

# HOW FAR DOWN THE ROAD IS THE UK TO DRIVERLESS CARS?

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# The Challenge – everyone ready at the same time

## Highways authority

- Adapt road markings and traffic lights
- Collaboration with manufacturers
- Managing a mixture of driverless and conventional cars

## Law enforcement

- Road regulations to change
- Criminal uses of driverless cars including how police will stop cars breaking the law
- Who's responsible for traffic offences
- How to prove a vehicle has been overridden by its user

## Insurers

- Can a driver who isn't driving be liable for an accident?
- price risk for events that haven't been tested
- investigate claims
- insure driverless car manufacturers

## Regulators and legislators

- Regulators and legislators can enable or block driverless cars
- recognition that driverless cars are different to existing cars
- a stable, consistent and forward looking regime
- scope for innovation in elements that hold competitive advantage, but rigid standards for elements that don't

## Communications and system providers

- Consumers will expect new choices and outcomes from their mobility providers
- How to stay relevant in this new ecosystem
- Handling of significant amounts of data

## Government and policy makers

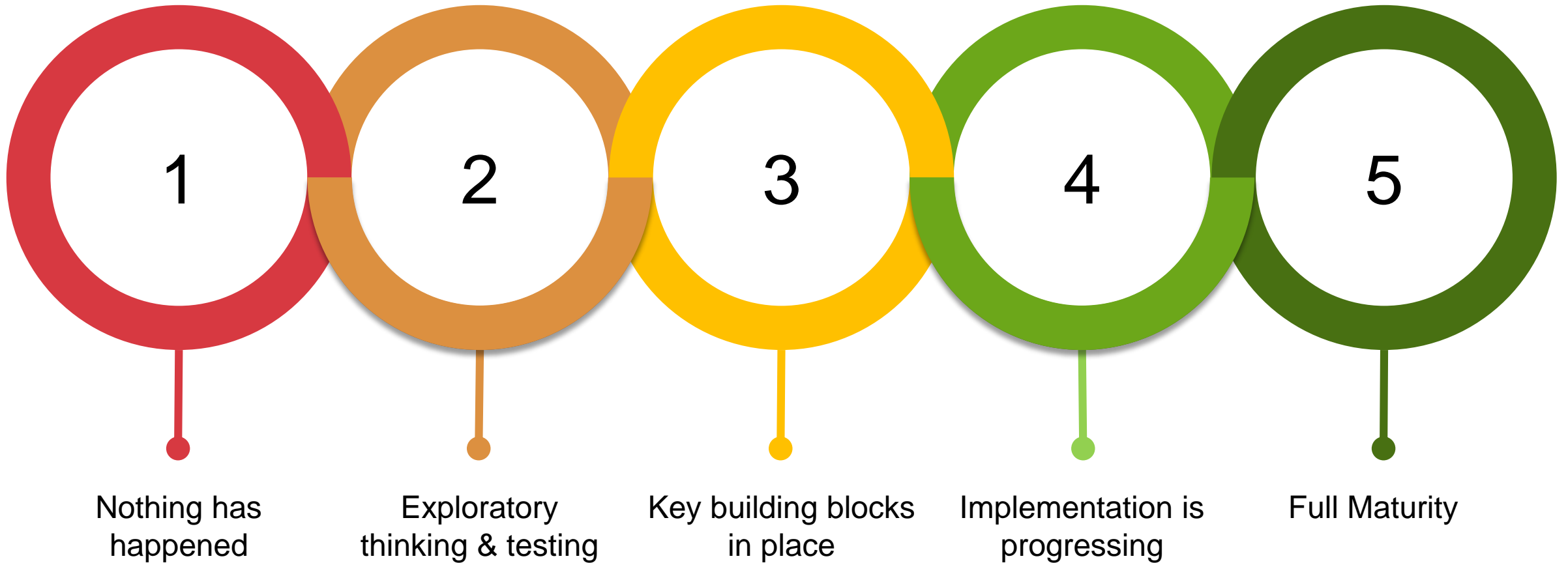
- Needs a coordinated strategy to shape standards
- UK should be seen as seen as leaders
- Safeguards against rigged tests
- Data protection issues
- Certification of vehicles

## Automotive manufacturers

- Affects on their business model
- How the ecosystem will develop
- Industry-wide view of what CAVs are for and how they're developing
- Developing industry wide standards

