# USE CASE

## WOOD SURFACE INSPECTION

## USING THE ACCELLA QUALITY BOX™


A leading European construction company needed a reliable, fast way to detect imperfections on wooden boards e.g., knots, slits and cracks and to assign each board a quality score. The score is then used to sort boards into different quality categories for different uses.
The goal was to replace the slow and expensive manual inspection with an automated, AI-driven process.

### CHALLENGES

- Defects can be hard to spot with traditional solutions due to the heterogeneity of the wood and challenging lighting conditions in the saw mills.
- Defect detection and quality scores need to be highly accurate to ensure only the best boards are used for demanding applications.

### SOLUTION

- The Accella Quality Box™ running on the Accella MFG Bot™ is trained to identified various types of defects and assign a quality score based on the type, number and severity of the defect(s).

### PROCESS

- Internal experts provide images of OK vs NOK wooden boards.
- The images are used to train the ML algorithm to recognize defects and assign a defect score to each board.

### OUTCOMES

- Every board automatically receives a defect score so the customer can bin boards into different quality categories for different uses.
- Reduced scrap
- Assures only highest quality boards are used for critical applications e.g., construction of dams.
- Reduces manual QC, saves time and money.



Tina Baumgartner, Chief Business Officer
+1 510-508-8462, tina@accellagroup.com
www.accella.ai