

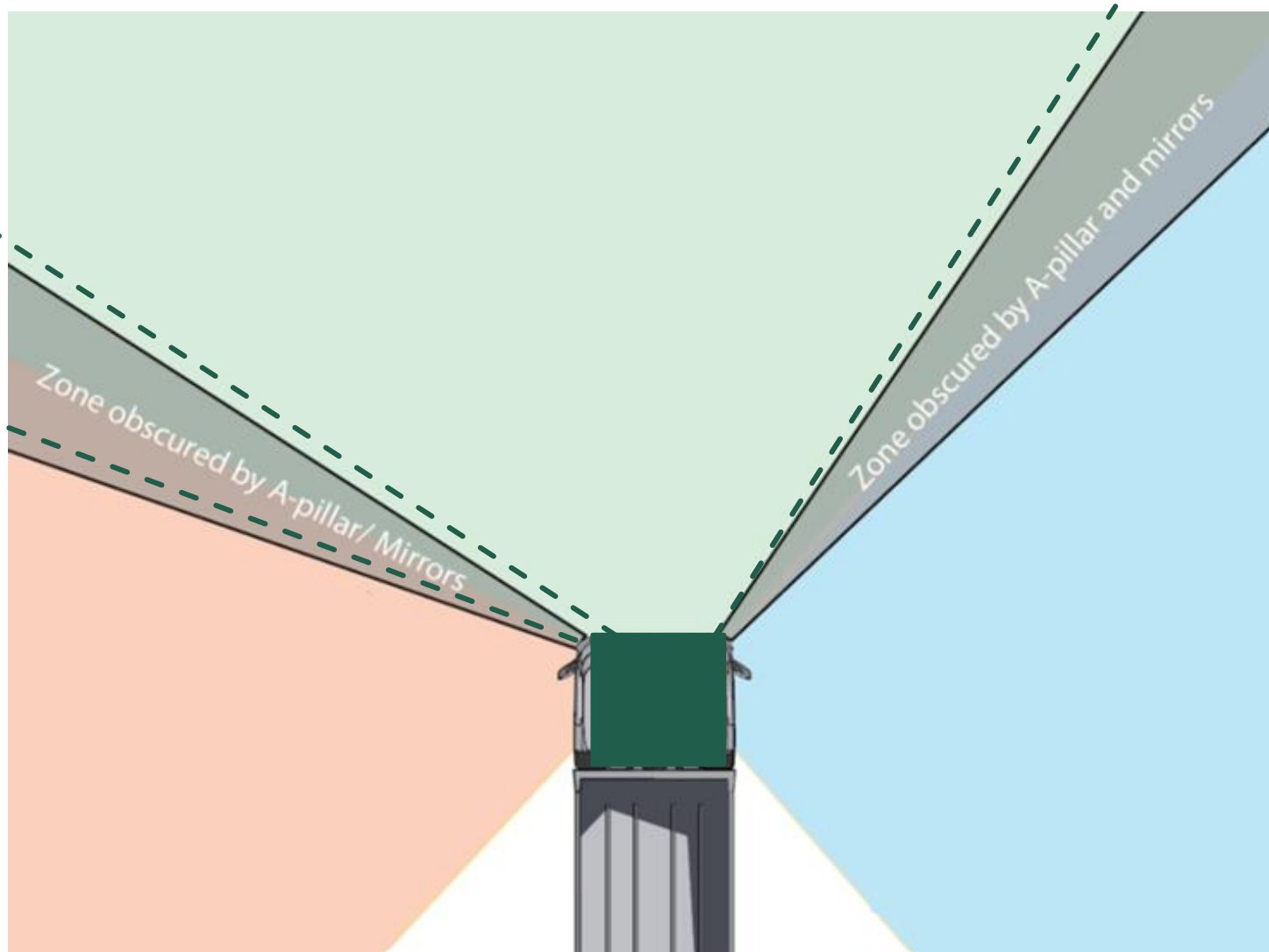


# **DRAFT:** INITIAL CONSIDERATIONS FOR REDEFINING THE VOLUME TO THE FRONT OF THE VEHICLE

IN CASE THERE IS A SPECIFIC REQUIREMENT TO DEFINE A MINIMUM LIMIT FOR A HYBRID OR  
SEPARATED APPROACH

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## DESIGN DEPENDENCY SEPARATED APPROACH – AS DISCUSSED YESTERDAY

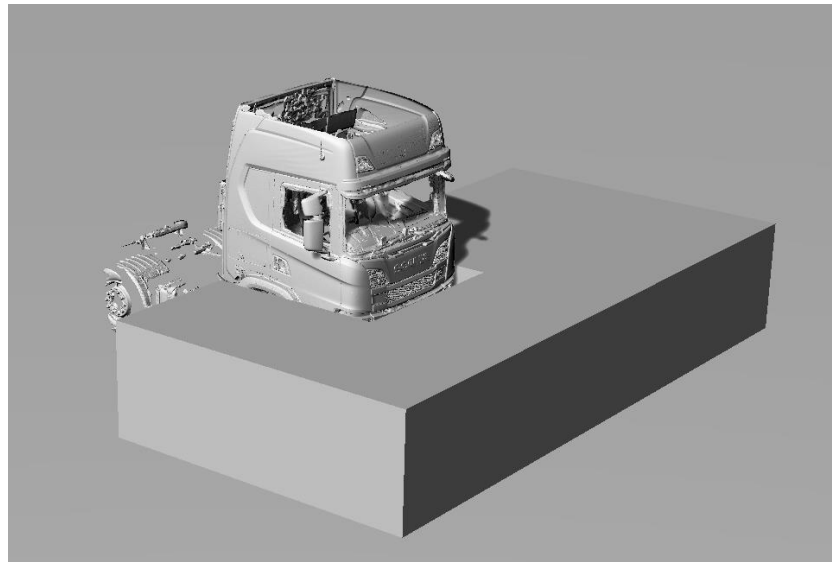


- As per the image the current situation involves the definition of the front volume as between the A-pillars
- Current situation is that new designs which bring A-pillar closer together (e.g. more aerodynamic front end) are potentially penalised if there is a requirement to the front
- Therefore we are considering options for defining the front volume as part of the assessment volume that is independent of vehicle design
- This would be new work
- If this work commences we would expect each stage of the design process to be discussed with the Task Force to ensure agreement

