

# Forest resilience – what is needed for disturbance monitoring



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# C&I as key tool

FOREST EUROPE defined the pan-European concept of **Sustainable Forest Management** in 1993<sup>1</sup>.

FOREST EUROPE has led to achievements such as the internationally agreed **guidelines, criteria and indicators** for Sustainable Forest Management.

- National forest inventories as backbone
- Focusing on SFM trends
- Allow for trans-national comparability

FOREST EUROPE, together with FAO and UNECE, produces the report “**State of Europe’s Forests**” (SoEF) every five years

<sup>1</sup>Helsinki Resolution "General Guidelines for the Sustainable Management of Forests in Europe"

# The fundamentals...

## C2

### Forest Ecosystem Health and Vitality

Indicators

#### 2.1 Deposition and concentration of air pollutants

Deposition of air pollution has been continuously decreasing since 1997



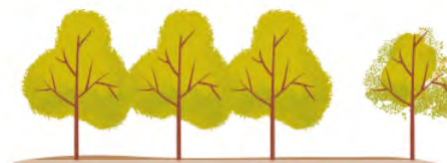
#### 2.2 Soil condition

Soil properties show limited changes



#### 2.3 Defoliation

The condition of European forests is apparently deteriorating, with increasing mean defoliation of the main tree species.

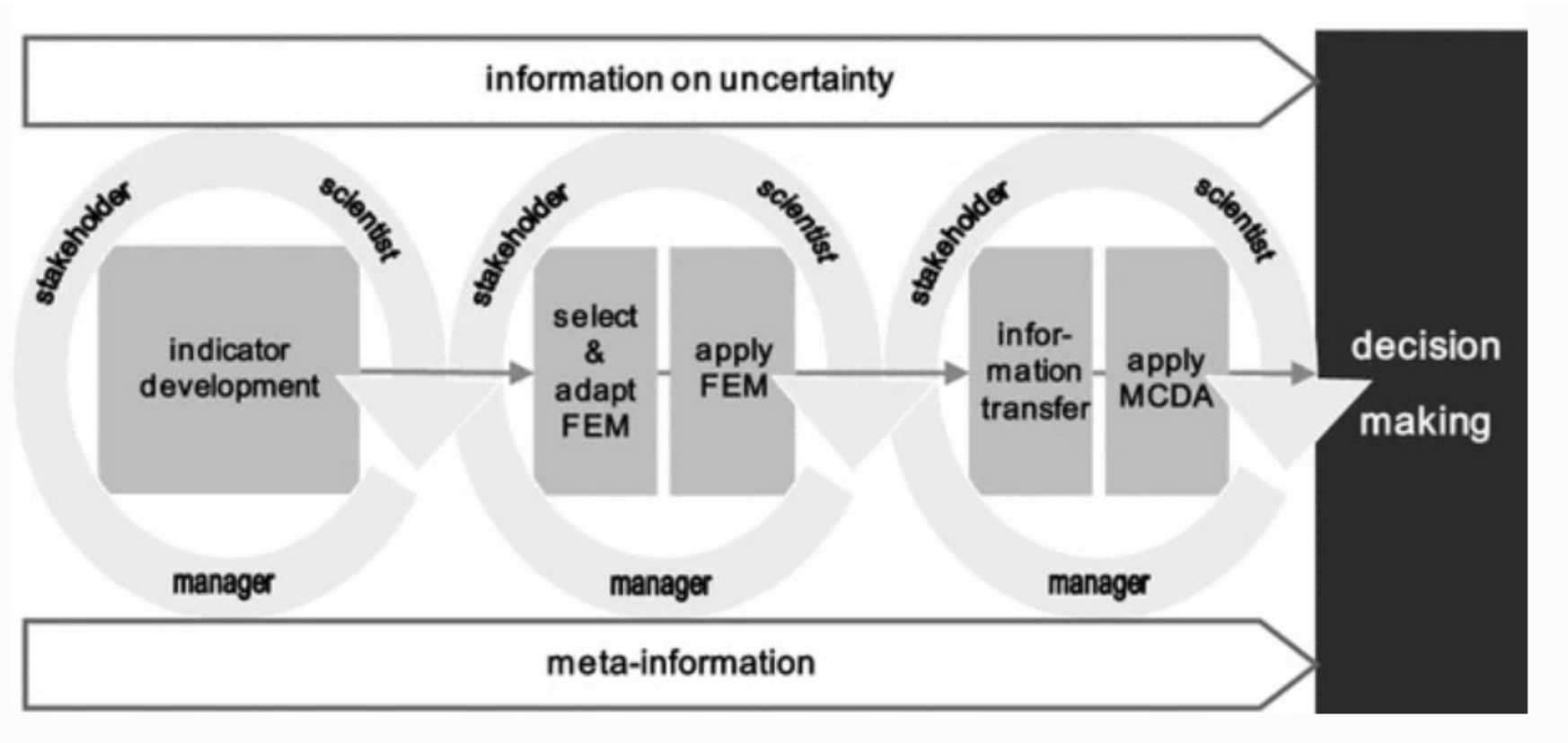


#### 2.4 Forest damage

About 3% of European forests are damaged, mainly by wind, insects, ungulate browsing, and forest fires.



