agreement. This is especially the case for SRTI.

However several major public authorities and private organisations would rather prefer not to put obligations on privately owned data, justifying that the principles of commercial innovation and competition should not be undermined.

Only few additional divides appear, e.g while private companies are largely favourable to the availability of TMPs (by 94% against 71% in average), they are 41% to disagree (against 29% in average) with the obligation to route their customers in accordance with TMPs.

The response also illustrates that there is a need to establish a common EU framework (i.e. common conditions, specific requirements) for the different data processes, especially for the re-use of data used to provide RTTI services.

Finally regarding the interfaces with other modes of transport, the majority of the respondents (78%) agree that RTTI services for road should be integrated with travel information for other modes of transport and highlight that multi-modal journey information is critical to enable travellers to make the best choice about their journey options, or to encourage the use of more sustainable alternatives. Along this line the large majority of citizens (81%) declares that RTTI is somehow affecting their own travel behaviour.

List of Acronyms

EC	European Commission
EU	European Union
ITS	Intelligent Transport Systems
MMS	Multimedia Messaging Service
MS	Member State
RTTI	Real Time Traffic Information
SRTI	Safety-related traffic information
TERN	Trans-European Road Network
TMP	Traffic management plan
VMS	Variable Message Signs

Appendix A. Questionnaire

The provision of EU-wide real-time traffic information services

Fields marked with * are mandatory.

1 Information about the participant

1.1 Please provide your name (first name and surname)*

1.2 Please provide your email address*

1.3 In what capacity are you completing this questionnaire?*

- As a citizen
- On behalf of an organisation

1.4 If you are answering as a citizen, please provide your country of residence*

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovenia
- Spain
- Sweden
- Slovakia
- United Kingdom
- Other, non-EU Member State

1.5 Please specify "Other, non-EU Member State"*

1.6 If answering on behalf of an organisation, please indicate the type of organisation?*

- Private company
- Public authority
- Professional association
- Consumer organisation
- Other

1.7 Please specify "Other"*

1.8 If answering on behalf of a professional association, consumer organisation or other organisation representing stakeholders, please indicate the approximate number of members your organisation represents.

1.9 If you are answering on behalf of a company/organisation/authority/association, please provide the **country of registration of this entity***

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovenia
- Spain
- Sweden
- Slovakia
- United Kingdom
- Other, non-EU Member State

1.10 Please specify "Other, non-EU Member State"*

1.11 If you are answering on behalf of a company/organisation/authority/association that is operating in more than one country, please indicate the relevant **countries of operation**

- [ ] Austria
- [ ] Belgium
- [ ] Bulgaria
- [ ] Croatia
- [ ] Cyprus
- [ ] Czech Republic
- [ ] Denmark
- [ ] Estonia
- [ ] Finland
- [ ] France
- [ ] Germany
- [ ] Greece
- [ ] Hungary
- [ ] Ireland
- [ ] Italy
- [ ] Latvia
- [ ] Lithuania
- [ ] Luxembourg
- [ ] Malta
- [ ] Netherlands
- [ ] Poland
- [ ] Portugal
- [ ] Romania
- [ ] Slovenia
- [ ] Spain
- [ ] Sweden
- [ ] Slovakia
- [ ] United Kingdom
- [ ] Other, non-EU Member State

1.12 Please specify "Other, non-EU Member State"*

1.13 Is your organisation registered in the European Transparency Register?

*All organisations and self employed individuals, irrespective of their legal status, engaged in activities falling within the scope of the register are in principle expected to register. Your contribution will not be valid if your organisation is not registered while it should.**

- ( ) Yes
- ( ) No

1.14 If yes, please indicate the identification number

*(only numbers without "-")**

1.15 What is the name of your organisation or authority?*

1.16 What is your function within this organisation or authority?*

1.17 Please categorise your organisation as appropriate*

- [ ] Academic institution
- [ ] Application developer
- [ ] Automotive industry – OEM
- [ ] Automotive industry – parts manufacturer
- [ ] Consumer rights organisation
- [ ] Digital map producer
- [ ] Emergency or rescue services
- [ ] Non-governmental organisation (NGO)
- [ ] Insurance company
- [ ] ITS Service provider
- [ ] Logistics service provider
- [ ] Public administration
- [ ] Research and development institute
- [ ] Road authority
- [ ] Road operator
- [ ] Road transport company
- [ ] Road user association
- [ ] Standardisation organisation
- [ ] Telecommunication service provider
- [ ] Telecommunication equipment manufacturer
- [ ] Travel data provider
- [ ] Other (please specify)

