

Lighthouse : helping *code-illiterate researchers* to conduct **highly parametric building-specific time-resolved LCA** without having to deal with code.

Lighthouse enables to **modularly model** buildings, define **renovation measures**, and define **renovation constraints**.

Then it lets you run **LCI validation**, **energy simulation calibration**, **LCA**, and **OAT sensitivity analyses**.

And finally it enables you to **visualise results** with **extensive styling and formatting options**.

Feel free to come and **model your own dwelling** or simply **explore the app**.

Where is the tool seated? ☐ Data (new/improved inventory data) V Model (new computational framework or coupling) ☐ AI usage (LLM / ML / agent in the workflow) V Linking systems (engineering ↔ LCA, ESM ↔ LCA, etc.) V Infrastructure / tooling (deployment, packaging, APIs) Where is it located in the Brightway/LCA ecosystem, if at all: Relies on premise for time-resolving LCI, and Brightway 2.5 for impact assessment.	Development level: ☐ Early concept / prototype (not yet usable by others) V Beta (usable with guidance, bugs expected) ☐ Stable release (documented, versioned, community ready) Where you can help me: - UI navigation - Modelling helper features you'd like to have - Additional features you feel are needed
Technical / practical details: The tool is not released yet and the calculation engine is still proprietary (under negotiation for the exact license). Styling options are still very sparse. A few features are in the pipeline : LCC introduction, scenarios handling for all parameters.	
License + access status: <i>Open to collaborators</i>	Maxime Dasse – 4th year PhD Candidate maxime.dasse@uclouvain.be Université Catholique de Louvain (UCLouvain) - Louvain Research Institute for Landscape, Architecture and Built Environment (LAB) - Architecture and Climate Department