



Department  
for Transport

# UK proposal for CMS monitor arrangement

Paris, 5th June 2014



- **Key principles and priorities:**
  - Support the initiative to allow greater application of CMS
  - Important to ensure that safety is maintained or preferably improved while introducing CMS
  - Limited evidence available to guide regulatory requirements in some areas
  - Precautionary principle requires caution during initial market introduction
  - Potential risks in the complete replacement of mirrors with CMS

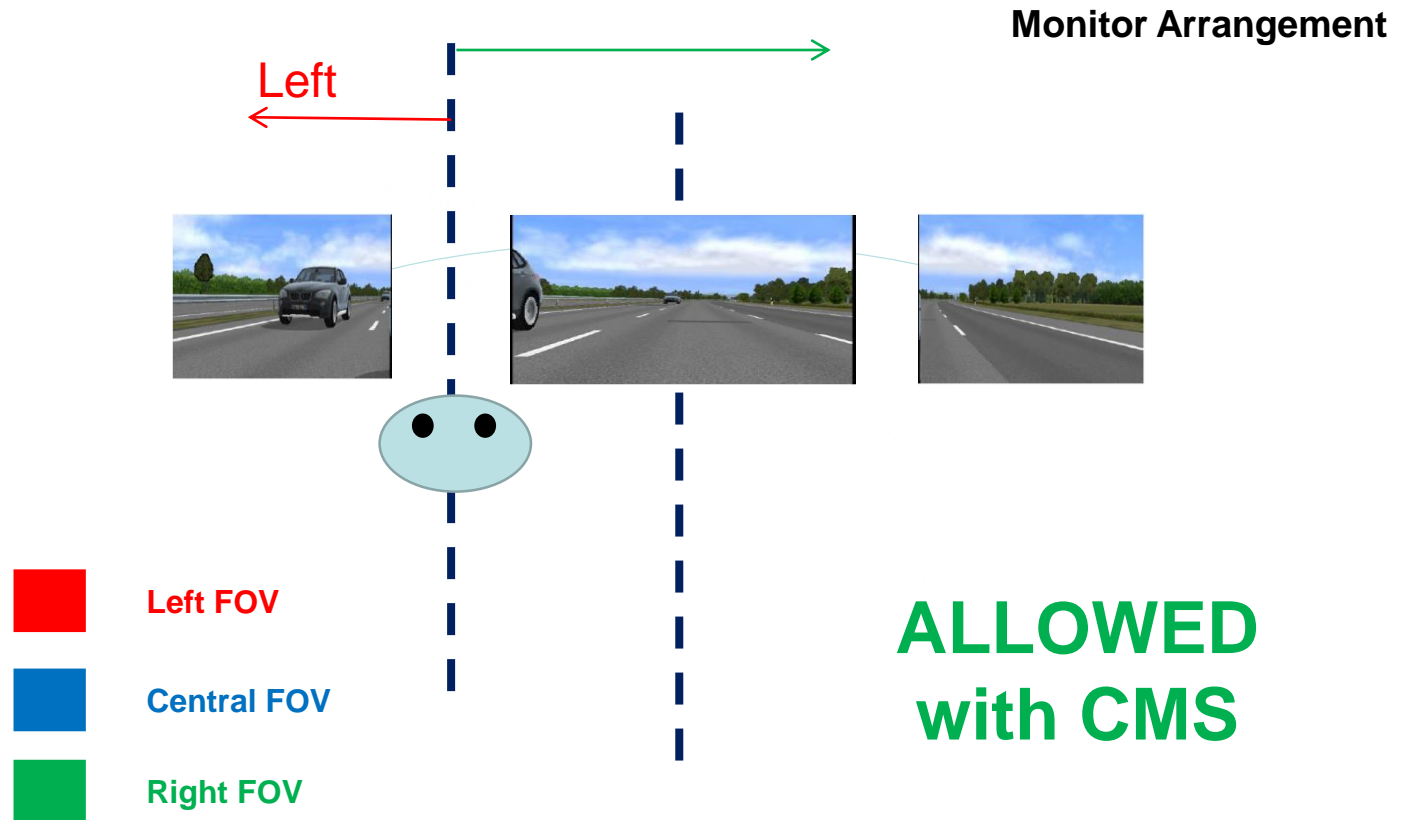
- **UK perspective**
  - Wish to ensure that introduction of CMS minimises risks and improves safety, particularly for cyclists
  - Monitor arrangement may be a key consideration in determining safety – limited evidence available
  - Concerned about the need for drivers to be able to combine rear view information with peripheral vision
  - Concerned about ease of use for drivers, particularly those unfamiliar with the vehicle / users of multiple vehicles (note growth in car sharing / shared vehicle concepts)



