



ForTech

# FOREST SHARING

Florence, 21 June 2019

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*blue  
biloba*



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SPIN-OFF APPROVATO



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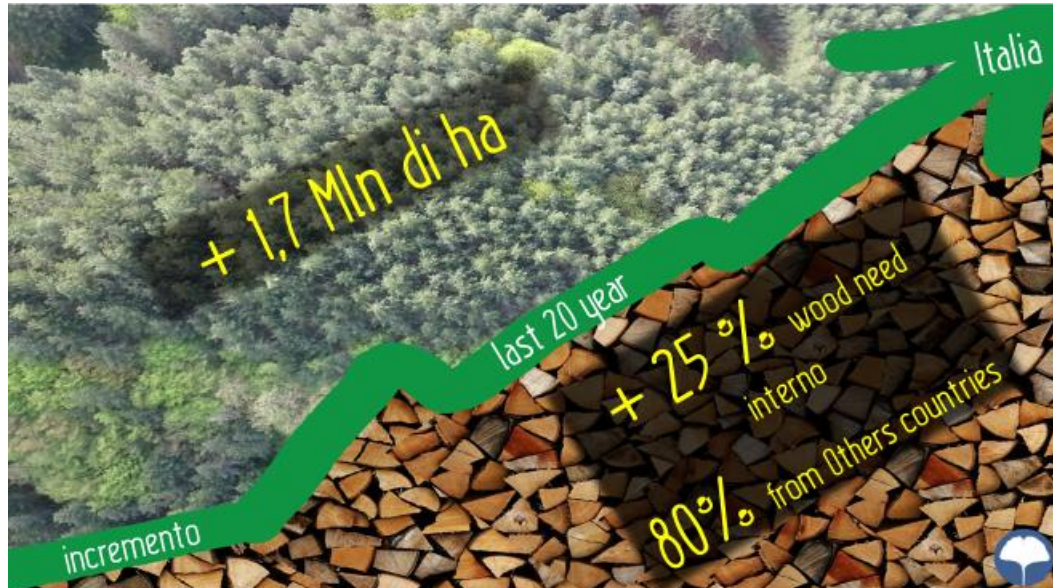
**DAGRI**

