# Forest health and growth network

contribution to the assessment of the impact of climate hazards

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# questions to be answered

- what indicators are suitable to asses "forest health" and stress factors such as drought, respectively?
- is forest growth a suitable indicator? What are the limitations?
- what are the existing networks? What are the limitations with respect to data availability or data quality?

Intensive Research Sites

ICP-Forests
Level I & Il Monitoring

National and Regional Ground-based Surveys

**Remote Sensing Programmes** 

**National Forest Invetories** 

# clarification of the aims of forest health monitoring system

- answer new questions (climate change, biodiversity)
- be as multifunctional as possible
- improve integrations of different monitoring systems
- be an early warning system (recording annual appearance of causes and effects)
- combine monitoring activities and research
- sell products to stakeholders (extension activities)
- cross-scale focus

# Improve tools of forest health monitoring

- plots
  - nested approach
  - GIS-based information
  - increase plot size

Zur Anzeige wird der QuickTime™ Dekompressor "Grafiken" benötigt.

#### Improve tools of forest health monitoring

- parameters
  - growth indicators (height growth, length of terminal shoot, diameter growth)
  - puting emphasis on soil water indicators (Precipitation Potential Evapotranspiration)
  - stand/site history

#### **Intensify Cooperation**

- research platform approach
- common scientific output
- sharing information, data and knowledge with other networks
- key partners: National Forest Inventories, JRC, Remote Sensing-Community

### Improve cooperation with stakeholders

- identify stakeholders
- persuade stakeholders of value
- sell our products
- reduce costs



"I see by the current issue of 'Lab News,' Ridgeway, that you've been working for the last twenty years on the same problem <u>I've</u> been working on for the last twenty years."

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7th Framework programme

- risk assessment; common management
- on the basis of the control of the data (inverse) of the control o

remote sensing tools -->

inable impact assessment tools for a uropean knowledge-based bio-economy





## some facts

- A general concern over the state of the environment and the impacts of global change on ecosystem services and functions has highlighted the need for high-quality, long-term datasets for detecting and understanding environmental change (Parr et al., 2003).
- Long-term monitoring and long-term research are needed and called for by stakeholders to provide measures of baseline conditions and for informing decisions on ecosystem management and environmental policy formulation.
- Fact is: Monitoring is a fundamental requirement in order to test and refine impact predictions and to monitor the response forest ecosystems to adaptation activities.