



**PRESENT AND FUTURE ACTIONS TO  
INTEGRATE ICP-FORESTS AND NFI  
NETWORKS IN ROMANIA  
(FOR FUTMON PROJECT)**

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# FOREST MONITORING SYSTEM IN ROMANIA

## I. ORGANIZATION AND FUNCTIONING

The organization and functioning of the national forest monitoring system is under the responsibility of the Ministry of Agriculture, Forests and Rural Development and Romanian Forest Research and Management Institute (ICAS), as National Focal Centre (NFC).

This system is functioning in accordance with Law no.444/2002 on "Elaboration and Financing of Soil-land National Monitoring System for Agriculture and Soil-forest and Vegetation for Forestry".

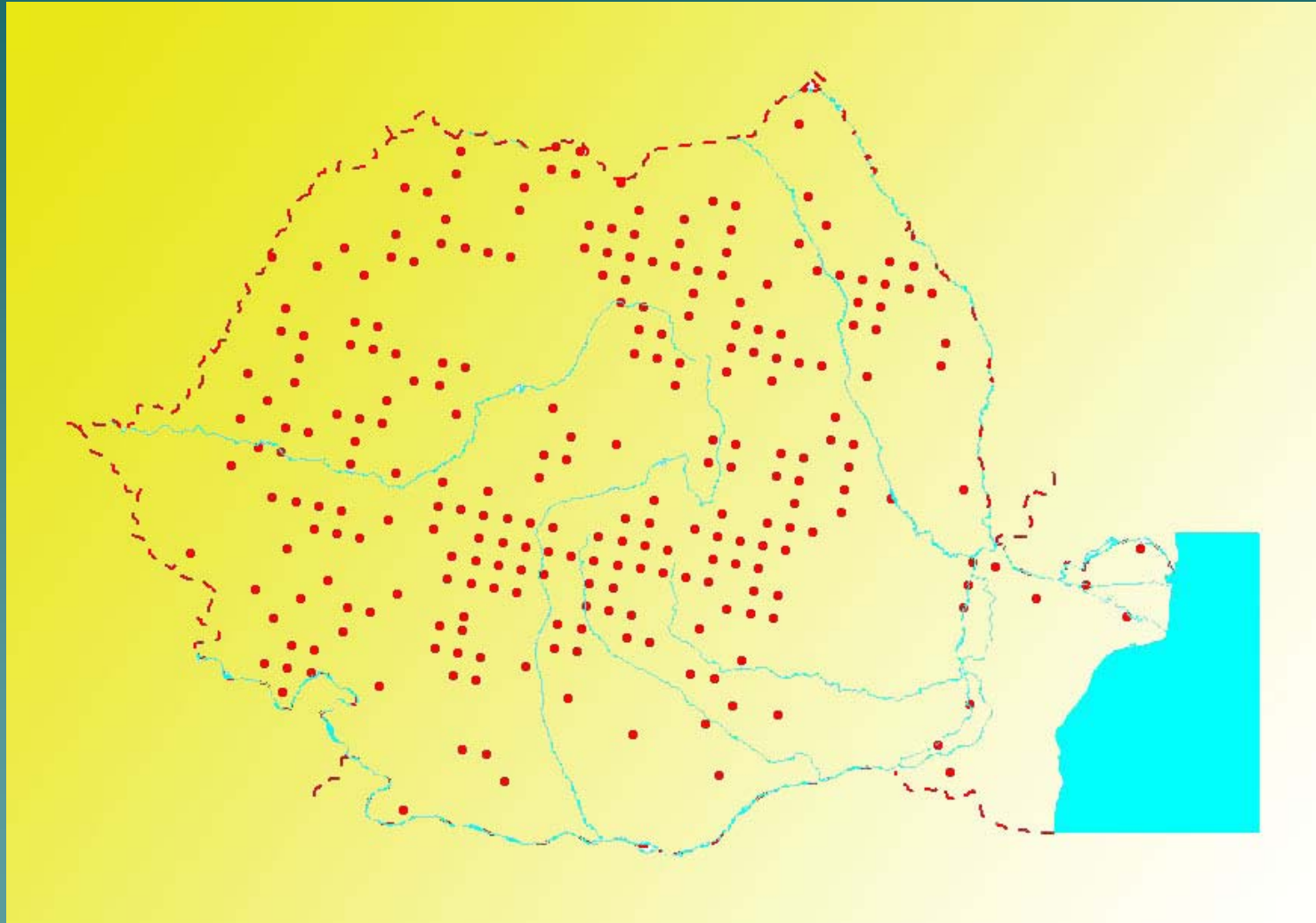
## II. EXISTING NETWORKS

### Level I

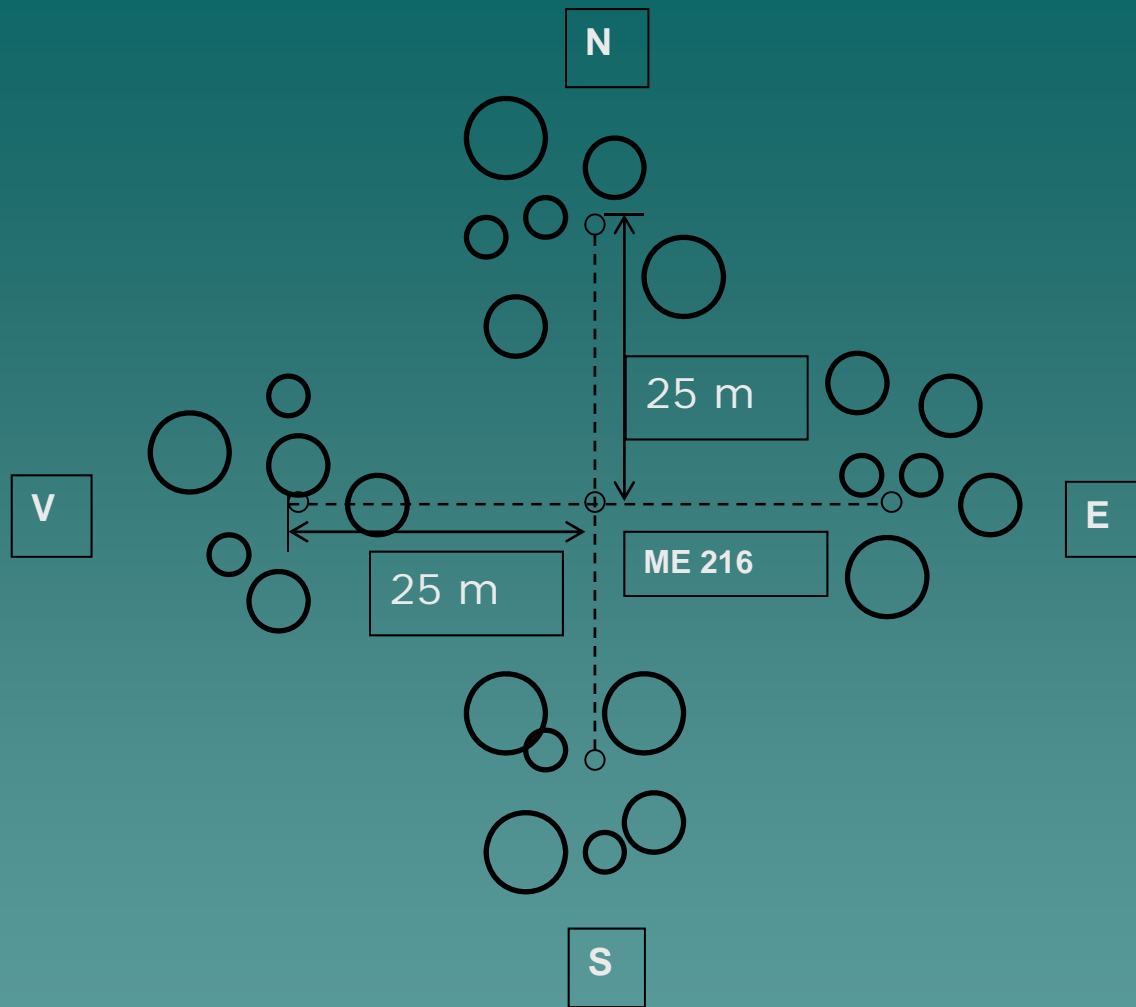
2.1. National Network (4X4 km – 4500 permanent plots, 1990-2006) combined with NFI (abandoned in 2007)

