

# Autonomous Vehicles on the Road from the Perspective of a Manufacturer's Liability for Damages

IUC International Maritime and Transport Law Course  
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Is there a need for more regulation in order to help the production of AVs and mitigate damages?

1. AVs to be treated as conventional vehicles, i.e. as any other product, movable
2. Treat them as elevators/lifts or as autopilot technology
3. New legal framework

# Current legal framework

- National regulations
- EU strategies/investments
- Independent bodies/entities and their recommendations
- Good practices

# What is an AV?

- a **vehicle enabled with technology** that has the **capability of operating or driving** the vehicle **without the active control or monitoring** of a natural person - *Maurice Schellekens, Self-driving cars and the chilling effect of liability law*
- 3 elements:
  1. Means (AI or similar technology)
  2. Purpose of the means
  3. Way of operating the means (active control or monitoring of a human person)
- AV as any other movable

## Waymo's self driving car, 2020



Source:

[https://www.google.com/search?q=Waymo&rlz=1C1GCEA\\_enHR912HR912&sxsrf=ALeKk00G8P\\_y2Ik0nelaDNxJlqcjKMQBlw:1599407756496&source=lnms&tbm=isch&sa=X&ved=2ahUKEwjR67SZ8tTrAhXSTcAKHZATCDQ\\_Q\\_AUoAXoECBgQAw&biw=1366&bih=657#imgrc=z71dtWbxBXnwgM](https://www.google.com/search?q=Waymo&rlz=1C1GCEA_enHR912HR912&sxsrf=ALeKk00G8P_y2Ik0nelaDNxJlqcjKMQBlw:1599407756496&source=lnms&tbm=isch&sa=X&ved=2ahUKEwjR67SZ8tTrAhXSTcAKHZATCDQ_Q_AUoAXoECBgQAw&biw=1366&bih=657#imgrc=z71dtWbxBXnwgM)

## Tesla model 3, 2020



Source:

[https://www.google.com/search?q=tesla+model+3&rlz=1C1GCEA\\_enHR912HR912&sxsr=AleKk02jpE2poObqnLcafHJ6cS5I640c8w:1599427406995&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiAIMCzu9XrAhWEtXEKHU2JBkIQ\\_AUoAXoECAwQAw&biw=1366&bih=657#imgrc=KdNN77Z9fg6tTM](https://www.google.com/search?q=tesla+model+3&rlz=1C1GCEA_enHR912HR912&sxsr=AleKk02jpE2poObqnLcafHJ6cS5I640c8w:1599427406995&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiAIMCzu9XrAhWEtXEKHU2JBkIQ_AUoAXoECAwQAw&biw=1366&bih=657#imgrc=KdNN77Z9fg6tTM)



## Waymo's self-driving technology



Source:

[https://www.google.com/search?q=self+driving+software+companies&rlz=1C1GCEA\\_enHR912HR912&sxsrf=ALeKk03NuNWPdpo2xfQuolrx7\\_a8A2gdFQ:1599555767691&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiljdPKmdnrAhXJYcAKHVAsBdAQ\\_AUoAXoECBIQAw&biw=1366&bih=657#imgrc=-CONfgLi9G6o0M](https://www.google.com/search?q=self+driving+software+companies&rlz=1C1GCEA_enHR912HR912&sxsrf=ALeKk03NuNWPdpo2xfQuolrx7_a8A2gdFQ:1599555767691&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiljdPKmdnrAhXJYcAKHVAsBdAQ_AUoAXoECBIQAw&biw=1366&bih=657#imgrc=-CONfgLi9G6o0M)



# Do we need a driver?

- 1968. Vienna convention on road traffic, art. 8(1): „Every moving vehicle or combination of vehicles shall have a driver”
- Geneva convention on road traffic has a similiar provision
- March 2018.: „Vehicle systems which influence the way vehicles are driven are allowed if they conform to the appropriate technical prescriptions in international legal instruments”

## Waymo's fully driverless car

I took a ride in Waymo's fully driverless car



Source: [https://www.youtube.com/watch?v=\\_\\_EoOvVKEMo&t=24s&ab\\_channel=TheVerge](https://www.youtube.com/watch?v=__EoOvVKEMo&t=24s&ab_channel=TheVerge)

## The insides of a Tesla



Source: <https://evannex.com/blogs/news/what-new-technology-could-be-coming-inside-a-tesla>