DIPARTIMENTO DI SCIENZE  
E TECNOLOGIE AGRARIE,  
ALIMENTARI, AMBIENTALI E FORESTALI





# Platform Tool B-Forest Regional Level



# ForestSharing

## **Innovative on-line Platform**



# ForestSharing

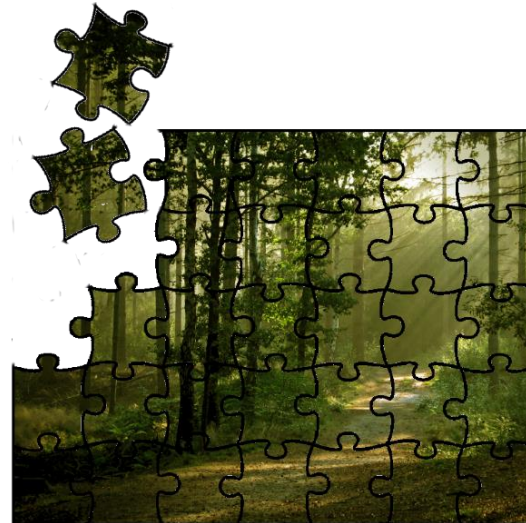
## Innovative on-line Platform





# ForestSharing

## Innovative on-line Platform

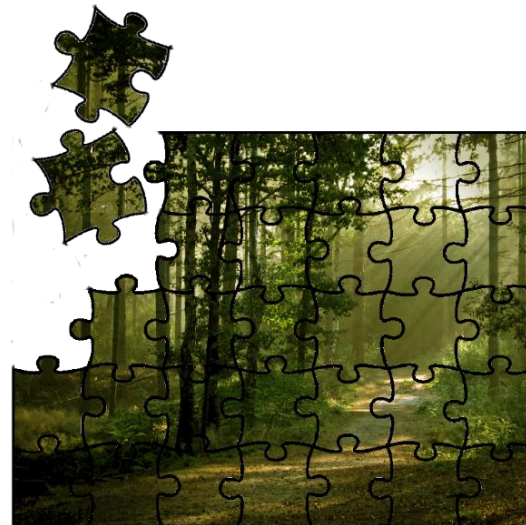


# ForestSharing



# ForestSharing

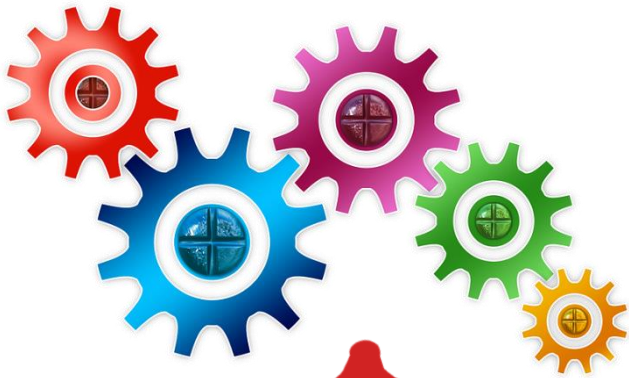
 **Innovative on-line Platform**





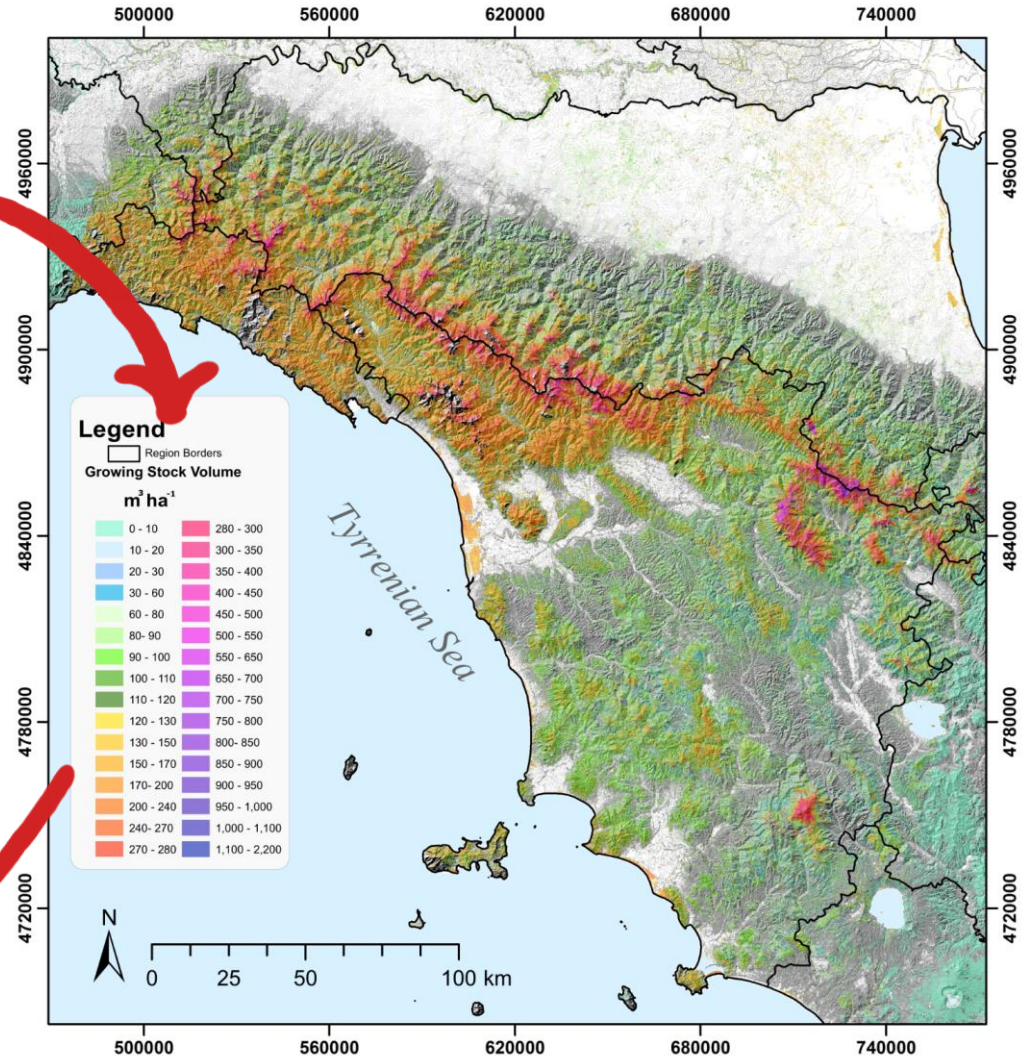
# ForestSharing

## Innovative on-line Platform





# Platform Tool B-Forest Regional Level



# Platform Tool B-Forest small scale

## Il progetto FRESH LIFE

LIFE14 ENV/IT/000414