2.2. ICP Large Scale Network (16x16 km – 252 plots, since 1991)

## 2.2. ICP Large Scale Network (16x16 km – 252 permanent plots)



Location of the Level I permanent plots in Large Scale Monitoring Network (16x16 km)

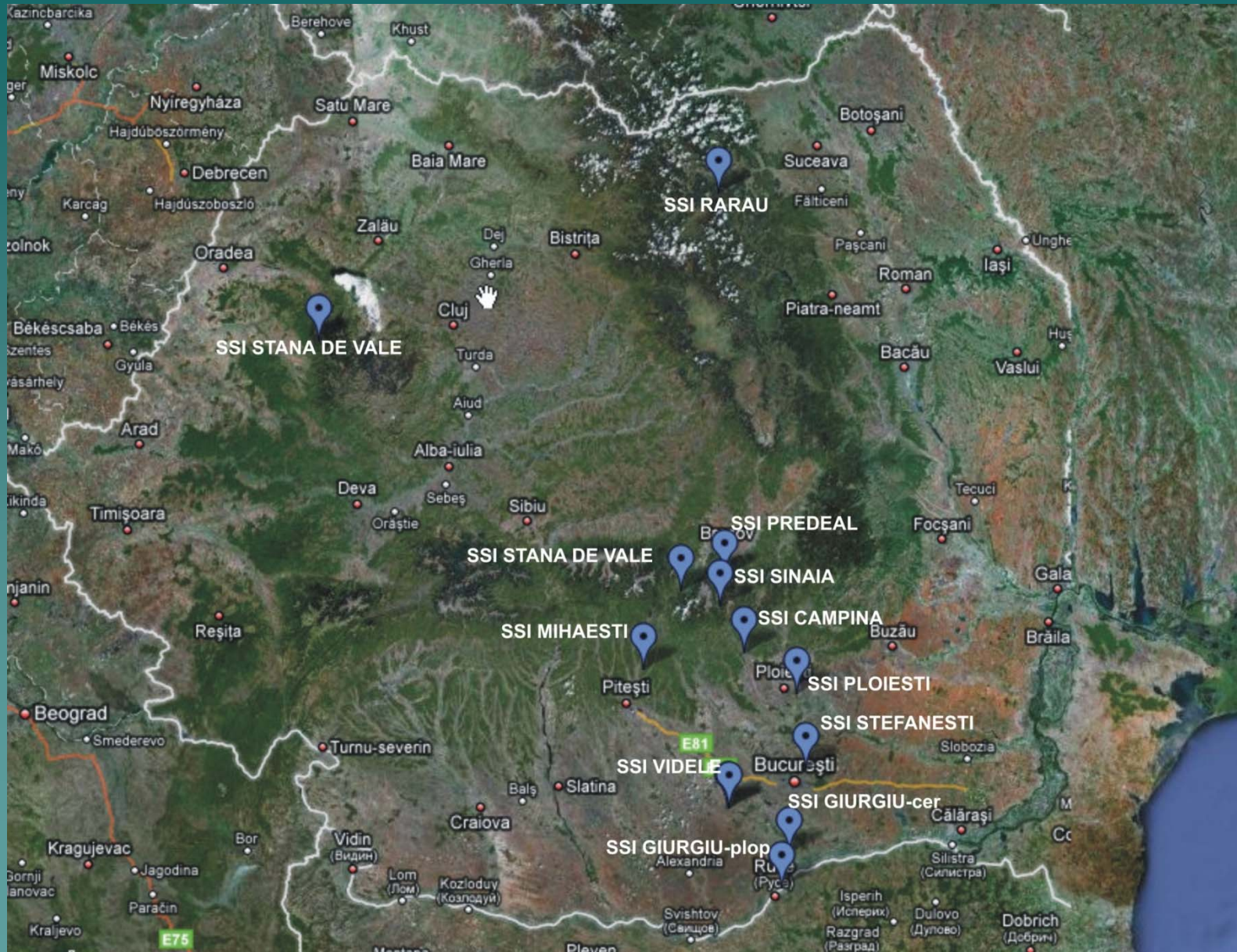


Design of sample subplots in the  
ICP Large Scale Network (16x16 km)

