



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 wildfire risk management platform to prevent and suppress forest fire, and to restore burnt areas. The project is promoting innovative sustainable forests, wildfire governance framework and policy recommendations for a society resilient to wildfires. SILVANUS 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 Extreme
Wildfire, For the Benefit of Forests and Humankind

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Silvanus the Trailblazer - Protector of Forests



Silvanus the Trailblazer - Protector of Forests is a character featured in an animated video produced by the AMIKOM University animation team from Yogyakarta, Indonesia, the project's Consortium partner.


This video serves as an introduction for audiences - both young and adult - to the benefits of the SILVANUS platform in an entertaining manner.

Silvanus the Trailblazer is also guiding the audience through a series of educational posters that are disseminated on the SILVANUS website and social media. Check the video on the [SILVANUS YouTube channel](#) and subscribe to see more!



Trailblazing Fire Season Campaign

Silvanus the Trailblazer is leading the new Fire Season Poster Educational Campaign with Key Messages and Educational Guidelines Available on SILVANUS [LinkedIn](#), [X](#) and [Instagram](#)



IMPACT OF CLIMATE CHANGE ON WILDFIRES

The relationship between wildfires and climate change is complex and interlinked. Here's an overview of how climate change impacts wildfires and vice versa.


Increased Temperatures
Global warming leads to higher temperatures, exacerbating drought conditions and reducing soil moisture. This makes vegetation more susceptible to burning, increasing the frequency, intensity, and duration of wildfires.

Altered Precipitation Patterns
Climate change affects precipitation patterns, leading to more extreme weather events. Some areas may see increased rainfall, while others suffer prolonged droughts, impacting vegetation growth and fuel availability for wildfires.

Extended Fire Seasons
Warmer temperatures and changing precipitation patterns can lead to longer fire seasons, increasing the window during which fires can start and spread.

Increased Lightning Activity
Warmer temperatures can cause more thunderstorms, increasing lightning activity - a natural ignition source for wildfires. A warmer atmosphere also holds more moisture, potentially fueling more severe thunderstorms.

Changing Ecosystems
Climate change can alter vegetation types and distributions, causing the encroachment of flammable plant species. This can make impacted areas more susceptible to wildfires.



The project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement no. 101017347

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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.

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01 Never burn rubbish, dry leaves or branches

02 Don't have barbecues close to dry vegetation

03 Do not smoke and never throw lit cigarettes in open-air places

04 Stay informed about local fire conditions and weather patterns

05 Notify the authorities if you notice the presence of people with risky behavior

IF YOU ARE IN THE FOREST/COUNTRYSIDE

7 tips To prevent wildfire in forests

06 Report any suspicious fires to the authorities immediately

07 Bring your meal prepared, to avoid lighting fires.



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WHAT IS FIRE BEHAVIOR?

Fire behavior is the way a fire reacts to fuel, weather, and topography.

HERE ARE THE KEY ASPECTS OF FIRE BEHAVIOR:

- 1 Rate of Spread**
The speed at which a fire moves across the landscape can be influenced by wind, slope, fuel type, and fuel moisture, among other factors.
- 2 Intensity**
Fire intensity refers to a fire's energy output, influenced by fuel amount and type, weather conditions, and fire size. High-intensity fires are harder to control and cause more damage.
- 3 Flame Length**
This describes the visible portion of the fire and can indicate fire intensity. Longer flames are harder to suppress and pose greater risks to firefighters and structures.
- 4 Fire Type**
Fire behavior depends on whether it is a surface, crown, or ground fire, each interacting differently with the environment and requiring different management strategies.
- 5 Ignition Probability**
This refers to the likelihood of a fire starting and continuing to burn, based on the presence and condition of fuels and the weather conditions.
- 6 Fire Direction and Shape**
A fire's direction and shape are influenced by wind direction, topography, and barriers like roads, rivers, or previously burned areas.

