IUFRO RISK ANALYSIS MEETING
"Perception – Prediction – Action: Managing risks in uncertain times"
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Supporting integrated and systemic management of windthrow crises by public decision-makers

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? *BELGIAN CONTEXT*

- Last destructive storm in 1990 (Vivian) → loss of experienced people and empirical knowledge → very tiny perception of windthrow risk
- Very fragmented forest ownership → manifold stakeholders, sometimes unknown → diverging goals and involvement after windstorms
- Pushing of forests' multifunctionality → competition for forests' goods and services
- Low risk culture from public authorities → storm damage management not at the top of agendas
- Shrinkage of public resources → reluctance to invest in risk management

RESEARCH GOALS

Developing an integrated framework for systemic management of storm damage in Wallonia (Belgium) and supporting its implementation throughout the risk management cycle with user-friendly tools and suitable methodologies

→ *INTEGRATED MANAGEMENT*

- Dealing with all storm-related aspects in a same process
- Considering also secondary and tertiary impacts of storms
- Understand and combine desires and beliefs from all stakeholders
- Promoting Sustainable Forest Management practices
- ...but also managing other biotic and abiotic risks in the same way

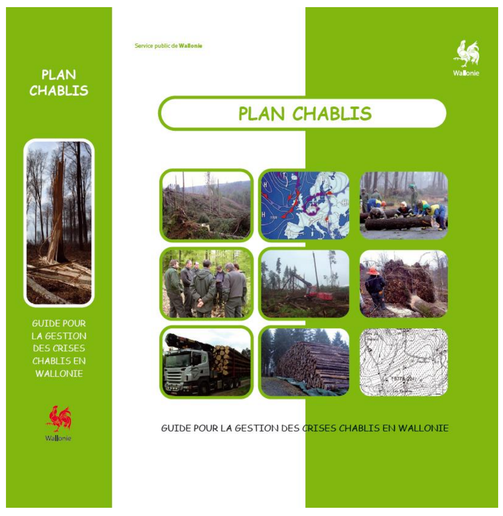
+ *SYSTEMIC APPROACH*

- Holistic approach encompassing internal and external drivers
- Aiming at enhancing systemic resilience
- Identifying and solving systemic bottlenecks (i.e. transport, storage)
- For improving the collective welfare of the forest-based sector
- For mitigating macro-economic impact of storms

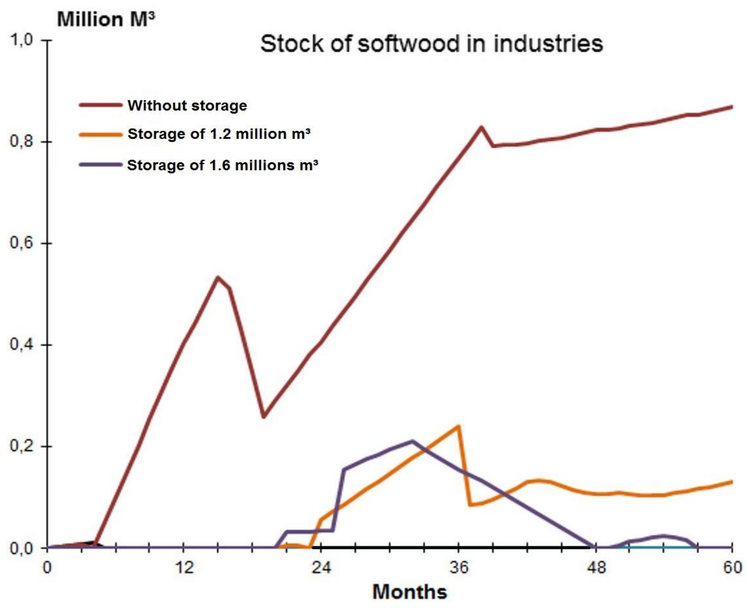
= *TOOLS & METHODOLOGIES FOR SUPPORTING PUBLIC AUTHORITIES*

- Regional framework for storm damage risk management (policy and strategic levels)
- Simulation-based DSS for managing windblown timber supply chain at the systemic scale
- Contingency planning, training of staffs and knowledge transfer
- Regional damage assessment procedure (within 72 hours) supported by on-line tools
- GIS-based DSS for locating sprinkling storage terminals and selecting them after disasters
- From strategic to operational management of timber storage: the example of anaerobic storage

