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Tree-Quest: A Free App for Measuring Urban Tree Attributes for Biomass and Carbon Assessment

Milutin Milenković (IIASA)

C4C FFG Forschung wirkt.

Citizens for Copernicus (**C4C**): Combining Copernicus and Crowdsourced Data for Forest Resources Monitoring

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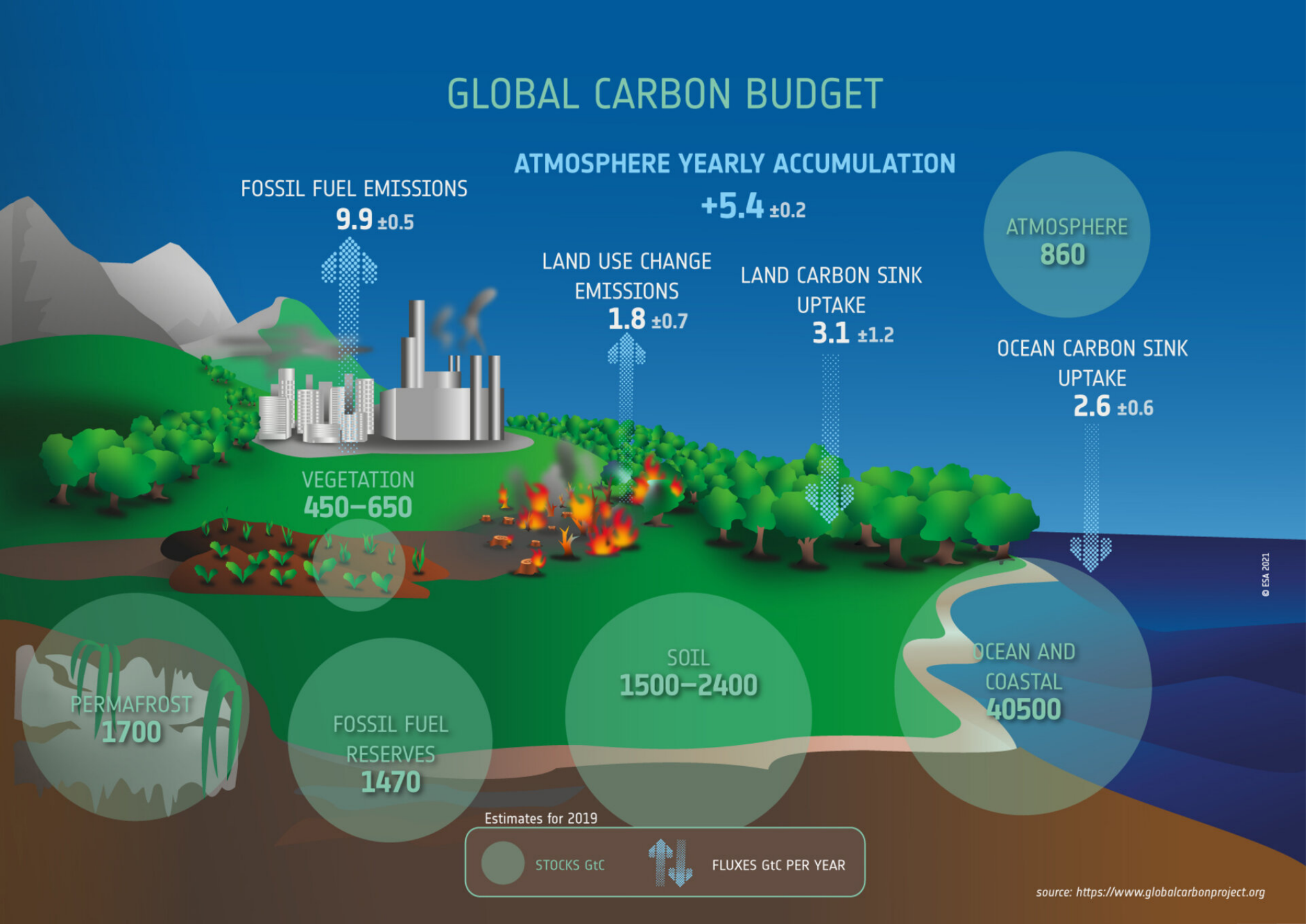
GLOBAL CARBON BUDGET
ATMOSPHERE YEARLY ACCUMULATION
+5.4 ±0.2
FOSSIL FUEL EMISSIONS
9.9 ±0.5
LAND USE CHANGE EMISSIONS
1.8 ±0.7
LAND CARBON SINK UPTAKE
3.1 ±1.2
ATMOSPHERE
860
OCEAN CARBON SINK UPTAKE
2.6 ±0.6
VEGETATION
