DigiForest

Digital Technologies for Sustainable Forestry
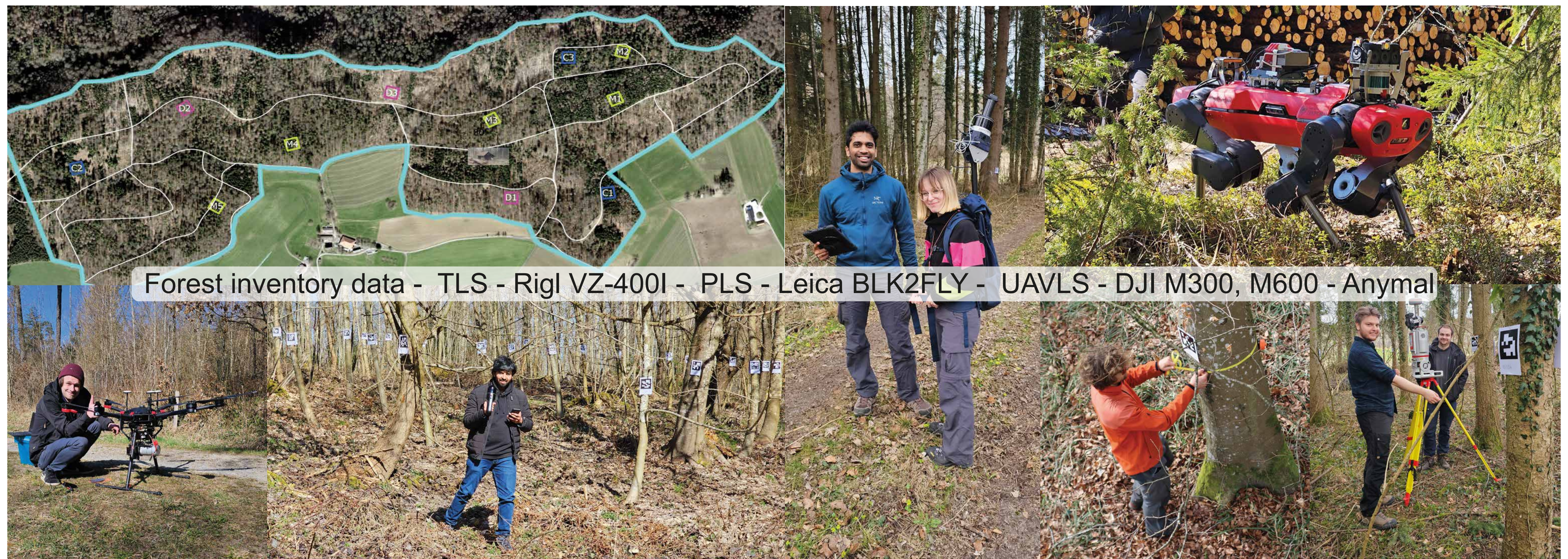
55th FORMEC and 7th Forest Engineering Conference

Project ambitions

The increasing complexity in decision-making forest managers must tackle needs to be addressed by equipping them with the best possible spatial decision support system (DSS). Such systems are typically based on a database, a forest growth model, and a multi-criteria decision support system.
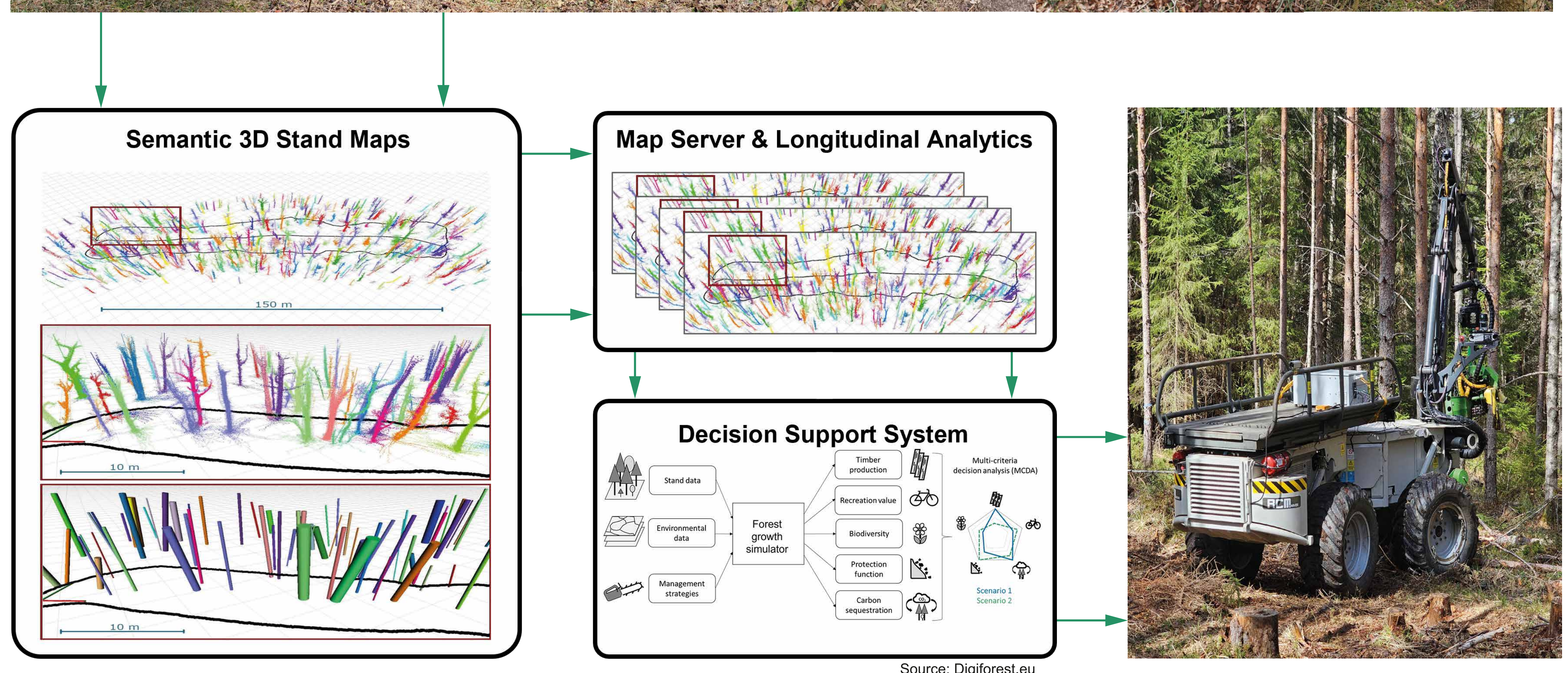
The core question addressed in the project is how digital analytics and robotics can be used and made applicable to

- **Mobile Robot Autonomy for Forestry**
- **Turning Forest Scans into Actionable Data**
- **Enriching Decision Support Systems using Actionable Data**
- **Achieving Sustainable and Autonomous Selective Logging**

Data collection

Forest inventory data - TLS - Rigl VZ-400I - PLS - Leica BLK2FLY - UAVLS - DJI M300, M600 - Anymal

Semantic 3D Stand Maps

150 m

10 m

10 m

Map Server & Longitudinal Analytics

Decision Support System

Stand data
Environmental data
Management strategies

Forest growth simulator

Timber production
Recreation value
Biodiversity
Protection function
Carbon sequestration

Multi-criteria decision analysis (MCDA)

Scenario 1
Scenario 2

Source: Digiforest.eu

Website

Youtube

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