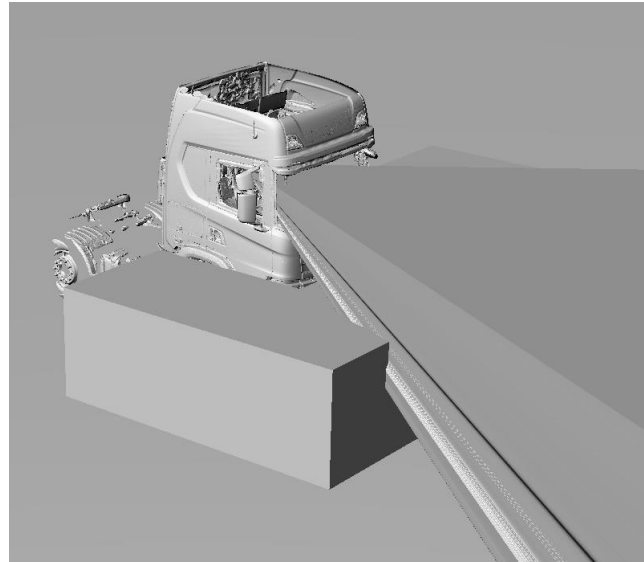
# CURRENT SITUATION



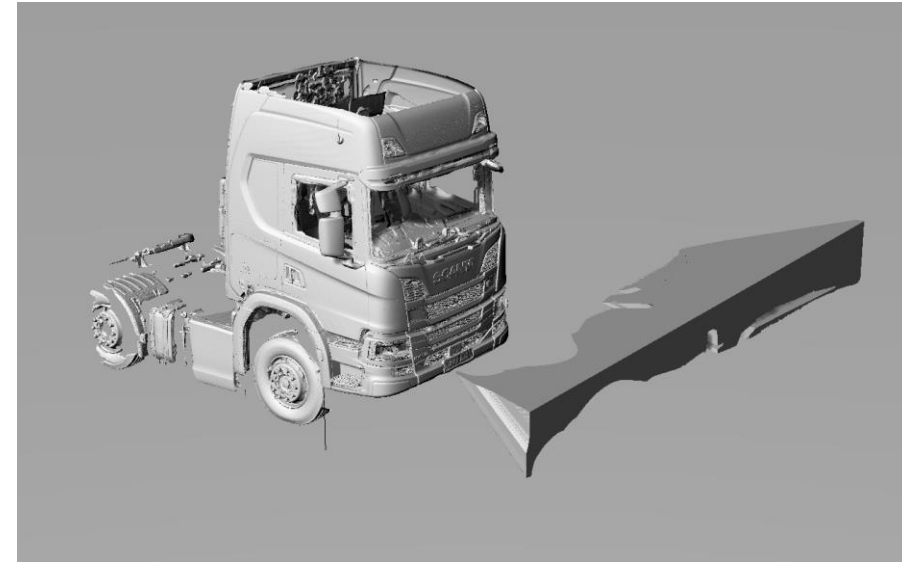
Current front volume is between the A-pillars



Assessment volume that is intersected with the visible volume



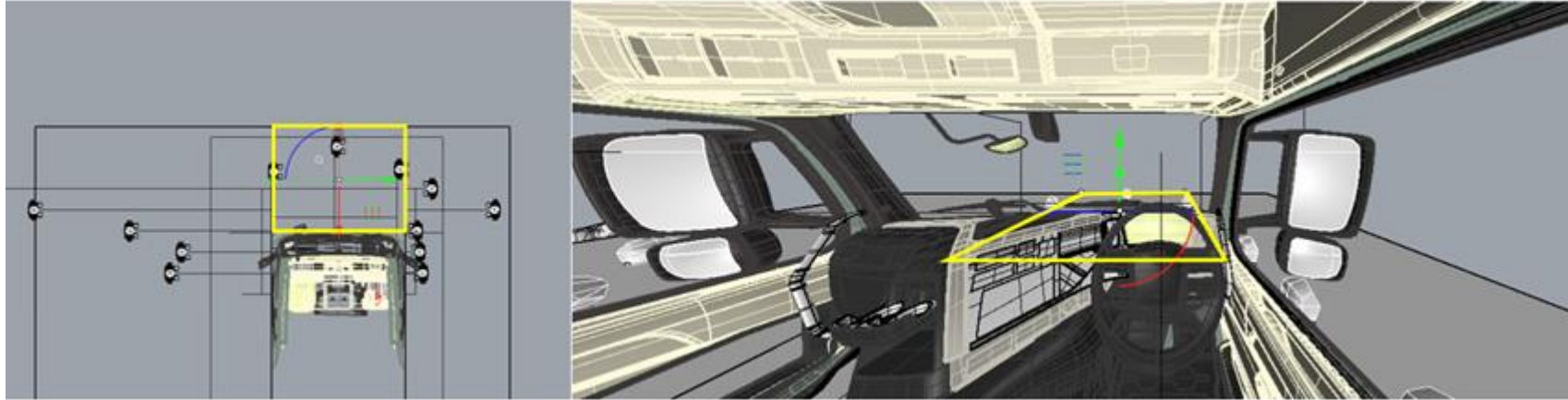
Intersection of visible volume and assessment volume



