ADVANTAGE FOR OVERLAY FIXED REAR VIEW AND CHANGE OF VIEW
ADVANTAGES TO OVERLAY FIXED REAR VIEW

- If it is not mandatory to show the fixed rear view without any overlays as long as the reverse gear is selected
  - The display of eCall (emergency call) message is possible
  - The display of PDC (park distance control) tiles in order to warn from potential collision with obstacles is possible
  - The display of driving trajectory in order to show driver the route the vehicle will move with a certain steering angle is possible
  - An enhanced, adaptive BMW automatic camera view is possible
    - early optical warning for potential collision objects on the side of the vehicle which are not visible in fixed rear view
    - early optical warning for potential collision objects in the direction of steering which are not visible in fixed rear view
    - optimized view on potential collision objects behind vehicle to estimate current distance to collision object
  - The display of check-control messages are possible

Recommendation:
Allowing to overlay fixed rear view in order to provide driver views optimized for certain critical situations and important check-control messages for critical system failures in order to increase safety.
BMW eCALL

Notruf
Datenübertragung aktiv.
Anruf aktiv.
Notruf abbrechen
Tal
München
48° 08' 11" N 11° 34' 37" O, Richtung N

Notruf
Anruf wird aufgebaut...
Notruf abbrechen
Tal
München
48° 08' 11" N 11° 34' 37" O, Richtung N

Notruf
Notruf startet in 2 Sekunden.
Notruf abbrechen
Tal
München
48° 08' 11" N 11° 34' 37" O, Richtung N
DISPLAY OF PDC (PARK DISTANCE CONTROL) OVERLAY AND DRIVING TRAJECTORY

- If PDC sensors detects an obstacle the distance is shown in the camera views by displaying coloured tiles
  - depending on distance to obstacle the tiles is coloured from orange to red in order to warn and show the driver there could be a potential collision

- Depending on steering angle driving direction is shown as driving trajectory (green) in the camera view. The driver can better calculate how the vehicle will move and if a collision-free route is possible with a certain steering angle.
BMW AUTOMATIC CAMERA VIEW

- If reverse gear is selected the „automatic camera view“ is shown as default
- **Automatic camera view** is an adaptive view. It shows the optimal camera view
  - depending on objects near the vehicle in order to immediately **warn and show** the driver where the obstacle is located
  - depending on steering angle in order to immediately **warn and show** the driver an enhanced view in the steering direction the vehicle is driving

- **Objects are shown which are not visible in fixed rear view!**

- **Objects are shown a way to better estimate the distance**

- **Objects are shown which are not visible in fixed rear view!**

- **Objects are shown which are not visible in fixed rear view!**
BMW CHECK-CONTROL MESSAGE

- If there is an error in vehicle there will be a checkcontrol message shown to warn driver there are system failures (e.g. engine defect)

- Driver is immediately warned by check-control message that there is a critical system failure
BMW TRAILER HITCH VIEW

- If driver wants to couple vehicle with a trailer BMW offers the trailer hitch view.
- **Trailer hitch view** show driver in which direction he has to steer in order to couple with the trailer.