## 2.3. The activities carried out in ICP Large Scale Network

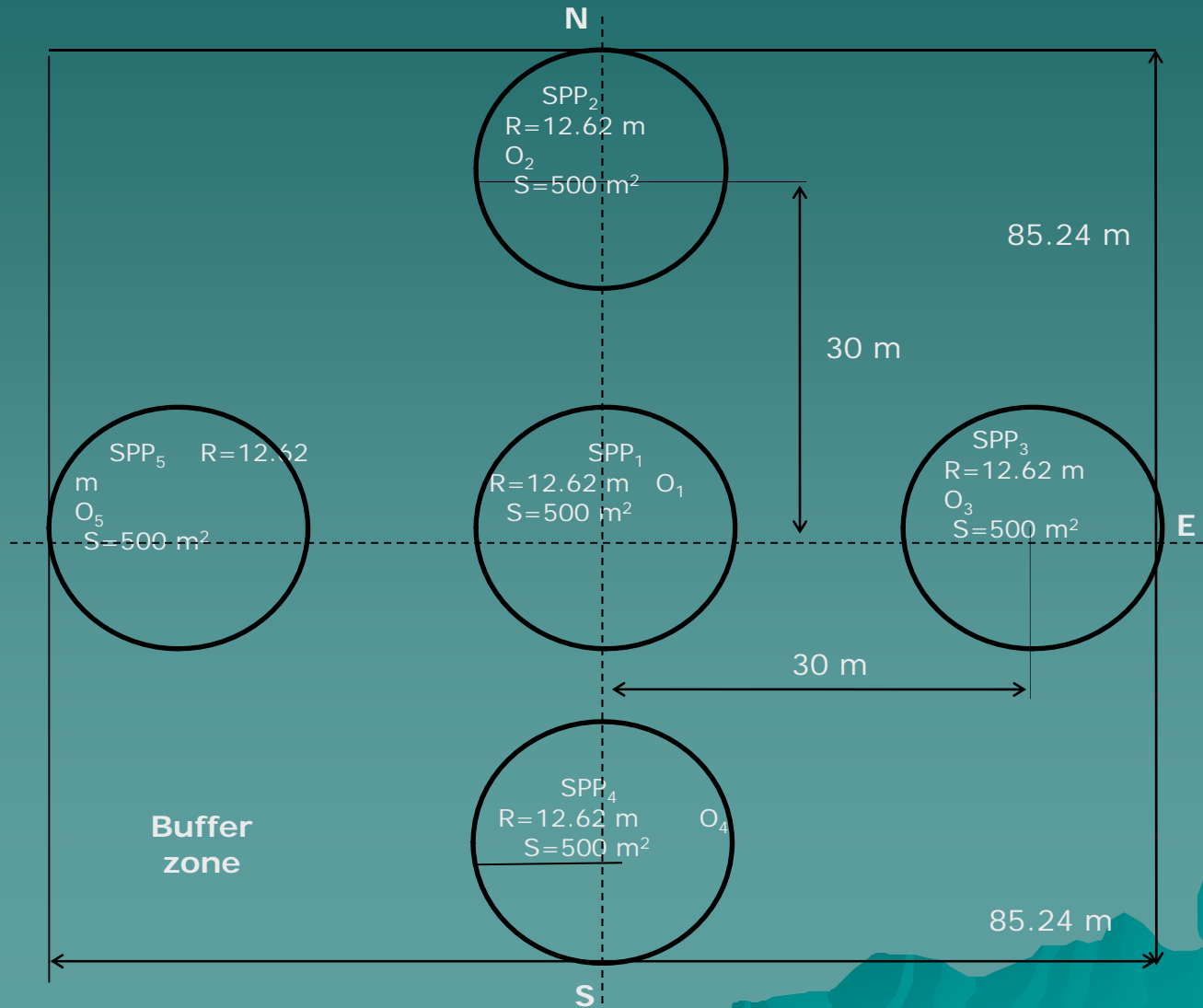
- ◆ Crown condition and damage causes assessments (annually)
- ◆ Soil condition and Analysis (every 10 years)