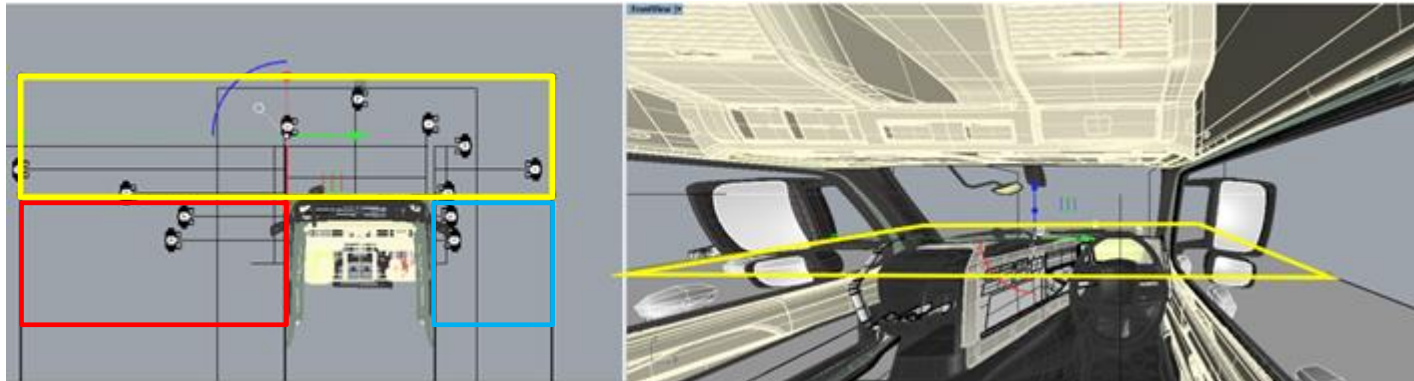
The result is the volume of the assessment volume that can be seen to the front

# Options for changing the approach so that assessment volume is subdivided

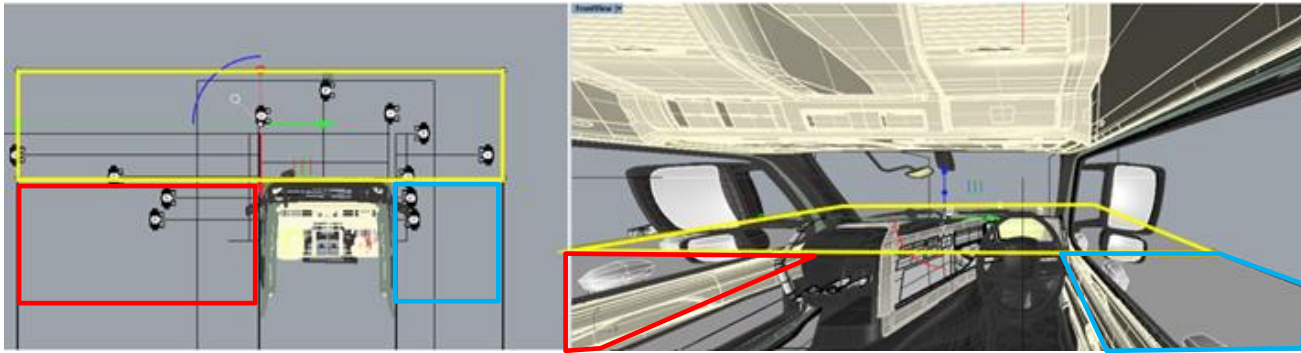
Option 1. Square between a-pillars (although this probably suffers from the same issue of not being technology neutral, narrower cabs perform worse)



