How can Civil Protection authorities benefit of the SILVANUS platform for wildfire risk management?

Pawel Gromek
Radoslaw Fellner

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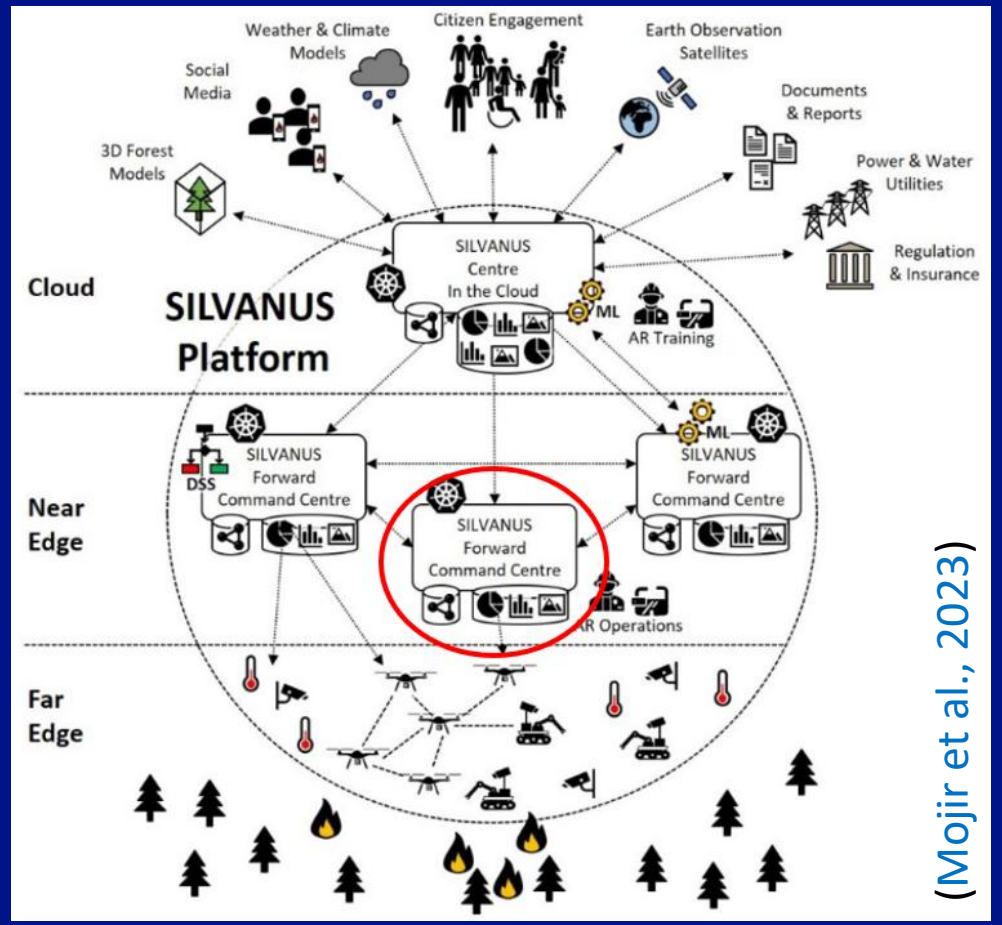
The SILVANUS idea



(Mojir et al., 2023)

SILVANUS envisages to deliver an environmentally sustainable and climate resilient forest management platform through innovative capabilities to prevent and combat against the ignition and spread of forest fires. The platform will cater to the demands of efficient resource utilisation and provide protection against threats of wildfires encountered globally. The project will establish synergies between (i) environmental; (ii) technology and (iii) social science experts for enhancing the ability of regional and national authorities to monitor forest resources, evaluate biodiversity, generate more accurate fire risk indicators and promote safety regulations among citizens through awareness Campaigns.
(from Description of Action)

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Project ID card:
SILVANUS – Grant agreement ID: 101037247
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Overall budget: € 24 186 845
EU contribution: € 19 902 190
Coordinated by: UNIVERSITA TELEMATICA PEGASO – Italy

SILVANUS

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49
Project partners from Europe, Indonesia, Australia and Brasil

