

Knibb Gormezano & Partners  
International Management & Technology Consultants



# Active Safety Systems

## A 2009 Research Report in Two Volumes

### Summary Presentation

Brian Knibb

# Overview

- In-vehicle active safety systems but containing discussion and debate on other safety systems where relevant
- Undertaken to update a multi-client research project completed in 2005
- Focus on Europe but with some references and discussion regarding the wider world, especially USA
- Report to be published in partnership with Supplier Business a Global Insight subsidiary



# Methodology

- KGP knowledge base
- Published material
- Internet survey
- Industry interviews
- Interviews with government departments, associations, lobby groups etc.



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# Two Volumes + Survey

- Volume 1:
  - Introduction
  - Executive Summary
  - Forecasts & adoption scenarios
  - Special critiques
- Volume 2:
  - Detailed examination of 33 technologies, what they do, how effective they appear to be, what regulatory issues exist, current applications and market data
  - Profiles of key suppliers of active safety systems



# Web Survey

- Conducted in March 2009
- ~ 50 good responses from industry professionals
- Focus on:
  - Importance of specific technologies
  - Need for incentivisation
  - actions necessary to speed up implementation
- Published as a separate paper





# Main Conclusions

- Active safety systems are emerging as effective tools in product differentiation
- But currently there is a limited commercial argument for active safety systems
- Low levels of consumer awareness hold back market penetration
- Government intervention is yet to be effective



## .....Conclusions

- There is still a lack of good accident causation data
- The insurance industry is now more keen to give incentives
- Conditions for technology development are far from optimised
- There are concerns over reliability
- Interventions do increase the rate of systems development and deployment.
- Vision Zero should be the medium term aim



# Forecasts

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### Active Safety System Market Penetration - European Union

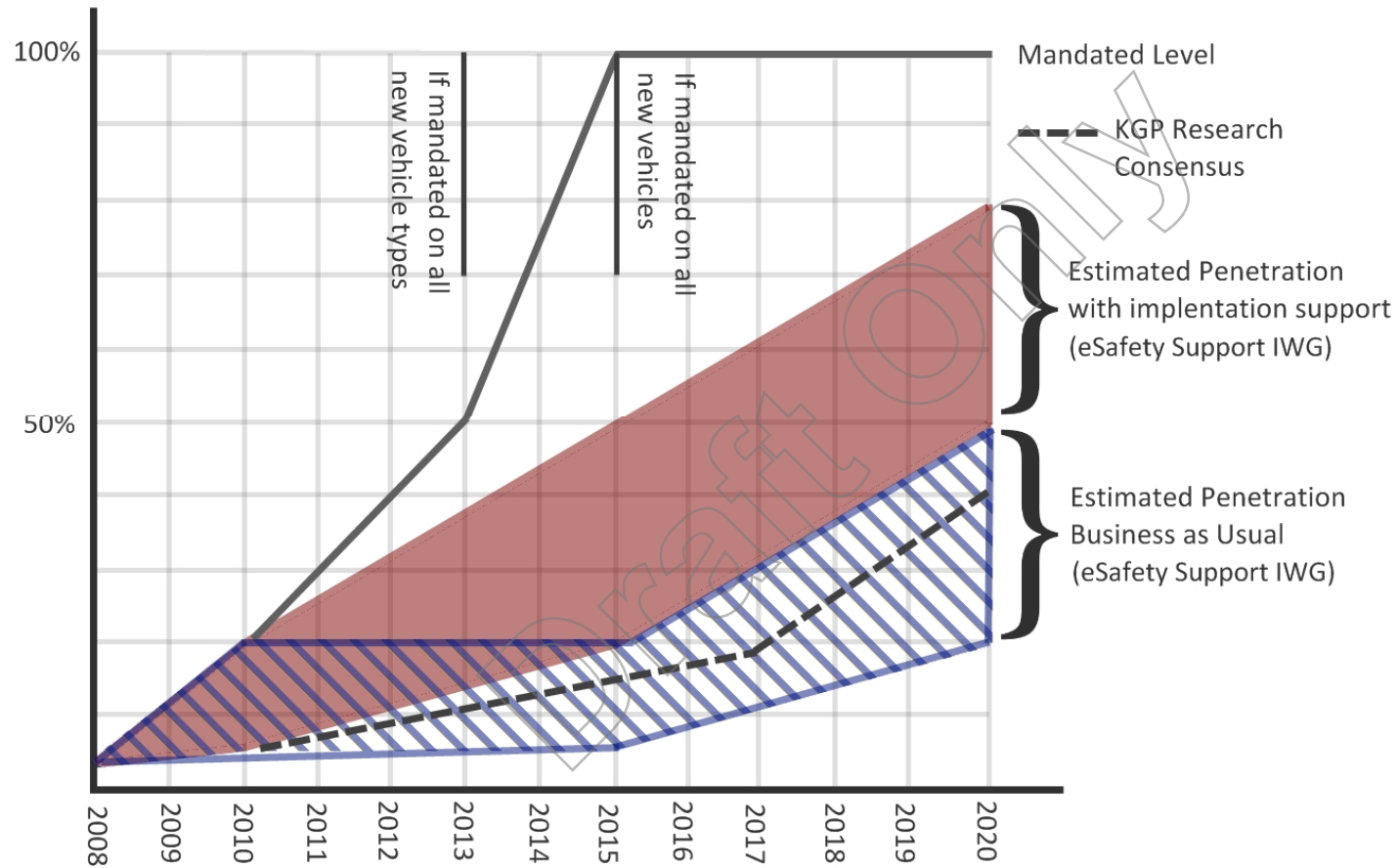
Table - Market penetration scenario: forecast installation rate in the European Union (% of new registrations)