1.18 Please specify "Other"*

Explanations about the Protection of Personal Data are available on:
http://ec.europa.eu/geninfo/legal_notices_en.htm#personaldata
The policy on "protection of individuals with regard to the processing of personal data by the Community institutions" is based on Regulation (EC) N° 45/2001 of the European Parliament and of the Council of 18 December 2000.

2 Current situation regarding the provision of real-time traffic information services

This part is for citizens only. Organisations are not supposed to fill out this part.

2.1 Where you usually drive, do you have access to real-time traffic information services?*

- ( ) Yes
- ( ) No
- ( ) Partly
- ( ) I do not know

2.2 Where you usually drive, through what channel(s) do you receive real-time traffic information services?*

- [ ] Radio
- [ ] Digital radio
- [ ] Variable message signs along the road
- [ ] Vehicle on-board unit/built-in GPS
- [ ] Personal/portable navigation device
- [ ] Smartphone application
- [ ] Specialised website
- [ ] Telephone
- [ ] Other (please specify)

2.3 Please specify "Other"*

2.4 Do you have access to real-time traffic information services?*

- ( ) Yes, for free
- ( ) Yes, through a specific paid subscription
- ( ) Yes, for free and through a specific paid subscription
- ( ) No

2.5 What type of real-time traffic information do you personally have access to?
("End of queue" refers to the location where traffic becomes congested and the queue of road vehicles starts)

- [ ] Speed limits
- [ ] Routing advice
- [ ] Expected delays
- [ ] Road works
- [ ] Accident black spots
- [ ] Information about location of parking places (Park and Ride)
- [ ] Other (please specify)
- [ ] Access restrictions (vehicle dimensions, weight etc.)
- [ ] Estimated travel times
- [ ] End of queue information
- [ ] Road closures
- [ ] Adverse weather conditions
- [ ] Information about location of parking (in cities)

2.6 Please specify "Other"*

2.7 How important do you rate these types of real-time traffic information?

	Very important	Important	Useful	Not important	Undecided
Speed limits	○	○	○	○	○
Access restrictions (vehicle dimensions, weight etc.)	○	○	○	○	○
Routing advice	○	○	○	○	○
Estimated travel times	○	○	○	○	○
Expected delays	○	○	○	○	○
End of queue information	○	○	○	○	○
Road works	○	○	○	○	○
Road closures	○	○	○	○	○
Accident black spots	○	○	○	○	○
Adverse weather conditions	○	○	○	○	○
Information about location of parking places (Park and Ride)	○	○	○	○	○
Information about location of parking (in cities)	○	○	○	○	○

2.8 Do you consider the real-time traffic information services provided reliable (i.e. accurate, up-to-date)?

	Very reliable	Reliable	Not reliable	Undecided
Speed limits	○	○	○	○
Access restrictions (vehicle dimensions, weight etc.)	○	○	○	○
Routing advice	○	○	○	○
Estimated travel times	○	○	○	○
Expected delays	○	○	○	○
End of queue information	○	○	○	○
Road works	○	○	○	○
Road closures	○	○	○	○
Accident black spots	○	○	○	○
Adverse weather conditions	○	○	○	○
Information about location of parking places (Park and Ride)	○	○	○	○
Information about location of parking (in cities)	○	○	○	○

2.9 If not reliable, please explain why

2.10 Are you satisfied with the **geographical coverage** of real-time traffic information services? (e.g. types of roads covered, areas covered, countries covered etc.)*

- ○ Yes
- ○ No
- ○ Partly

2.11 If not or partly satisfied with the geographical coverage, how would you like coverage to be improved?

2.12 Are you satisfied with the **content** of real-time traffic information services?*

- ○ Yes
- ○ No
- ○ Partly

2.13 If not or partly satisfied with the content, how would you like content to be improved?

2.14 Are you satisfied with the **timeliness** of real-time traffic information services? [*

- Yes
- No
- Partly

2.15 How do you think the overall quality of real time traffic information services can be improved and in which respect?

