Road safety: driven by innovation
Active safety technology & automation

ASECAP ROAD SAFETY CONFERENCE
EUROPEAN ECONOMIC AND SOCIAL COMMITTEE

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• Safety remains a key priority

• Progress made: EU road fatalities have been reduced from 54,000 in 2001 to 26,000 in 2015

• Still too many, plus trend is slowing down

• Through innovation, the automotive industry continues to invest in safer, cleaner and smarter mobility solutions
A SUCCESSFUL APPROACH

• We need a fully integrated approach

• A successful safety strategy includes:
  - Innovation in vehicle technology
  - Cooperative intelligent transport systems (C-ITS)
  - Road user behaviour and training
  - Better road design and maintenance
  - Enforcement of existing traffic regulations
A SUCCESSFUL APPROACH

- Road safety is a complex combination of many factors and interactions between different players

- That’s why Europe needs a coherent policy framework

- ACEA supports update of the General Safety Regulation
  - Have to make choices to deliver the biggest impact
  - Focus on the most cost effective solutions
Safety innovation

What to expect for the future?
SAFETY INNOVATION

• Human error is main cause in 90% of all accidents (eg poor anticipation, distraction and violation of traffic laws)

• **Active safety systems** can help to avoid accidents or mitigate their impact significantly

• **Automated driving**: increasing degrees of automation will take over some tasks (or even all, in the long run) from the driver, minimising the impact of human error
ACTIVE SAFETY

• **Objective:** to avoid accidents or reduce their impact

• **Priorities:**

1. **Autonomous emergency braking system**
   - Step 1: moving and stationary obstacles
   - Step 2: pedestrians (Euro NCAP 2016)
   - Step 3: cyclists (next)

2. **Lane keeping assistance**
AUTOMATED DRIVING

• Great potential to further reduce the number of accidents

TODAY
Synergy of new sensors and functionalities of active systems and partial automation increases traffic safety, also beyond automated driving scenarios

TOMORROW
Potential to increase traffic safety by replacing the driver in automated driving scenarios
How do we get there?
Working together
HOW DO WE GET THERE?

• Auto industry is equipping latest vehicles with:
  o Active safety technologies to prevent accidents from happening
  o Increasing levels of automation to take over (certain) tasks from the driver

• But vehicles are only one piece of the (complex) puzzle
  o All stakeholders need to work together before the potential of active safety technologies and automation can come to full fruition
  o Important role for infrastructure and road operators, as well as policymakers

• Key challenges:
  o Connectivity (C-ITS)
  o Physical infrastructure
CONNECTIVITY CHALLENGES

• C-ITS, communication between:
  o Vehicles (V2V) – eg emergency braking
  o Vehicle and infrastructure (V2I) – eg speed advice

• Infrastructure requirements
  o Networks need to provide full coverage with low latency
  o Cross border: exchange of safety and traffic information should be seamless
  o Investments in ‘digital highways’ necessary to get connectivity where people drive (so far, investments have mainly occurred in urban areas)

  o Actions:
    ▪ European Commission’s C-ITS strategy (November 2016) important step
    ▪ Industry dialogue: European Automotive Telecom Alliance
CONNECTIVITY CHALLENGES

• **Quantity and quality of information made available**
  - Information needs to be exhaustive/complete and accurate/up-to-date
  - Examples: speed limits, traffic jams, construction sites, obstacles, etc

• **Access to vehicle data for third-party services**
  - Manufacturers willing to share data for C-ITS purposes
  - But vehicle integrity (safety, security and liability) should always come first
  - Direct third-party access would:
    - facilitate hacker attacks (data interfaces increase number of entry points);
    - pose additional safety risks in terms of driver distraction
      (if external parties get uncontrolled access to on-board systems).
PHYSICAL INFRASTRUCTURE

• **Road infrastructure**
  o Design of infrastructure – eg truck traffic shouldn’t cross bike lanes
  o Maintenance of roads also key – eg unclear traffic signs

• **Readable roads**
  o Tomorrow’s cars need to be able to properly ‘read’ roads,
    ie poor road surface marking will affect safety

• **‘Offline’ C-ITS information**
  o Need partnership with road operators to provide safety-relevant
    C-ITS information to non-equipped road users (eg using signs)
CONCLUSION

• Safety remains top of mind

• Innovation will be key to enhancing safety

• Need for a coherent European approach

• Call for a partnership approach with road operators
THANK YOU FOR YOUR ATTENTION

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