Active Safety System	Short term 1-2 years	Medium term 3-5 years	Long Term 6-10 years
Tyre Pressure Monitoring Systems (TPMS)	15.0	100.0	100.0
Electronic Stability Control (ESC)	50.0	100.0	100.0
Blind Spot Monitoring System (BSMS)	1.0	3.0	8.0
Curve Adaptive Lighting (CAL)	5.0	8.0	15.0
Collision Mitigating System (CMS)	1.0	5.0	8.0
Lane Departure Warning System (LDWS)	1.0	5.0	8.0
Electronic Brake Assist (EBA)	3.0	8.0	20.0
Speed Alert System (SAS) nomadic	25.0	30.0	50.0

For all 33 technologies

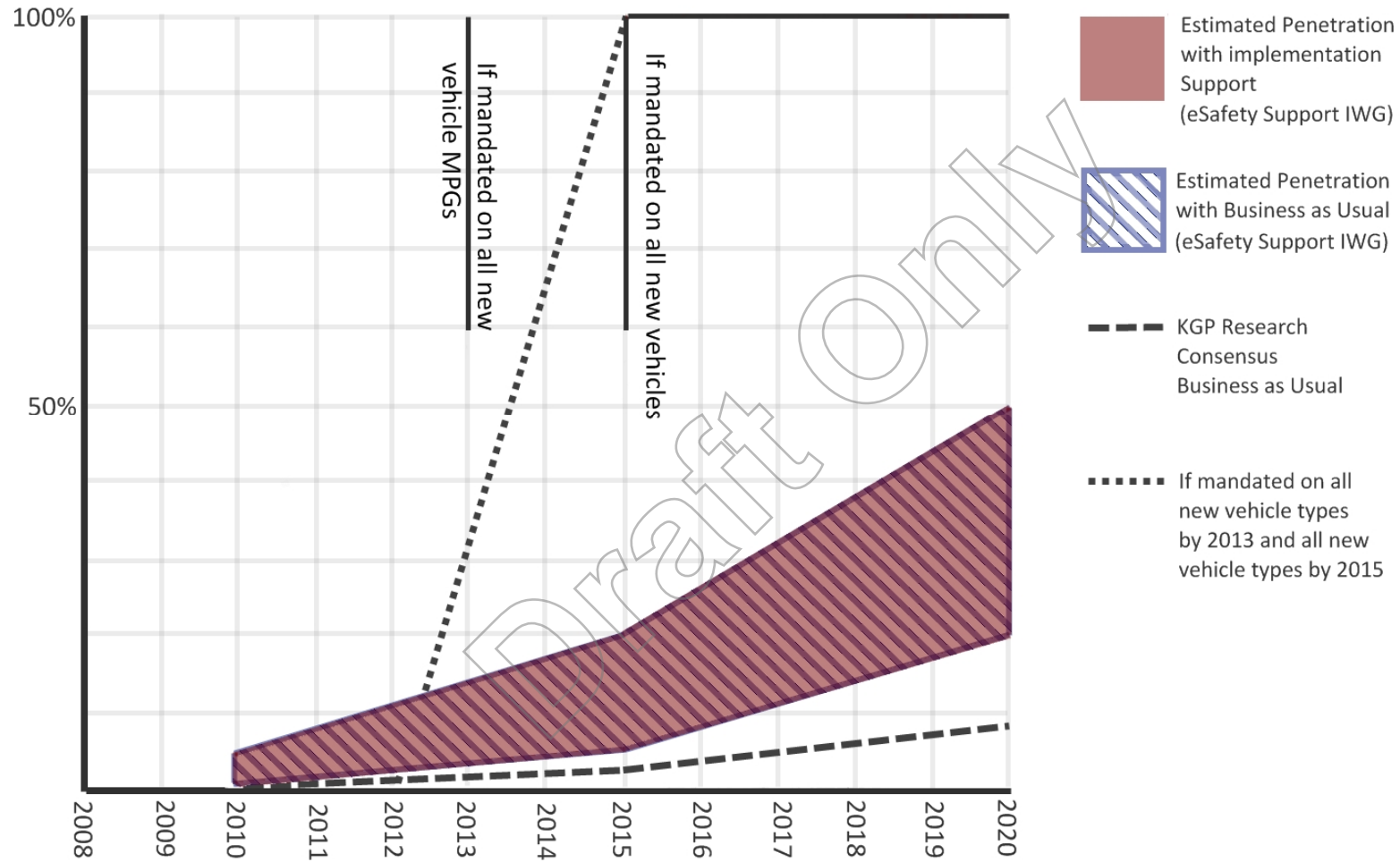


