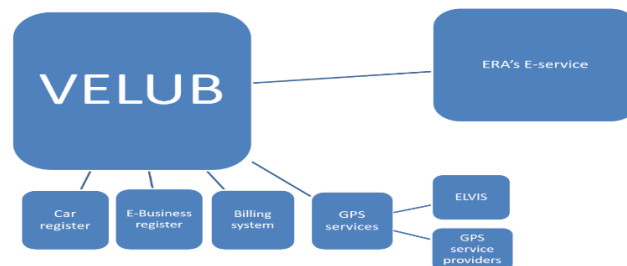


CEDR Technical Report 2022-01



Intelligent Access (IA): current NRA practices

CEDR Working Group Road Freight Transport

June 2022

CEDR Working Group Road Freight Transport

CEDR Technical Report 2022-01 is an output from CEDR's Working Group 3.11 Road Freight Transport. The Working Group's main task is to monitor developments and exchange of knowledge regarding heavy-duty vehicles in relation to constructional safety and the management of assets and traffic.

The Working Group consists of technical experts on road freight transport from Austria, Denmark, Estonia, Finland, Hungary, Italy, Netherlands, Norway, Portugal, Spain, Slovenia, Sweden and UK.

The Working Group Chairs: **Loes Aarts, Rijkswaterstaat, Netherlands** and **Thomas Asp, Trafikverket, Sweden**

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1. Introduction

The CEDR Working Group 3.11 Road Freight Transport performs different tasks in separate task groups. Task Group 2 is concerned with Intelligent Access, later in the report only referred to as IA

Task Group 2 started its activities in the first half of 2021. This report contains the results of the activities of Task Group 2 until May 2022. The report should be seen as an intermediate product. Chapter 5 indicates how the continuation of the work will look like.

The goal of Task Group 2 is to collect best practices about IA. Intelligent Access is a rather new concept. Worldwide, the concept has been in use only in Australia for over 15 years. In Europe there are about five initiatives in which some form of IA is in operation or in a pilot phase.

The definition of IA is as follows:

A regulatory framework using vehicle technology (where the vehicle reports its position and other relevant parameters) to ensure the right vehicle with the right cargo/freight, operates on the right road, at the right time to secure minimum impact on environment, infrastructure, human health & safety, and society.

To achieve the goals of Task Group 2, the following activities have been undertaken:

1. A survey was conducted among CEDR members with a response from 12 countries, the results of which can be found in Chapter 2;
2. Based on the results of the survey, in-depth interviews were held with 5 countries, the results of which can be found in Chapter 3;
3. In collaboration with PIARC, a webinar was organized on January 27, 2022 with the participation of stakeholders from Australia, the Americas and Europe. The main takeaways can be found in Chapter 4.

Chapter 5 provides a summary of the results of this first year and provides a glimpse into the work ahead.

The members of Task Group 2 were:

- Sweden - Thomas Asp (Task Group Leader)
- Netherlands - Loes Aarts
- Denmark - Erik Søbjerg
- Estonia - Taavi Tonts
- Norway - Elin Norby
- Italy - Paolo Federico
- Spain - Jesus Leal

2. Results from the questionnaire

In June 2021, CEDR's WG 3.11 Road Freight transport launched a survey on the topic of intelligent access.

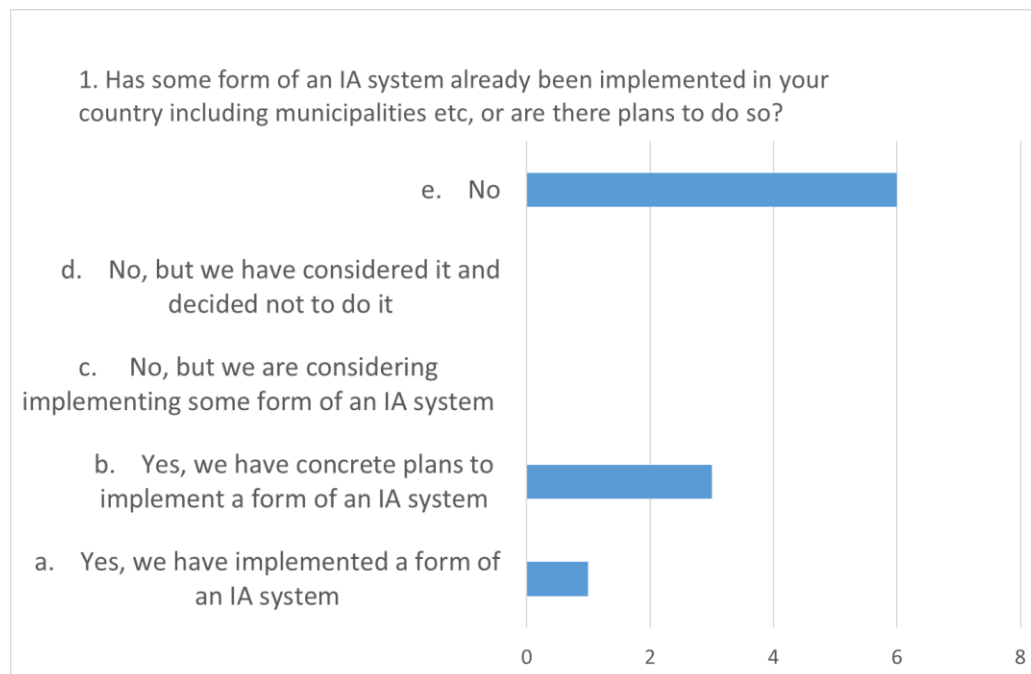
The purpose of the survey was to collect knowledge and best practices about how NRAs can use IA and how IA can be implemented. Twelve countries participated in the survey: Austria, Belgium (Wallonia), Denmark, Estonia, Hungary, Iceland, Italy, Lithuania, Netherlands, Norway, Spain and Sweden.

The questions posed in the survey were deliberately kept simple and based on multiple choice. The idea was that as a result, the response could be higher and the in-depth interviews could be used to make further inquiries from respondents. The following questions were asked in the survey:

1. Has some form of an IA system already been implemented in your country including municipalities etc., or are there plans to do so?
2. Which application areas are suitable for IA?
3. What policy goals could be achieved with IA?
4. What data do you collect, or do you want to collect?
5. What level of reliability does or should this data have?
6. Which parties are involved or should be involved in an IA-system?
7. What are or could be the benefits for the parties involved?
8. Which new EU regulations, both suggestions on current/upcoming regulations and proposals for new regulations, would stimulate the implementation of IA in Europe?
9. 9 What legal obstacles do you see?

The results will be presented below in the form of tables, supplemented with a number of comments worth mentioning. At the end of this chapter, conclusions are drawn about the results of the survey.

Question 1: Has some form of an IA system already been implemented in your country including municipalities etc., or are there plans to do so?