Il progetto FRESH LIFE - Demonstrating Remote Sensing integration in sustainable forest management - è un progetto finanziato dal programma LIFE dell'Unione Europea, sottoprogramma Ambiente, settore prioritario Ambiente e uso efficiente delle risorse  
Il progetto è iniziato a settembre 2015 e terminerà ad agosto 2019

## 3 Demonstration site



- 1 Complesso forestale di Rincine (FI), 270 ha
- 2 Riserva Naturale Lago di Vico (VT), 240 ha
- 3 Riserva Naturale Decima Malfeda (RM), 192 ha



## SFM Indicators



## 2 UAV

### eBee AG

Apertura alare: 98 cm  
Peso: 700 g  
Autonomia: 45 min

### Ottocottero

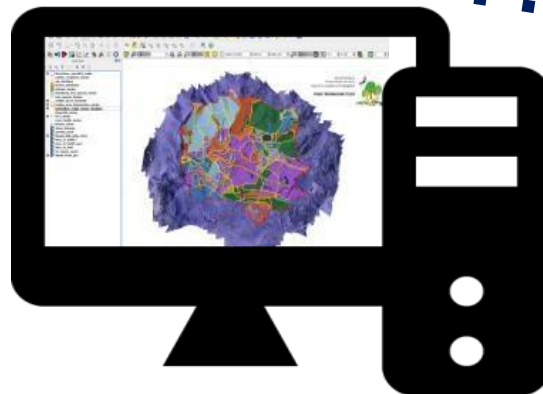
Diametro: 180 cm  
Peso: 15 kg  
Autonomia: 20 min



## Inventari e telerilevamento

Dimostrare la fattibilità tecnica ed economica dell'uso integrato dei dati inventariali e telerilevati per la stima degli indicatori di GFS - Precision forestry