### Active Safety Systems Routemap - Electronic Brake Assist (Emergency Braking Assist) Estimated Penetration





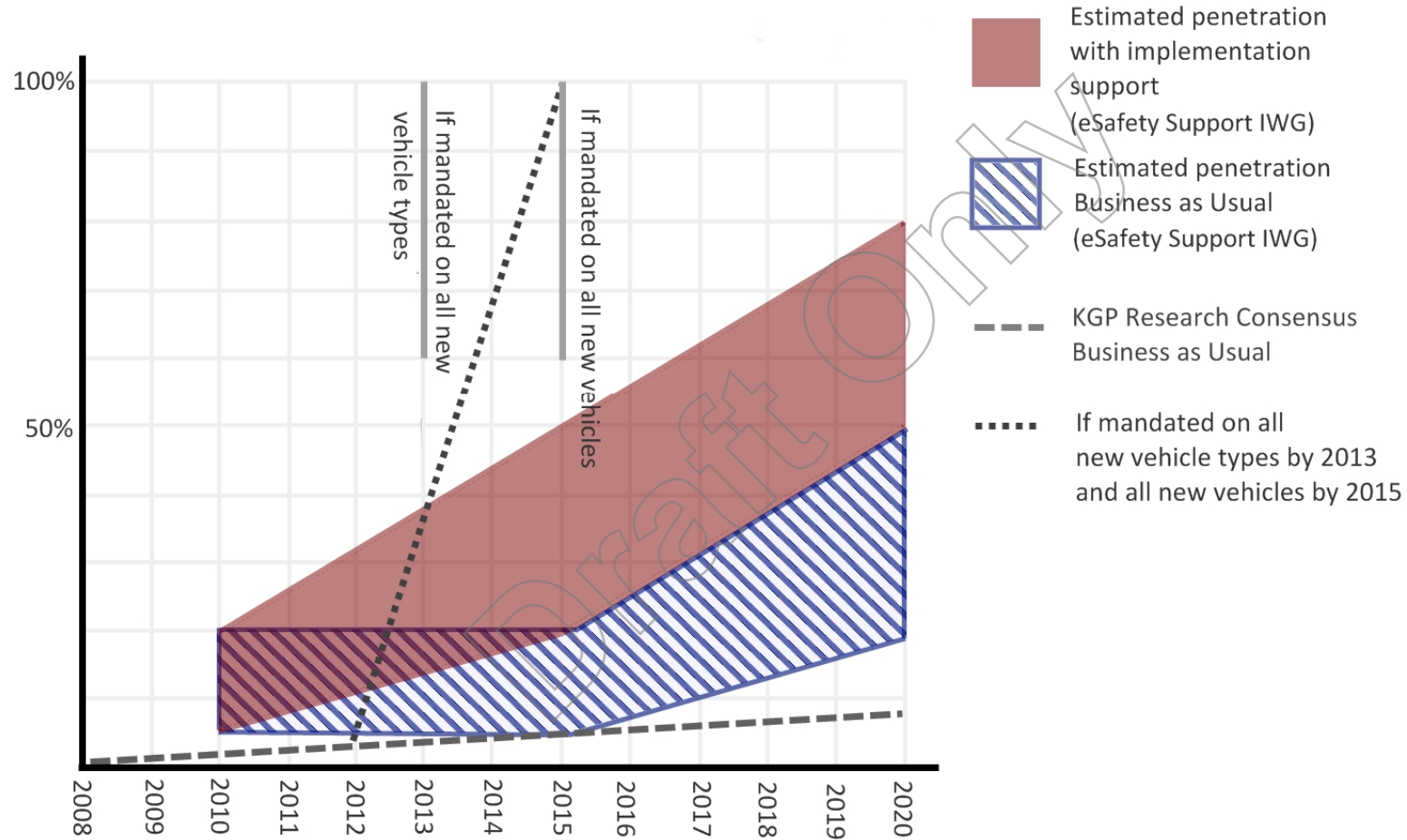
### Active Safety Systems Routemap - Blind Spot Monitoring System



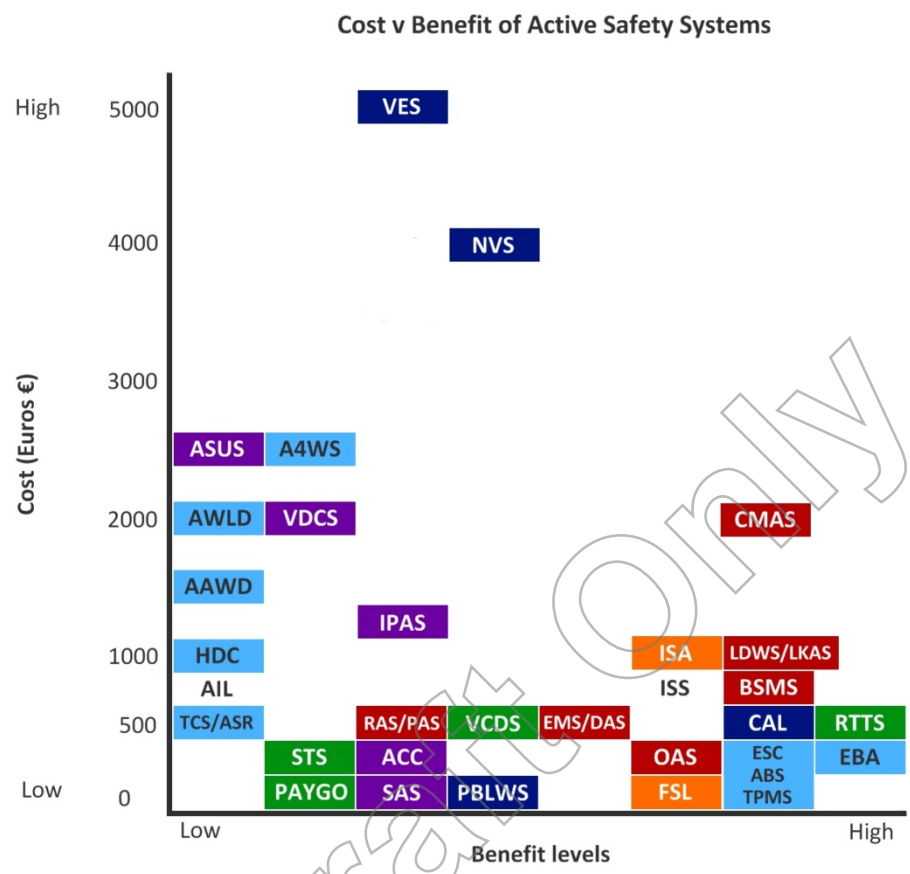
- Estimated Penetration with implementation Support (eSafety Support IWG)
- Estimated Penetration with Business as Usual (eSafety Support IWG)
- KGP Research Consensus Business as Usual
- If mandated on all new vehicle types by 2013 and all new vehicle types by 2015