42
Months of project duration

24
Reference technologies to support civil protection entities in wildfire management

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Detection technologies

1. Fire detection using IoT devices

2. Fire detection at the Edge

3. Fire detection based on social sensing

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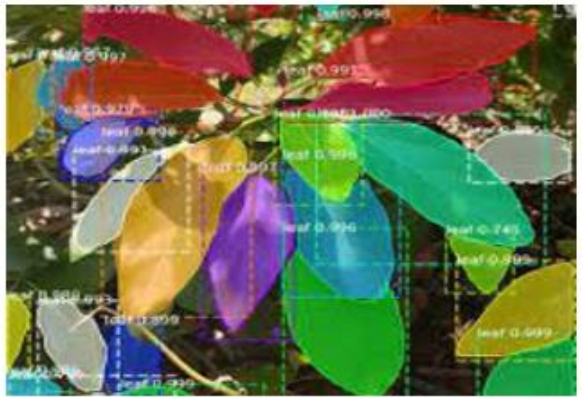
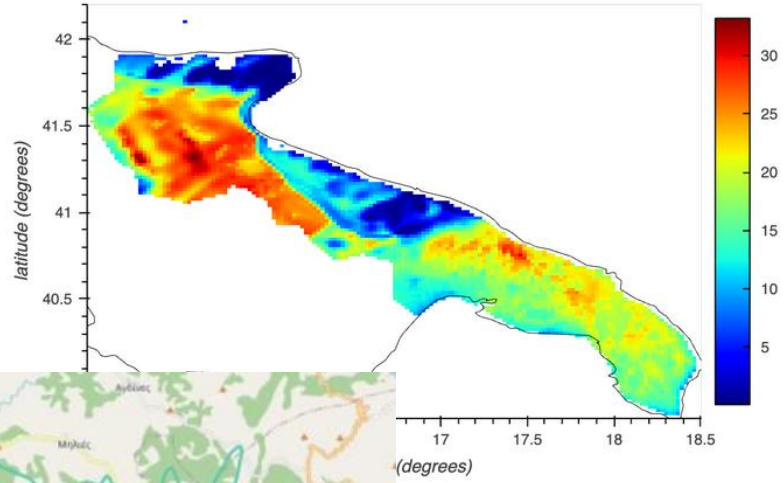
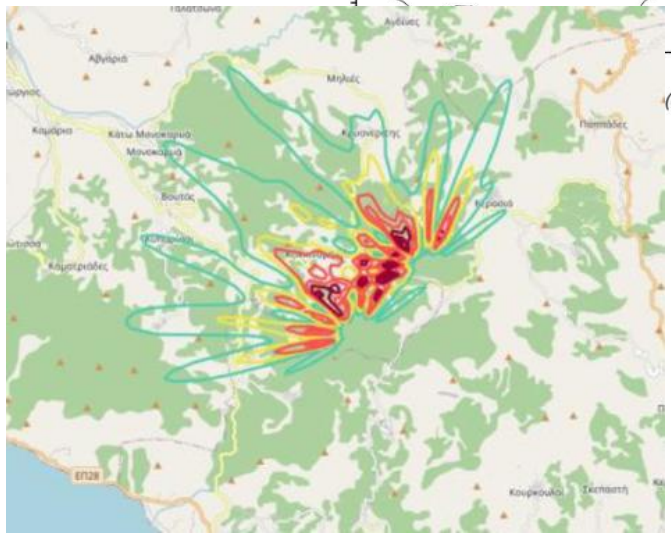
Computational tools



1. Biodiversity profile mobile app (Woode)



2. Fire danger risk assessment



3. Fire spread forecast

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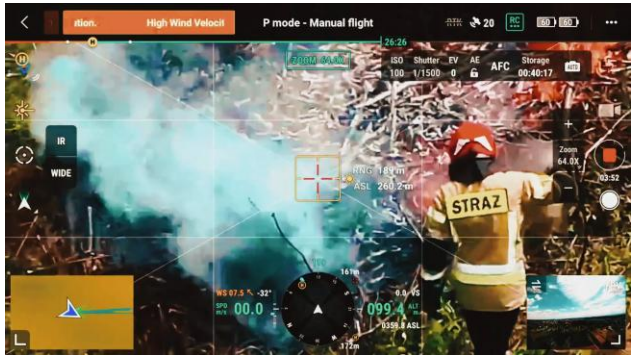
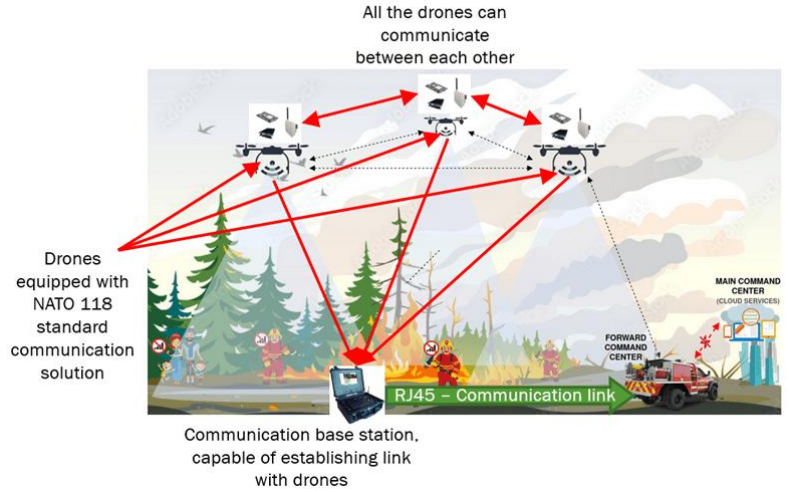
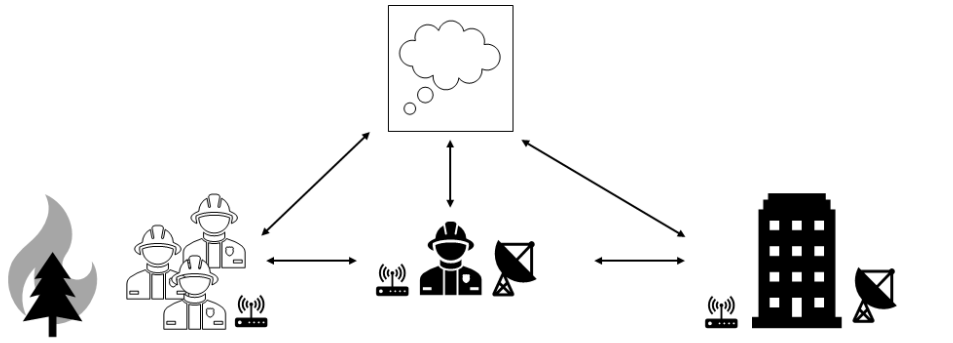
End-technology tools



