



# THOMAS MILLER

## Liabilities: Issues relating to Co-operative Systems

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Golden Tulip Hotel West-Ende  
Helmond





# Agenda

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- DEPN Key Objectives
- Risks and Liability
- Co-operative Systems
- The Urban Parking Zones Use Case
- SAFESPOT Incident Scenario
- Liability Exposure
- Questions from the CVIS Interest Group of Local Authorities
- Legal Evidence and Privacy
- Mitigation of Liabilities
- Conclusions and Preliminary Recommendations



To address issues such as:

- User acceptance
- Data privacy and security
- System openness and interoperability
- Risks and liability
- Public policy needs
- Cost/benefit and business models
- Roll-out plans for implementation



# Risks and Liability

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## Objectives:

- To make an inventory of potential external risks and threats for the CVIS project applications and identify a mitigation strategy for each risk or threat judged to be substantial
- To analyse the liabilities and map the legal exposure of each Actor in the CVIS deployment and operational service chain
- To devise tools to manage liability (e.g. model contracts) and draft recommendations for minimising the effects of liability which could create obstacles to deployment

## Approach:

- Identify significant risks to the deployment of CVIS by creating risk registers for each application sub-project – CF & F, CINT, CURB and COMO, culminating in an Inventory of Significant External Risks and Threats
- Monitor changes in risks and strategies for mitigating them
- Map the legal liability exposure of Actors using use cases (for example, the urban parking zones use case in CF & F)
- Analyse existing studies regarding legal aspects of ADAS
- Examine and describe specific legal issues in relation to co-operative systems
- Provide a strong focus on liability and insurance aspects
- Devise tools to manage liability (e.g. model contracts) and draft recommendations for minimising the effects of liability which could create obstacles to deployment



## Co-operative systems raise specific questions

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- There are more parties involved, each with its own responsibilities for the proper functioning of elements of a co-operative system.
- There are growing technical interdependencies between vehicles and between vehicles and the infrastructure which may also lead to system failure.
- There is no 'Mr CVIS' with an overall responsibility for delivering the products and services to the end user.
- These issues trigger questions about responsibilities and potential liability of the Actors involved.





# Booking the Parking Zone Slot (sequence of activities)

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1. The seller has sold goods to the buyer and is obliged to arrange delivery to the buyer's premises
2. The seller engages the fleet operator to effect delivery under the terms of a written contract between them.
3. The fleet operator applies to the CHS for a parking slot in the vicinity of the consignee.
4. The use of the CHS will be governed by a contract of adherence, using standard terms and conditions of business.
5. A copy of the application is sent to the TMS.
6. If the TMS cannot accommodate the vehicle in its system/territory at the time requested, the TMS informs the fleet operator and the CHS, indicating when the vehicle can be accommodated, using a standard form of contract between the road operator and its customers.
7. The CHS then interrogates its participating slot providers (parking zone operators and holding area operators) to determine the availability of an appropriate slot. We envisage a contract between the CHS and its slot suppliers.
8. Once availability has been confirmed, the CHS conveys this information as an offer to the fleet operator and the vehicle.



# Booking the Parking Zone Slot (sequence of activities)

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9. The user responds, either accepting the slot or rejecting it.
10. If the slot is rejected, the user can renew the request with updated data.
11. The CHS repeats the interrogation and reporting cycle.
12. All messages are copied to the TMS which will intervene if it cannot accommodate the vehicle in the revised slot time requested.
13. Once the user has accepted the slot, it informs both the CHS and the TMS.
14. The progress of the vehicle towards the designated slot is then monitored by satellite.
15. All parties need access to the communications system, including the satellite positions.
16. We envisage there being a contract between all parties and the communications services provider for the use of these systems on standard terms to which users adhere.



# Arrival at the Designated Slot

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- The vehicle may be delayed or prevented for a number of reasons:
  - A problem occurring with the vehicle, such as breakdown or delay
  - A problem arising with the parking slot, such as the overstay of the previous vehicle assigned to that slot
  - A problem with the road access to the parking slot, such as a diversion and congestion arising from an accident
- It is the responsibility of the party with whom the problem occurs to advise all other interested parties promptly
- In all cases, the cycle of request, offer and acceptance between the user and the CHS must be repeated with the TMS copied in as before.
- It may be appropriate for the CHS to offer a slot in a holding area, rather than a parking zone, but the same procedures would apply.



