Andy Whydell, senior manager for electronics product planning
Here are the three highlights of TRW's talk on driver assistance technologies with Just-auto:

- TRW are developing an advanced object-recognition camera capable of detecting pedestrians , as this is considered the most reliable sensing method for people. Due to the variety of clothing types that pedestrians may wear, a lidar system may not reliably detect dark clothing, and while ultra-wideband radars are capable of detecting pedestrians, there are limitations on their use in Europe after 2013 and these systems can not differentiate between pedestrians and other moving objects.
- The camera market has grown surprisingly quickly. The adoption rate has been faster than that experienced by radar for ACC applications when those systems were being introduced. Camera development activities are primarily focused on some applications as lane departure warning, then additional features that allow the driver to benefit from the camera on a daily basis; examples of this include automatic headlight control for on/off and high/low-beam switching, and traffic sign recognition (TSR).
- The major factor affecting camera functionality is the level of image processing power available to analyse each image. Advanced functions such as vehicle and pedestrian detection require significantly more powerful video processors, due to the wide variety of potential ‘targets' to search for within a frame and the fact that these can be presented to the camera at any angle. The additional processor requirements for advanced sensing significantly add to the material cost of the camera, while the cost of developing advanced vision recognition algorithms also need to be shared across these cameras.