### Active Safety Systems Routemap - Lane Departure Warning Systems



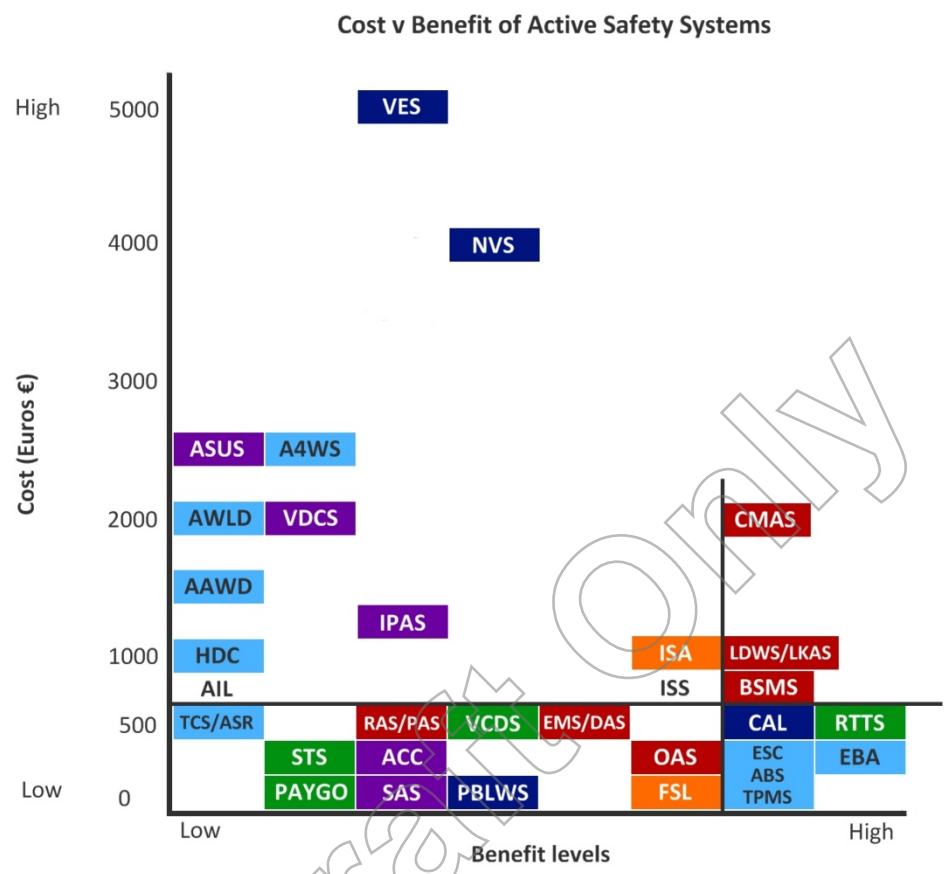




Source: KGP industry interviews  
 Note: Represents relative cost versus relative benefits, using average dealer to consumer price levels  
 The ranking assumes a higher benefit for systems that aid higher speed situations

- Dynamic Drive Systems
- Lighting Systems
- Speed Influencing Systems
- Tracking Systems
- Suspension Systems
- Traction Systems

Ideal Low Cost - High Benefit Highlighted



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Ideal Low Cost - High Benefit Highlighted