# Occupying and Leaving the Slot

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- Once the vehicle has reached its agreed destination, the parking zone or holding area operator must operate any applicable access controls to allow the vehicle entry. We envisage a contractual relationship between the user and the operator which may be a contract of adhesion or an individually-negotiated arrangement or a “hybrid” contract.
- The operator monitors the time the vehicle is in its zone/area and alerts the vehicle when its agreed stay time is nearing its end.
- The vehicle then exits or agrees an extension of time with the operator.
- The operator must update the CHS with the slot status.
- When the vehicle wishes to leave the zone/area, it contacts the operator to arrange its exit and the TMS to clear its route either to the parking zone or out of the road operator’s area.
- On receipt of approval from the TMS, the vehicle can then leave the zone/area.
- On leaving the zone/area, the vehicle informs the zone/area operator, the CHS and TMS and its own FMS.



# Contractual Matrix

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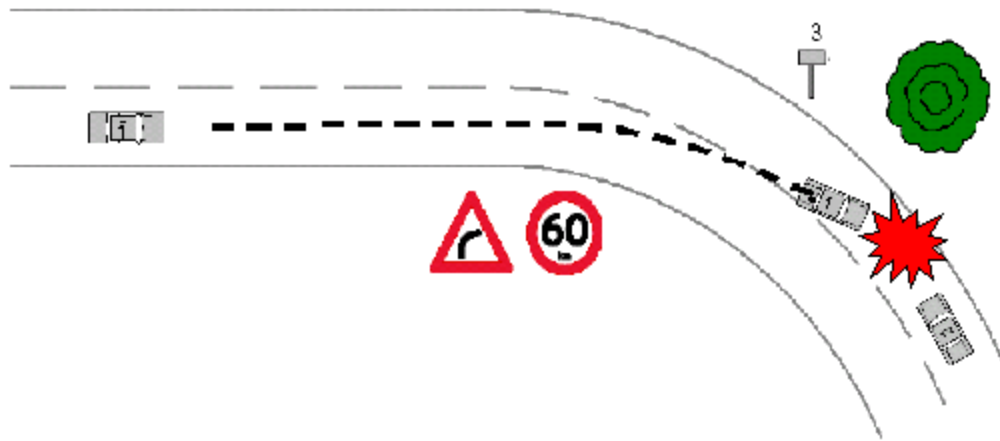


Contract No.	Party A	Party B	Nature of Contract	Comments
1.	Seller of Goods	Buyer of Goods	Sale Contract	Not relevant to Use Case
2.	Seller of Goods	Fleet Operator	Hybrid	
3.	Fleet Operator	CHS	Adhesion	
4.	Road Operator	Fleet Operator	Adhesion	
5.	CHS	Parking Zone/Holding Area Operator	Adhesion	
6.	Communications Services Provider	All Actors	Adhesion	
7.	Park Zone/Holding Area Operator	Fleet Operator	Hybrid	
8.	Road Operator	Enforcement Facility	?	Payment for Police Services?
9.	Enforcement Agency	Parking Zone/Holding Area Operator	Individually Negotiated	



# SAFESPOT Incident Scenario

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## Liability of Driver 1 to Driver 2:

- Driver 1 will be unable to rely on the OBU failure as a defence towards Driver 2.
- Driver 1 cannot be held accountable for the failure of an RSU.
- In any event, Driver 2 would have to prove that Driver 1 had ignored a warning.

## Statutory Liability of the OEM/System Manufacturer to Driver 1:

- Liability for damage caused by a defective product under the Product Liability Directive (85/374/EEC).

## **Important Factors:**

- statements by manufacturers and others that systems are designed only as “support systems” for the driver and the driver is always ultimately in control of the vehicle may not necessarily be decisive, particularly if the reality is otherwise.
- Have the limitations of the system been properly conveyed so that the “average” driver may adapt his driving accordingly?

## Liability of the Road Operator/Owner towards Driver 1:

- Road Operators are responsible for roadside components (RSU and VMS) and as providers of information to drivers either through VMS or electronic data to those vehicles equipped to receive it.
- It is in these areas that Road Operators have a non-contractual liability towards Driver 1.



