



SILVANUS

wishes you a Merry Christmas and a Happy New Year!

VOL
06



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SILVANUS - European Green Deal Project for Wildfire Management and Climate Change

SILVANUS is a Horizon 2020 Green Deal project, named after the Roman deity of woods and uncultivated lands, whose main objective is to create a climate resilient forest management platform to prevent and combat forest fire. The project consortium includes a wide range of environmental, technical and social science experts from eighteen countries, spanning over four continents, who will support regional and national authorities responsible for wildfire management in their respective countries. SILVANUS experts will help authorities to efficiently monitor forest resources, to evaluate biodiversity, to generate more accurate fire risk indicators, and promote safety regulations among the local population affected by wildfire through awareness campaigns.

Immerse yourself in the world of SILVANUS!

Modern and Innovative Protector Against Wildfire,
For the Benefit of Forests and Humankind

SILVANUS PILOT VISIT TO
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DELIVERABLES



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 101037247

Palangka Raya Workshop

The pilot visit included a workshop with the Indonesian authorities and stakeholders in Palangka Raya - the Central Kalimantan Environmental Authority, Sebangau National Park and Borneo nature Foundation.

Presentations were held by Indonesian experts on wildfire history in the region of Central Kalimantan and the Sebangau National Park, fire policy, suppression of peat fire, biodiversity data collection, and on the ways of rewetting, revegetation and revitalization of local livelihoods after an extreme wildfire incident. Fires were spreading in the region of Central Kalimantan, especially after El Niño weather occurrences in 2015, 2019 and 2023.

SILVANUS team members presented the user products platform, such as the Woode and citizen engagement apps, the decision-support system, and the platform dashboard. The platform was presented as a tool to efficiently prevent and detect wildfires, and to recommend policy for wildfire restoration.



SILVANUS Pilot Visit to Central Kalimantan Province, Indonesia

The SILVANUS pilot site visit to the Central Kalimantan Province in Indonesia took place on the 7th and 8th of November 2023.

Organised by SILVANUS Consortium member University of AMIKOM Yogyakarta, the first day of the pilot visit included a visit to the Regional Disaster Management Agency (BPBD) in Palangka Raya, Central Kalimantan, where the Indonesian disaster managers explained the methods, elaborated on the technology, and emphasised the logistical and operational challenges they face in the fight against extreme wildfire. This was followed by a visit to the fire site in Penda Barania, a location of the “underground” peat fire, which can cause challenges in suppressing the fire, since it spreads in the soil and can potentially release major quantities of carbon.



Pilot Site - Sebangau National Park, Indonesia



The Sebangau National Park - the SILVANUS pilot site - is located at the Koran river, where project members reached the site in the pristine jungle by boat.



The contributions of SILVANUS platform to biodiversity restoration in the area were discussed, along with policy recommendation and technical modelling which would help firefighters and other stakeholders to assess the fire danger and reduce the threat.





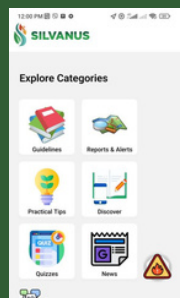
INTERNATIONAL CONFERENCE ON INFORMATION TECHNOLOGY (ICOIACT 2023) IN YOGYAKARTA, INDONESIA

SILVANUS team attended the 6th International Conference on Information Technology (ICOIACT 2023) in Yogyakarta, Indonesia, organised by the AMIKOM University Yogyakarta and co-sponsored by IEEE Indonesian Section. Warm welcome and introduction speeches were made by Prof. Aris Junaidi, Head of LLDIKTI Region V Yogyakarta, general chair of ICOIACT Akhmad Dahlan, Rector of AMIKOM University Prof. Dr. Mohammad Suyanto, and Chair of IEEE Indonesia Section Gamantyo Hendrantoro.

SILVANUS was presented by the technical manager Krishna Chandramouli, with an emphasis on the conducted Indonesian pilot and three SILVANUS user products (labelled on the left), and their applicability in Indonesian fight against extreme wildfire.



Woode
Biodiversity
App



Citizen
Engagement
App



IoT Fire
Detection
Sensor



Pilot Site Visit to the Queensland Centre for Advanced Technologies in Brisbane, Australia



Testing Ground Robots

SILVANUS continued its global activities around the world. After a successful pilot visit in Indonesia, the team made the 2nd international (non-EU) visit to Brisbane, Australia on November 14th and 15th, 2023, for a pilot demonstration of fire detection involving unmanned ground vehicles (ground robots).



