

Forestry — Design — Robotic Fabrication — Construction

From standing tree to finished structure.

I operate across the entire timber value chain myself — forest management and harvesting, computational design, robotic shaping of curved timber, and on-site construction — including the digital workflows that connect each stage. Most people in this field work one stage of the chain; I run all five, on the same projects, for real clients, across sixteen years.

BASE	EXPERIENCE	LOOKING FOR	OPEN TO
Limousin, France	16 years, full chain	R&D partnership abroad	Worldwide

The Chain — five stages, one hand throughout

01 Forest & Silviculture

Independent forest management, felling and sale, aimed at resilient long-term ecosystems rather than short-term extraction. Developer of "Bois Suivis" — a field-verifiable tracked-timber protocol that goes beyond declared certification schemes.

02 Harvest & Extraction

Felling and skidding done hands-on, in direct feedback with the rest of the chain. Built a custom skidding vehicle from a repurposed 4x4 fire-service chassis — bodywork, crane, structural welding and calculations — individually type-approved for road use.

03 Design

Custom timber structures designed from real, round, naturally curved trunks, fitted to each client's brief and site. Rhino 3D for modeling; TwinMotion for photorealistic renders composited onto photogrammetry scans of the existing site — shortening the path from proposal to signed quote.

04 Robotic Shaping

Parametric Grasshopper / KukaPRC workflows generating toolpaths for a 7-axis KUKA robot that follows the tree's actual curvature rather than forcing it into a rectilinear beam. Custom 3D scanner: a 3 m trunk becomes a 600,000-point cloud in 3.5 minutes. Carried out at La Manufacture du Châtaignier (Coop Monts et Barrages), with mentor Ludovic Mallegol.

05 On-Site Building

Full on-site installation, from site preparation and foundations to the final timber frame — combining traditional timber craftsmanship with the precision of robotic fabrication.

RESEARCH & RECOGNITION

Aug 2026 — ROB|ARCH-adjacent workshop, Aarhus School of Architecture, alongside the CITA – Aarhus University – SDU Odense research network.

Network: IBOIS (EPFL Lausanne), GC2D (Egletons), IUT du Limousin (Limoges).

WHAT I'M LOOKING FOR

A research team, studio, or workshop working on wood, robotics, or both — bringing 16 years of hands-on chain experience into a lab or production environment as developer or trainer. Based in France, open to relocating.

- Robotic fabrication
- Timber engineering
- Grasshopper / KukaPRC
- Forestry & silviculture
- Technical training

PUBLICATION

"The tree dictates the shape: reversing the industrial paradigm in rural areas"

N. Rohart, L. Mallegol — *Construction Robotics* (Springer), 2026.

Scan-to-trajectory robotic shaping of natural curved timber, developed at La Manufacture du Châtaignier (Coop Monts et Barrages) with mentor Ludovic Mallegol.

Technical Profile

Forestry	Digital Fabrication	Construction
— Forest assessment	— Parametric design → toolpath (Rhino / Grasshopper / KukaPRC)	— Design
— Silviculture	— Commercial renders (MeshRoom / TwinMotion)	— Robot operation
— Timber harvesting		— Site implementation
— Complex felling		— Project management