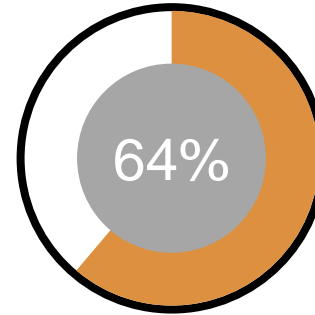
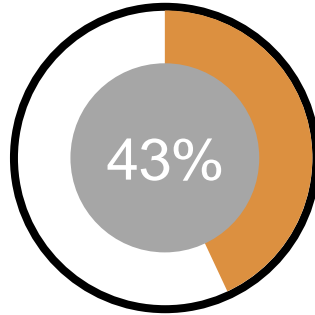
# How we measure maturity

PA's Automation Maturity scale plots progress across the whole CAV ecosystem to understand how far the UK is along the road to fully adopting driverless cars. It is based on the SAE standard J3016: Taxonomy and definitions

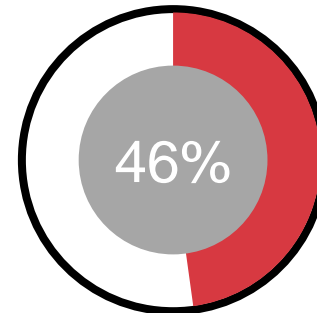


# Highways Authorities – More than just the roads

Road network support of CAVs



Exploratory thinking and building blocks in place



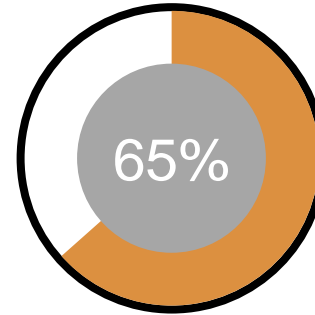
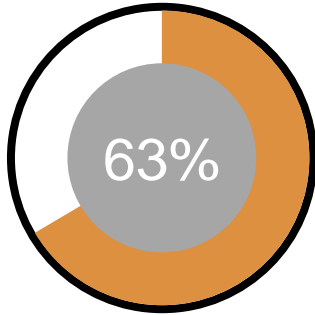
Tight budgets mean upgrades to local roads aren't taking driverless cars into account

## Recommendations

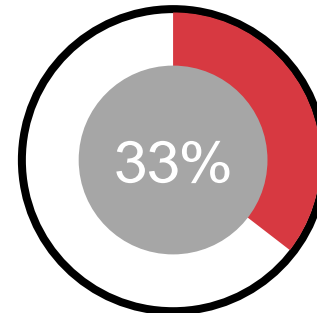
- Agree a long-term vision between Highways England and local authorities
- Pinpoint projects that will bring the biggest benefits for highways authorities