Comments:

- Austria, transports with abnormal loads are given specifications in terms of time and routes; Enforcement and control is carried out on a random basis.
- Denmark, can see some potential in a kind of IA, but we need to clarify the main constraints regarding legislation and political acceptance.
- Estonia, has been developing IA since 2010 for 52t heavy vehicles. At first for wintertime but since 2015 year around.
- Iceland, we have not considered this yet but are aware that we will do that in the near future rather than later.
- Italy, has three different use cases.
 - Smart Road project has the goal of making traffic flows more efficient, improving road safety and driving comfort.
 - Ulisse (Unified Logistic Infrastructure for Safety and Security), which allows the tracking of vehicles carrying dangerous goods and waste in the Campania Region, through an integrated telematics monitoring system.
 - Teweb APP it is similar to Ulisse but it is designed to monitor Exceptional Transport
- Netherlands, pilot IA from September 2021 – December 2022. Application area Road Freight Transport based on exemptions, with an extra risk for constructive and traffic safety. Also plans from cities to control vehicles on emissions driving into Zero Emission Zones.
- Sweden, we have tested a system there you follow time, position and some other data. This was made for different purposes and the first we think will be implemented are for abnormal loads and there we plan pilots under 2022. It is also plans for pilots using IA to be able to allow higher loads on frozen roads

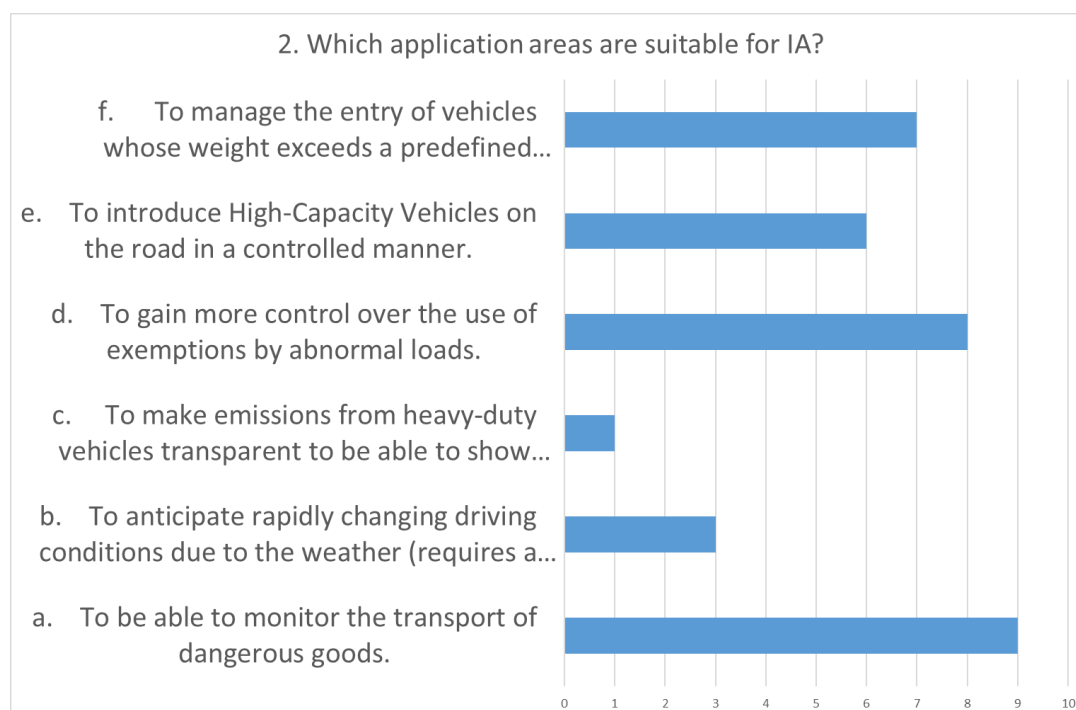
Conclusions

Five of twelve answering countries has implemented IA or plan to do it. This means that seven countries doesn't do it but as you can see both in comments on this question and further down so can all countries see possibilities with IA.

Estonia (mostly timber transports) is in the lead but also Italy (abnormal transports) has IA in real use. Austria, Netherlands and Sweden has planned different form of pilots. It is clear that we have a growing interest for this subject.

There are more information about ongoing projects and pilots in chapter 3.

Question 2: Which application areas are suitable for IA?



Comments:

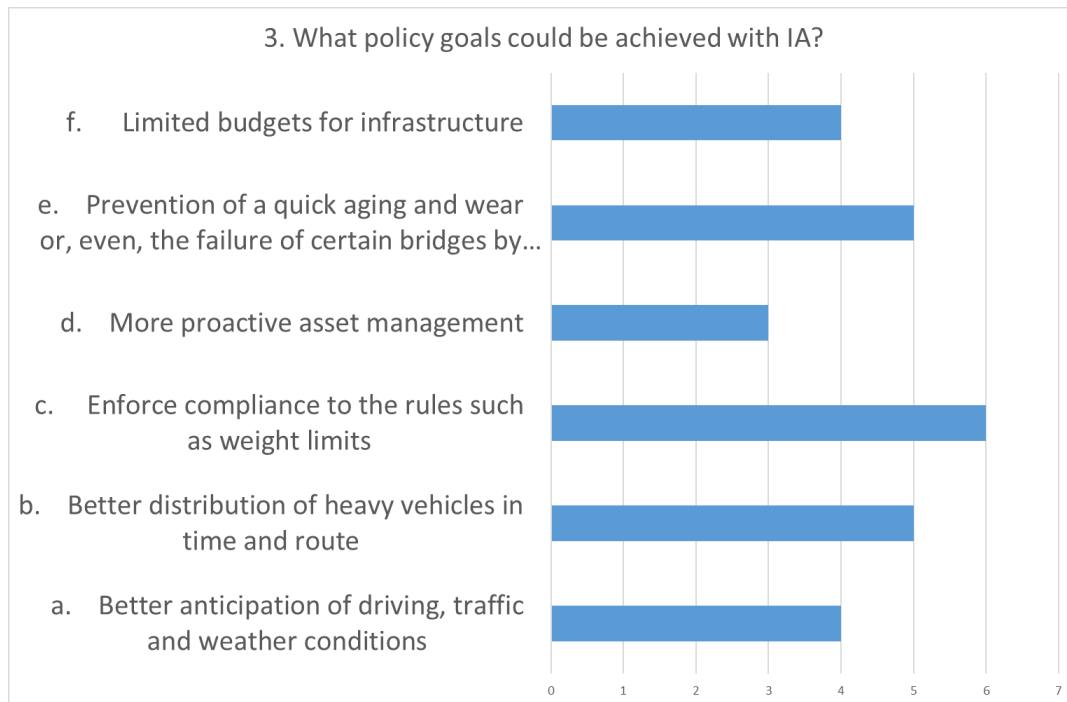
- Estonia, real-time waste management monitoring system, also for all other materials, more transparent transport (from the right quarry via the right/strong road).
- Netherlands, traffic management.

Conclusions

Among answering countries was the possibility to monitor transport of dangerous goods together with control of abnormal transports areas that they saw as most suitable. To manage the entry of vehicles whose weight exceeds a predefined threshold for example on certain bridges and to be able to introduce HCV in a controlled manner had also a "yes" from more than half of the respondents.

Traffic management for example real-time waste management system was ideas that was brought up above what was written in questionnaire.

Question 3: What policy goals could be achieved with IA?