# Existing evidence / recommendations

- Effect of varying display position on drivers' situation awareness not known (Endsley, 1995)
- For camera systems, the monitor should be positioned in the same visual angles as the mirrors and without impeding the field of view through the windows.  
Danish proposal for direct vision in heavy good vehicles N2/N3" (Road Safety and Transport Agency undated),
- For buses: "The monitor should be mounted in the cab so that the drivers line of sight to it is close to that of the off-side mirrors." Tait & Southall (1999)
- BAST study appears to show preference for screens mounted closest to conventional door mirror positions (slide 31)

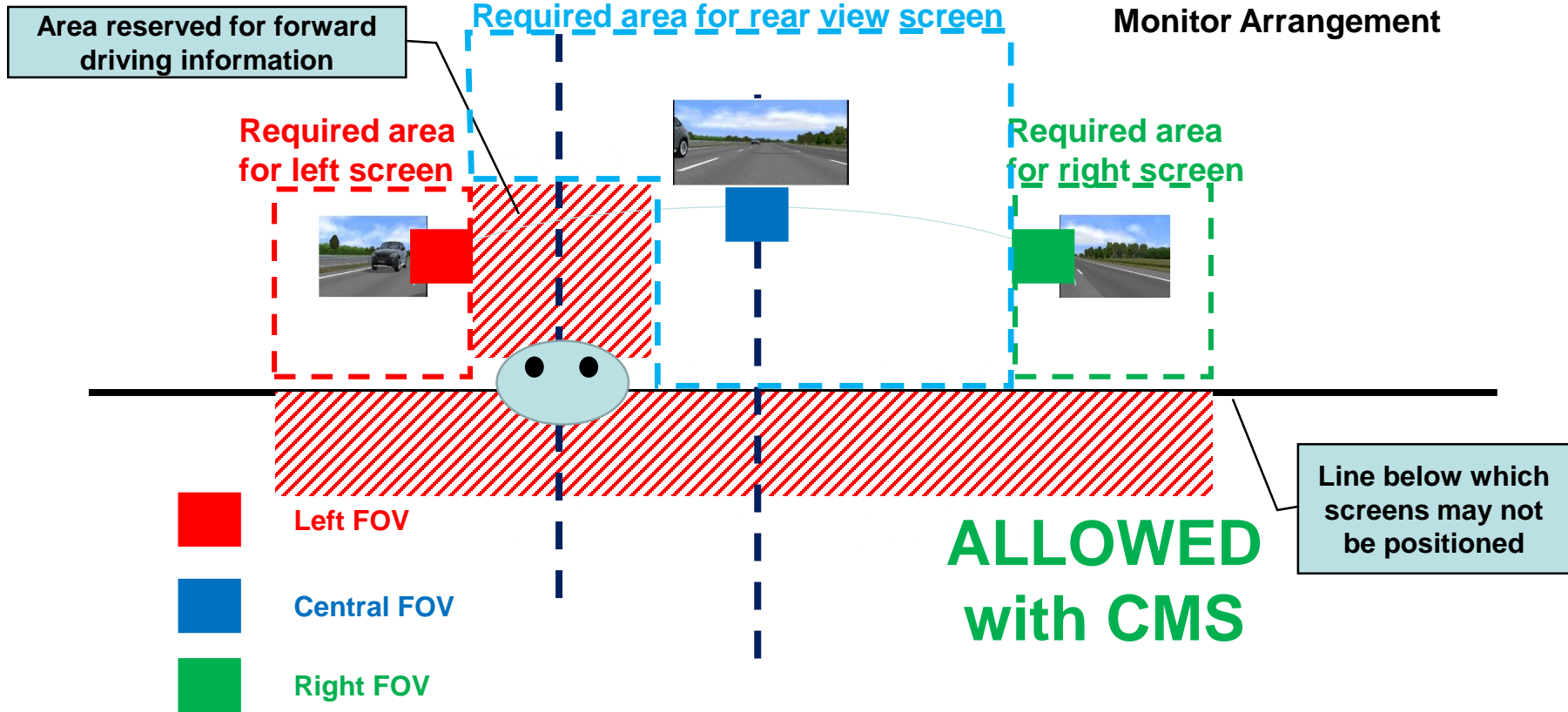
# Current proposal



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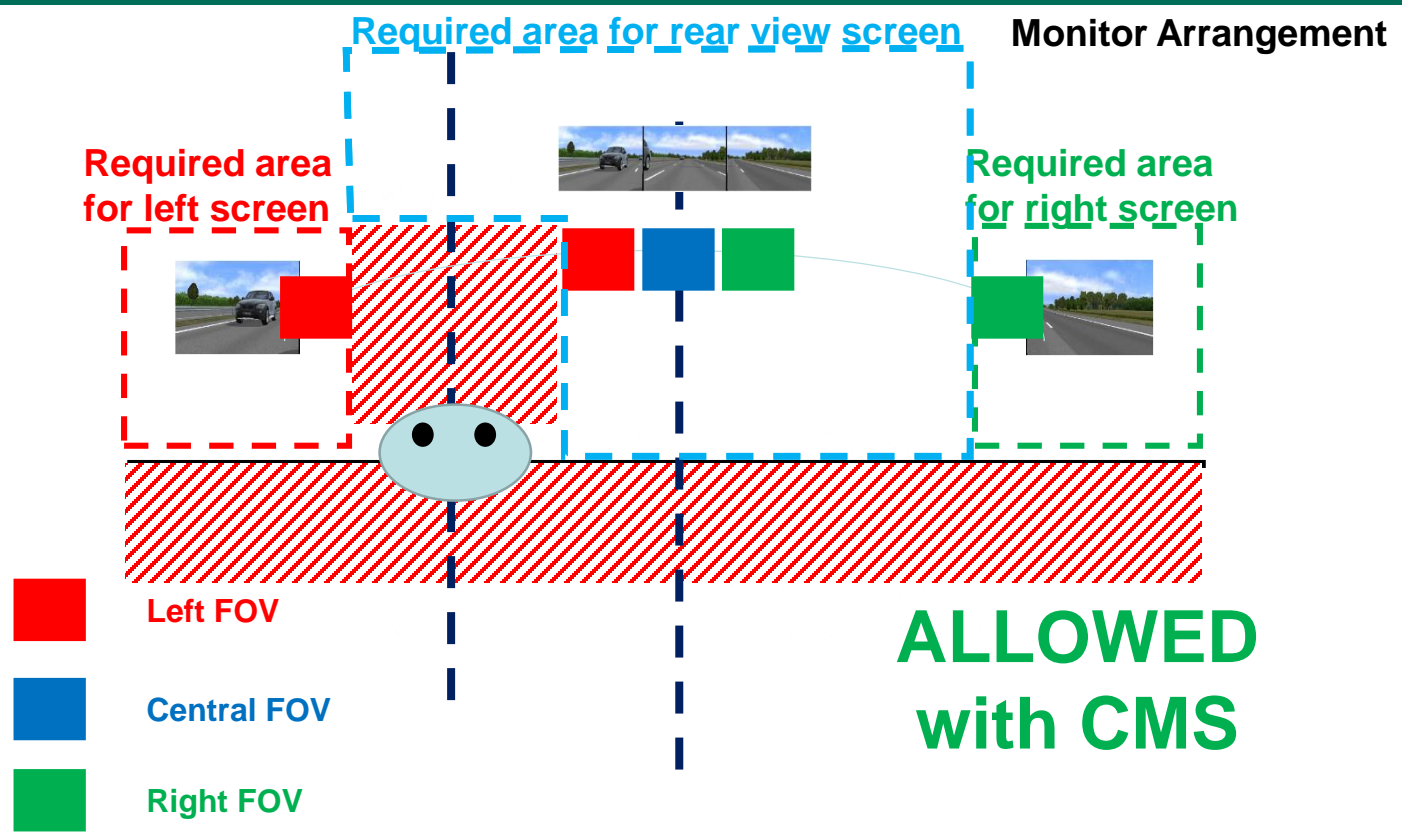


