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ANNI



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DI PADOVA

Workshop

The Vaia storm: taking stock and looking ahead
Legnaro, October 30, 2019

The VAIA-FRONT research project: challenges and prospects

VAIA - FRONT

VAIA - FROm lessons learNT to future options

A 2-year project funded by the Department of Land, Environment, Agriculture and Forest (Dept. TESAF) of the University of Padova - 2019-2021

Project basic ambition

To identify key lessons to be learned from the Vaia event for

- planning and management practices
- policy interventions

in order to enhance the resistance and resilience of forest socio-ecological systems in the Italian Alps as well as in other Alpine regions

5 SOs

Project specific objectives (SOs)

S01

- To provide an updated review of past storm events
- To analyze storm events effects
- To develop methodologies for wind-related risk assessment and management of forest socio-ecological systems at the regional, national and European scale

Project specific objectives (SOs)

SO2

To gather, organize and share data and information on the specific elements of the risk system, i.e.

- hazard
- vulnerability
- damages/losses

associated to Vaia storm and its impacts considering key selected ecosystem services in one pilot area in Veneto region (Rocca Pietore Municipality)

To adapt and apply existing

- approaches
- models
- tools
- methods

for the determination of future wind-related risk, considering the region- and site-specific ecological, economic, social and institutional conditions of the selected pilot area in Veneto region (Rocca Pietore Municipality)

To delineate

- a possible general integrated strategy for wind-related risk management of forest socio-ecological systems in the target area

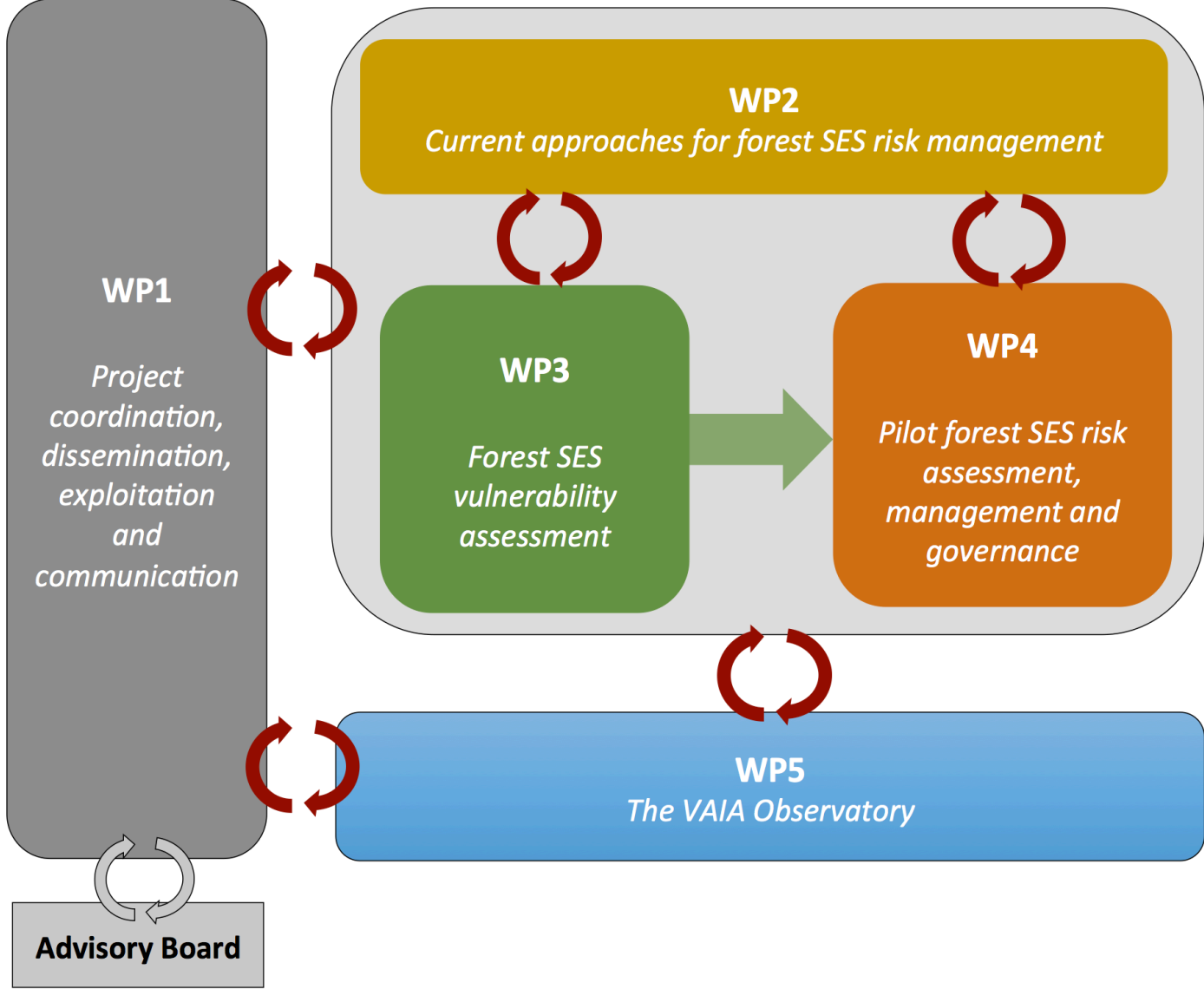
both in terms of policy and practice, suitable for the local, regional, and national administrations on the basis of the lessons learnt from the Vaia storm event combined with previous available knowledge