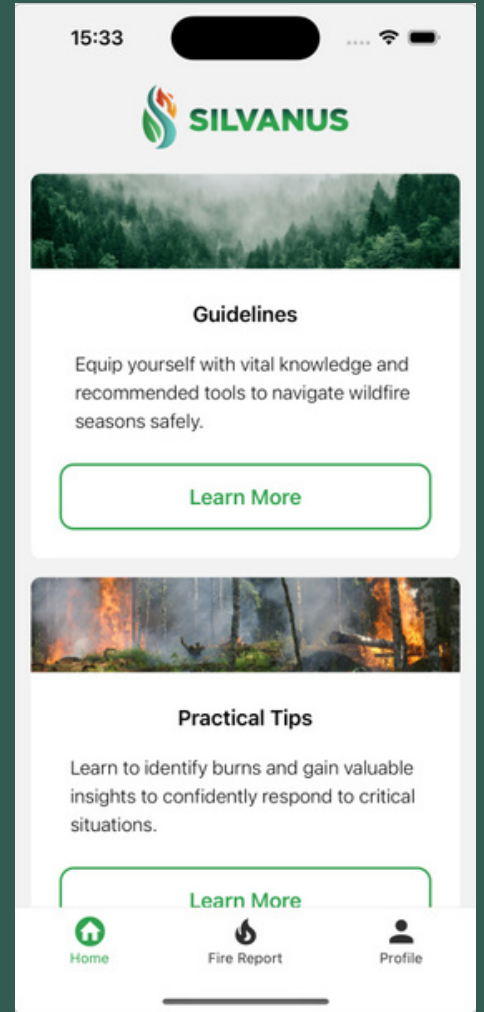
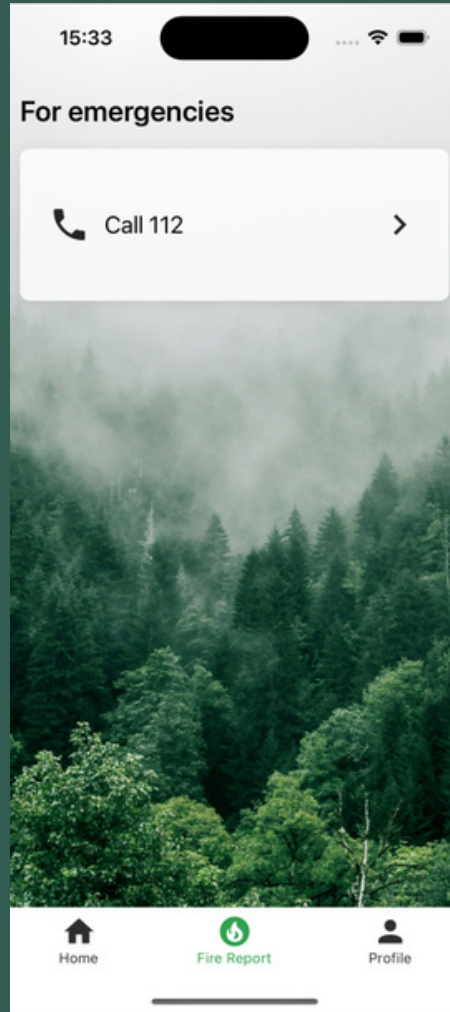
Understanding fire behavior helps reduce the negative impacts of wildfire.

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SILVANUS Citizen Engagement App

Available at [Google Play](#) and [App Store](#) Now!




SILVANUS
PREVENT FOREST FIRES DIRECTLY FROM YOUR PHONE



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

 SILVANUS INVITES YOU TO DOWNLOAD THE CITIZEN ENGAGEMENT APP

   
For iOS For Android

Report from the General Assembly Meeting in Agerola, Italy



SILVANUS team convened in April 2024 at the 6th General Assembly Meeting in Agerola, Italy, above the breathtaking cliffs of the Amalfi Coast, to discuss and carry out further project actions and developments.

The meeting focused on the exploitation opportunities of the SILVANUS platform and the synergies of the user products (UP) or platform components to create an efficient response system to extreme wildfire. Interactions between UPs such as the fire spread model, evacuation route planning, health impact assessment, ground robots, the MESH-in-the-Sky wireless communication system (and many more) were discussed.



Logistics were prepared around the implementation of pilots in the 2nd trial period in countries as diverse as Czech Republic, Brazil, France, Croatia, Slovakia, France, Portugal, Italy, Greece and Romania.

This was a major milestone for the project, as the platform is coming close to completion and integration stages, with its testing following in June in the Czech Republic.



Pilot Demonstration Exercise in the Czech Republic

SILVANUS had implemented the first pilot demonstration exercise of 2024 in the Moravian-Silesian Region of Czech Republic.

The Czech pilot took place between 4th and 6th of June in the City of Ostrava and the Municipality of Krásná, and as the first pilot to take place in 2024, it served as the opening venue of the first full testing of the SILVANUS platform.

Whereas the first trial period of pilots in 2023 focused on individual user products and data collection, the 2nd trial period of 2024 is testing the overall integrated technological platform for wildfire management, the core product of the project.