CSIRO and QCAT

The Australian pilot was organised by SILVANUS partner CSIRO – Commonwealth Scientific and Industrial Research Organisation, at the Queensland Centre for Advanced Technologies (QCAT).

Navigation and Exploration

Ground robots were tested for investigating the terrain and detecting smoke to feed the SILVANUS platform data for wildfire suppression. IoT devices by SILVANUS partner Catalink were also tested, providing information based on early signals of smoke in the forest. Robots shared their acquired maps between each other for evacuation planning and adapted to new obstacles that were placed in their path (autonomous navigation and exploration).

SILVANUS Tabletop Exercise in Rodna Mountains National Park, Romania

SILVANUS Consortium member Romanian Forestry Association (ASFOR) organised a pilot site exercise in Ronda Mountains National Park, Romania, in September 2023, alongside representatives of the National Park, SIMAVI Software Imagination & Vision (the SILVANUS technological partner), the Voluntary Service for Emergency Situations and the Romanian General Inspectorate for Emergency Situations.

The event consisted of SILVANUS project presentation, testing the AR/VR training toolkit for firefighters, determining the Romanian pilot scenario, and a field visit in Rotunda, Rodnei Mountains National Park.

This was another opportunity to present the SILVANUS results to stakeholders and to prepare for the full implementation of the Romanian pilot.



SILVANUS Pilot Exercise in Limoges and St Sylvestre, France

SILVANUS Consortium member International Emergency Firefighters (PUI) has successfully organised the French pilot exercise on September 29th and 30th.

The pilot, conducted in the commune of St Sylvestre, Haute-Vienne department, region Nouvelle-Aquitaine in central France, focused on showcasing the user products of the SILVANUS platform. The project was introduced at the Limoges City Hall on September 29th, where the citizen engagement app was presented and an exhibition was displayed on SILVANUS objectives and outputs.

The pilot exercise took place on September 30th, where the platform user products were tested, such as ground robots from SILVANUS partner 3MON, the Woode biodiversity app from Venaka TReLeaf, the citizen engagement app by Massive Dynamic Sweden, the fire detection IoT device from Catalink Ltd, the fire detection based on social sensing from Centre for Research & Technology Hellas (CERTH), in front of more than 70 partners from 10 countries.



SILVANUS Pilot Exercise in Krásná, Czechia



SILVANUS has implemented its fifth pilot exercise in the municipality of Krásná, Czechia on October 3rd 2023, located in the Frýdek-Místek District in the Moravian-Silesian Region, 42 kilometres from Ostrava in the east of the country.

The main organiser of the pilot exercise was the SILVANUS team member Fire Rescue Service of Moravian-Silesian Region.



User products of the SILVANUS platform that were tested at the site were:

the ground robots by 3MON that simulated extinguishing fires, transporting wounded and cargo over uneven forest terrain,

the Woode biodiversity app by Venaka TReLeaf,

drones (survey and data-sharing),

mobile app and SILVANUS Dashboard,

forest fire detection system, forest firefighting appliances and equipment,

with support by SILVANUS partners Center for Security Studies (KEMEA) and Institute of Informatics, Slovak Academy of Sciences.



SILVANUS Tabletop Exercise in Chalkida, Greece

A tabletop exercise was conducted on October 31st in Chalkida on the Evia Island in Central Greece, organised by SILVANUS project partner Region of Central Greece.

The exercise has brought together the first responders from Greece and other important external stakeholders, such as the Fire Brigade, Hellenic Police, Greek Army, and Coast Guard, as well as various local authorities and forest services.

The primary objective of the exercise was to establish effective communication and collaboration between the first responders and the user products (UPs) of SILVANUS.

By demonstrating the UPs, this exercise aimed to identify potential challenges, gaps, and needs of the first responders, and to find appropriate solutions to address them.



SILVANUS Tabletop Exercise in Bitti, Sardinia, Italy

The tabletop exercise for the Italian pilot was held in Bitti (Sardinia – Italy) on November 10th 2023, organised by Regional National Park of Tepilora, one of SILVANUS consortium partners. The project and the pilot area of the Tepilora Natural Park were presented to the local stakeholders.



Consortium partner FINCONS presented the user products of the platform, describing for each of them the involved partners, the main features, the components, the purpose through examples of actual applications in other sites such as the Gargano National Park, which is the 2nd Italian pilot location.



