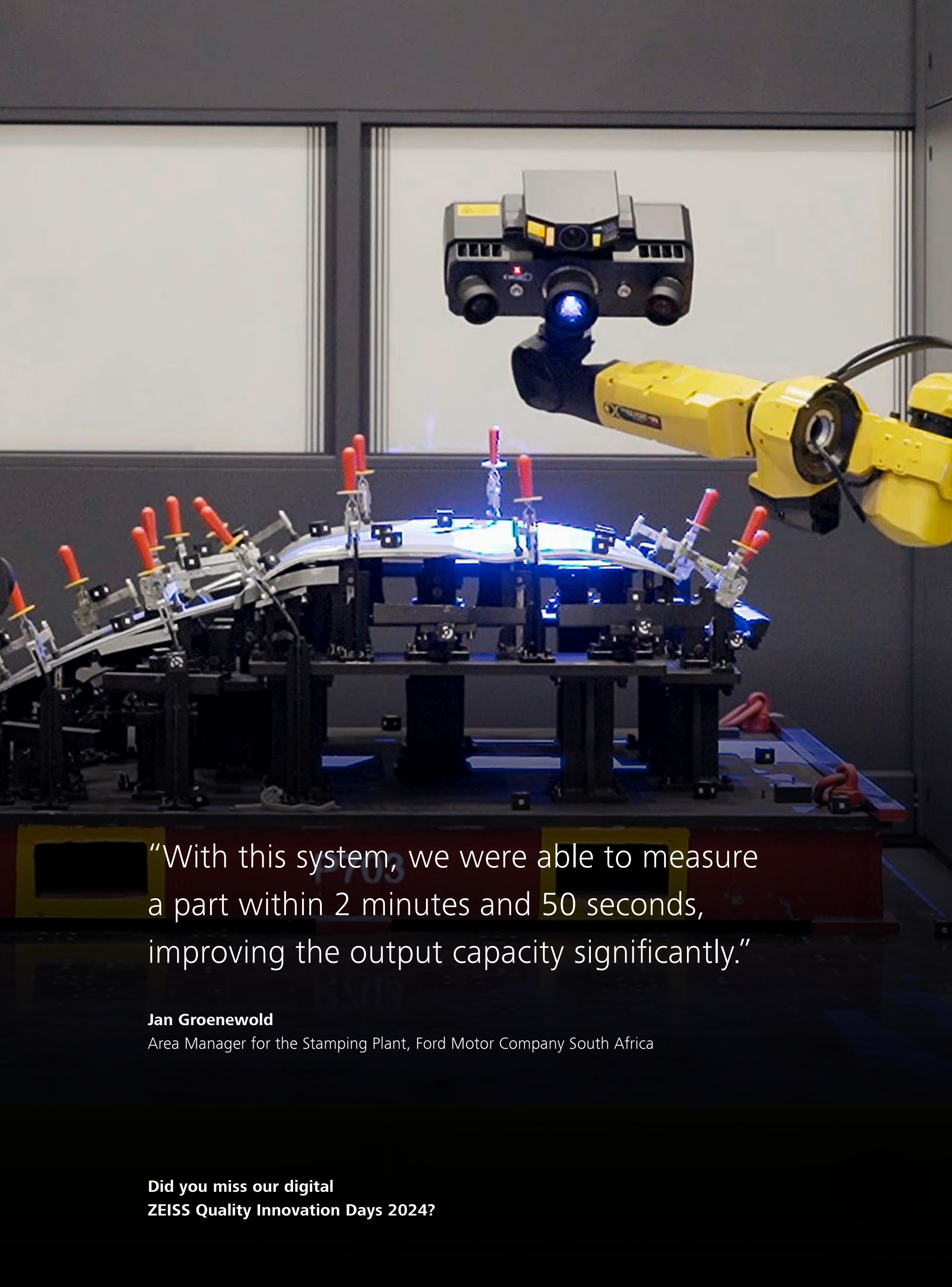




Ford Motor Company South Africa

Inspection of Sharped-Edged Parts

Ford produces the successful Ranger model at the Silverton assembly plant. Every year, more than 200,000 pickups leave the plant in Pretoria, which consists of a press shop, chassis production and body shop. To ensure that no defective or deformed parts are assembled, Ford's quality engineers inspect them in the optical 3D measuring machine ATOS ScanBox 8260. By comparing the surfaces with the CAD data, the technical staff can see directly whether a deviation is due to a tool or the metal forming process.



"With this system, we were able to measure a part within 2 minutes and 50 seconds, improving the output capacity significantly."

Jan Groenewold

Area Manager for the Stamping Plant, Ford Motor Company South Africa

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Industry

Automotive

System

ATOS ScanBox 8260

Software

ZEISS INSPECT

Challenges

- Inspection of 30 consecutive parts during the three-hour production run
- Check of complex surfaces incl. hole patterns, trim, gap and flush
- Assembly of proper fitting and flawless add-on parts

Solution

- Full-field deviation representations in nominal-actual comparisons
- Application of the Six Sigma principle to assess the best-fit
- Trend analysis and statistical process control

Benefits

- Digital assembly in ZEISS INSPECT minimizes iteration loops
- Accelerated production processes and high throughput
- High level of part quality