



Forest Carbon  
Monitoring

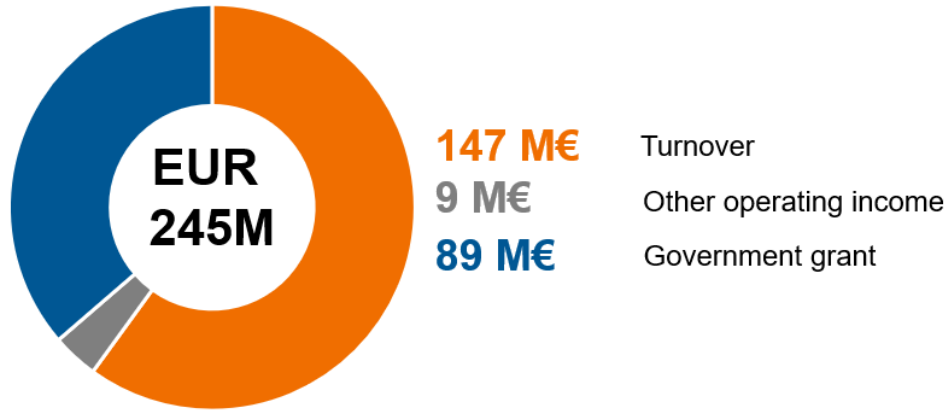
# Forest Carbon Monitoring

User Workshop 1-2 March 2023

Opening session



# VTT Technical Research Centre of Finland Ltd (est. 1942)



Founded 1942, under the state ownership steering of the Ministry of Economic Affairs and Employment

**2,103**

employees

**47%**

of turnover from abroad\*

**27%**

of Finnish innovations have links with VTT's competences

**406**

patent families

## We make an impact through science and technology

### Our vision

A brighter future is created through science-based innovations.

### Our mission

We help our customers and society to grow and renew through applied research.

### Our strategy

We make an impact through scientific and technological excellence.