450–650
SOIL
1500–2400
PERMAFROST
1700
FOSSIL FUEL RESERVES
1470
OCEAN AND COASTAL
40500
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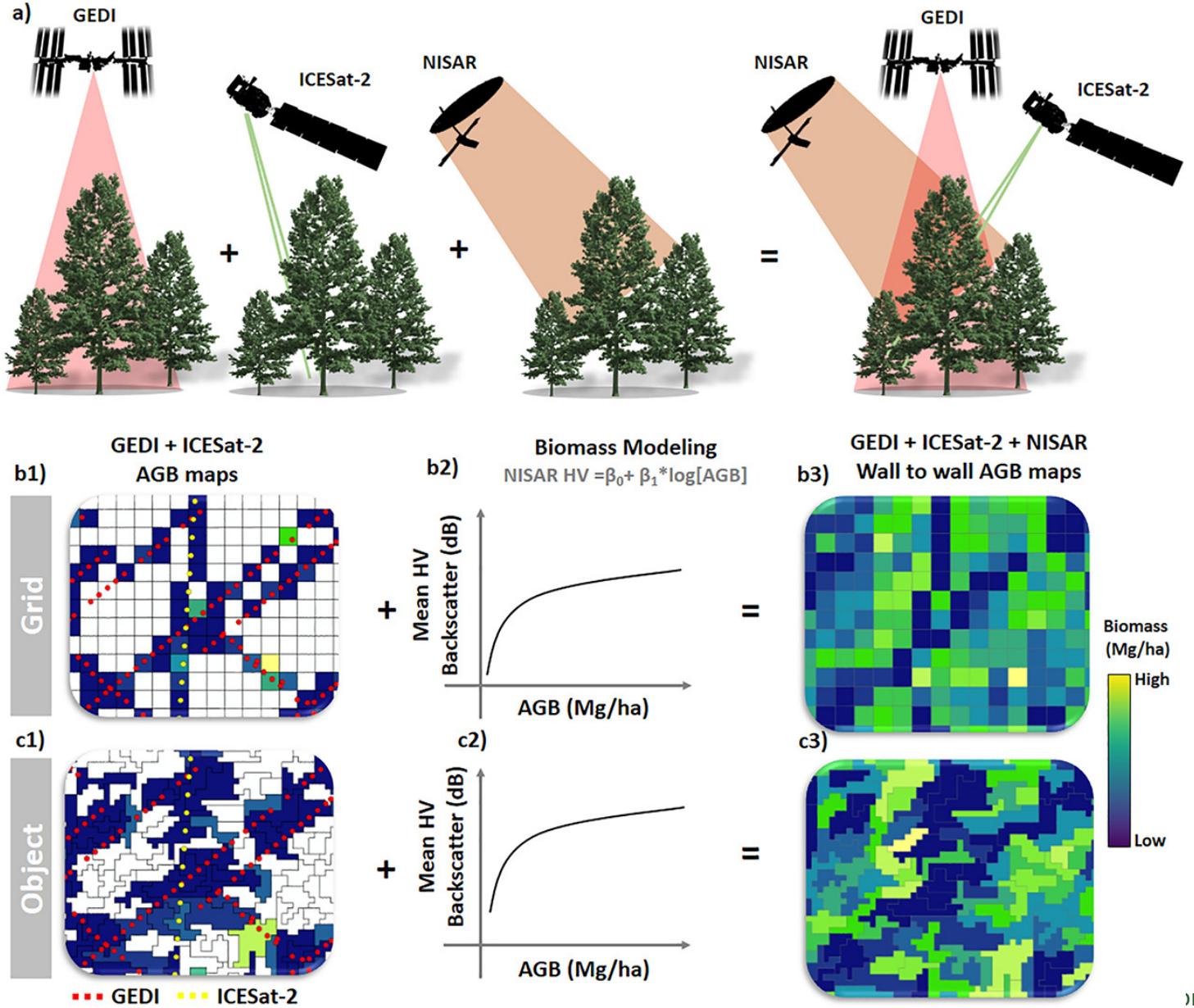
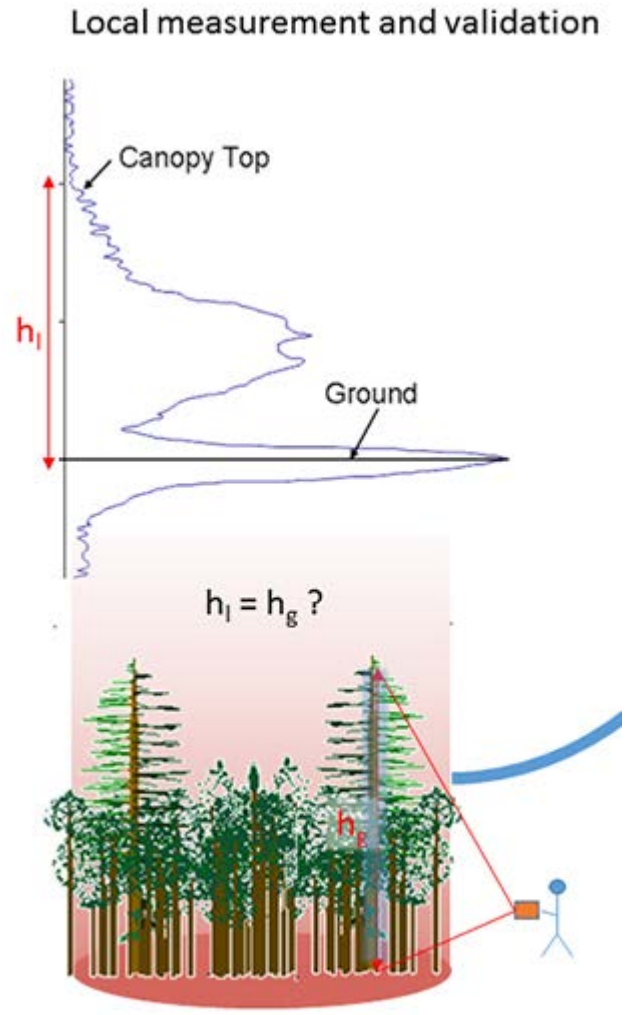
Estimates for 2019
STOCKS GtC
FLUXES GtC PER YEAR
source: https://www.globalcarbonproject.org

