

## Tarteret sawmill

# Making the most of **wood** resources with artificial intelligence

The Tarteret sawmill has launched a project combining real-time vision and artificial intelligence to optimise its cutting processes without changing its machinery or workforce. Cetim provided support for the design and safety aspects of the project.



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### OUR CUSTOMER

**Corporate name**  
Tarteret Sawmill

**Workforce**  
42 people

**Business activity**  
A specialist in oak and hardwoods for 70 years, the family-owned sawmill is PEFC and ISO 9001 certified and EU labelled. Located in Estissac, (Aube - France), it sells its oak and hardwood sawn timber on the French market and worldwide.

In the world of wood, raw materials are becoming scarcer and more expensive. *“The race for hyper-production is not part of our philosophy. We therefore had to find a solution to make the most of each board,”* explains David Vanhelle, operations manager at the Tarteret sawmill. With the machines already operating at full capacity, the company chose to use artificial intelligence (AI) to guide the operator in choosing the cuts. Through the Aube Chamber of Commerce and Industry, an engineer from the CEA in Metz was seconded to the sawmill for two years to demonstrate the feasibility of the project.

A prototype was set up with 14 GoPro cameras installed on the production lines, which detect the planks in real time as they are conveyed at 2 m/s. An algorithm reconstructs each board in 2D, with its unique features – knots, cracks, sapwood, bark – and then calculates the best cutting pattern to minimise waste. This pattern is then printed on the boards using water-based ink.

### An extreme environment

A call for tenders was launched to develop a special machine integrating board recognition, tracking and marking. The main difficulty was that each board is unique, so the process had to be recalibrated to the millimetre, at a rate of 1,000 boards per day.

The company called on Cetim for support. The programme included technical diagnostics, drafting specifications, consul-

ting integrators, conducting feasibility tests and securing technical choices. *“Cetim’s neutrality and critical eye on technical choices and project monitoring were invaluable to us, emphasises David Vanhelle. The experts’ skills in automation, vision and AI enabled us to take a global view of the project and adopt the right solution at each stage.”*

The results are clear: financial value has increased by 15% per year with no change in machinery or staffing levels. *“The aim is not to work faster to increase volume, but to work better, smarter and more calmly,”* concludes David Vanhelle, who is already planning to automate conveyor systems using AI to smooth production and reduce the sawmill's energy consumption.

## Cetim's asset



The Centre supports companies throughout their automation projects. Its experts offer their expertise in all mechanical disciplines in a completely neutral manner and take a critical look at technical choices during project monitoring.