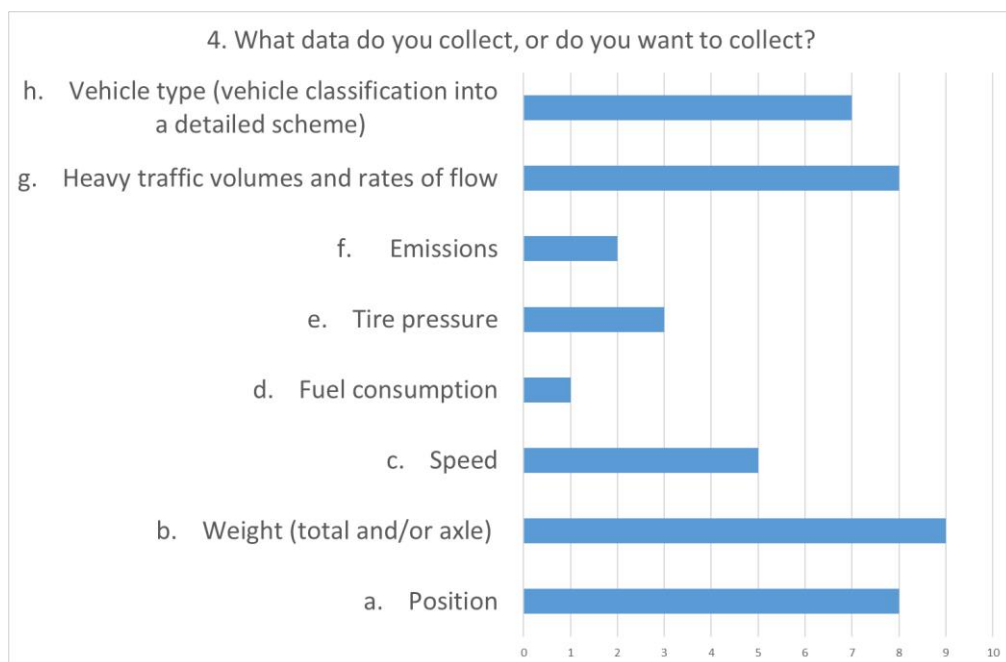
Comments:

- Austria, open up existing laws to make road freight transport more cost-effective and attractive.
- Estonia, cleaner society by using real-time waste management monitoring system.
- Netherlands, ensure accessibility in areas with many restrictions or high volume of traffic.

Conclusions

We can see that all listed policy goals are interesting and with “Enforce compliance to rules” at the top.

Question 4: What data do you collect, or do you want to collect?



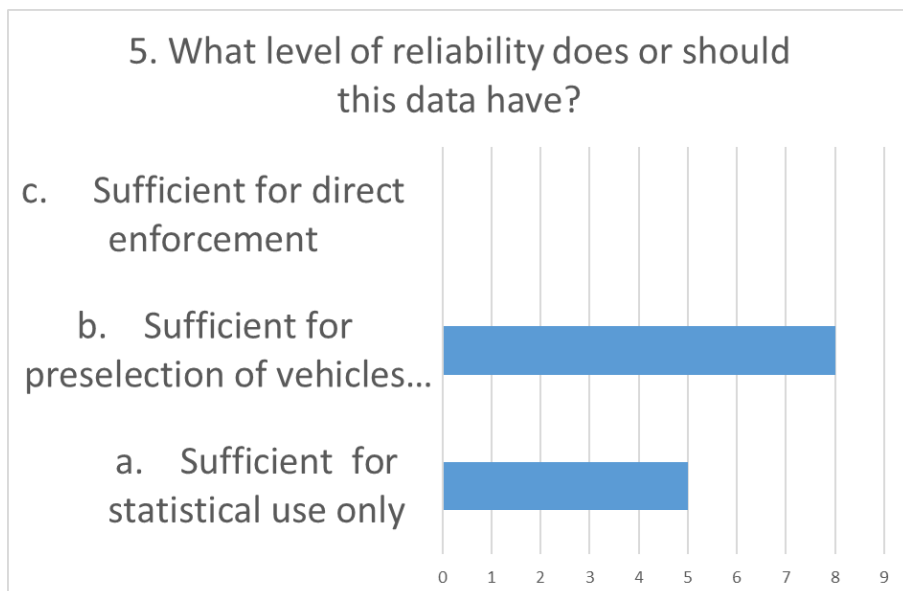
Comments:

- Estonia, driver's right to drive each vehicle category, if taxes are paid (could be done by e-CMR/e-waybill). Comments on above mentioned data.
 - Speed, checked by traffic control daily
 - Fuel consumption, the vehicle owners' interest
- Netherlands, information about the load, presence of driver assistance systems, Event Data Recorder

Conclusions

Here we could see that it was mentioned a lot of different sort of data. Most interesting data to collect was position, weight (total and on axle), volume of heavy traffic and vehicle type. What sort of data you want to collect depend a lot on the purpose of collecting and/or planned use of data.

Question 5: What level of reliability does or should this data have?



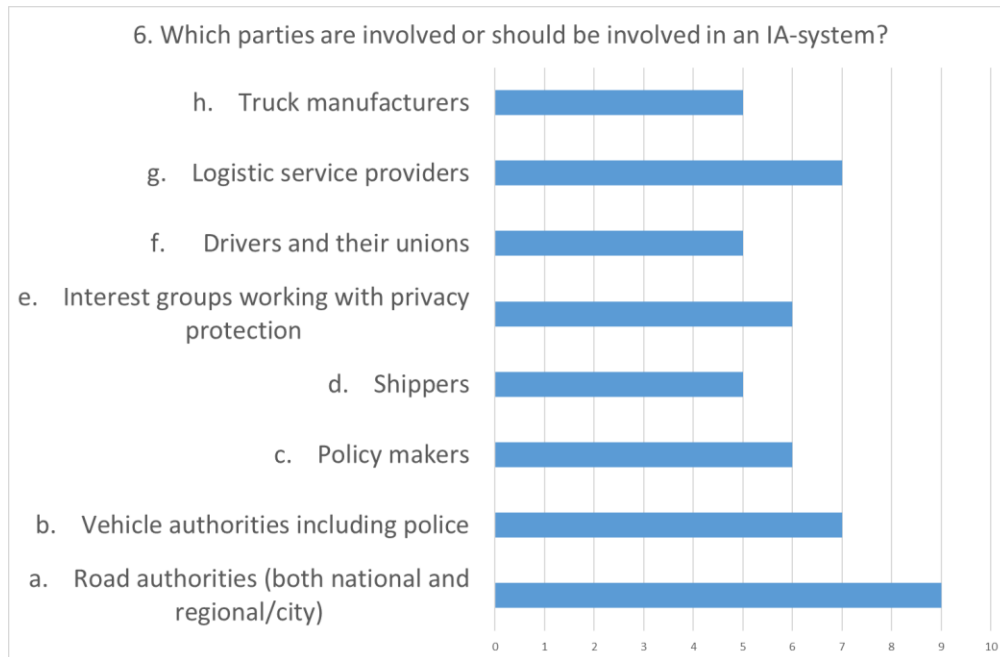
Comments:

- Denmark, maybe on both statistical use and direct enforcement.
- Estonia, reliability for direct enforcement in the future.