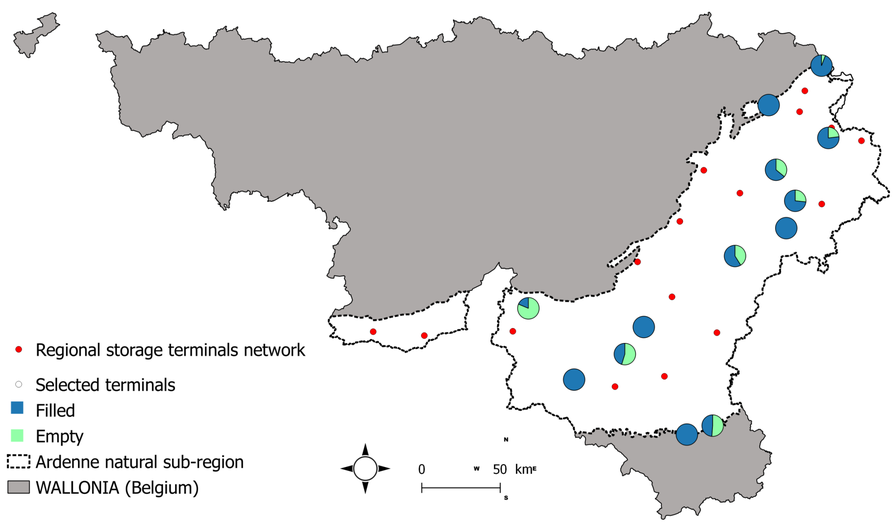
Related Publications



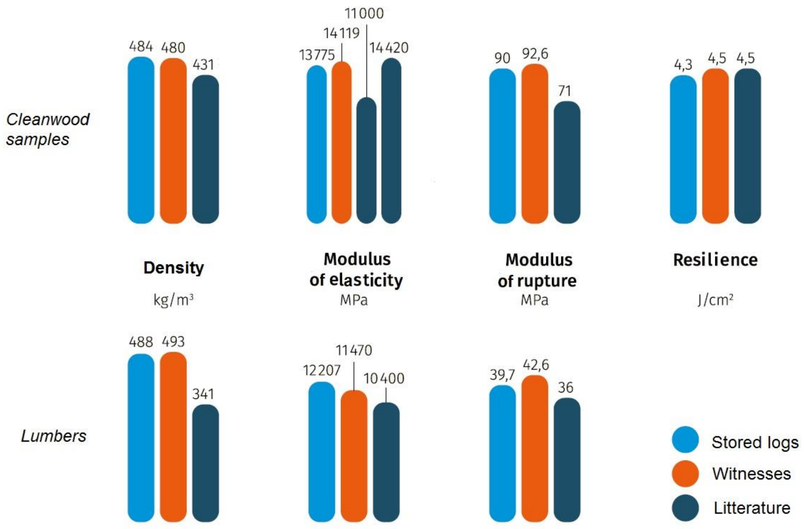
Windthrow Contingency Plan



Simulation of systemic impacts of destructive storms with WIND-STORM DSS: stock in the forest-based industries.



Logistics of timber storage after windstorms: planning and localisation of sprinkling storage terminals within the regional network



Assessment of spruce (Picea abies) mechanical and physical properties after 4 years of anaerobic storage

Key Challenges

- **Improving public risk governance and awareness**
- **Enhancing systemic resilience of the forest-based sector (structural effort)**
- **Facilitating the implementation of decisions, both politically and administratively**
- **Share good practices among forest community but also listen to sectoral (external) needs**
- **Enhance collaborative efforts, during both prevention and response steps (i.e. logistics)**

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