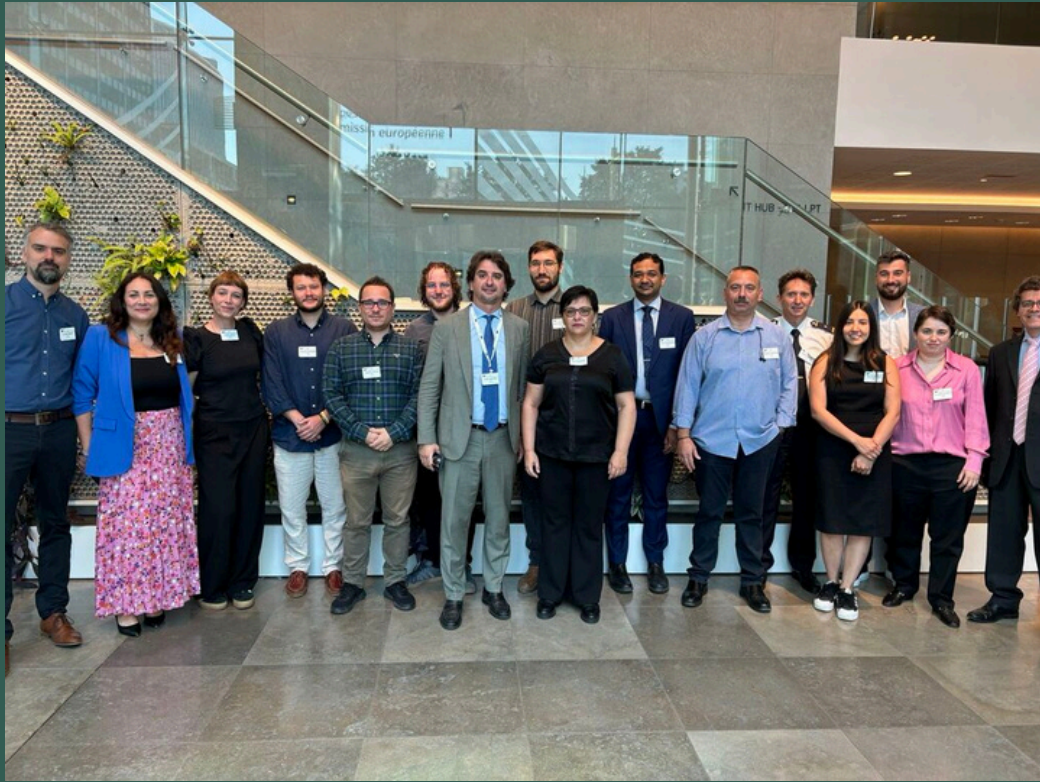
Examples of platform components that were tested in detail are drones, robots, the MESH-in-the-Sky communication system, fire detection from IoT devices, fire detection at the edge, citizen engagement app, health impact assessment and evacuation route planning, taking the concept of integrated fire management into account.

Along with the pilot exercise, a workshop was carried out at the Technical University of Ostrava – Faculty of Safety Engineering, where the project goals, the platform, and methodologies were introduced.

Thank you (Děkuji!) to the Fire Rescue Brigade of Moravian-Silesian Region for organising the pilot, and to all the SILVANUS partners and stakeholders for attending and working hard to make this pilot a success.



SILVANUS Platform Presentation at the European Commission



SILVANUS project had its 2nd review meeting at the European Commission / European Research Executive Agency (REA) premises in Brussels on June 26th, where the full demonstration of the SILVANUS platform was presented to the reviewers.

At the presentation, individual project partners took the roles of 'actors', playing and representing the targeted users of the platform – civil protection officer, forest manager, citizen, and firefighter. These four stakeholders inquired about platform features and presented their requirements in the context of integrated wildfire management. The SILVANUS team provided answers on how the platform would meet their needs and how its results would lead to a more successful governance of wildfires.

The key aspect of the platform is innovation through integration. The integrated platform components complement each other to provide the best results in wildfire management. Their timely use and strategic deployment aim to facilitate an efficient and successful response to extreme wildfire threats or outbreaks.

Along with the pilot exercise in the Czech Republic, other platform testing demonstrations in 8 other countries will take place in the fall of this year.



SILVANUS Dissemination Activities

SILVANUS at the European Civil Protection Forum 2024



SILVANUS team presented the project at the European Civil Protection Forum 2024 in Brussels as part of the EU Fire Projects United booth (Firelogue, FIRE-RES, TREEADS, FirEURisk), with the guidance and organisational skills of the Firelogue team.

Silvanus the Trailblazer was also present, keeping the team safe at the booth!

This was another excellent opportunity to present the results of the project and the components of the platform to a wide variety of stakeholders from civil protection, regional and national authorities, academia, policy makers, and business sector.

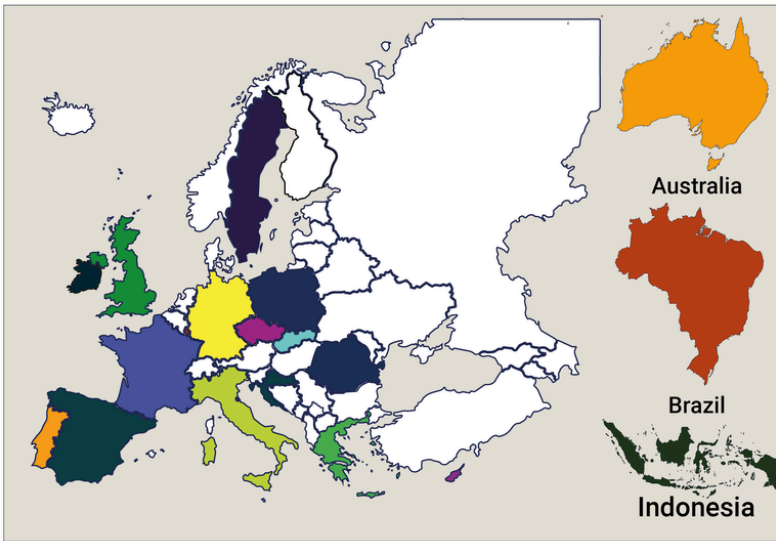
Thank you to the Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO) and the Union of Civil Protection Knowledge Network for organising and hosting this event!



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