CHAMELEON

ENVISION

Environmental and Vegetation Insights through UAV Surveillance for Innovative Optimization

iLINK
innovative business solutions

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CHAMELEON

Table of contents

Table of contents

Team Presentation

Presentation of the iLINK New Technologies team members involved in ENVISION

01 Team Presentation

Presentation of the iLINK New Technologies team members involved in ENVISION

- *George Tsironis – Project and R&D Coordinator*
- *Stathis Vlachos – Co-founder and CEO*
- *Panagiotis Zikos – Co-founder and CEO*
- *Nikos Rozis – Software and Network Engineer*
- *Vasileios Douvris – Contributor in UAV Data Acquisition and Processing*

Goals

Overview of the main goals of the ENVISION pilot

02 Goals

Overview of the main goals of the ENVISION pilot

- *Enhance forest and agricultural monitoring using advanced UAV technologies.*
- *Facilitate early detection of environmental threats (e.g., bark beetle infestations, fungal growth).*
- *Support sustainable forest and agricultural management practices.*
- *Validate and refine CHAMELEON Bundles: BC1 (Vegetation Monitoring and Census), BC3 (Continuity of Vegetation), BC7 (Health Status of Vegetation).*

Objectives

Specific objectives related to pilot implementation and validation activities

03 Objectives

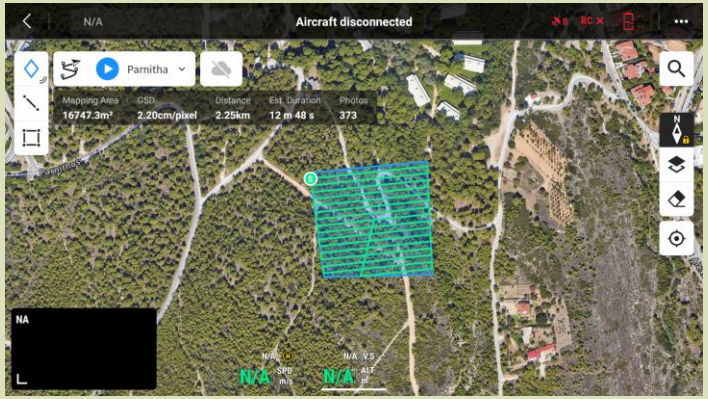
Specific objectives related to pilot implementation and validation activities

- *Conduct pilots in four geographically diverse sites:*
  - *Parnitha National Forest (Greece)*
  - *Seih Sou Forest (Greece)*
  - *Stylida Agricultural Area (Greece)*
  - *Lommedalen Forest (Norway)*
- *Acquire and analyze high-resolution RGB and multispectral UAV imagery.*
- *Utilize CHAMELEON platform for vegetation monitoring, continuity analysis, and health status assessment.*

03 Objectives

Specific objectives related to pilot implementation and validation activities

UAV Path Rout Images



Parnitha UAV path rout

Seih Sou UAV path rout

Stylida UAV path rout

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Timeline

Phases of the project implementation and important milestones

Name of event	Date

04 Timeline

Phases of the project implementation and important milestones

- *Stage 1: Planning (October 2024)*
  - *Define tasks, goals, and KPIs.*
  - *Allocate resources.*
- *Stage 2: Implementation (November 2024 – February 2025)*
  - *Conduct UAV flights.*
  - *Data acquisition and analysis.*
- *Stage 3: Dissemination and Exploitation (March 2025)*
  - *Disseminate results.*
  - *Engage stakeholders.*

Results

Key outcomes achieved through the execution of the pilot activities

05 Results

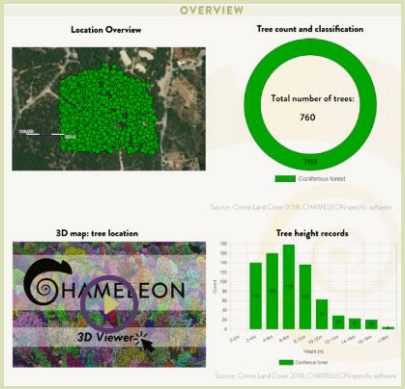
Key outcomes achieved through the execution of the pilot activities

- *Successful UAV data collection in three Greek sites (Parnitha, Seih Sou, Stylida).*
- *Validation of CHAMELEON Bundles BC1, BC3, BC7 based on UAV-acquired data.*
- *Outputs included:*
  - *Orthomosaics and vegetation index maps.*
  - *Tree crown detection and vegetation continuity analysis.*
- *Partial validation for Lommedalen due to limitations in the dataset.*

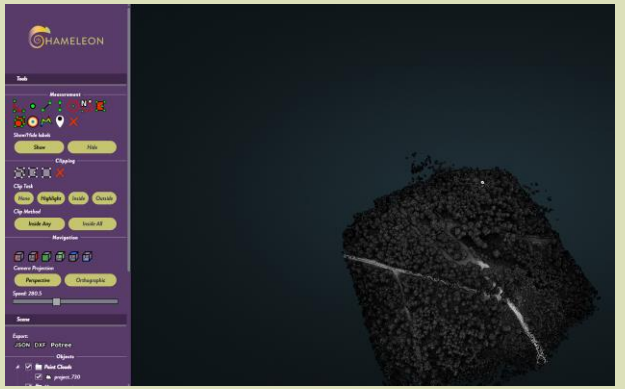
05 Results

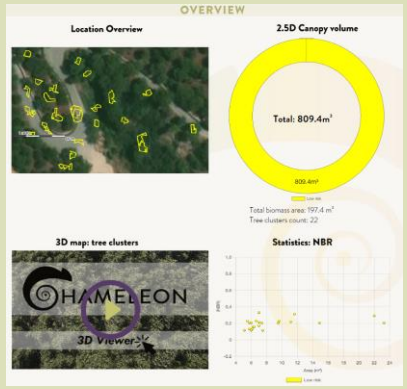
Key outcomes achieved through the execution of the pilot activities

