

# Reconstruction of a geometric 3D plant model from laser data (PlantScan3D)

## PERSPECTIVES

The release of an evaluation pipeline to the scientific community will make it possible to validate and compare the different methods that will be further proposed in the literature. A on-going project is to adapt the reconstruction pipeline for the plant architecture to quantify rapidly the evolution of architectural traits of different phenotypes. This project should provide biologist tools to resolve partially the high throughput phenotyping of plants. Similarly, the pipeline for reconstructing foliage, once finalized, should make it possible to better characterize the dynamic of the spreading of light intercepting surfaces of a plant and thus feeds with realistic data ecophysiological models. Finally coupling laser scans data with thermal imaging should make it possible to better interpret the measured temperature of the canopy. This last topic is the challenge of an Inra project that follows the PlantScan3D project.

**Responsable :**

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