- Reliability (e.g. accurate, up-to-date)
- Geographical coverage
- Content
- Timeliness
- Other (please specify)

2.16 Please specify "Other"*

2.17 Is the real-time traffic information affecting your own travel behaviour?*

- Yes
- No

2.18 If yes, in which way?*

- I change departure times
- I change route
- I change mode of transport
- I decide not to travel
- Other (please specify)

2.19 Please specify "Other"*

3 Scope, Process and Impact of the provision of real-time traffic information services

This part is mandatory to organisations filling in the questionnaire. Citizens may, however, also answer some or all the questions in this part on an optional basis.

3.1 It is important to ensure the provision of EU-wide real-time traffic information services

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.2 Which type of data should be made available to generate and provide real-time traffic information services to users?

** End of queue = where traffic becomes congested and the queue of road vehicles starts*

** Dynamic speed limits = speed limits that can be changed according to traffic or weather conditions*

** Road user charges = Whether the user needs to be in possession of some kind of a permit to use to road (electronic or physical vignette) or if a toll will be levied for using the road section in question*

	Very important	Important	Useful	Not important	Undecided
Speed limits					
Other traffic regulations (e.g. parking restrictions)					
Road geometry					
Access restrictions (vehicle dimensions, weight etc.)					
Lane information (number, width, divider etc.)					
Traffic lights					
Pedestrian crossings					
Train and tram crossings					
Speed bumps					
Accident black spots					
Slope of the road					
Estimated travel times					
Recommended routes					
Expected delays					
End of queue information					
Short-term road works					

Long-term road works (longer than 1 year)					
Road closures					
Bridge opening hours					
Adverse weather conditions					
Dynamic speed limits					
Information about road user charges					
Information about availability of parking (Park and Ride)					
Information about cost of parking (Park and Ride)					
Information about availability of parking (in cities)					
Information about cost of parking (in cities)					
Information about charging points for electric vehicles					
Information about public transport stops					
Information about public transport services					
Information about bicycle rental services					
Other (please specify)					

3.3 Please specify which other type of real-time traffic information should be provided to users

3.4 Please indicate that according to your information how frequently static data **are updated** currently

** Road user charges = Whether the user needs to be in possession of some kind of a permit to use to road (electronic or physical vignette) or if a toll will be levied for using the road section in question*

	Daily	Weekly	Monthly	Quarterly	Yearly	Undecided
Speed limits	○	○	○	○	○	○
Other traffic regulations (e.g. parking restrictions)	○	○	○	○	○	○
Road geometry	○	○	○	○	○	○
Access restrictions (vehicle dimensions, weight etc.)	○	○	○	○	○	○
Lane information (number, width, divider etc.)	○	○	○	○	○	○
Traffic lights	○	○	○	○	○	○
Pedestrian crossings	○	○	○	○	○	○
Train and tram crossings	○	○	○	○	○	○
Speed bumps	○	○	○	○	○	○
Accident black spots	○	○	○	○	○	○
Short-term road works	○	○	○	○	○	○
Long-term road works (longer than 1 year)	○	○	○	○	○	○
Road closures	○	○	○	○	○	○
Bridge opening hours	○	○	○	○	○	○
Information about road user charges	○	○	○	○	○	○

3.5 Please indicate how frequently static data needed for the provision of real time traffic information services **should be** updated

** Road user charges = Whether the user needs to be in possession of some kind of a permit to use to road (electronic or physical vignette) or if a toll will be levied for using the road section in question*