## Field Measurements



Forest information system

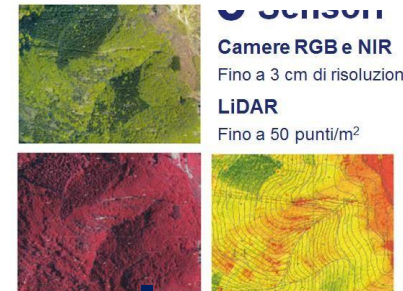
## 3 Sensors

### Camere RGB e NIR

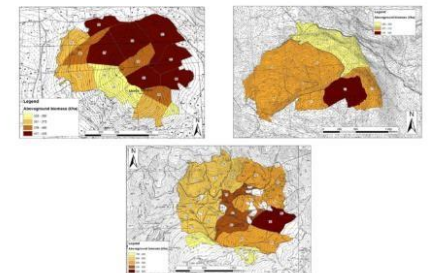
Fino a 3 cm di risoluzione

### LiDAR

Fino a 50 punti/m<sup>2</sup>



## Above Ground Biomass

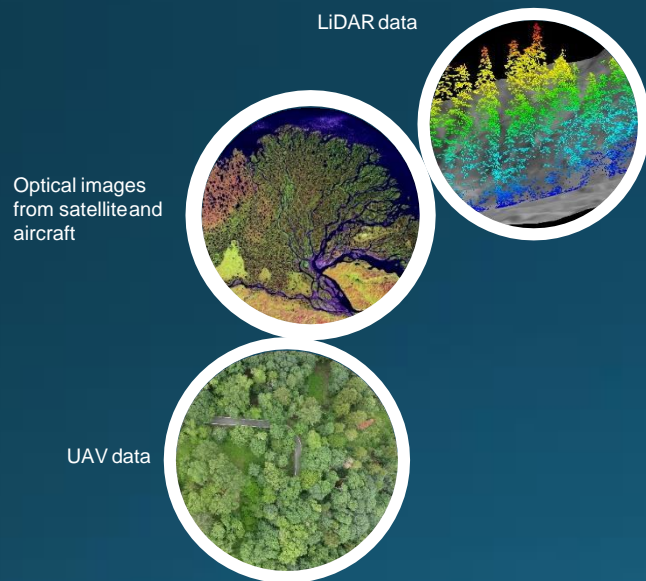


Tools to map SFM Indicators

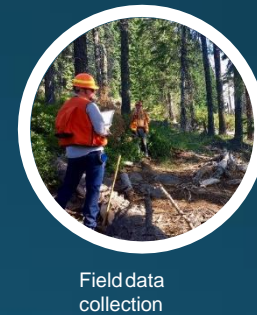
Data collection