Biomass mapping from Satellite data

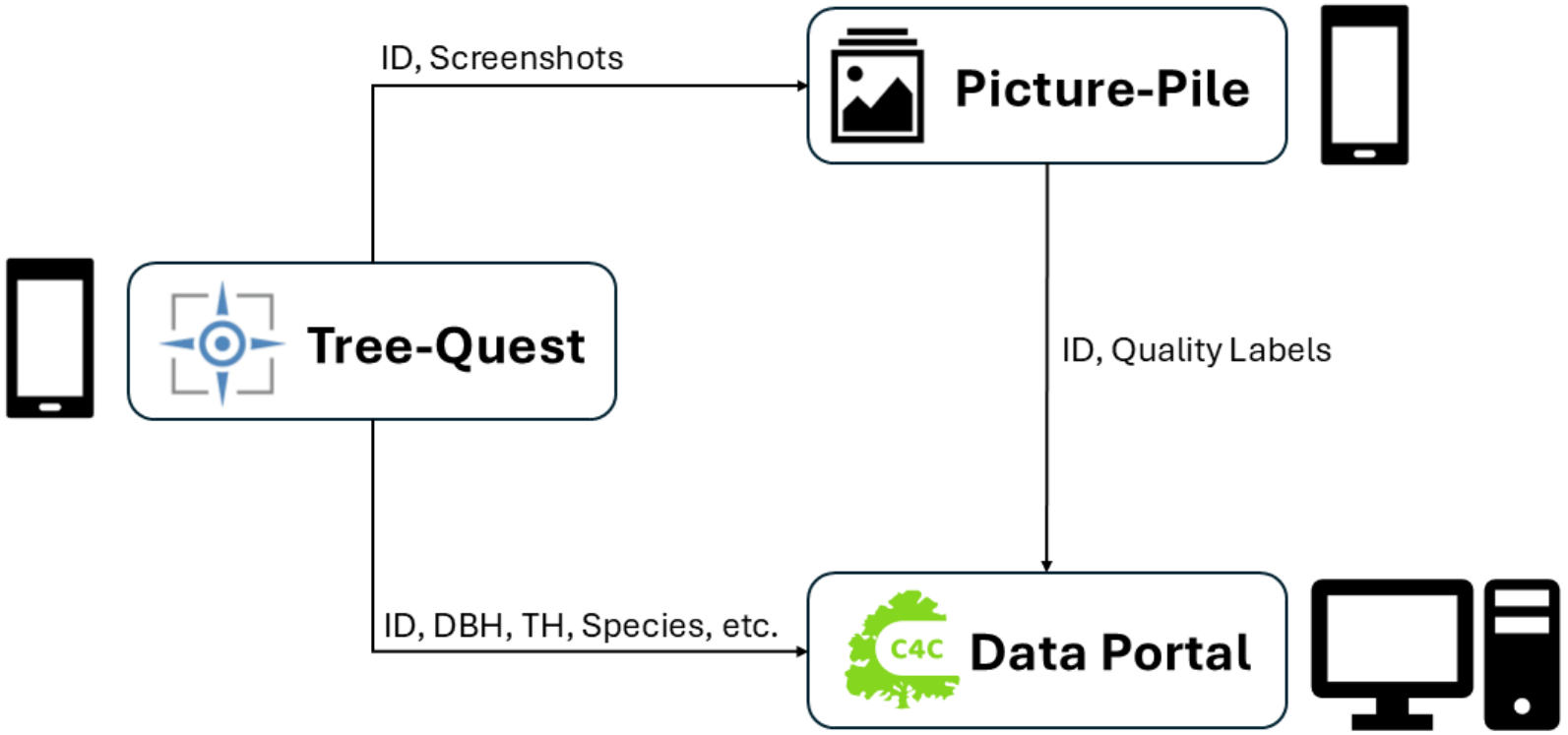


Credit: Alberto Silva et al. (2021) https://doi.org/10.1016/j.rse.2020.112234

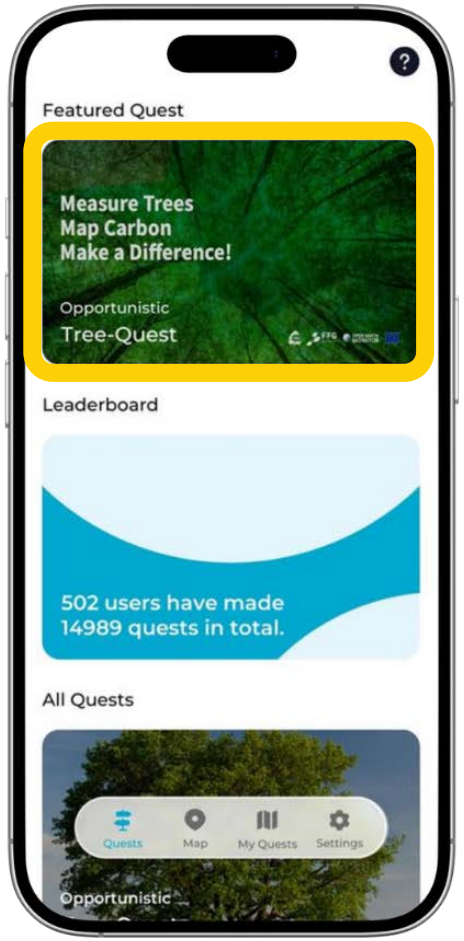