# ICP Level II - Intensive Monitoring Network (12 permanent plots in representative forest ecosystems) since 1991



# ICP Level II

## Scheme of an intensive permanent plot (IPP) with 5 subplots (SPPn)



# ICP Level II

## The activities carried out in the intensive monitoring network (12 permanent plots)

- Crown Condition (every year) (IM1, D1, D3)
- Soil Analysis (every 10 years) (IM1)
- Soil Solution (continuous) (D2)
- Foliar Analysis (every 3 years) (IM1, D2)
- Growth (every 5 years) (IM1, D1, D3)
- Atmospheric Deposition (continuous) (IM1)
- Meteorology (continuous) (IM1, D3)
- Ground Vegetation (every 5 years) (IM1)
- Phenology (continuous) (D1, D3)
- Air quality (continuous) (IM1, D1)
- Litterfall (continuous) (D1, D2)

All plots will be used in FutMon project (IM1, D1, D2, D3 actions)

ICP Level II network is integrated in Romanian LTER Network

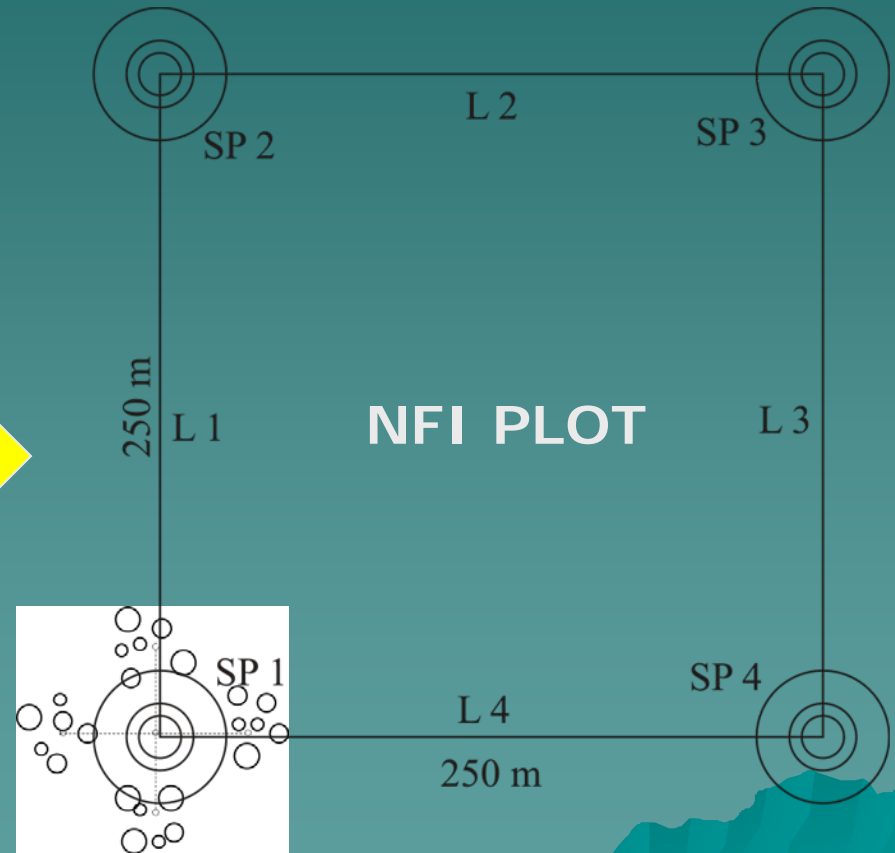
# Harmonization of NFI and ICP large scale networks in FutMon

- ◆ Romanian Forest Research and Management Institute (ICAS) has the administrative responsibility for NFI and ICP activities
  - NFI department
  - Dendrometrics and Forest Monitoring Department

# Harmonization of NFI and ICP large scale networks in FutMon

Integration of ICP large scale network (Level I) and NFI network for FutMon project

On existing ICP Large Scale Network we will emplace additional NFI plots



ICP LEVEL I PLOT

Thank you!