# Data collection

## UAV Remote Sensing Data



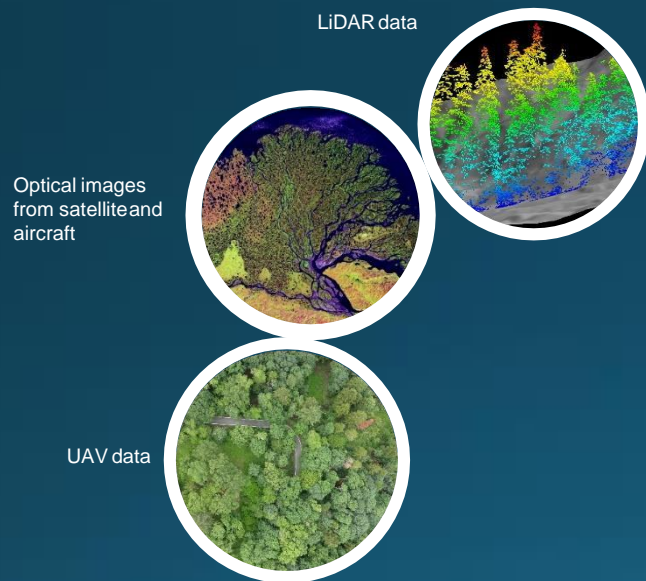
## Field data



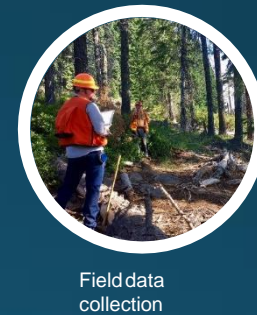


# Data elaboration

## Elaboration of UAV data



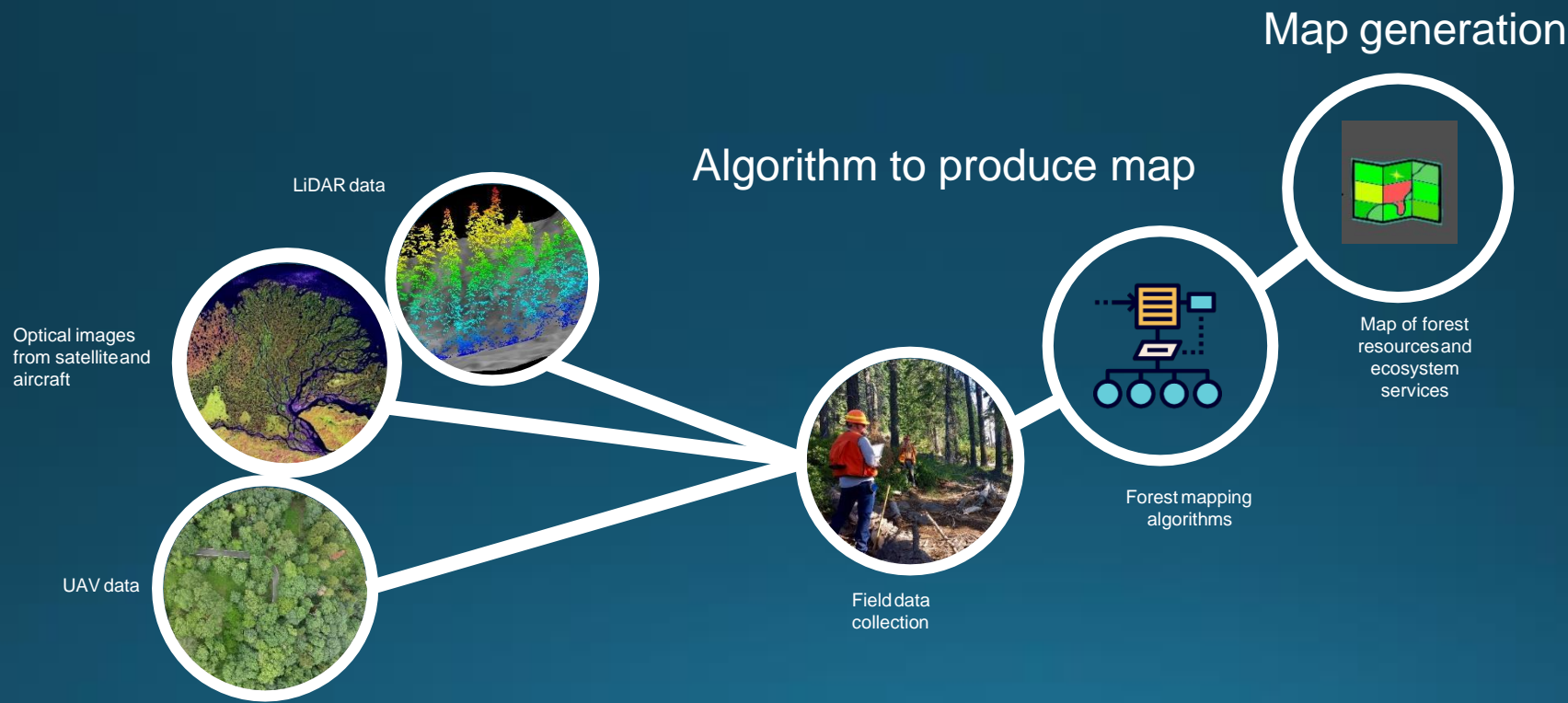
## Elaboration of Field data



Segment services

# Mapping forest resources with Remote Sensing data

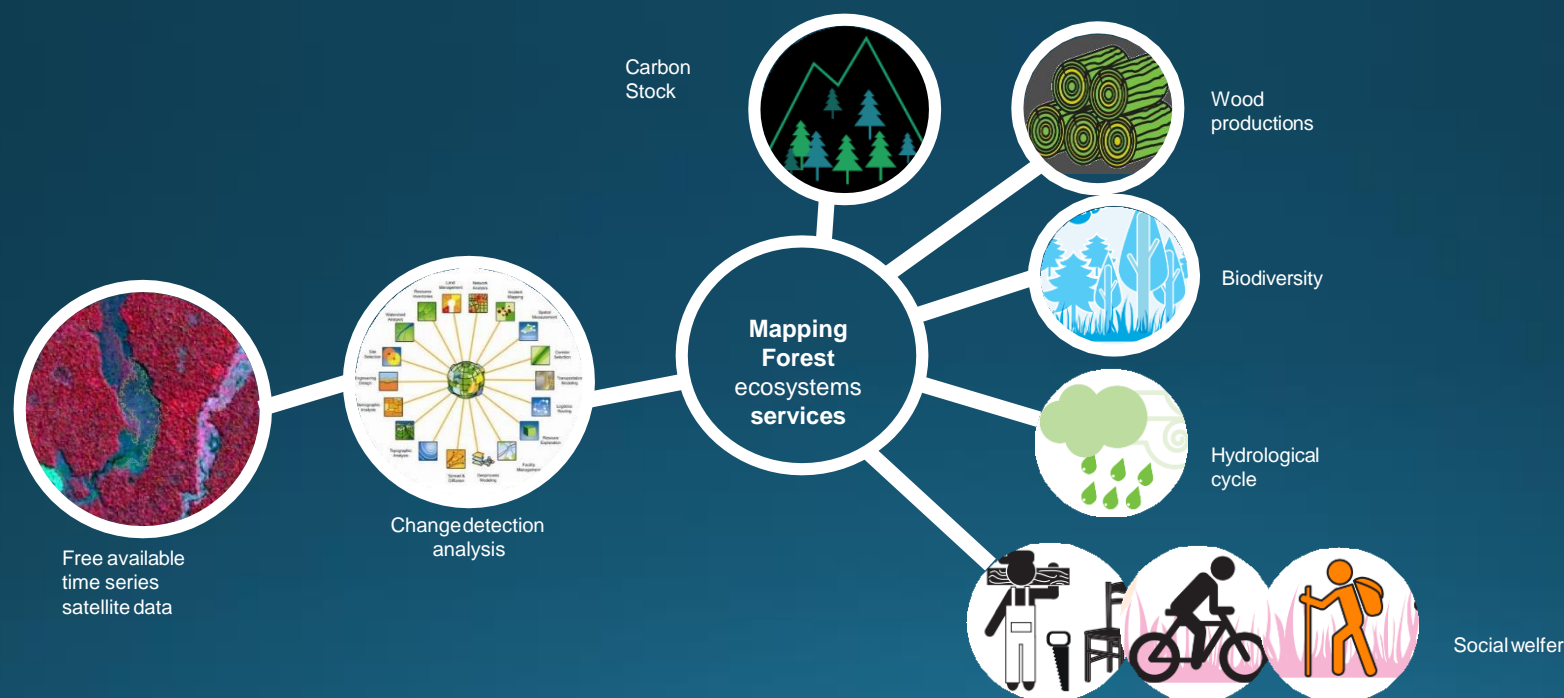