Climate action

Resource sufficiency

Industrial renewal

Safety and security

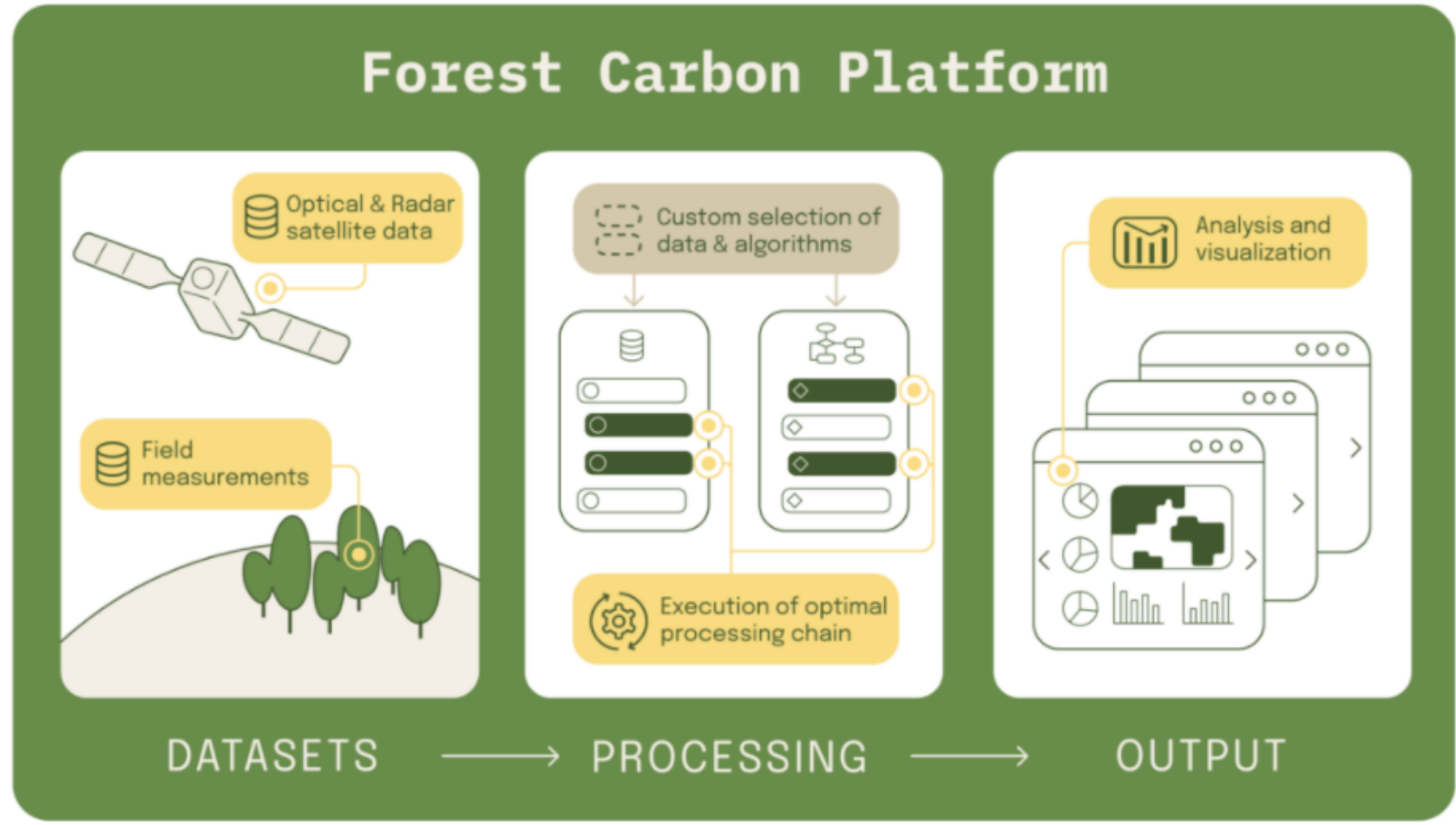
Good life

# Forest Carbon Monitoring - Objective

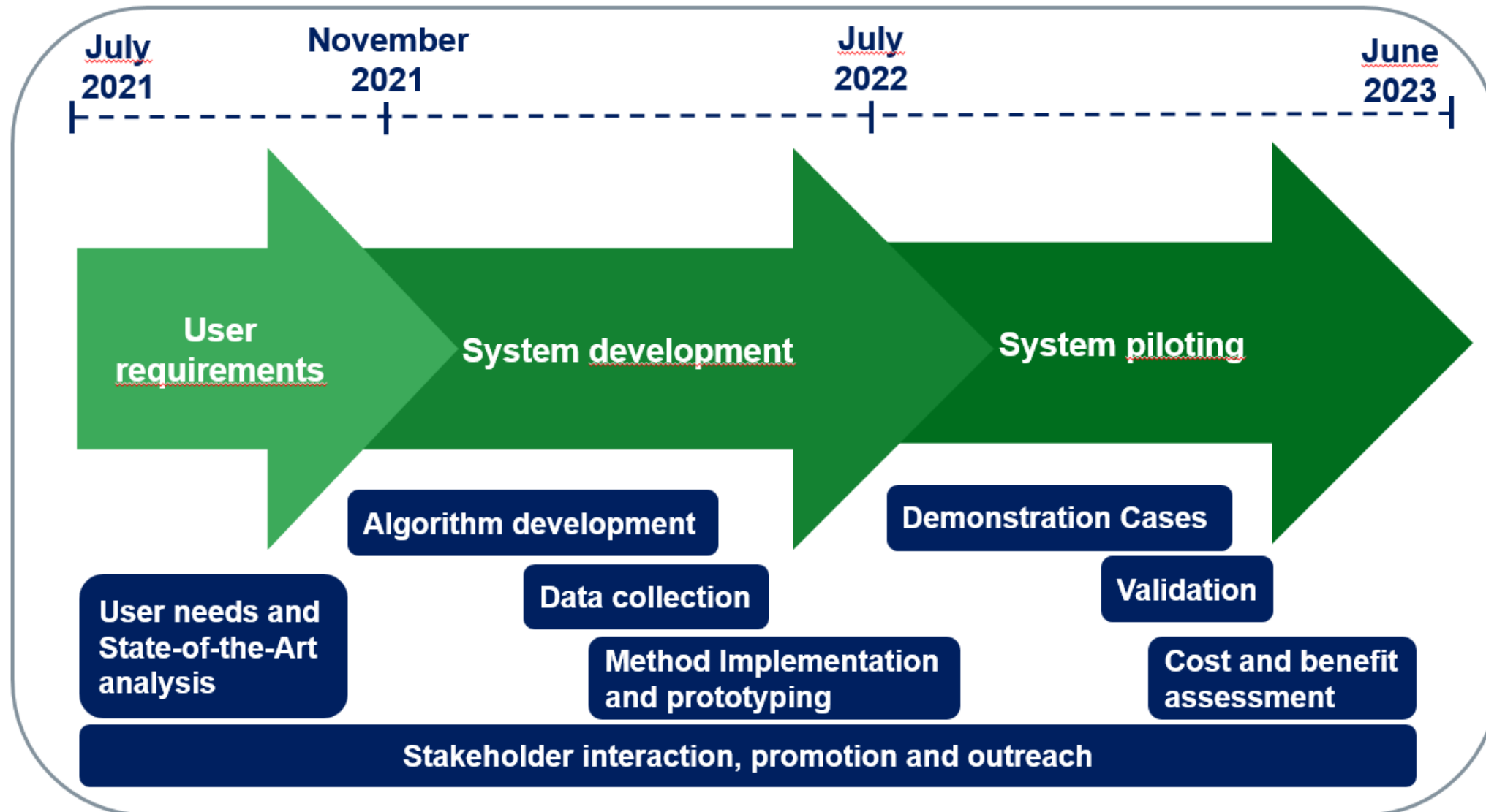


## Key features

- 1 Close integration of in-situ and remotely sensed data.
- 2 Process-based forest ecosystem carbon modelling integrated into the system.
- 3 Flexibility to user needs ranging from private company area monitoring to continental analyses.