## Liability of System Providers and Road Managers in Tort

- Liability risks for system providers and road managers cannot be excluded
- Reference should be made to the RESPONSE projects, in particular RESPONSE 3 which developed a Code of Practice for the development and evaluation of ADAS

## Risk Allocation between Actors

- The risk allocation as between Actors delivering co-operative systems to market and their respective performance requirements should be clearly defined in standard contracts between the Actors themselves

## 1. How does CVIS affect the liability structure of local authorities (i.e. What happens in the event of a system error? Who is responsible?)

If an accident arises because the Road Operator introduces a warning system on which it can be expected that road users will to some extent rely, it is likely that the Road Operator will be held responsible for the consequences of a failure occurring in the delivery of that service – provided that the reason for the failure was some fault or neglect on its part.

The Road Operator would be exposed to liability, as follows:

- for the inaccuracy in the message, even if that inaccuracy stemmed from a deficiency in the information acquired by the Road Operator from a third-party service provider
- for the failure of the RSU or VMS equipment to function properly, unless this was caused by some 'force majeure' event, such as extreme weather conditions or other natural or man-made catastrophe. The Road Operator would not be responsible if the fault lies in the OBU, since that is not under its control
- The Road Operator is not liable for a failure in communication provided by a third-party service provider, independent of the Road Operator.
- The Road Operator may be liable for failure to provide a warning when one should have been provided. It may depend on whether a court will be prepared to find that the Road Operator had created a situation in which its road users had the right to expect warnings to be provided in circumstances where they were needed.



# Questions from the CVIS Interest Group of Local Authorities

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## 2. Does the implementation of CVIS applications require any changes of the legal framework? On what level (local, national, EU?)

A road operator introducing a CVIS system has, at least in theory, a potentially increased exposure to liability. It is a question of public policy whether or not this exposure should be reduced or removed in some way.

On the one hand, it is unlikely that governments will view favourably the protection of Road Operators from liability flowing from failure of their operations in the safety field.

On the other hand, the financial burdens of introducing CVIS systems on a broad basis across the road infrastructure of any given country are such that local authorities may require, as a pre-condition of their involvement in such systems, a measure of government subsidy towards the costs of installation and maintenance and some limitation on the degree of responsibility that they will incur once the system is up and running.

Such an arrangement could, in theory, be put in place at local, national or EU level. In the interests of uniformity and avoiding distortion of competition, an approach at the EU level may be the favoured option.

It is likely that the functions of providing traffic information and contracting with third-party service providers will need to be streamlined. This possibility has been addressed in outline in the SAFESPOT project where it is envisaged that, on a national or regional basis, Road Operators will establish some form of supra-organisation for these purposes.



- Liability issues strongly related to the question of legal evidence: Who has to prove what?
- Establishing an audit trail.
- Data protection issues:
  - Agreement to disclosure in user agreements?
  - Public policy and the disclosure of ‘Black Boxes’.
  - Degree of disclosure inherent in monitoring devices already installed in vehicles for accident analysis purposes.

## Mitigation of liabilities

1. Quality of design and rigour of testing
2. Realistic management of expectations and clarification of system limitations
3. Warnings, instructions, manuals, education and (possibly) training
4. Modular approach to applications
5. Certification and validation
6. Model contracts
7. Insurance
8. Pre-agreed claims procedures
9. Pre-agreed alternative dispute resolution procedures
10. A 'without prejudice' restoration fund
11. Establishment of a 'Mr CVIS' corporate structure to provide a front door on which claimants may knock – 'Mr CVIS'





# Conclusions and preliminary recommendations

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- Privacy issues, particularly as to data ownership, storage and access, are of significant importance. Legal data protection principles should be implemented in the design of co-operative systems and data protection authorities should be consulted as to best practice.
- The fact that Actors are joining together to create a co-operative system does not necessarily mean they will join together to share risk. Rather, the principal entity providing the service offering will take ultimate responsibility for its sub-contractors and the performance of that offering.
- Tailoring the Code of Practice for ADAS towards co-operative systems may be helpful.



Thank you for your attention...

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