## Waymo's fully driverless car – steering wheel message



# Manufacturers, who are they?

- 'Producer' means the **manufacturer of a finished product**, the producer of any **raw material** or the manufacturer of a component part and any person who, by **putting his name, trade mark or other distinguishing feature** on the product presents himself as its producer. 2. Without prejudice to the liability of the producer, any person who **imports into the Community a product for sale, hire, leasing or any form of distribution** in the course of his business shall be deemed to be a producer within the meaning of this Directive and shall be responsible as a producer.
- Where the producer of the product cannot be identified, **each supplier of the product** shall be treated as its producer unless he informs the injured person, within a reasonable time, of the identity of the producer or of the person who supplied him with the product. The same shall apply, in the case of an imported product, if this product does not indicate the identity of the importer referred to in paragraph 2, even if the name of the producer is indicated.
- The question of software and hardware? What about programming?



# Manufacturer's liability for damages (non-contractual)

- Elaine Herzberg, Uber, 2018.
- Tesla, Level 2 fatalities: January and May 2016., 2018., 2019.
- Out-of-court settlements

# From what moment is the manufacturer liable?

- As soon as he places the product on the market
- For the purpose of sale, rent, lease, as a donation

# Scope of liability

- Strict liability; fault
- The manufacturer will not only be liable because the product has hazardous properties, but will be liable for any **failure to inform** the user of the hazardous properties of the product
- The directive on product liability (85/374/EEC) – how to define a safety standard:
  1. The presentation of the product (Tesla's self driving)
  2. The use to which it could reasonably be expected that the product would be put (off road vehicle)
  3. The time when the product was put into circulation (technological advancements)

- Damage on property at least 500€ (small claims); exception human life
- To prove the damage, the defect and the causal relationship between defect and damage
  - Black box inside the car, lack of available data to the consumer, fraud, blockchain
- Injured party's rights, deadlines, limitation period, procedure, etc.

- What happens when we exclude all human interventions? All liability is on the manufacturer!
- How, exactly, will claims for design or warning defects be framed?
- Will these liabilities be common for manufacturers?
- Does the crash of an autonomous vehicle necessarily mean that its design is defective?
- What type of warning is required in these cases?
- How could the manufacturer of an autonomous vehicle adequately warn about the full range of risky driving behaviors across a complex operating environment?



# Reasons for exonerations; taxative list (6) according to national legislation

- Force majeure (vis major) is not on the list of reasons in the COA; meaning
  1. that he did not place the product on the market; test vehicle
  2. that, based on the circumstances of the case, it is probable that the defect, nor its cause, did not exist at the time when the product was placed on the market; subsequently damaged sensor
  3. that the product has not been manufactured for sale, lease or any other business purpose, nor that it has been manufactured or placed on the market in the course of its business; exhibit
  4. ...

# Opportunities and challenges?

- Inform the consumers/user; give regular notices; what if the user does not comply
- How to use/handle AVs?
- Insurance pool
- Data share; behavioral dynamics; different AV-systems of various producers
- Technical station for vehicle inspection as a third co-responsible party
- Different driving experience and driving cultures, complexity of driving behavior
- Modifications of parts (*Ghost* and *comma.ai*); transformation of CV to AV
- Is there a balance (how to make it as safe as possible and yet, functional?)



Source:

[https://www.google.com/search?q=autonomous+cars+environment&rlz=1C1GCEA\\_enHR912HR912&sxsrf=ALeKk00gnu9E72qHgMBx9A8DOLVNBi1kA:1599551248152&source=lnms&tbm=isch&sa=X&ved=2ahUKewiQrMjfiNnrAhUGWsAKHa2uCc8Q\\_AUoAXoECBUQAw&biw=1366&bih=657#imgrc=j8ErbLltBSsZ6M](https://www.google.com/search?q=autonomous+cars+environment&rlz=1C1GCEA_enHR912HR912&sxsrf=ALeKk00gnu9E72qHgMBx9A8DOLVNBi1kA:1599551248152&source=lnms&tbm=isch&sa=X&ved=2ahUKewiQrMjfiNnrAhUGWsAKHa2uCc8Q_AUoAXoECBUQAw&biw=1366&bih=657#imgrc=j8ErbLltBSsZ6M)

# Summary

- Public's perception, price, availability, resale, car-sharing services
- A product is defective when it does not provide **the safety which a person is entitled to expect...**
- View of future; cost of uncertainty; a brand-new start
- Carmakers at an industry show described autonomous vehicles as "a future that won't materialize... unless legislators around the world create a new legal framework"