Inspection & Quality cluster: Vision Engineering – DRV

Words of praise from Heinz Wohlrabe, Dresden University of Technology

People expect optimum quality and reliability from electronic products. "Zero-defect manufacturing" is the name of the game here. No one will stand up and say they cannot achieve this! They will say there are never any defects! If that were truly the case, there wouldn't be any need for the productronica Award for Inspection and Quality, and yet all the innovative products which were entered for this cluster focus on inspection. People who don't make errors or experience defects don't have any need for inspection work, however, the reality shows it is not a foregone conclusion.

On the one hand, this year's productronica once again features many increasingly sophisticated automatic inspection systems. They are fast and don't ever "get tired." Yet the work undertaken by these systems is not always error-free, meaning that a human will have the final decision-making authority where inspection results are not clear. As products are becoming increasingly complex, this won't change significantly in the foreseeable future although automatic inspection systems are continually improving. Furthermore, if defects are in fact detected then usually a repair will be needed, which is not something that such automatic inspection systems are ever able to do.

Microscopes help here to support the manual inspection and decision-making process, and at the same time enable a targeted repair to be carried out. Working with a microscope is taxing and can result in errors. Projecting the microscopic image onto a screen destroys the spatial information particularly required for a repair to be carried out. The DRV inspection system solves these problems. Users can analyze their objects as 3D images without having to do the strenuous microscope work. At the same time, they can immediately send the images to other experts so they can carry out their analysis together to find the best solution to any issues.

The panel believes that the highly innovative Deep Reality Viewer can contribute significantly to ensuring a high level of quality and reliability for manufactured products. It will increase the competitiveness of any companies that decide to use it!