Conclusions

Most countries says that level of reliability on data should be so good that it can be used for preselection of vehicles for control and for statistical use. Having so good reliability so that you can use data for direct enforcement will probably be interesting in the future but not in the first step.

Question 6: Which parties are involved or should be involved in an IA-system?



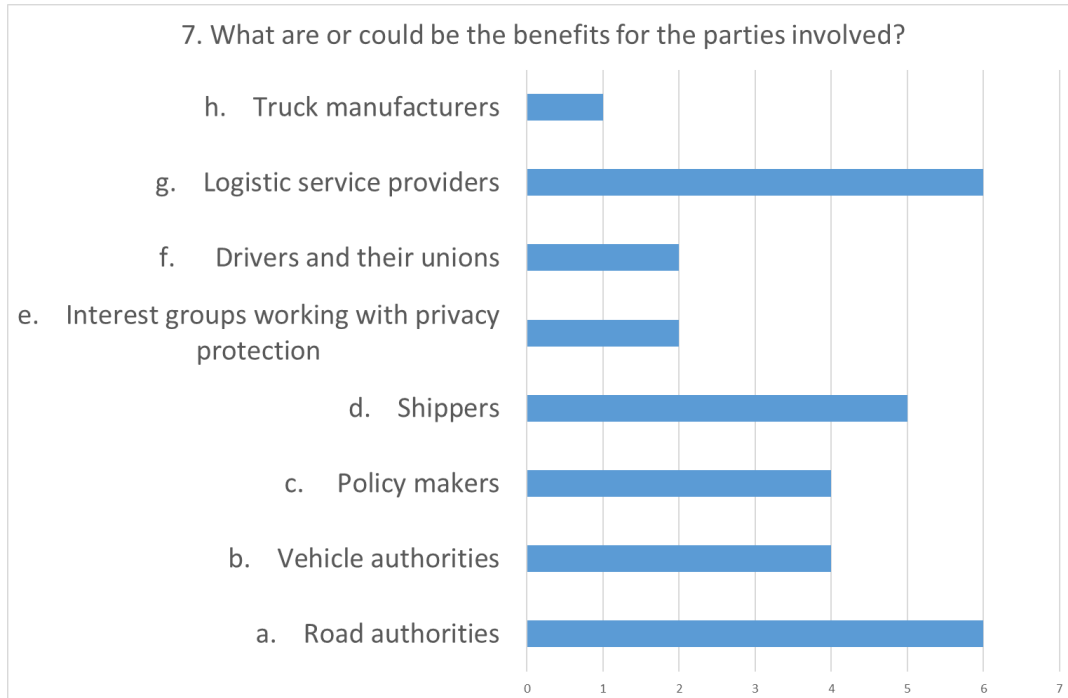
Comments:

- In addition to the groups mentioned above, the following was proposed
 - Netherlands, providers of digitalized services.
 - Spain, transport authorities.
- Sweden, has made a list over drivers and barriers for different stakeholders.

Conclusions

Most countries said that road and vehicle authorities should be included in a IA-system which is a logical but almost all suggested parties should be included.

Question 7: What are or could be the benefits for the parties involved?



Comments:

- In addition to the groups mentioned above, the following could benefit from IA
 - Netherlands, providers of digitalized services.

Comments on listed parties:

- Road authorities
 - Denmark, make sure that HGV / HCT only uses the granted road net, due to traffic safety and limited road/bridge dimensions
 - Estonia, to increase traffic & construction safety and better traffic control (more efficient supervision).
- Vehicle authorities
 - Denmark, more effective enforcement.
 - Estonia, possible to automatically control i.e. vehicle's road tax payments, and the owner's taxes.
- Policy makers,
 - Denmark, more sufficient clearance and knowledge for use in the internal and public discussion regarding usage of the HGV / HCT.
 - Estonia, to have less CO2 in the transport sector, more efficient economy, more protected infrastructure at the same time.
 - Spain, policy and legal framework for Transport authorities.
- Shippers
 - Denmark, assurance that their logistics are legal e.g. according CSR.
 - Estonia, more transparent, efficient (less CO2) and safe logistics.
- Interest groups working with privacy protection

- Denmark, knowledge.
- Estonia, IA is OK inside contracts or as abnormal transport (until it's not supported by EU regulations more widely) – all this is voluntary
- Drivers and their unions
 - Denmark, towards all shareholders an awareness regarding legal and social responsibility.
 - Estonia, more transparent and equal competition between drivers.
- Logistic service providers
 - Denmark, CSR.
 - Estonia, more transparent and effective logistic services.
- Truck manufacturers
 - Denmark, CSR.
 - Estonia, possible to produce more effective transport solutions.

Conclusions

This question about benefits for different parties/stakeholders was in reality divided in two, are there any benefits and if so who are they.

- Road authorities, make sure that HGV / HCT only uses the granted road net, due to traffic safety and limited road/bridge dimensions. Another area is improved data for impact on infrastructure, asset management and long term planning of maintenance and new infrastructure.
- Vehicle authorities, more effective enforcement especially if fines could be issued directly for example based on GPS/weight information.
- Policy makers, overall Transport authorities can have better policy and legal framework. Improved control of which vehicles use which roads, and better mechanisms for excluding vehicles from roads they should not be used on.
- Shippers, assurance that their logistics are legal e.g. according CSR and that includes more transparent, efficient (less CO2) and safe logistics.
- Interest groups working with privacy protection, knowledge and they can ensure that data protection concerns are addressed, but they would not necessarily benefit from the implementation of IA-systems.
- Drivers and their unions, towards all shareholders an awareness regarding legal and social responsibility. It also gives more transparent and equal competition between drivers.
- Logistic service providers, CSR and more transparent and effective logistic services.
- Truck manufacturers, also here CSR. Most of the data from the vehicles are already available through fleet management systems, but a combination of their own data and data from IA systems could improve the efficiency of their operations. Especially if paired with real-time data on restrictions due to weather conditions.