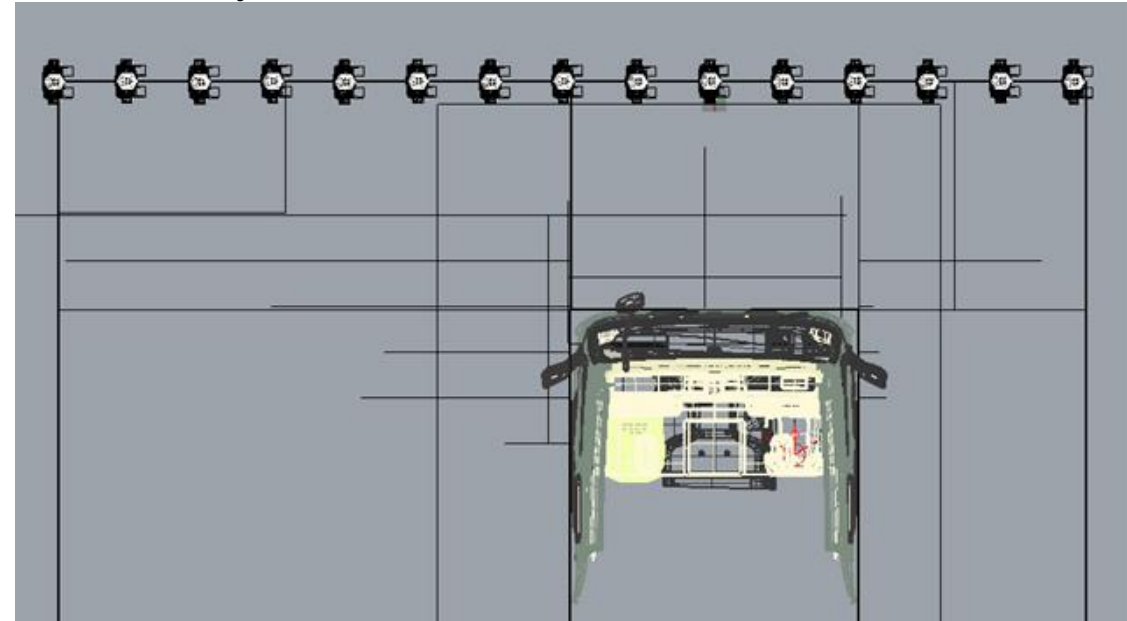
Option 2. Whole front of the Assessment volume



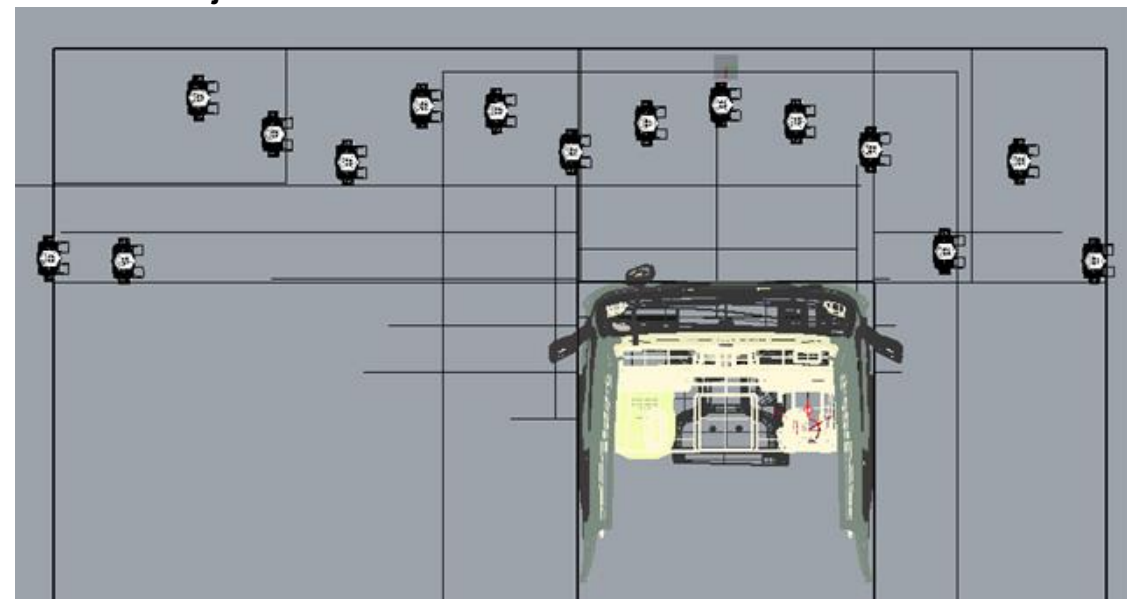
Option 2. Whole front of the Assessment volume