# Insurance – Knowing where will liability lies will be key

Ability to assess the risks



Know how to charge a risk premium

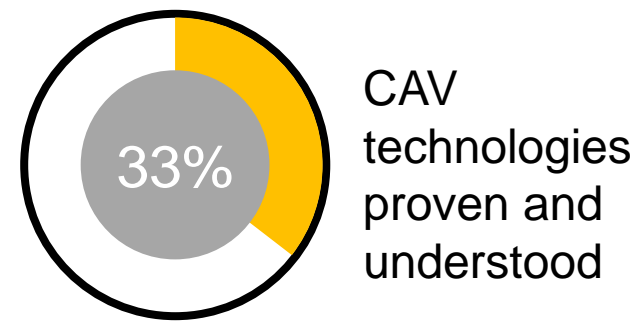
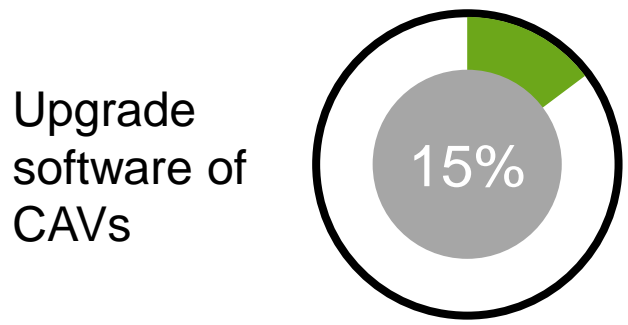
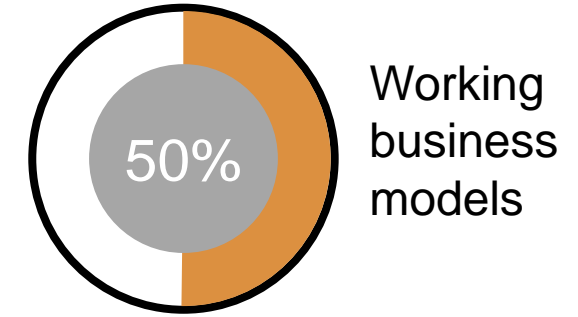
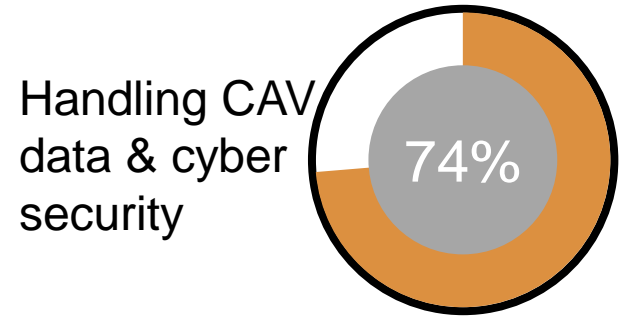


Capability to handle claims

## Recommendations

- Understand how to get access to data from across the ecosystem
- Analyse different potential uses, from 'sports' to 'eco'

# Automotive manufacturers – New skills & MaaS models



## Recommendations

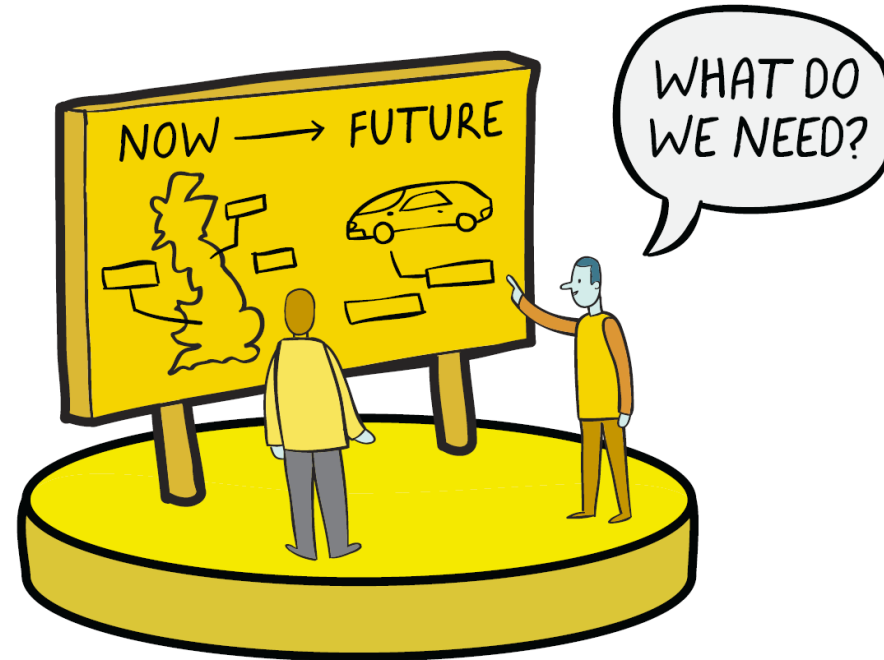
- Create a national skills initiative to plug the industry's gaps
- Create national standards for automotive cyber security
- Redesign business models

# Conclusions

Our panel's average estimate indicates driverless cars won't be on UK roads for more than 10 years.

The UK needs:

- A national strategy to coordinate all parties
- More skills to develop, test and validate technology
- Communicate the benefits of driverless cars to the public to develop confidence



- New regulations and laws to make cars and roads safe, and how we'll enforce them
- To identify how the UK's transport infrastructure will have to change
- To identify where liability lies in accidents
- To know how insurers will be able to cover consumers, manufacturers and MaaS providers

# WE ARE ON OUR WAY TO AN EXCITING DRIVERLESS FUTURE

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