# More than data...

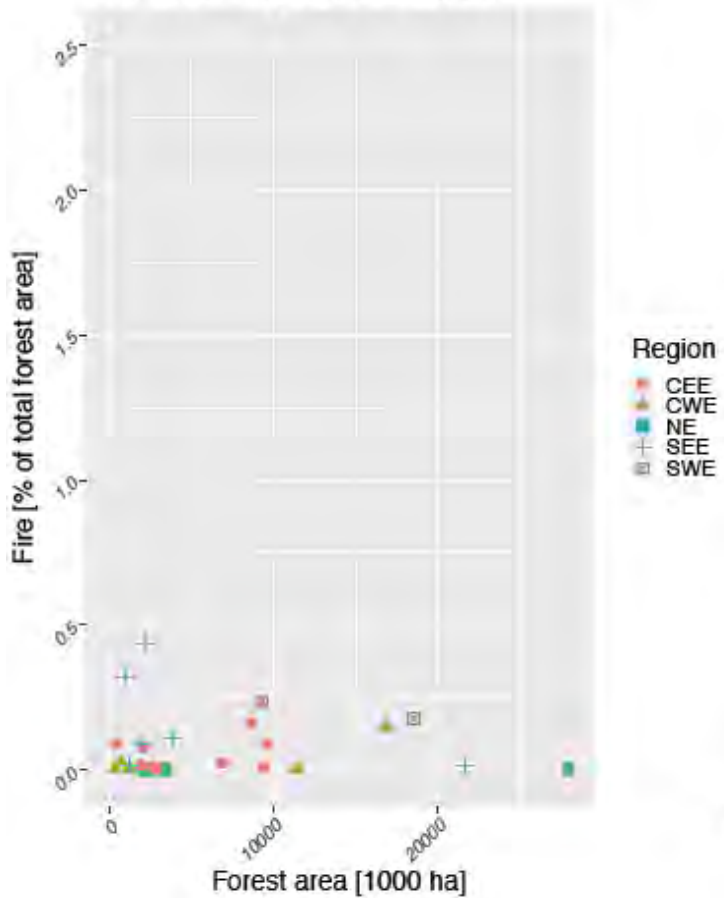


# A new era for SFM

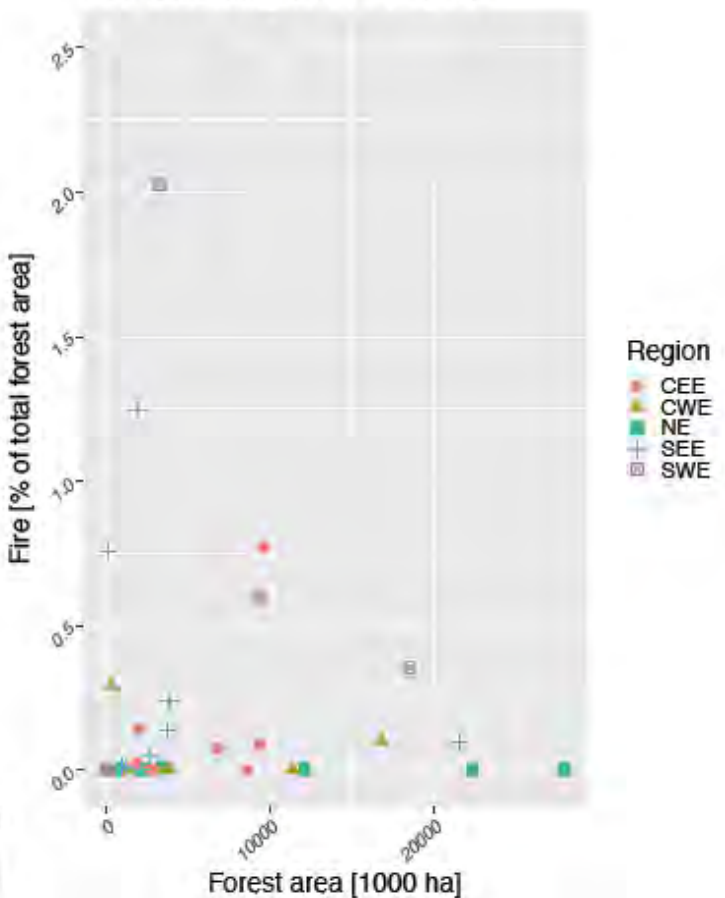
- Relate forest data to resilience questions and risk considerations (ideally, for the value chain)
- Check C&I for their ability to answer forest questions and the requirements for additional information to create new SFM narratives
- Develop a set of key indicators that are bullet-proof
- Connect data sources and improve reliability and consistency of forest information

# Are we there?

Fire according to SOEF 2020



Fire according to EFFIS 2020



# Some conclusions (from a European perspective)

- Forest damage reporting to be improved (post-damage event surveys or via NFIs).
- Data from international data providers should be used as far as possible (e.g. EFFIS)
- The volume of the marketed salvage timber should be included as an attribute in national reporting, market effects of large-scale forest damages.
- An annual query for damage events affecting large areas or resulting in large amounts of salvage timber should be implemented.
- Reporting is to be adjusted to avoid double counting.

# Forest Risk Knowledge Mechanism

- A new platform for information related to forests risks in the context of FOREST EUROPE
- International cooperation on damages and risk prevention
- Not forget about socio-ecological resilience!
- Resilience indicators – ex-ante monitoring of risks to be fostered







# **Forest Europe** growing life

**Ministerial Conference on the Protection of Forests in Europe**

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