Project specific objectives (SOs)

S05

To create preconditions for establishing brokerage of knowledge, services and products and foster uptake of VAIA - FRONT innovation and international networking for outreach and mainstreaming

Project Work Packages (WPs)



Project Research Group



Raffaele Cavalli – Project Coordinator, WP1 Coordinator



Stefano Grigolato – WP2 Coordinator



Emanuele Lingua - WP3 Coordinator



Laura Secco – WP4 Coordinator



Francesco Pirotti – WP5 Coordinator

Project Work Packages (WPs)

- Project coordination that ensures a sound transdisciplinary approach and establish linkages with other running research projects on Vaia-related topics
- Identification of the network of stakeholders and generation of the project network
- Dissemination, exploitation and communication of project results



Project Work Packages (WPs)

The Project management structure includes an Advisory Board to evaluate project progress and provide guidance



Tom Locatelli
Forest Research, Scotland



Peter Bebi
WSL, Switzerland



Barry Gardiner
EFI, France



Kristina Blennow
SLU, Sweden

Project Work Packages (WPs)

- Project coordination
- Identification of the network of stakeholders and generation of the project network
- Dissemination, exploitation and communication of project results

WP1

Tasks

Project Work Packages (WPs)

Advisory Board

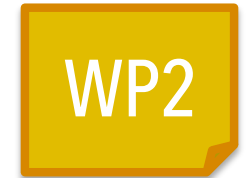
- Feedback action
to support the research group in adjusting the activities and objectives if needed at the earliest stages
- Mid-term evaluation
to check whether activities and outputs are aligned with plans or whether adjustments are needed
- Evaluation immediately after the end of the project
to check whether the outputs were consistent with the expected outputs and the planned objectives

WP1

Tasks

Project Work Packages (WPs)

- Provide conceptual foundation of the VAIA - FRONT project activities and a comprehensive reference on frameworks and methodologies related to the forest Socio-Ecological Systems (SES) risk management
- Refer to the challenges involved in the
 - ✓ development of a comprehensive concept of risk assessment and management
 - ✓ integration of multiple hazard sources and vulnerability characteristics



Project Work Packages (WPs)

- Implementation of a structured review on forest SES risk management
- Common terminology as a component for the project harmonisation

WP2

Tasks

Project Work Packages (WPs)

- Develop a comprehensive framework for assessing the vulnerability of forest SES to wind related hazards
- Focus on the assessment of current susceptibility to windthrows of forest stands in the North-East of Italy and the potential shortcoming in their provision of forest ecosystem services, by adopting a multi-scale and multi-disciplinary approach



Project Work Packages (WPs)

- Assessment of the vulnerability of
 - ✓ trees and forest stands to wind forcing
 - ✓ forest Ecosystem Services (ESS) to wind disturbances
 - ✓ linear infrastructures (road, power-line, water-line) to wind disturbances
 - ✓ human vulnerability during storm events
- Increase of susceptibility to snow avalanches after storm events
- Vulnerability of the wood market to storm events

WP3

Tasks

Project Work Packages (WPs)

- Provide a possible general integrated strategy for wind-related risks management in the North-East of Italy, to support resistance and resilience capacities of forest SES at local and regional level in case of future events



Project Work Packages (WPs)

- Understanding the governance structure in relation to forest SES risk management
- Preliminary test of forest risk assessment in relation to key ecosystem services in the pilot area
- Formulating technical guidelines for resistance and resilience of forest SES in the target area
- Proposing an approach for integrated and systemic management of forest SES risk in the target region

WP4

Tasks

Project Work Packages (WPs)

- Create a repository of data and tools connected to the project activities (an infrastructure that allows to collect, manage, and store data sets and documents, related to storms impact on forested areas) with the main aim of data analysis, sharing, reporting and public engagement



Project Work Packages (WPs)

- Creation of the framework for hosting the web-based infrastructure
- Implementation of the interactive platform via webgis and web robot
- Definition of Data Management Plan

WP5

Tasks



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Thank you for your kind attention

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