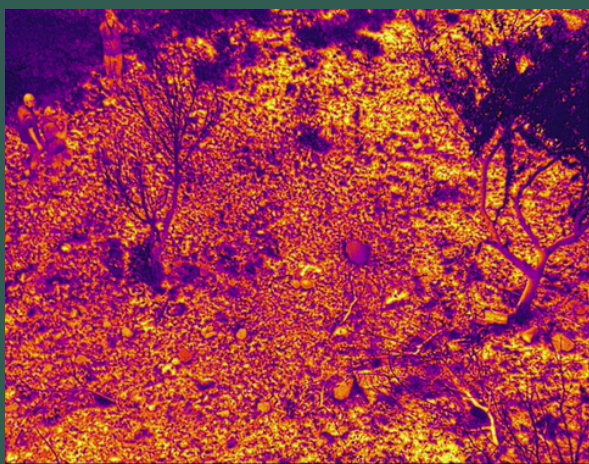
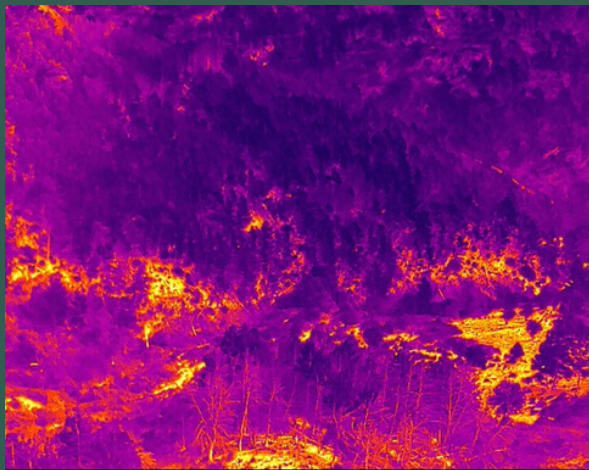
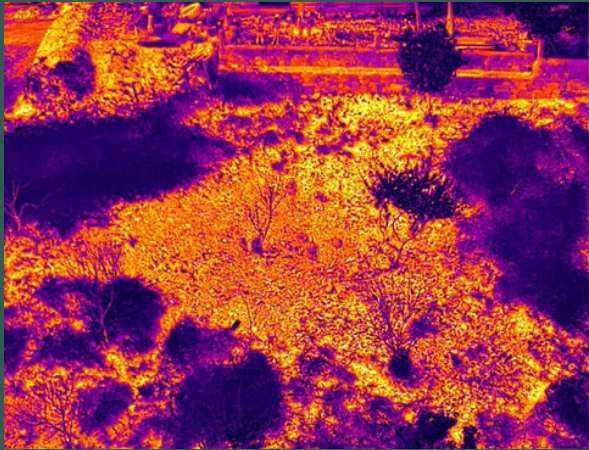
The local stakeholders (civil protection, local environmental education centres, forestry guards, the Forestas agency which manages fire prevention activities and contributes to alerting and fire suppression operations on the ground) introduced their activities in relation to what was presented by the SILVANUS project. The applicability of user products to Sardinia was thoroughly discussed, along with the awareness raising campaigns with a particular emphasis on the SILVANUS citizen engagement app and fire detection system based on social sensing.

SILVANUS Tabletop Exercise in Gargano National Park, Italy

The Italian tabletop exercise took place in a scenic and mountainous area of the Gargano National Park in the region of Apulia.

The area has been mapped with a drone, while thermal cameras were tested for fire direction.

Consortium partner ASSET (Regional Strategic Agency for the Eco-Sustainable Development of the Territory - Apulia Region), together with Fincons Group, has organised the exercise and presented the results to project partners and local stakeholders such as the Civil Protection and Regional Agency for Irrigation and Forestry.



WILDFIRE RISK MANAGEMENT CLUSTERING EVENT IN BRUSSELS, BELGIUM

SILVANUS at Clustering Event

The highly anticipated Wildfire Risk Management Project Clustering Event, co-organised by Coordination and Support Action project Firelogue_and Union Civil Protection Knowledge Network – DG ECHO at the European Commission, took place at the Royal Library of Belgium in Brussels in front of a wide and diverse audience of wildfire management stakeholders.

The SILVANUS project team, led by project coordinator Michele Corleto and technical manager Krishna Chandramouli, has presented the results of the project with an emphasis on the development of user products and the implemented pilots so far in Croatia, Slovakia, France, Czechia, Greece, Italy, Romania, Indonesia and Australia. Solutions were highlighted in the form of user products such as the Woode biodiversity app, the citizen engagement app, and the deployment of ground robots.



EU Fire Projects United

The event is also a crucial milestone in the #EUFireProjectsUnited initiative, where the wildfire risk management H2020 projects convene – Firelogue, SILVANUS, TREEADS, FIRE-RES, SAFERS, and FirEURisk, to share their results and discuss possible synergies, which have the potential to significantly contribute to the achievement of Green Deal wildfire management goals.