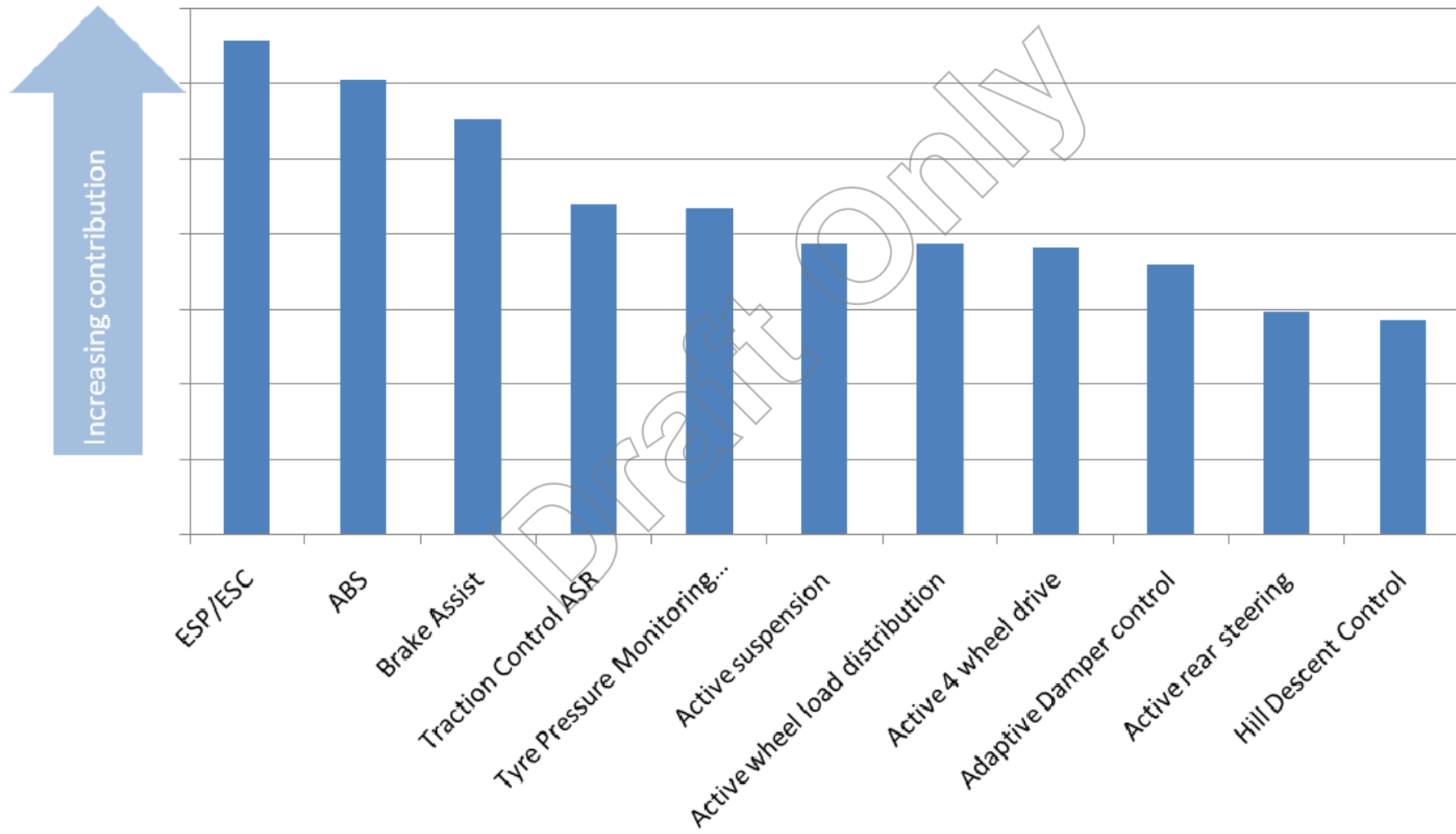
# Active Safety Systems Survey

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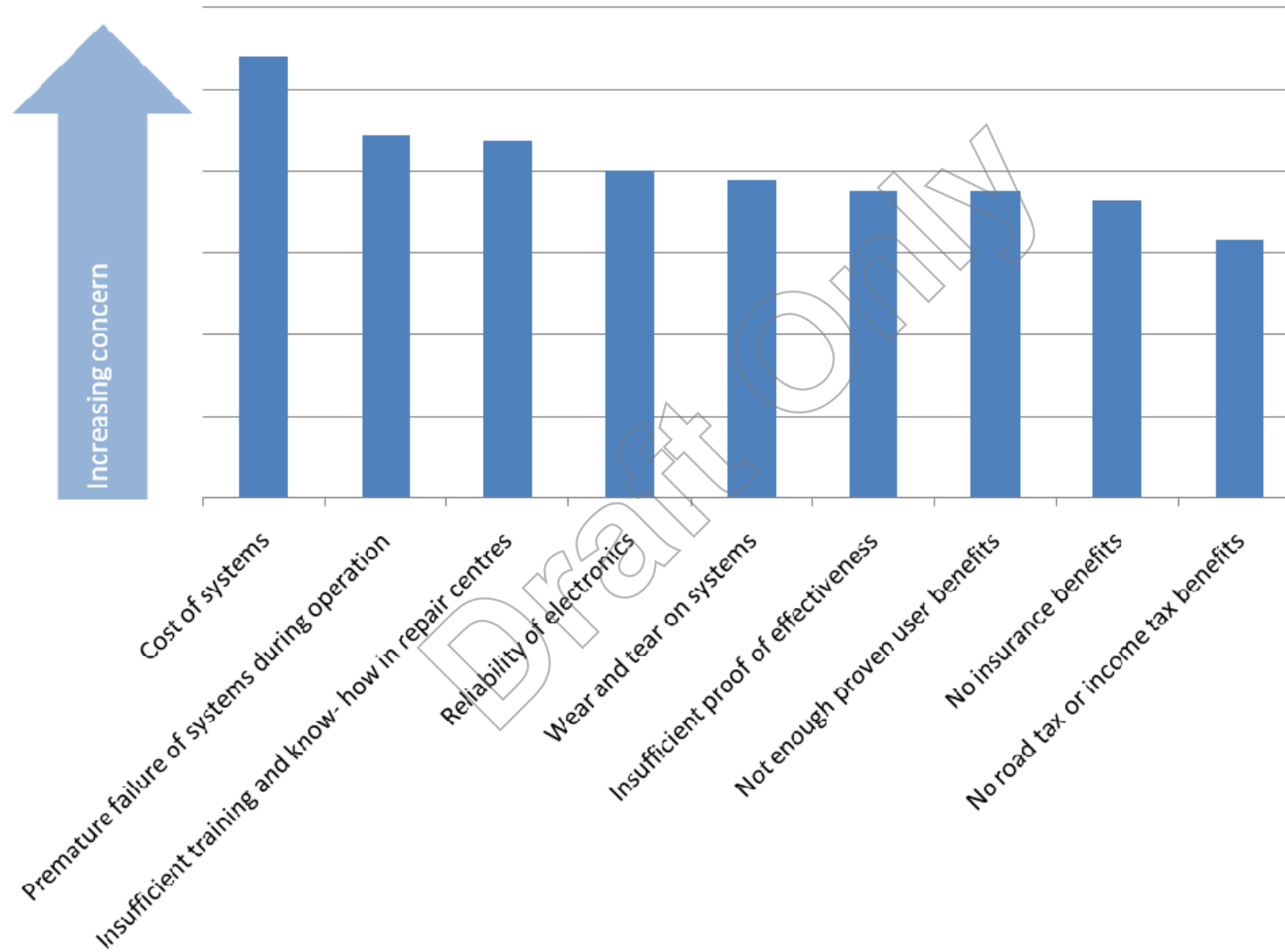


- *Suppliers identify Lane Departure Assistance and Crash Mitigation and Avoidance systems as the most important future technologies in accident prevention*
- *They were also asked about the greatest issues facing manufacturers of these systems and how the economic downturn will affect their development as well.*
- *The survey was conducted in March 2009, with 48 respondents in total.*