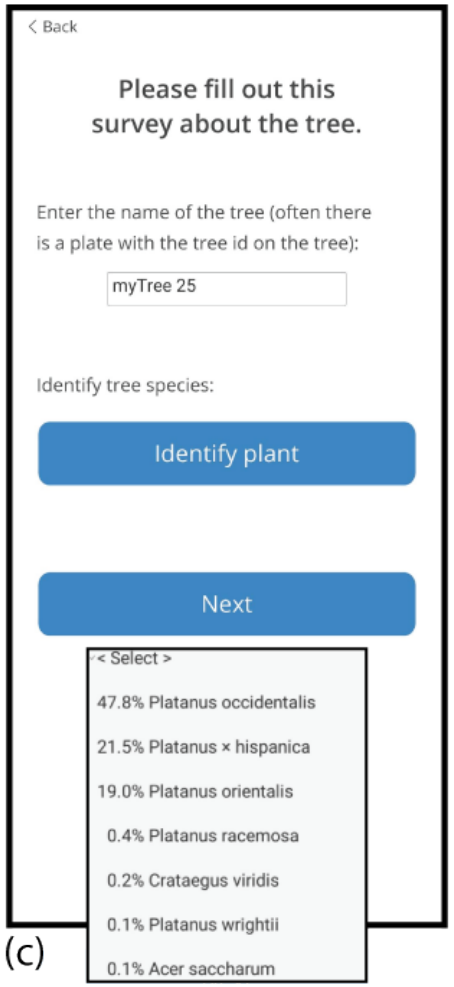
Crowdsourcing Single-Tree Information

Crowdsourcing-Ready Workflow



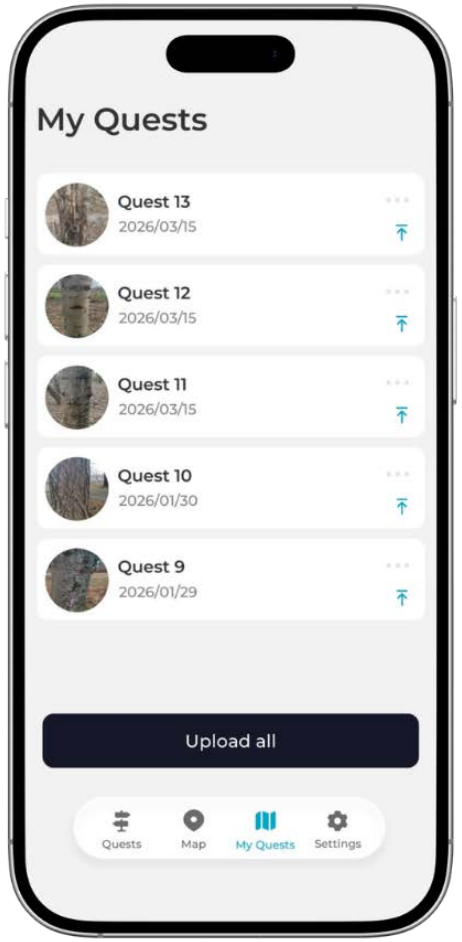
Tree-Quest: Location and Tree Species Identification