	Daily	Weekly	Monthly	Quarterly	Yearly	No need to specify update frequency	Undecided
Speed limits	○	○	○	○	○	○	○
Other traffic regulations (e.g. parking restrictions)	○	○	○	○	○	○	○
Road geometry	○	○	○	○	○	○	○
Access restrictions (vehicle dimensions, weight etc.)	○	○	○	○	○	○	○
Lane information (number, width, divider etc.)	○	○	○	○	○	○	○
Traffic lights	○	○	○	○	○	○	○
Pedestrian crossings	○	○	○	○	○	○	○
Train and tram crossings	○	○	○	○	○	○	○
Speed bumps	○	○	○	○	○	○	○
Accident black spots	○	○	○	○	○	○	○
Short-term road works	○	○	○	○	○	○	○
Long-term road works (longer than 1 year)	○	○	○	○	○	○	○
Road closures	○	○	○	○	○	○	○
Bridge opening hours	○	○	○	○	○	○	○
Information about road user charges	○	○	○	○	○	○	○

3.6 Do you consider that the current update frequency provided by digital map producers is appropriate for the provision of real-time traffic information services?

- Appropriate
- Not appropriate
- Undecided

3.7 If current update frequency is not considered appropriate, please specify required update frequency

3.8 Would you agree that road authorities and/or road operators should have the responsibility to collect an agreed set of data for the roads that they are responsible for?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.9 If you agree or strongly agree with the statement in the previous question, please indicate which type of data road authorities and/or road operators should collect

** End of queue = where traffic becomes congested and the queue of road vehicles starts*

	Very important	Important	Useful	Not important	Undecided
Speed limits					
Other traffic regulations (e.g. parking restrictions)					
Road geometry					
Access restrictions (vehicle dimensions, weight etc.)					
Lane information (number, width, divider etc.)					
Traffic lights					
Pedestrian crossings					
Train and tram crossings					
Speed bumps					
Accident black spots					

Slope of the road	○	○	○	○	○
Estimated travel times	○	○	○	○	○
Recommended routes	○	○	○	○	○
Expected delays	○	○	○	○	○
End of queue information	○	○	○	○	○
Short-term road works	○	○	○	○	○
Long-term road works (longer than 1 year)	○	○	○	○	○
Road closures	○	○	○	○	○
Bridge opening hours	○	○	○	○	○
Adverse weather conditions	○	○	○	○	○
Dynamic speed limits	○	○	○	○	○
Information about road user charges	○	○	○	○	○
Information about availability of parking (Park and Ride)	○	○	○	○	○
Information about cost of parking (Park and Ride)	○	○	○	○	○
Information about availability of parking (in cities)	○	○	○	○	○
Information about cost of parking (in cities)	○	○	○	○	○
Information about charging points for electric vehicles	○	○	○	○	○
Information about public transport stops	○	○	○	○	○
Information about public transport services	○	○	○	○	○
Information about bicycle rental services	○	○	○	○	○
Other (please specify)	○	○	○	○	○

3.10 Please specify "Other"

3.11 In addition to data collected by road authorities and/or road operators, do you think that **other stakeholders** (e.g. service providers) should collect data and which type of data?

** End of queue = where traffic becomes congested and the queue of road vehicles starts*

	Very important	Important	Useful	Not important	Undecided
Speed limits	○	○	○	○	○
Other traffic regulations (e.g. parking restrictions)	○	○	○	○	○
Road geometry	○	○	○	○	○
Access restrictions (vehicle dimensions, weight etc.)	○	○	○	○	○
Lane information (number, width, divider etc.)	○	○	○	○	○
Traffic lights	○	○	○	○	○
Pedestrian crossings	○	○	○	○	○
Train and tram crossings	○	○	○	○	○
Speed bumps	○	○	○	○	○
Accident black spots	○	○	○	○	○
Slope of the road	○	○	○	○	○
Estimated travel times	○	○	○	○	○
Recommended routes	○	○	○	○	○
Expected delays	○	○	○	○	○
End of queue information	○	○	○	○	○
Short-term road works	○	○	○	○	○
Long-term road works (longer than 1 year)	○	○	○	○	○
Road closures	○	○	○	○	○
Bridge opening hours	○	○	○	○	○
Adverse weather conditions	○	○	○	○	○
Dynamic speed limits	○	○	○	○	○
Information about road user charges	○	○	○	○	○
Information about availability of parking (Park and Ride)	○	○	○	○	○