1. Fire monitoring using UAVs (drones)
2. The use of UGVs (robots)
3. Forward Command Centre
4. MESH-in-the-Sky





Forward Command Centre

Main Command Centre
Emergency Management Centre
Disaster Management Centre
Crisis Management Centre

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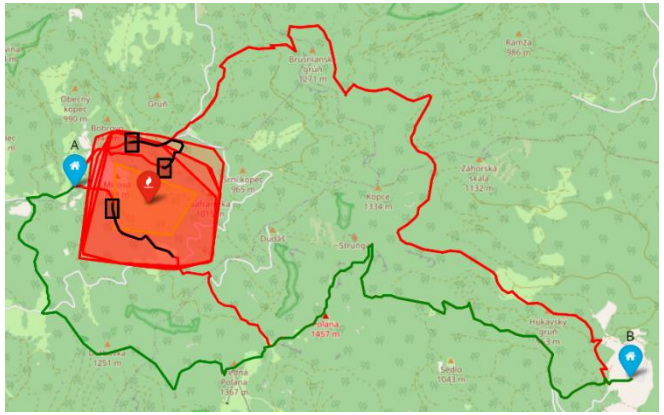
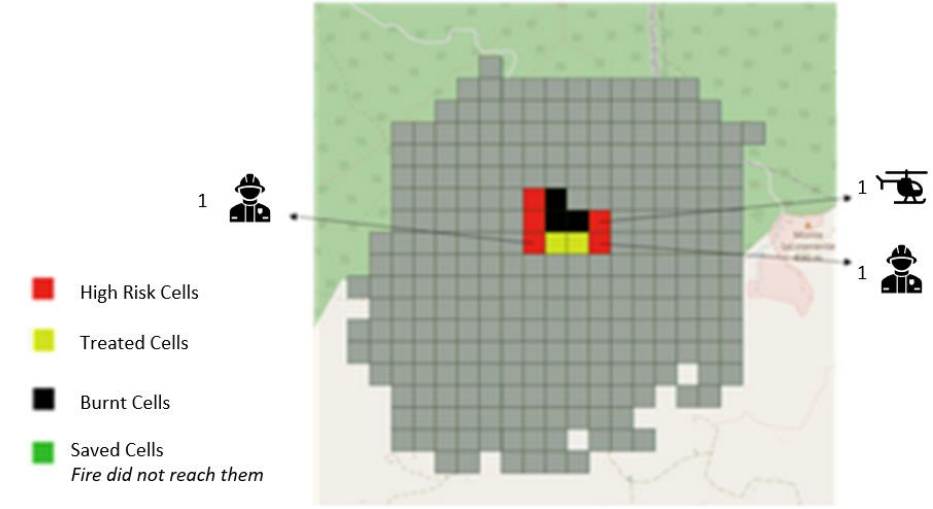
Decision support systems

1. Multilingual Forest Fire Alert System (DSS-MFAS)
2. Resource Allocation of Response Teams (DSS-RART)
3. Priority Resource Allocation based on Forest Fire Probability (DSS-PRA)
4. Evacuation Route Planning (DSS-ERP)





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Societal involvement tools

1. Augmented reality / virtual reality training for firefighters

2. Citizen engagement application

3. IT Dashboard

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