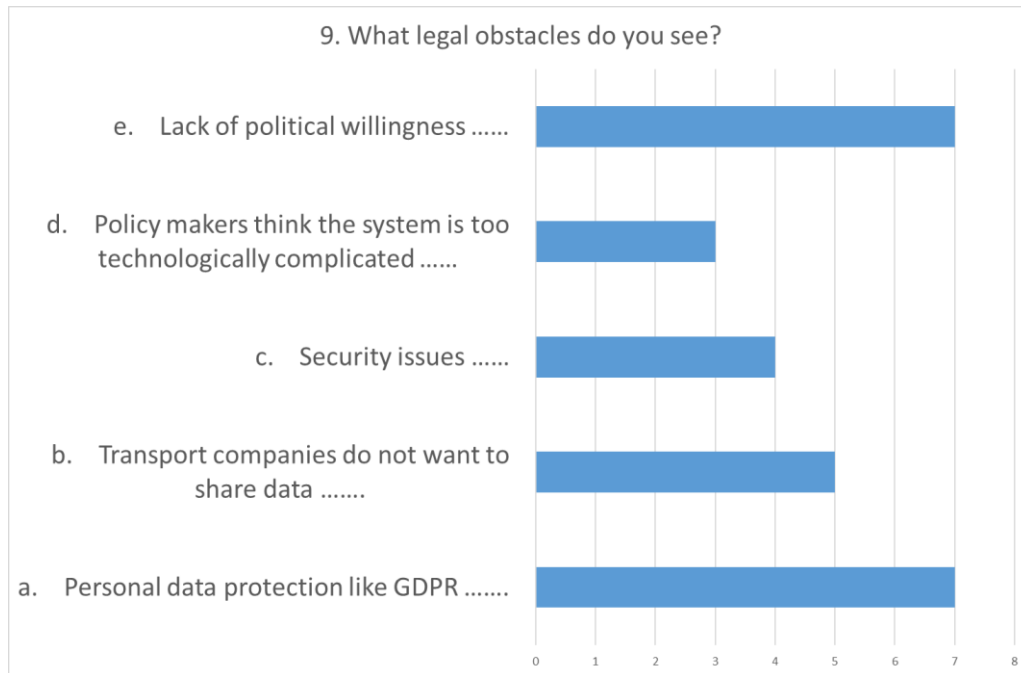
Question 8: Which new EU regulations, both suggestions on current/upcoming regulations and proposals for new regulations, would stimulate the implementation of IA in Europe?

Lithuania: 2020/1056/EU eFTI – for EU electronic freight transport information.

Conclusions

The only but probably a good suggestion is to use eFTI regulation and that is something they already use in Estonia.

Question 9: What legal obstacles do you see?



Comments:

- Austria, other obstacles are costs and could be used to control police, NRAs and others.
- Spain, implementation cost.

Comments on listed obstacles:

- Personal data protection like GDPR
 - Denmark, clearly an issue. But it is possible that the regulations regarding WIM (2015/719/EU art. 10d) can be used in the same way to make sure that only the police have the legal frame and therefore are granted to use the information due to enforcement.
 - Estonia, must be followed exactly and since 22.03.22 our Road Transport Act demands driver ID code in the waybill.
- Transport companies do not want to share data
 - Denmark, they need to be sure that only the police have the legal frame and therefore are granted to use the information due to enforcement.
 - Estonia, if they get something in return, i.e. extra tonnage (with abnormal license) then they are willing to cooperate.
- Security issues
 - Denmark, they need to be sure that only the police have the legal frame and therefore are granted to use the information due to enforcement.

- Estonia, data security is important. Hopefully new 2020/1056/EU eFTI specifications in 2023 will regulate it more.
- Policy makers think the system is too technologically complicated
 - Denmark, immediately not, there are similar systems available.
 - Estonia, 2020/1056/EU eFTI will put different logistic data clouds to work as one, then it might not be much extra work with IA (see i.e. Estonian HVTT16 paper published in September).
- Lack of political willingness
 - Denmark, maybe.
 - Estonia, EU climate targets push everyone to analyse and use different transport effectiveness solutions to fulfil it soon or later.
 - Norway, again, probably, but difficult to elaborate. On one hand, there will be concerns about data protection and increased supervision in general. On the other, the transport industry might push to have IA systems implemented if they believe the benefits (especially the financial) outweigh perceived negatives, which could in turn sway the political opinion.

Conclusions

It is obvious that there are obstacles that need to be solved and there are solutions for most of them, some of them are in comments above. Obstacles are widely spread all the way from personal integrity to lack of political willingness. Besides above listed obstacles was cost mentioned.

Conclusions from comments were:

- Important to have benefits/carrots for involved stakeholders and for politicians and policymakers are cost probably deciding (i.e. EU climate targets; rapidly increasing fuel cost etc)
- Only use data for enforcement otherwise it must be anonymized
- Security around data is important and crucial, sensitive information must not be spread

This is an area that needs more attention and more work and it would be an interesting area for a Call.

In summary

IA is not used so much now but there is ongoing discussions in more and more countries and interest for IA grows all the time. Experiences from countries that already use it or have done pre studies or similar are all positive. All countries could see a lot of use cases for IA and that you could reach policy goals as better compliance of rules such as for weight limits. Most interesting data to collect was position, weight (total and on axle), volume of heavy traffic and vehicle type. What sort of data you want to collect depend a lot on the purpose of collecting or planned use of data. Most countries says that level of reliability on data should be so good that it can be used for preselection of vehicles for control and for statistical use, direct enforcement is something for the future. eFTI is a new EU-regulations that could help implementation of eCMR and also IA. This will soon also open a big EU market for heavy vehicle freight data providers, who can quite easily develop new modules

All stakeholders could have benefits with IA and specially for road and vehicle authorities, policy makers, service providers and shippers. This means also that all of them should be included in an IA-system.

It is obvious that there are obstacles that need to be solved and there are solutions for most of them, some of them are in comments above. Obstacles are widely spread all the way from personal integrity to lack of political willingness. This is an area that needs more attention and more work and it would be an interesting area for a Call. The question about personal integrity will be looked at in a workshop together with PIARC. There is more about future work in chapter 4 and 5.

3. In depth-interviews with 5 CEDR Member Countries that have ongoing or planned use cases with IA

Italy

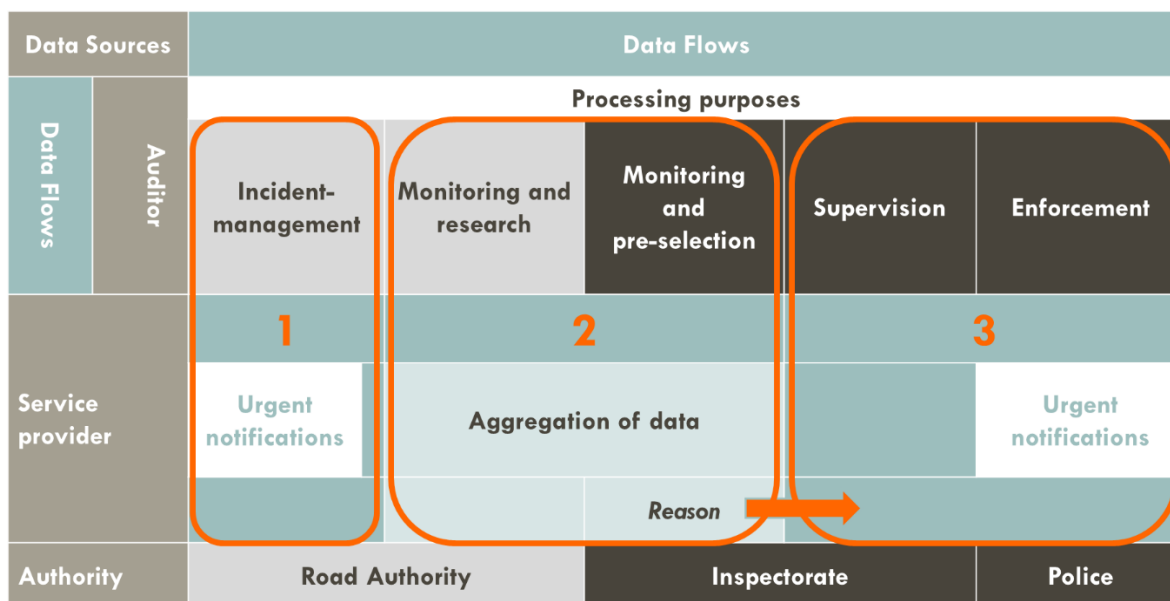
Through an integrated telematics monitoring system Ulisse (Unified Logistic Infrastructure for Safety and Security) allows for the tracking of vehicles carrying dangerous goods and waste in the Campania Region. The satellite tracking of vehicles on the road and their labelling (which makes it possible to trace all the information relating to the vehicle) helps to mitigate the impacts of any transport accidents and to manage them consciously, knowing the position of the vehicle at the time of the accident and the type of goods transported. The information recorded by the system facilitates an organised and rational management of flows through the planning of itineraries or the "booking" of spaces at the nodes (such as ports and inland freight hubs). In this way it is possible to plan the activities of loading/unloading and boarding of vehicles and goods. This results in a significant reduction in operating times and costs and speeds up the bureaucratic activities and the movement of goods in the ports.

