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## NEXT STEPS

We are continuously improving aiphoria and using it in different case studies. Upcoming steps include:

- Improved data handling and scenario analysis
- Continued refinement of visualisation and outputs
- Growing use across projects and collaborations
- Scientific publications

Explore the package and follow its development by scanning the QR code or visit [tr.ee/aiphoria](https://tr.ee/aiphoria).



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# WHAT IS AIPHORIA, AND HOW CAN IT HELP YOU?

Turn complex wood flow data into structured, transparent, and decision-relevant insights with your own data.



aiphoria is an open-source modelling package developed by the European Forest Institute (EFI) for dynamic material flow analysis of wood-based systems.

It enables transparent tracking of wood products across the value chain – from forest to final use – and quantifies associated carbon stocks over time.

It helps users:

- Trace **material flows, trade-offs, and circularity pathways** (reuse, recycling, cascading, and losses) across production, transformation, trade, and final use within the systems under study.
- Analyse the dynamic **evolution of material stocks and secondary material loops**, including stock accumulation, depletion, lifetime-driven outflows, and recirculation.
- Support **carbon accounting and climate mitigation assessments** by linking primary and secondary material flows and stocks to carbon storage, substitution effects, and other socioeconomic aspects.
- Visualise complex and circular material systems using clear, **interactive flow diagrams** to support interpretation, validation, and communication.

# BUILT FOR REUSE AND COLLABORATION

Turning aiphoria into a package is a big step forward:



**Easier to use:** installable and ready to plug into existing Python workflows



**Reproducible:** versioning supports transparent and repeatable analyses



**Reusable & modular:** components can be adapted to different projects and systems



**Collaborative:** simpler for others to contribute, review and extend

This makes aiphoria not just a project tool, but a shared resource for the wider research and modelling community.

## Mapping wood flows to final product and energy uses in 2021 in the European Union