Information about cost of parking (Park and Ride)					
Information about availability of parking (in cities)					
Information about cost of parking (in cities)					
Information about charging points for electric vehicles					
Information about public transport stops					
Information about public transport services					
Information about bicycle rental services					
Other (please specify)					

3.12 Please specify "Other"

3.13 Would you agree that **road authorities and/or road operators should** have the responsibility to **make available to digital maps producers and/or ITS service providers an agreed set of data** that they collect (either for free or for appropriate financial compensation)?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.14 Please provide additional explanation

3.15 If you agree or strongly agree with the above statement, would you agree that road authorities and/or road operators should make available the agreed set of data in a pre-defined format?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.16 Please provide additional explanation

3.17 Would you agree that to facilitate access to road, traffic and real-time traffic data, Member States should set up **national access points** providing access to data collected and stored by road authorities, road operators, ITS service providers and digital map producers operating on their territory?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.18 Do you have a view on the costs that the setting up of such a national access point would entail? You can also provide reference to any relevant publication on this subject?

3.19 Would you agree that real-time traffic information generated by any service provider (public or private) should be made available **to public road authorities** under specific agreements as needed (including possible financial compensation)?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.20 Please provide additional explanation

3.21 Do you think that, if and when real-time traffic information generated by any service provider (public or private) is made available to public road authorities, appropriate safeguards are needed to ensure that the data is only used to manage the road infrastructure?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.22 Please provide additional explanation

3.23 Would you agree that real-time traffic information generated by any service provider (public or private) should be made available **to public or private road operators** under specific agreements as needed (including possible financial compensation)?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.24 Please provide additional explanation

3.25 Do you think that, if and when real-time traffic information generated by any service provider (public or private) is made available to public or private road operators, appropriate safeguards are needed to ensure that the data is only used to manage road traffic?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.26 Please provide additional explanation

3.27 Would you agree that real-time traffic information generated by any service provider (public or private) should be made available **to other service providers in a non-discriminatory way** under specific agreements as needed (including possible financial compensation) in order to enhance the quality of traffic information services to end users?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.28 Please provide additional explanation

3.29 Please rank the quality criteria you consider as the most important (1) to least important (7) for real time traffic information services

	1	2	3	4	5	6	7
Geographical accuracy							
Time accuracy / up-to-dateness							
Timeliness / speed of delivery							
Usefulness							
Completeness							
Consistency							
Other (please specify)							

3.30 Please specify "Other"

3.31 Where should real-time traffic information services be provided to users?

- [ ] Along the roads belonging to the future core trans-European network (TEN-T) across the EU
- [ ] Along the roads belonging to the future comprehensive trans-European network (TEN-T) across the EU
- [ ] Along all motorways across the EU
- [ ] Along all motorways and major national roads across the EU
- [ ] Along all roads across the EU
- [ ] On cross-border sections of the trans-European road network (TEN-T)
- [ ] Within major European urban areas (e.g. ring roads and main city arteries)
- [ ] Within all European urban areas

3.32 In your opinion what would be the impact of the provision of real-time traffic information services in the following domains?

	High positive impact	Low positive impact	No impact	Low negative impact	High negative impact	Undecided
Road user satisfaction	○	○	○	○	○	○
Road safety (e.g less accidents)	○	○	○	○	○	○
Congestion	○	○	○	○	○	○
Reliability/predictability of travel times	○	○	○	○	○	○
Transport efficiency (e.g. kms travelled)	○	○	○	○	○	○
The environment (e.g. less pollution)	○	○	○	○	○	○
Optimisation of transport infrastructure capacity	○	○	○	○	○	○
Improvement of network operation and traffic management	○	○	○	○	○	○
Promotion of innovation, new technologies and services	○	○	○	○	○	○
Strengthening the EU internal market in ITS products and services	○	○	○	○	○	○
Creation of new jobs	○	○	○	○	○	○

3.33 Please provide quantitative evidence if available (including reference to documents, websites…)

3.34 Do you expect any other impact due to the provision of real-time traffic information services?

- Yes
- No
- Undecided

3.35 Please specify and provide quantitative evidence if available (including reference to documents, websites…)

3.36 Would you agree that real-time traffic information services might be a source of distraction for drivers?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

3.37 Please provide additional explanation

4 Implementation of EU-wide real-time traffic information services

This part is mandatory to organisations filling in the questionnaire. Citizens may, however, also answer some or all the questions in this part on an optional basis.