  - *Vehicle Active safety was seen as the most important, with nearly 90 percent of interviewees classing it as “very important” or “extremely important”.*
  - *Next came Vehicle Passive safety with just under 80 percent citing it as “very” or “extremely” important. Infrastructure Improvements and Pedestrian Safety less important but nevertheless vital.*

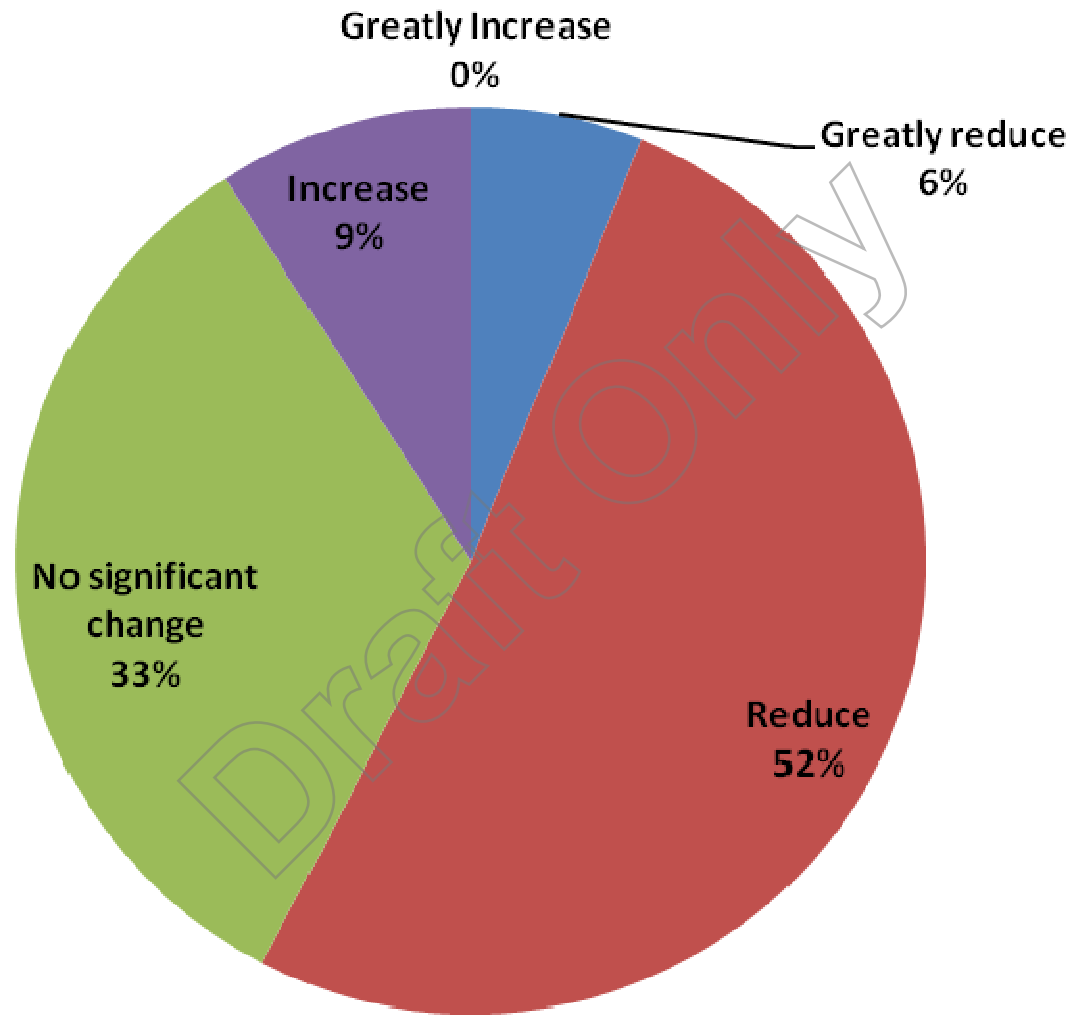
# What contribution do you believe active braking, steering and chassis systems below make to accident reduction?



