This talk will give an overview of the VISTA research program at National ICT Australia. We will give a brief overview of major projects: vision-based driver assistance; Infra-red and hyperspectral imaging; and, biological vision, ageing and cognition.

We will then present new results in dynamic visual saliency for fixation and segmentation. This makes use of biologically plausible early vision processes on a distributed vision system, centred around an active stereo mechanism. Out of a process of optimising real-time performance of the system through minimising network traffic and CPU loads, we see a distributed architecture that reflects some structure and properties of the human visual system. Through dynamic visual saliency on active scenes, we demonstrate real-time active fixation on and segmentation of significant objects in the scene.