VRUs before adjustment

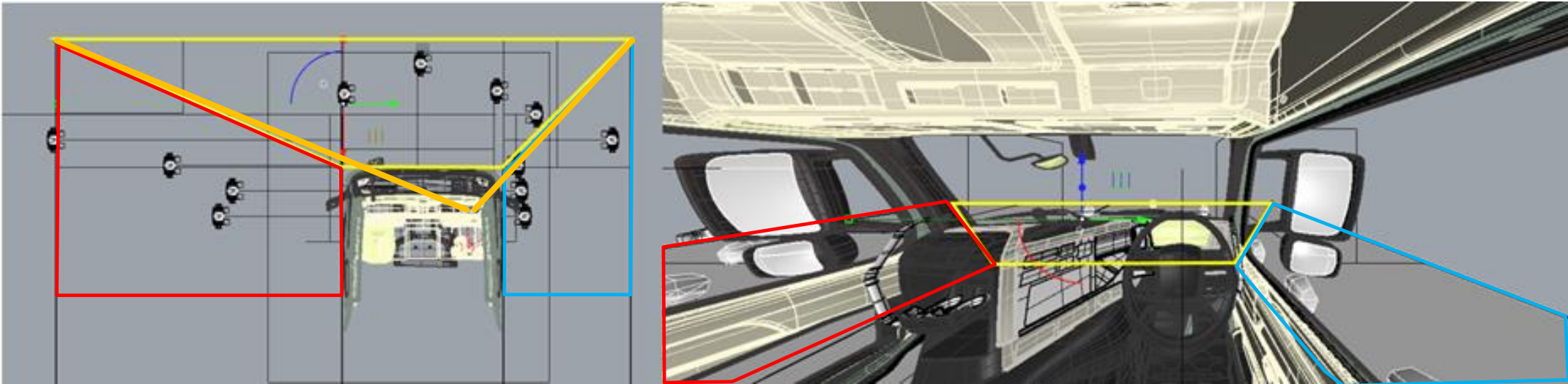


VRUs after adjustment

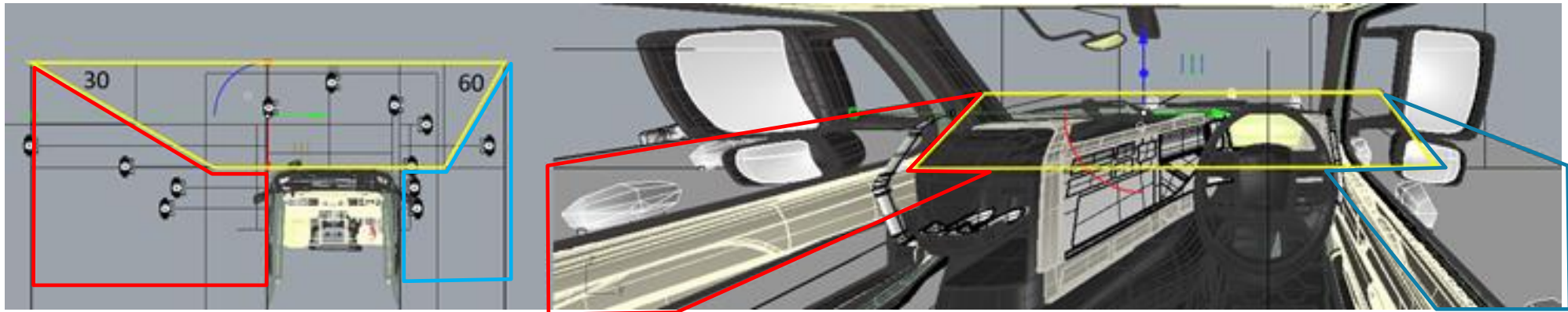




**Option 3. Diagonal between a pillar and assessment volume points to the front (technology neutral? Still defines A-pillar)**



Option 4. Angle from front left to the 2m line of 30degrees, and angle from the front right assessment volume point of 60 degrees



**Option 5. Diagonal between a pillar and assessment volume points to the front (technology neutral? Still defines A-pillar)**