Parnitha Results



BC1 (Vegetation Monitoring and Census)



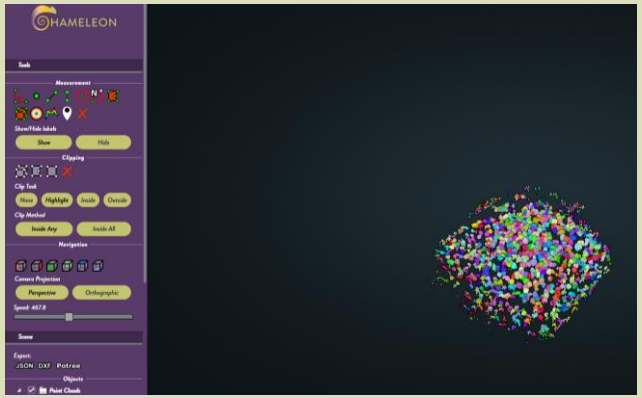


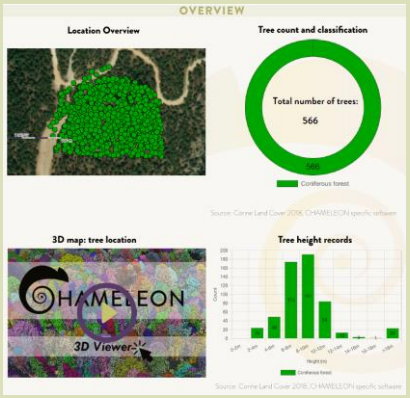
BC3 (Continuity of Vegetation)

05 Results

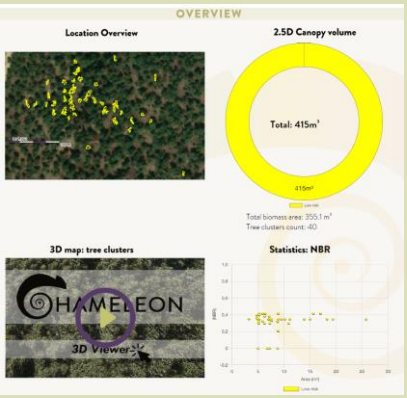
Key outcomes achieved through the execution of the pilot activities

Seih Sou Results





BC1 (Vegetation Monitoring and Census)

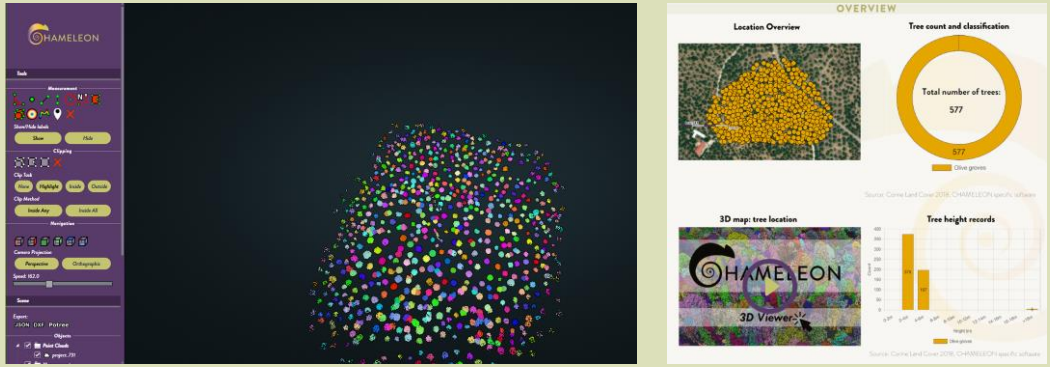


BC3 (Continuity of Vegetation)

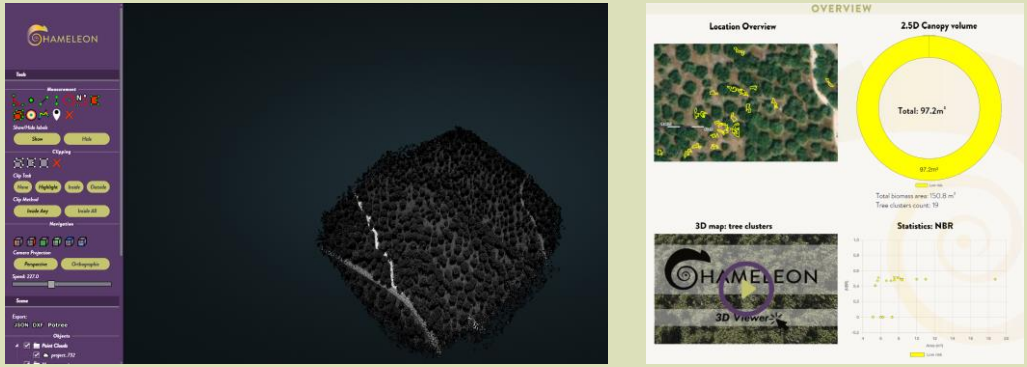
05 Results

Key outcomes achieved through the execution of the pilot activities

Stylida Results



BC1 (Vegetation Monitoring and Census)



BC3 (Continuity of Vegetation)

Final Remarks

Summary of the contribution and future perspectives

06 Final Remarks

Summary of the contribution and future perspectives

- *ENVISION contributed to practical validation of CHAMELEON Bundles.*
- *Strengthened iLINK's expertise in UAV-based environmental monitoring.*
- *Foundation set for future exploitation and commercial applications.*

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Thank you for your attention!
Do you have any questions?

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