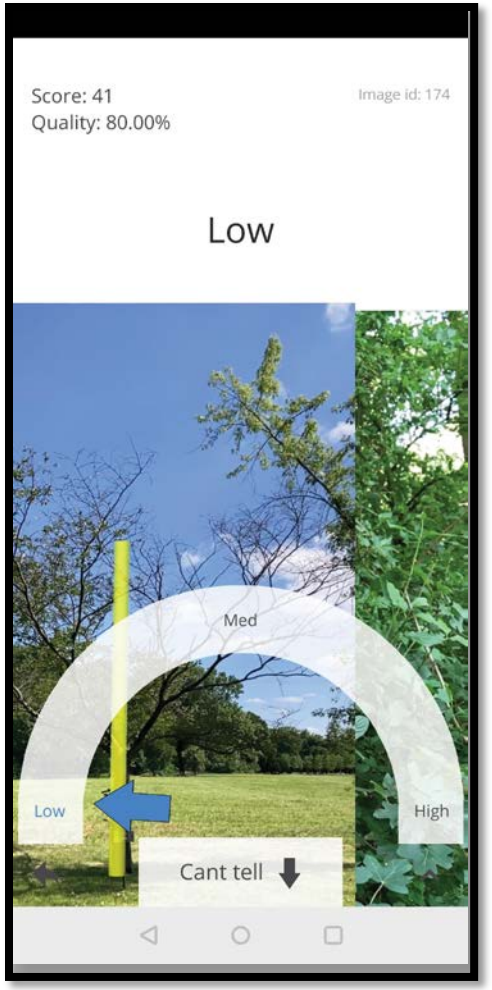


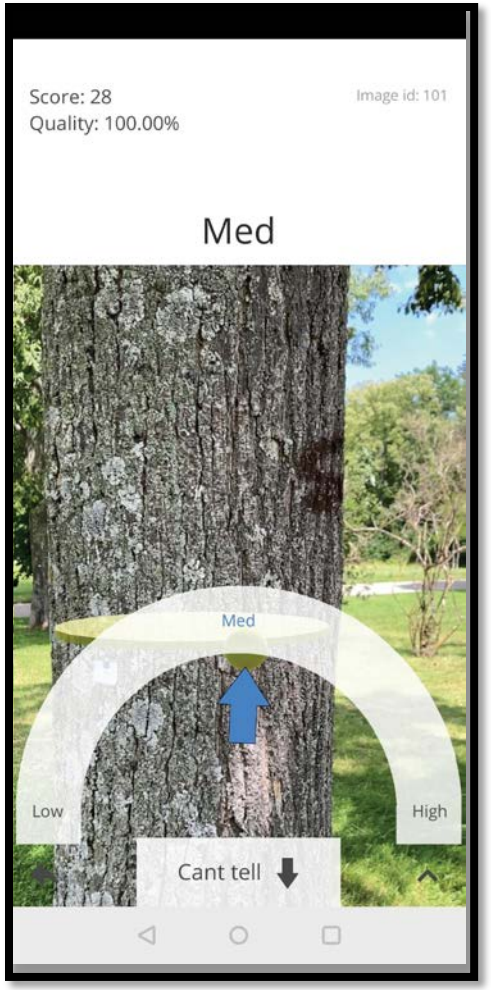


Tree-Quest: DBH and Tree Height

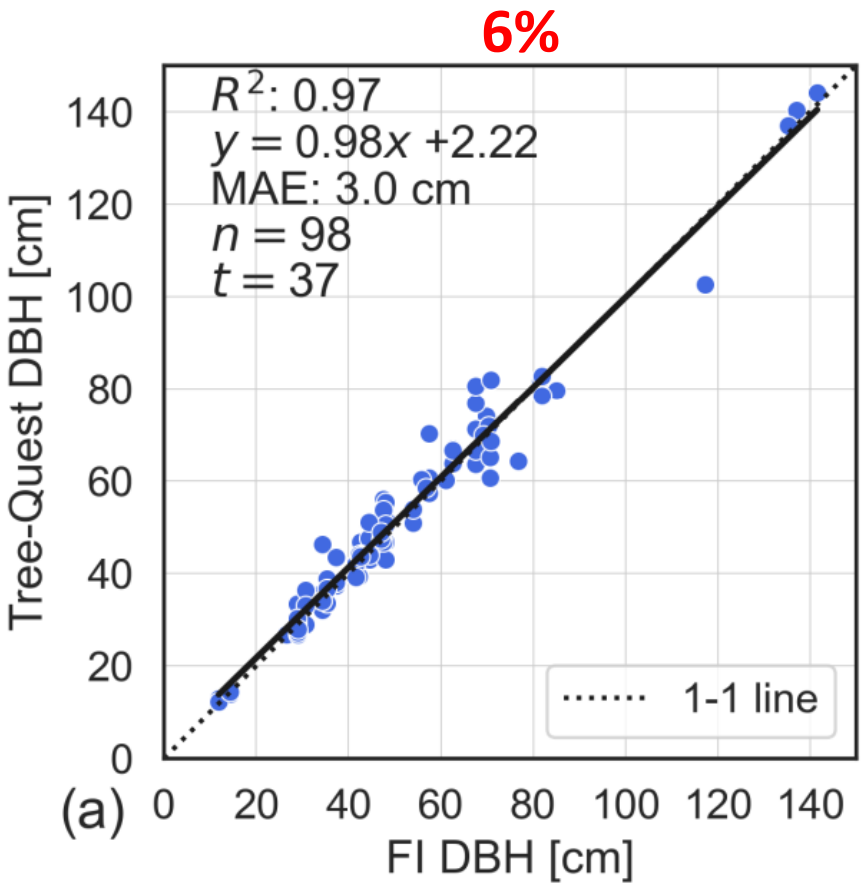
User Communication and Quality Labeling