## Forest Information System



Acquisition of data (UAV RS data + Field data)

Segment services

# Mapping Sustainable Forest Indicator





Segment services

# Precision Forestry Tools



UAV systems



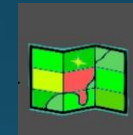
High resolution  
Topographic  
GNSS



Laser Scanner  
data



Total station



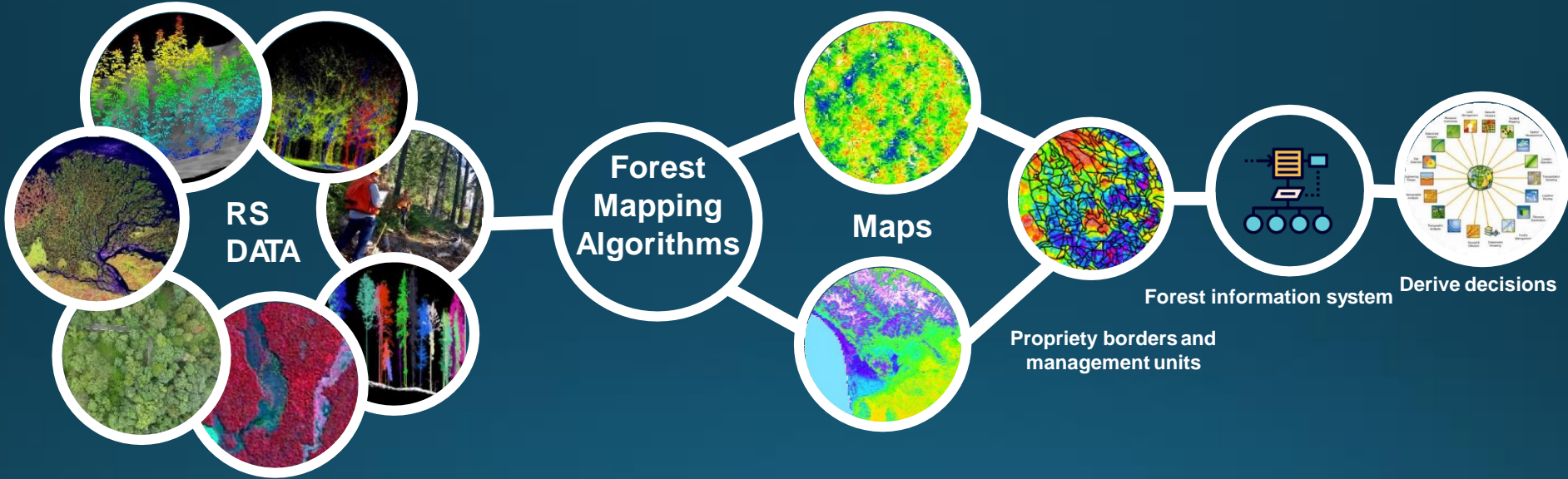
Optimizing data  
collections and  
mapping