The Tweb APP is similar to Ulisse but is designed to monitor abnormal loads. [Special Transport: TEWeb | Anas S.p.A. \(stradeanas.it\)](#)

Netherlands

A pilot on intelligent access will commence in the Netherlands from September 2021. This involves two consortia providing monthly reports with road authorities that will provide insight into the performance of heavy-duty vehicles. The pilot will take nine months, running until May 2022. The aim of this pilot is to learn by doing and so not all aspects of engagement and operation have been clarified. This pilot is part of a larger project investigating the feasibility and scalability of intelligent access.

This pilot is driven by the need to better understand the use of the road network by heavy-duty vehicles. Aging infrastructure and budget shortages mean it is increasingly important to exercise effective control over the freight load on the road network. This can be done by better spreading heavy commercial vehicles over the network according to route and time. The management of network assets can also be smarter if there is more data (intelligence) on the actual use of the road by heavy vehicles and freight traffic. Another important motivation for conducting an intelligent access pilot is that there is currently no insight into how load exemptions are used. After granting an annual exemption for abnormal loads, it is unknown whether the transporter adheres to the prescribed routes and the agreed maximum weight requirements. The pilot will help track the routes of these approved abnormal loads.



The pilot consortia consist of an Application Service Provider, one or more transport companies and a firm that can analyze and aggregate the data into monthly reports. Public sector agencies include vehicle inspections, police, vehicle authority and the national road authority. In time, efforts will be made to create a separate authority that can act as a trusted third party (similar to TCA in the Australian IA-system). In this pilot it is especially important to show policymakers and the market how IA can work and what possibilities it offers.

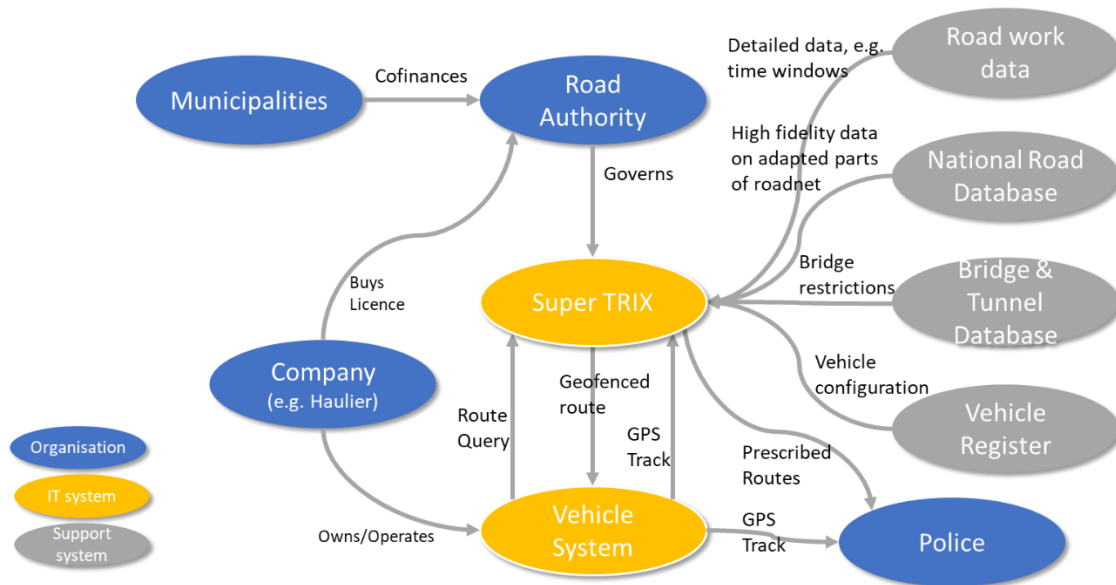
Sweden

In Sweden, an IA-system has been developed but it is not yet implemented. It uses already installed fleet management systems. The on-board computer registers GPS position, axle loads, and the ID of the prime mover and all vehicle modules, which is saved in the cloud or directly reported to a telematics service provider.

Data must be stored for one year and available for inspections by the police in a similar way as tachograph data are checked. Data are also available for driver, operator, transport buyer, and road owner. FMS standard interfaces developed by ACEA are used. Since the telematics systems are already in place in all new vehicles, the extra cost is less than 20 € per month. Older vehicles can be retrofitted with a “dongle”. First expected use cases are for abnormal loads and for allowing higher loads when the ground is frozen.

Sweden has also developed a system for road owners where anonymized data is kept for analysis and statistical purposes. This data can be used for more efficient planning of maintenance of roads and bridges.

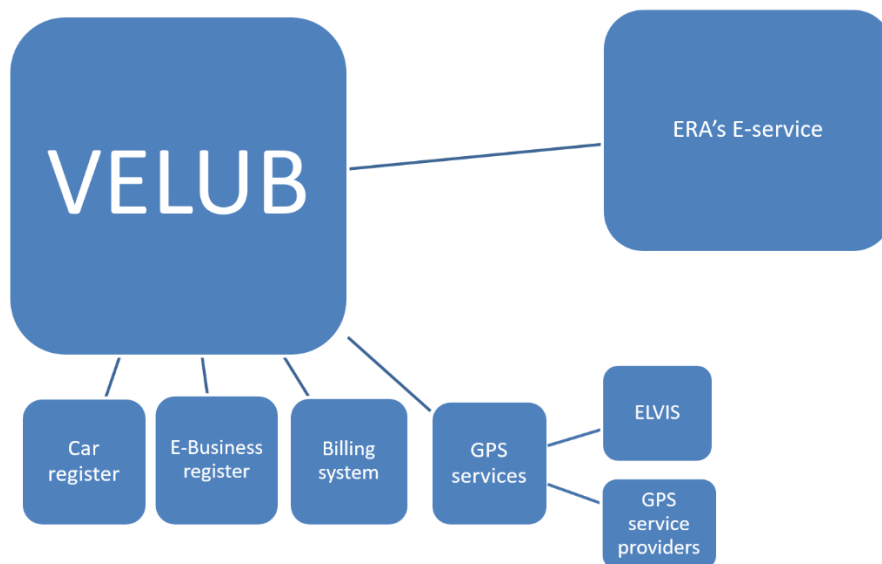
Sweden plan to have two pilots during the next year, one for abnormal loads, see figure below from RISE, and one for allowing higher weight when the roads are frozen during wintertime.