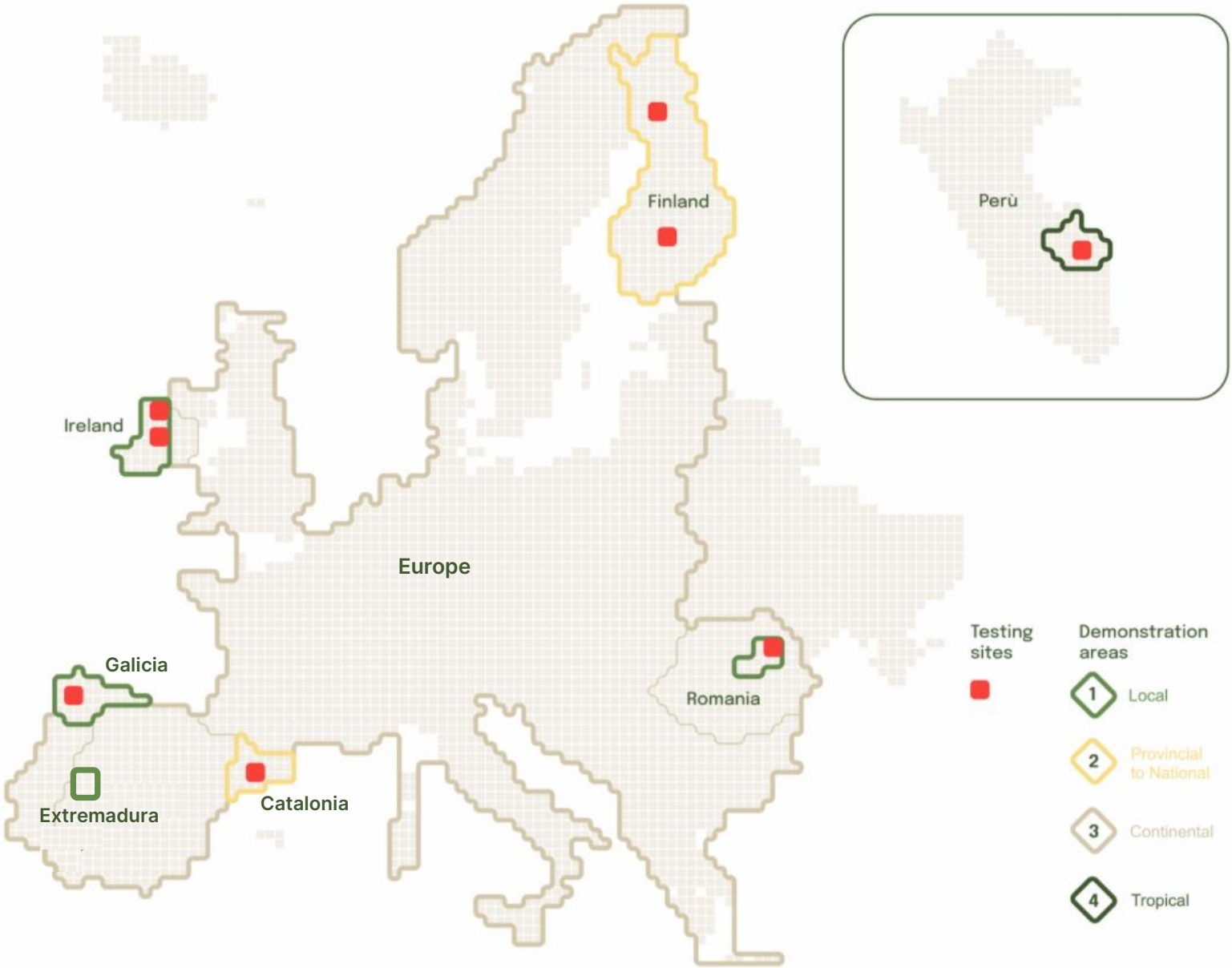


# Project structure and timeline



# Demonstrations

Demo area	User partner
1. Finland	Natural Resources Institute Finland
2. Ireland	Dasos Capital
3. Romania	Tornator
4. Catalonia	Forest Ownership Centre, Catalonia
5. Galicia	Ence Energía y Celulosa
6. Extremadura	Repsol Foundation/ Grupo Sylvestris
7. Peru	National Forest and Wildlife Service, Peru
8. Europe	EC - Joint Research Centre



# Key objectives for the workshop

1. To discuss the evolution of policy and standards framework and user needs for forest carbon monitoring
2. To share key findings of the Forest Carbon Monitoring project with the users
3. To acquire user feedback on the usability of the output products, and on areas of improvement
4. To discuss required further development needs



# Agenda

## Day 1 (1 March 2023)

### 13:30 Arrival and registration

### 14:00 Opening session (30 min)

- Welcome and project overview; *Jukka Miettinen*

### 14:30 Policy, markets and certification (90 min)

- Latest evolution in climate & carbon policy, user needs and requirements towards Forest Carbon Monitoring; *Yasmin Maximo (EFI)*
- Carbon markets and possible developments; *Antti Luoma (AFRY)*
- Motor Verde initiative, an example of a carbon market; *Antonio Perez Lepe (Repsol Foundation)*
- Discussion

- 16:00 Coffee break (30 min) -

### 16:30 Key findings and technical developments (90 min)

- Algorithm evaluation and comparison; *Oleg Antropov (VTT)*
- European wide biomass estimation; *Maurizio Santoro (Gamma Remote Sensing)*
- Key technical development; *Jukka Miettinen (VTT)*
- Discussion

- Dinner 18:45 -

# Agenda

## Day 2 (2 March)

### 8:30 Forest Carbon Monitoring results validation and utility assessment (120 min)

- Demonstration products; *Jukka Miettinen (VTT)*
- Validation and user questionnaire results; *Natalia Malaga (WUR/GFZ)*
- User panel discussion, starting with 3-5 min user partner self-presentations, followed by guided panel discussion; *representatives from all user partners*

- 10:30 Coffee break 30 min -

### 11:00 Conclusions and way forward (60 min)

- Lessons learnt from the project; *All participants*:
  - Providing operational services to users: Are we there yet?
  - What improvements are needed?
- Concluding words; *Jukka Miettinen (VTT)*

- 12:00 Workshop ends -





Forest Carbon  
Monitoring

Thank you!

More information at:

<https://www.forestcarbonplatform.org>