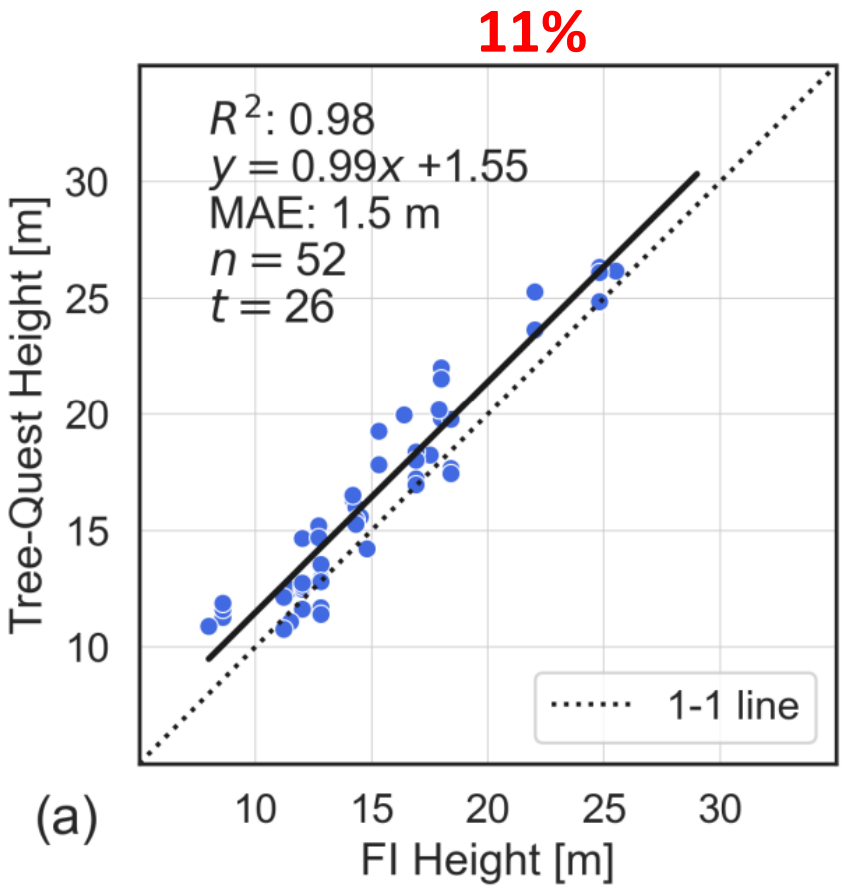




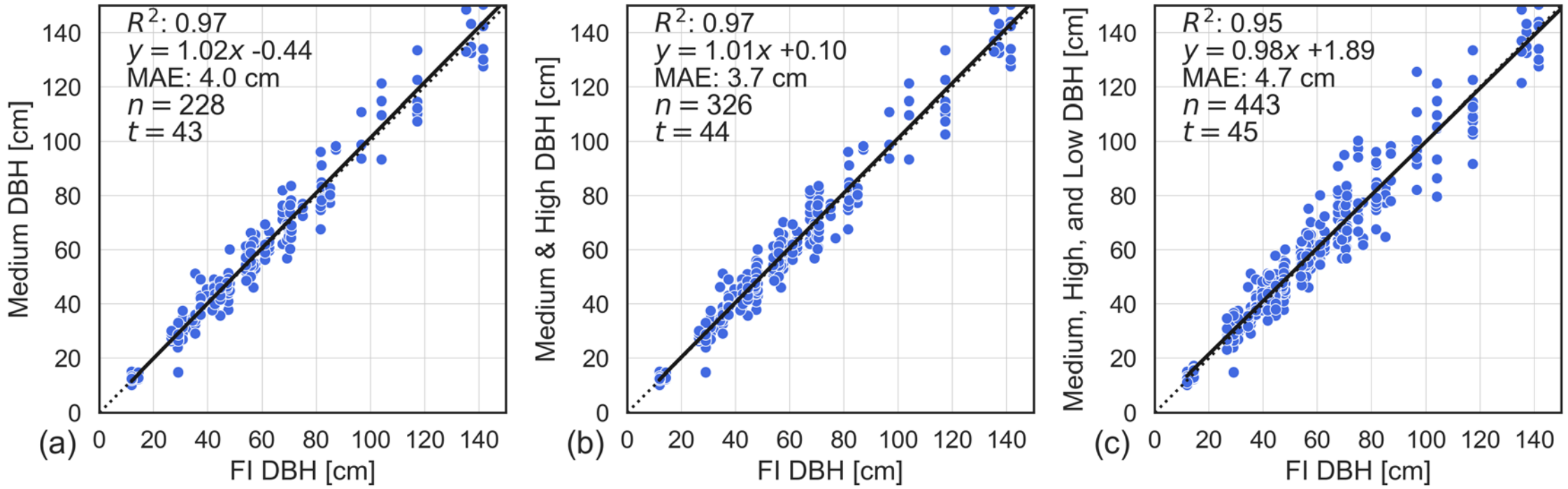


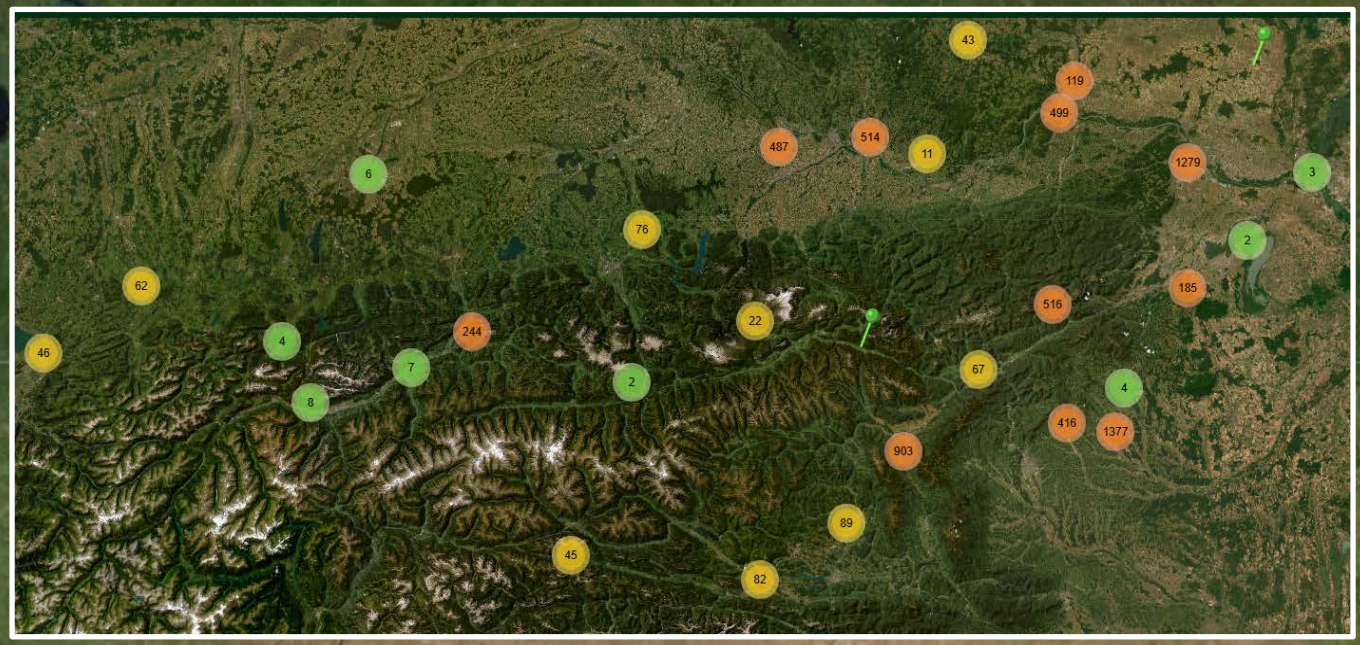
Tree-Quest Accuracy





Quality Labeling and Accuracy





Thank you!

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Novel Data Ecosystems for Sustainability, IIASA

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8348

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60918

Users
366