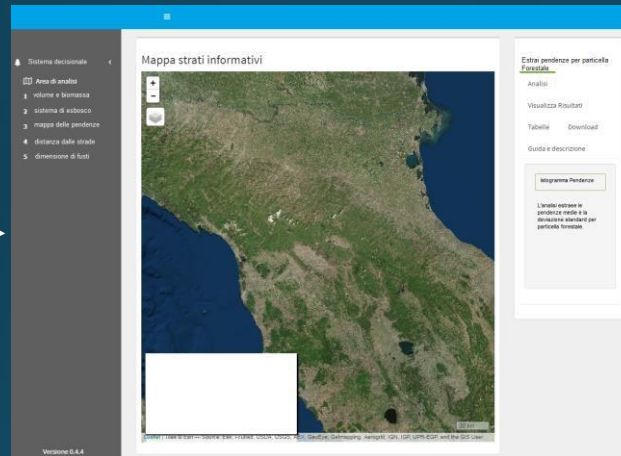
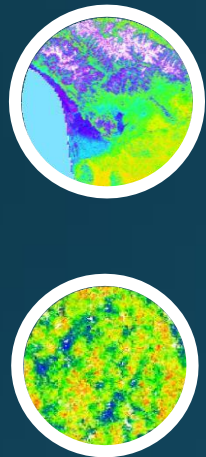
Developing  
Precision forestry  
application