4.1 Do you agree with the statement that in order to foster the provision of real-time traffic information services to users across the EU, it is important to:

	Strongly agree	Agree	Disagree	Strongly disagree	Undecided
Define the roles and responsibilities of the different stakeholders involved in the whole process leading to the provision of real time traffic information services	○	○	○	○	○
Define an harmonised set of data (including road, traffic and transport services data) to be made available to generate and provide real time traffic information	○	○	○	○	○
Make available all publicly held relevant road, traffic and transport services data to digital map producers and ITS service providers	○	○	○	○	○
Establish requirements for the exchange of road, traffic and transport services data between the relevant public authorities and stakeholders such as the private digital map producers	○	○	○	○	○
Establish requirements for the exchange of road, traffic and real-time traffic data between the public authorities and stakeholders such as the ITS service providers	○	○	○	○	○
Establish requirements on data exchange protocols to be followed to facilitate data exchange among stakeholders generating and providing traffic information	○	○	○	○	○
Establish requirements for the timely updating of road, traffic and transport services data by public authorities and stakeholders for the provision of reliable real time traffic information services and up-to-date digital maps	○	○	○	○	○
Establish requirements for the timely updating of digital maps by digital map producers to ensure that digital maps are up-to-date	○	○	○	○	○
Establish requirements for the timely updating of traffic information by ITS service providers to ensure that end users have access to reliable services	○	○	○	○	○

Establish requirements for public authorities to share published traffic management plans and activation status information with real-time traffic information service providers *A Traffic Management Plan (or TMP) is a plan established to clearly direct and control traffic disruptions that call for co-ordinated actions from several services responsible for road and traffic management on a given road or network.*					
Oblige all ITS service providers to route all their customers in accordance with the provisions of activated traffic management plans					
Define common quality criteria for real-time traffic information services					
Define a minimum level of quality applicable to all real-time traffic information services across Europe					
Define an EU-wide mandatory coverage requirement regarding the types of roads that need to be covered with real-time traffic information services (e.g. trans-European road network, all motorways, all roads)					

4.2 Do you consider that it is desirable that the EU takes action to ensure the provision of EU-wide real-time traffic information services?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Undecided

4.3 Would you agree that there is a need to establish a common EU framework (i.e. common conditions, specific requirements)

	Strongly agree	Agree	Disagree	Strongly disagree	Undecided
For the collection of data used to provide real-time traffic information services	○	○	○	○	○
For the sharing of data used to provide real-time traffic information services	○	○	○	○	○
For the re-use of data used to provide real-time traffic information services	○	○	○	○	○
For the delivery of real-time traffic information services to end users	○	○	○	○	○

4.4 Which other issues a common EU framework should focus on? Please specify

4.5 Would you agree that the provision of the real-time traffic information services, including its content based on a pre-defined set of available data, should be left to market players to decide?

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree
- ○ Undecided

4.6 Would you agree that real-time traffic information services for road should be integrated with travel information services for other modes of transport?

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree
- ○ Undecided

4.7 Please provide additional explanation

4.8 What other action(s) do you think the EU should take to ensure and foster the provision of EU-wide real-time traffic information services? Please specify

4.9 Do you have any additional comments?

5 Other questions

5.1 Please give reference to any studies or documents that you think are of relevance for this consultation, with links for online download where possible.

5.2 You may also upload relevant documents accompanying your comments

5.3 Received contributions, together with the identity of the contributor, may be published on Directorate General for Mobility and Transport website, unless the contributor objects to publication of the personal data on the grounds that such publication would harm his or her legitimate interests.
In this case the contribution may be published in anonymous form. Otherwise the contribution will not be published nor will, in principle, its content be taken into account

- [ ] Do not publish my personal data

5.4 Please explain why your contribution should be published anonymously*