# Which issues involving the wider introduction of Active Safety Systems are causing you the most concern?

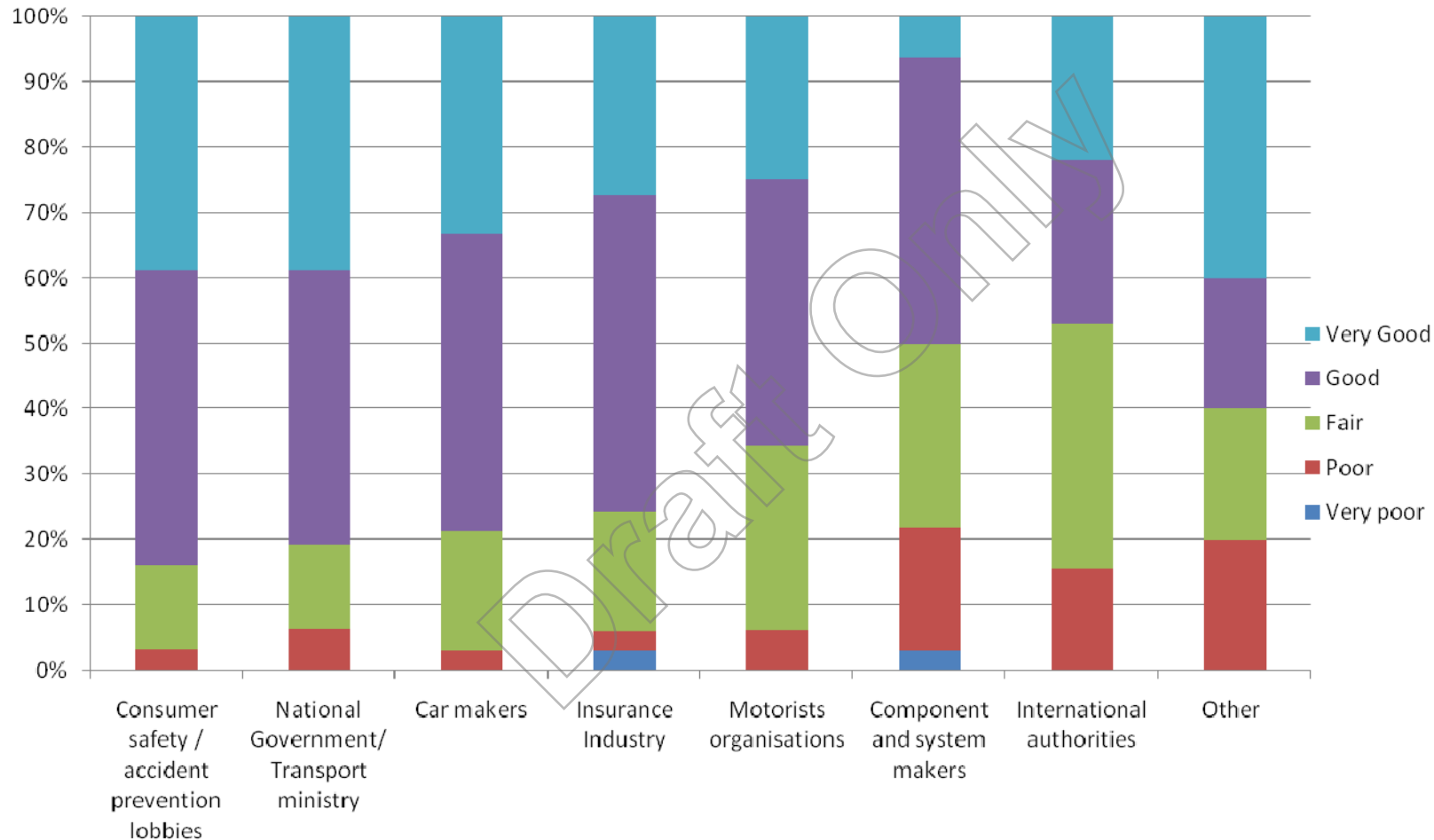


# How will the economic downturn affect the rate of introduction of active safety systems?

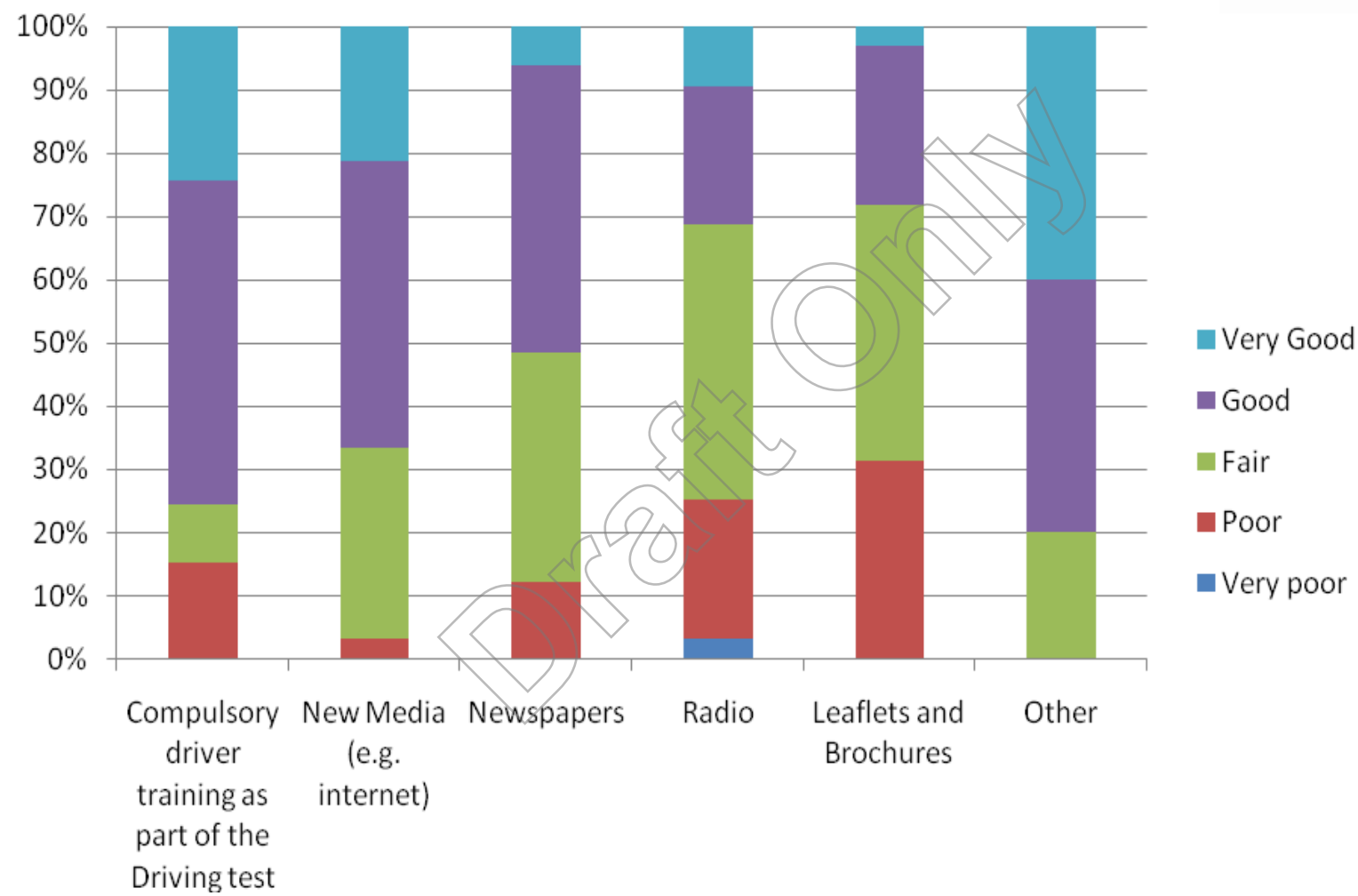


# Which authority is the best route to improving wider knowledge and adoption of Active Safety Systems?

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# Please rate the following ways of keeping the public informed about Active Safety Systems





# Recommendations

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# Actions by Car Manufacturers



- Marketing to consumers
  - Improved marketing strategies that help the consumer understand the systems and their value in preventing accidents. Options need to be positioned to compete against alternatives such as leather seating and entertainment systems.
- Realignment of R&D resources
- Collaboration on standard setting and testing
- Common standards and testing regimes,
- Common electronic architectures
- Lower development risk for key suppliers



# Actions by suppliers

- Marketing, advertising, promotion
  - The supplier industry is totally focused on selling its products to the carmakers.
  - Feature decoupling
  - Increasing collaboration
    - Suppliers can reduce the commercial risk associated with the development of active safety systems through strategic alliances or collaborations (e.g. Valeo/Raytheon collaboration on radar-based systems and AUTOSAR).



# Actions for governments

- **to increase the rate of active safety systems deployment**
  - Mandation
  - Increased incentives
    - National governments have the ability to change taxation and give incentives to carmakers and suppliers to speed development
  - Consumer behaviour should also be influenced by changes in taxation
  - Pressure on the insurance industry
  - Reducing the risks of litigation and product liability

# Next Steps

- Publish report(s)
- Newsletter – monthly events, updates, news
- Extend web survey
  - Wider stakeholder audience
  - Consumers (? - funding needed)



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## Comments to:

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