Segment services

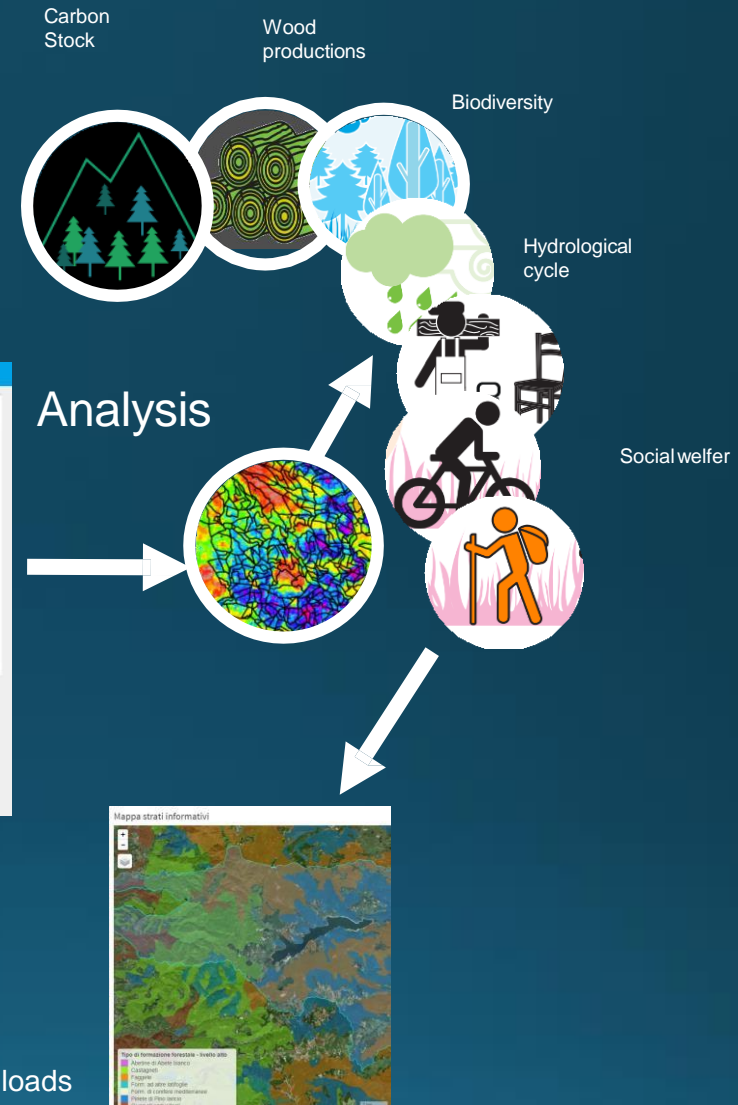
# Forest information system



# Forest information System Platform



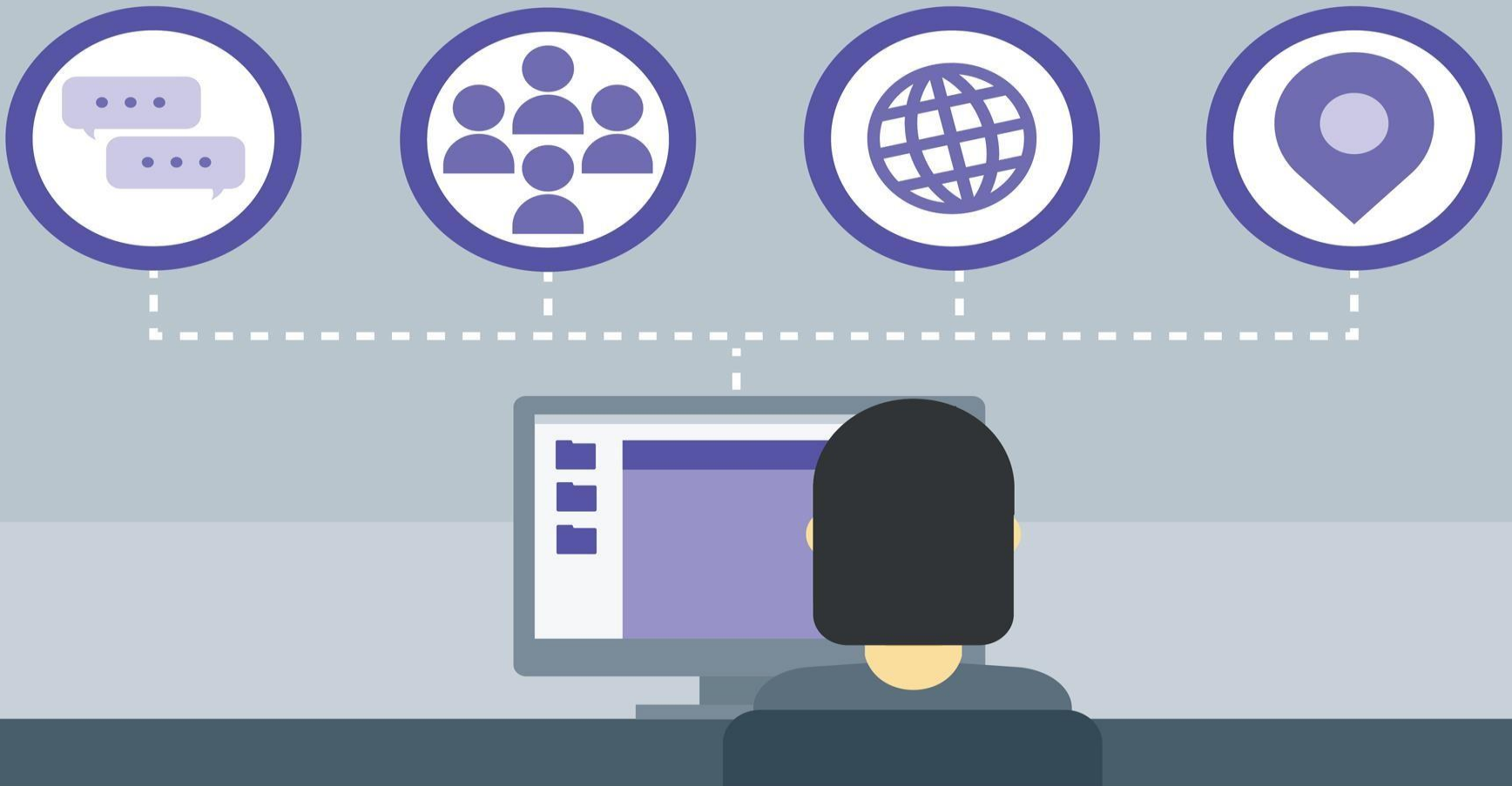
Users interface  
Tools





# Next step for C2M

- Develop an On-line platform to access to services to





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FRESH Life