Estonia

Since 2010 Estonian Transport Agency (ETA) has been developing IA.

In the beginning, it was meant only for the wintertime 52t timber transport, if the pavements were frozen at the min 0,5m depth. At the same time, the strong infra corridors were analysed and mapped. Together was this used in the VELUB system, there it was possible to apply for a special vehicles permit. The VELUB principle is also shown in the figure below.



The last years has a lot been done in Estonia in the logistics digitalization area like different new cloud-based logistic systems, some are now in pilot face¹. Possible future use are, if the heavy vehicle is in the wrong road corridor or has a total mass over the limited value etc, the cloud-based eCMR can send a notice to controlling organizations. It's also possible in the

¹ [eCMR | Real-time economy \(realtimereconomy-bsr.eu\)](https://www.realtimereconomy.eu)

future to make automated direct enforcements as well, like the speed cameras do now (i.e. based on Wallonian regulation). Below are different ways to handle waybills and roles of different parties in a national and global ecosystem.

Different waybill types in Estonia

- 1) CMR paper
eCMR/eFTI/NAP (National Access Point)
(The eCMR prototype is ready 2021. In 2023 the NAP development starts)
- 2) Internal state paper waybill (will be jointed in Estonia with eCMR, via the NAP)
e-waybill (since 2020 increasing pilots in ETA's building contracts)
- 3) Abnormal HV permit/waybill, based on:
IA on the VELUB: The violet 52t corridors must be followed on the Smart Road map (min 7 axles; double tires; min Euro 5);
+ OBW & e-waybill in the future for the 60t & min 8 axles; 20,75m; double tires; Euro 6 (under development)

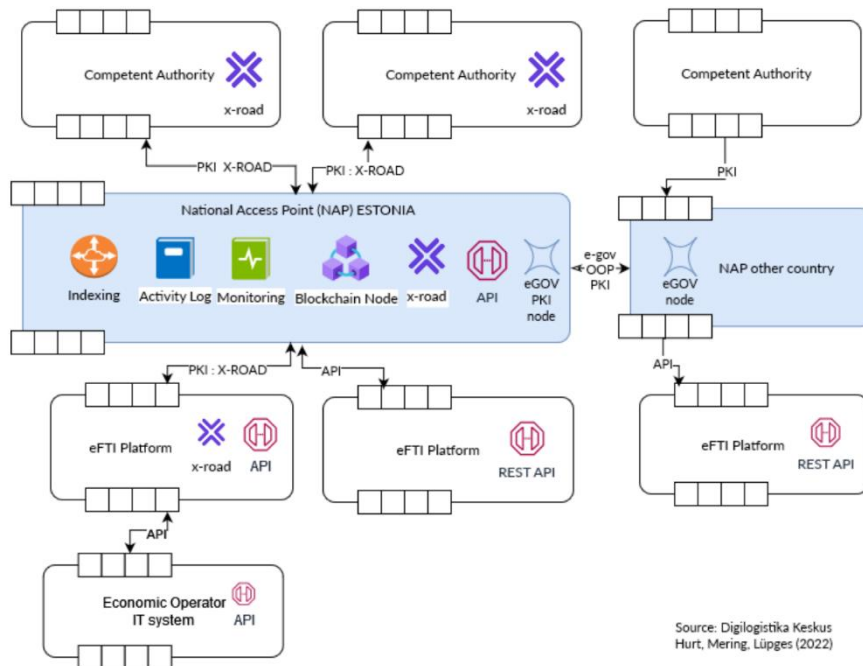
In May 2022 Estonian NAP (National Access Point) analyse² was finished about eFTI (EU2020/1056) requirements³ and possible NAP developer in Estonia. In this autumn, a decision will be made on who will be responsible to develop NAP according to eFTI.

At the moment state also supports eCMR developers according to the eFTI, Estonian NAP requirements⁴. The information exchange architecture is shown in the figure below. Vehicle data (i.e. OBW mass, GNSS) or driver data (i.e. ID code) can be developed as e-CMR (freight data) and this is done by these private developers. This means that there is no need to develop separate governmental systems.

² [e-veoselehe NAP analüüs \(2022\) lõpparuanne.pdf \(realtimeeconomy.ee\)](#)

³ [ARUANNE_eFTI nõuete analüüs_2022 aruanne.pdf \(realtimeeconomy.ee\)](#)

⁴ [E-veoselehe arendamise toetus - EASi ja KredExi ühendasutus](#)



Spain

Spain started a pilot on intelligent access for high-capacity vehicles (EMS2) on specific roads. Research groups are formed, a collaboration between an OEM, a trailer manufacturer, and a research institute. The Spanish authorities give a special permit that allow to make test on the specific roads requested by the logistic companies. Each research group has maximum 5 permits, valid for one year. The vehicles are equipped with a recording device keeping records of the driven routes and vehicle specifics to prove compliance. The research institute is responsible for the reporting. It is expected that the Spanish government is going to legalize these vehicles in the 2nd half 2021.

4. Synthesis webinar CEDR - PIARC (27 January 2022)

4.1. Introduction

CEDR and PIARC jointly organized a webinar to share knowledge and experiences on Intelligent Access Policies (IAP) for road freight transport with experts from all over the world. Intelligent Access (IA) is a logical consequence of the rapid development in the digitization of traffic and logistics and the ambition for more data-driven asset management and enforcement. Below you will find the main takeaways, topics for further exploration and information on the speakers, moderators and panel members.

This report is not intended to be exhaustive, but to present the main results. The complete presentation of the webinar can be found at PIARC and at CEDR (but here only for members) and that includes:

- recording of webinar
- all presentations at the webinar
- this synthesis
- comments from Roger Sack
- presentation by John Gordon about telematics role in road transport

The webinar was split into a Part I and a Part II so that participants in all time zones had the opportunity to participate. The webinar lasted two hours. The first hour was set aside for 5 presentations that should bring the knowledge level of all participants to the same level. The first hour was the same for both parts. In the second hour a panel discussion took place in which the Part I panel had a different composition and different moderator than the Part II panel. The four questions asked to the panel members were the same. For information about the speakers, moderators and panel members, see the end of this document.

4.2. The main takeaways

1. Taking advantage of opportunities

- Question 1.1: Which IA applications are promising from your point of view? Are they covering only new situations or can they be applied also for existing situations?
- Question 1.2: Can the implementation only succeed by making it mandatory, because otherwise, transport companies are never willing to share data, or would IA also work on a voluntary basis?

Shippers as key stakeholders

In both Mexico and Uruguay, it is mainly the shippers who advocate IA. They see intelligent access as a means of making access for High Capacity Vehicles acceptable to policy makers. The shippers offer to collect data and make it available on an aggregated level, on the basis of which authorities can gain insight into compliance with regulations.

If the importance for the shipper is made more concrete, this could provide an enormous stimulus for IA. There is for example a strong link with sustainability. What can IA mean for the shipper in his quest to reduce his ecological footprint?