Results were discussed at the panel between the projects and the discussion was moderated by Nicolas Faivre from the European Commission.



Expert Group on Forest Fires

The results of SILVANUS were presented by dissemination manager Lovorko Marić at the 47th meeting of the European Commission Expert Group on Forest Fires. Salient feedback was received and important discussions were led in terms of both technology innovation and policy advancement in wildfire management.



Selected Dissemination Events

SILVANUS at the Policy Event “Towards a Fire-resilient Europe: Can we do better?” at the European Parliament



SILVANUS team members Georgios Sakkas and Nikolaos Kalapodis participated on behalf of the project partner Center for Security Studies (KEMEA) in the policy event “Towards a Fire-resilient Europe: Can we do better?” organised by FIRE-RES at the European Parliament with MEPs Ulrike Müller, Jordi Sole Ferrando and Anna Deparnay-Grunenberg, with Green Deal Project Officer on wildfires Nicolas Faivre.



Interesting discussions were launched for improving EU resilience on forest fires, with the enhancement of multi-functional forest approach and preventive actions against wildfires being the hot topic, with SILVANUS in the potential forefront.

SILVANUS Decision-Support System Presented at the MEDEA Event in Athens

SILVANUS was presented at the MEDEA project final event titled “Current and Foreseen Security Operations: Challenges and Security Gaps” by SILVANUS team members Theofanis Orphanoudakis and Despina Anastasopoulos from Netcompany-Intrasoft, with an emphasis on the decision-support system of the platform. The event took place in Athens, Greece on October 30th and 31st. MEDEA project focused on the Mediterranean and Black Sea practitioners’ network capacity building for effective response to emerging security challenges.



Update on Submitted Deliverables

All SILVANUS Deliverables that were previously available at <https://silvanus-project.eu/results/deliverables/> are now available for download in new, complete, approved and revised versions!

Take a look at how the project is progressing on the SILVANUS website.

The newly uploaded Deliverables that were completed during 2023, but are still under review by the European Commission, are also available in the Deliverables section of the SILVANUS website.



D4.2 Demonstration of social media analytics for localising the origin of wildfire ignition



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 101037247



D8.2: SILVANUS platform release, 1st version



This project has received funding from the European Union's Horizon 2020

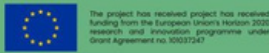
SILVANUS Citizen Engagement Poster Campaign concludes for 2023 - more to come!



DID YOU KNOW

Prescribed fire is a planned solution managed by experts to reduce wildfire risk, restore ecosystem health and promote biodiversity.

FIRE IS A BAD MASTER BUT A GOOD SERVANT.



The project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement no. 101037247



WHEN YOU WISH IT WOULD RAIN DOWN, REMEMBER;

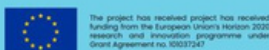
The Forest affects rainfall and can sustain microclimates that are beneficial for people and agriculture.



The project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement no.101037247



Forests are so much more than a collection of trees. They are home to 80% of the world's terrestrial biodiversity.



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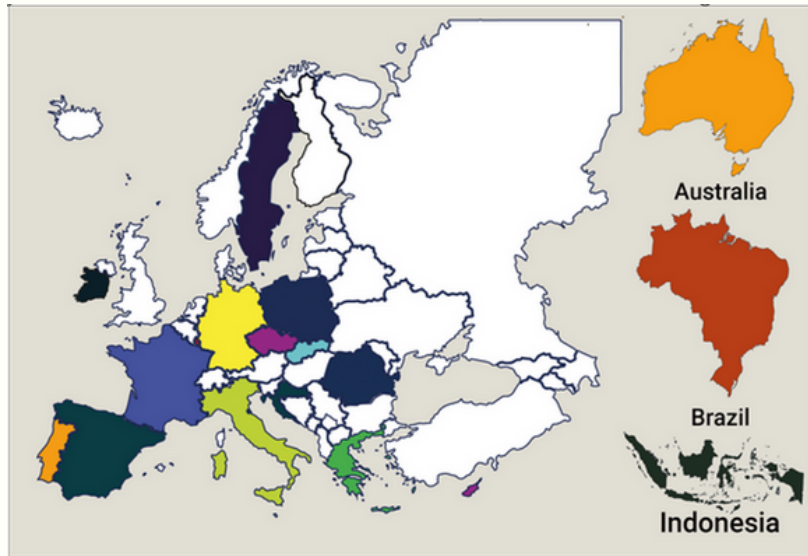
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