# UK proposal



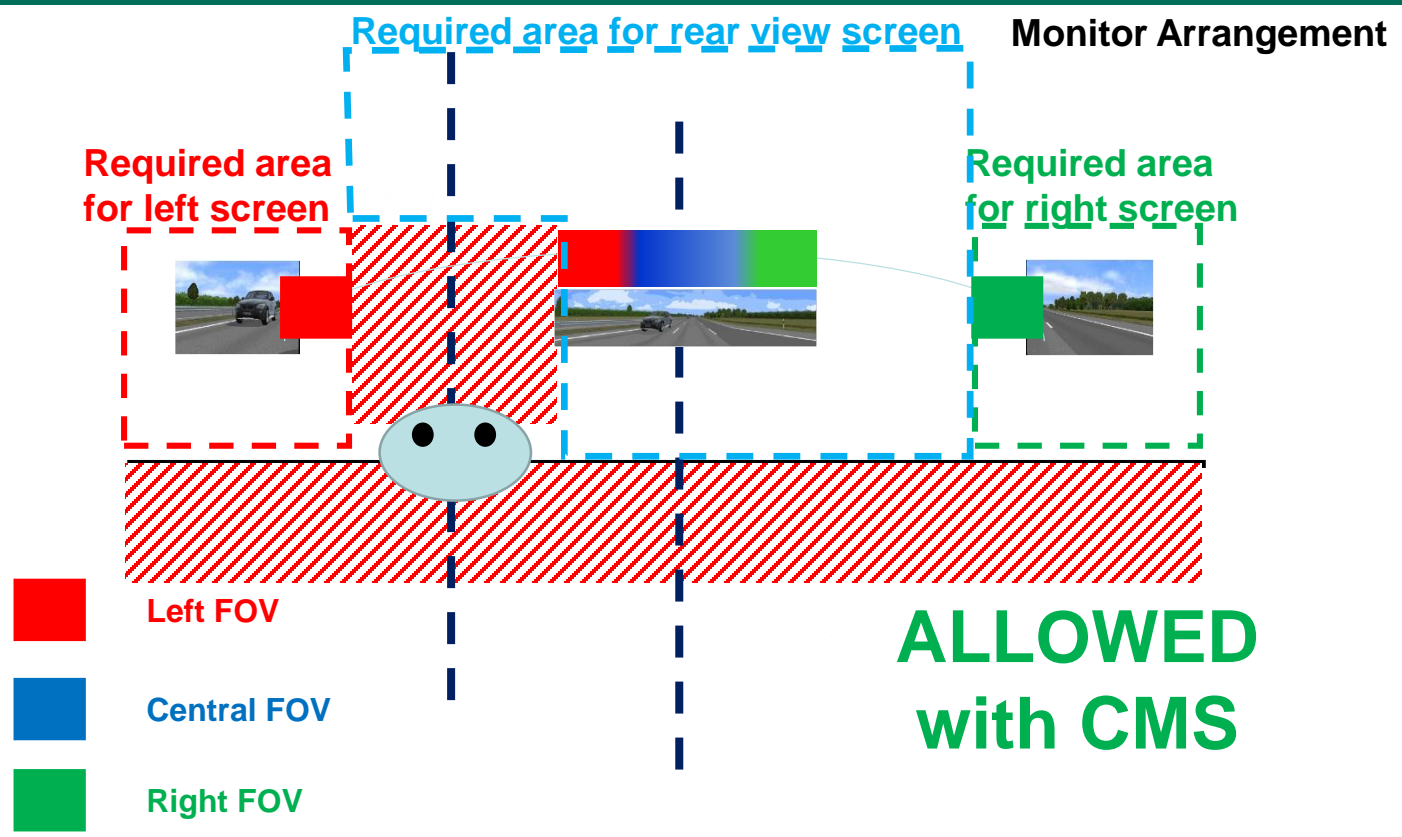
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# Summary

- CMS screens for right and left hand side cameras should be positioned close to where a driver would look for conventional door mirrors
  - Minimises risk for introduction of new technology
  - Accommodates driver 'reflex' reaction in emergency
  - Provides consistency when drivers use unfamiliar vehicles
- Regulations should also allow additional screens to be provided which may repeat this information
  - Can be used to provide combined 'panoramic' view with rear view information