The road to more sustainable freight transport through transparency

In line with this, Thomas Fabian made a plea to impose sustainability rules not only on the vehicle manufacturers, but also on the other parties in the supply chain (the demand side from the perspective of the truck manufacturers). With the help of IA, the emissions become transparent, so that the shipper can also demonstrate his ecological footprint for the transport part and formulate ambitions for it.

See IA as an “incentive”

What is the main ground for Intelligent IA? It is a question that was widely debated. Is it enforcement? Or is it to give an incentive to stakeholders? A balance between mandatory and voluntary is somewhat in favour over completely voluntary. Several panel members made statements in this direction. But all emphasized the importance of creating incentives that make it interesting for parties in the logistics chain to share data. An example of creating incentives is "contract reward" (Alejandra Efron).

2. The promises of IA

- Question 2.1: What are the main benefits of implementing IA from your perspective?
- Question 2.2: Are there further benefits for creating new business opportunities, e.g. for the private sector or also further benefits for the public sector?

A new relationship between government and the transport sector

The current system is designed for the 10% who do not want to obey the rules; IA is a system that rewards companies that do want to comply with the rules. This is also the reason why IA should not be seen as a pure enforcement system. The resistance to IA will mainly come from the first group.

IA entails a fundamental change in the relationship between the transport sector and the government. This is also underlined by William Riggs' argument that the primary task of the infrastructure is to promote economic growth and the authorities are service providers. It ties in with the service-providing nature of government.

“IA gives the transport industry a new tool to negotiate with the government.” (Gavin Hill)

All of which becomes possible through road-vehicle communication

IA technology can also bring useful information for drivers and vehicle. There are opportunities for data from authorities pushed TO the vehicle, to inform drivers. This will help traffic management and therefore road authorities.

“Main benefits in the US come from the large amount of telematics present in vehicle and infrastructure.” (Caroline Mays)

“IA will help ensuring the best use of infrastructure and of resources. IA helps regulators to better target their limited resources.” (Gavin Hill)

Can IA promote regulatory harmonization?

There are various expectations and statements regarding the relationship between IA and harmonization. Stakeholders who are currently dealing with a patchwork of regulations in

different countries hope that intelligent access will lead to harmonization in regulations. That is not obvious. Because this is an important incentive for certain stakeholders to participate in IA, it is important to further explore this relationship.

3. Are we ready for IA?

- Question 3.1: Are we ready for IA applications regarding in-house knowledge and accessibility for the transport companies?
- Question 3.2: What are the barriers or success factors for implementation?

Technological readiness

Various domains play a role in technology:

- the telematics in the truck
- the extent to which parties in the supply chain have digitized their own business processes and the extent to which they have also coordinated these business processes
- the way in which data is exchanged in a safe and reliable manner between the market and authorities
- the extent to which authorities are able to receive and process digital messages in their procedures
- the extent to which processes are digitized on the infrastructure side and the possibility to also send data / information to the vehicles (I2V).

When asking the question “are we ready?” technology must be looked at from all these domains.

Some panel members also made statements about the extent to which the government could/should play a role in promoting technological readiness. This can range from making telematics devices in the vehicle mandatory to promoting the eCMR.

“There is quite a lot of experience in the logistics sector on how to share data in the wider logistics ecosystem.” (Thomas Fabian)

A different attitude is needed

A number of panel members emphasized that it is crucial that the authorities define very precisely which data is needed for which purpose. This forces the government to think much better and substantiate what it wants to achieve. The government must be held accountable. What is the legal basis on which to collect data? This requires a different attitude on the side of the government.

Collaboration between stakeholders who are normally more likely to oppose each other

IA concerns a very wide range of stakeholders. This was shown by the large attendance during the first webinar. It concerns not only road authorities and hauliers, but also all other stakeholders in the logistics chain. That is why attention to the process is indispensable.

“The road to implementation of Intelligent Access: pilots, sharing best practices, creating a safe space comparable to the Aeroflex sounding board.” (Iffet Türken)

4. The Organization of Trust

- Question 4.1: How can we provide suitable framework conditions for trust, which means fulfilling requirements to guarantee privacy and security?
- Question 4.2: What about sharing sensitive information or the risk that data can be hacked?

Data management is key

“A key principle to deal with strict privacy laws is the IAP is based on positive consent.” (Gavin Hill)

IA may and does not have to be a digital dragnet. Personal data are only required in the event of high safety risks, whether for road safety or construction safety, and in the event of accidents. For the other purposes, data on an aggregated level is sufficient. Distinguish between information and data. Where exactly the boundary is open to discussion. On the part of the government, it requires a clear definition of which data is needed for which purposes.

“The higher the aggregation level, the easier to implement.” (Marcel Otto)

“There is no such thing as a pilot phase for privacy legislation.” (Loes Aarts)

“An entity is needed to help repair the trust.” (William Riggs)

Topics for further exploration

What do we want to address in the next webinar:

1. Rewarding desirable behaviour instead of punishing undesirable behaviour

How can we get all stakeholders on board? How do we build in efficient incentives? How can we use the help of shippers? Show the benefits of transparency for all stakeholders involved.

2. IA as catalyst for harmonization of regulations

How can IA promote harmonisation of regulations? If it does not promote harmonisation, what other incentives are there for the transport sector to participate in an IA system on a voluntary basis?

3. Transformation of the relationship between transport sector and government

What change is needed in the attitude of the transport sector on the one side and the government on the other side?

4. The organization of trust

Third party / authority vs blockchain? How to secure the reliability of self-declaration system? How do we create information (what is the question we want to answer) with minimum data processing.

5. Conclusions and follow-up

The survey and in-depth interviews show that many National Road Authorities (NRAs) see the concept of IA as a new enforcement tool and that there are a lot of possibilities both for NRAs and also for all other stakeholders including for society. Using IA as an enforcement tool is the most obvious interpretation of the concept and when scaling up do other opportunities that the Intelligent Access concept offers become visible, such as better coordination of traffic and logistics. This is to the advantage of the transport companies and shippers, but also to society. In this way, NRAs can improve the quality of their services. The example from Italy, where you use IA for abnormal transports, shows a use case that gives benefits to all involved and showing benefits or incentives for all involved will be important for implementation of IA.

At the heart of the IA concept lies the legislation for the protection of personal data. Also during the panel discussions of the webinar, organizing the trust and legal basis of data collection by authorities appeared to be important issues. If no adequate solution is found in the implementation phase, IA will not be established. In Europe, the protection of personal data is regulated in the General Data Protection Regulation (GDPR). It is an advantage that the same law binds all European countries. This is a bridge to the planned activities, of the task group, that will happen in the second semester of 2022.

We will start organizing an expert meeting on GDPR after the summer holidays. This will only be with and for European participants. This expert meeting includes a privacy-by-design workshop in which a case is elaborated with the 'tracking' of vehicles and without. Both forms of IA have different implementation consequences. The results will be presented and discussed in a second webinar organized by CEDR in collaboration with PIARC. This will take place at the end of 2022. It will also share advancing insights elsewhere in the world in this area.

Results from planned activities will be presented in a report at the beginning of 2023.

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