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SWIFTT consortium awarded EU grant to develop AI and satellite-based solution for monitoring of forest risks

The project partners will receive a cumulative €2.8M grant from the EUSPA/European Commission over the next three years

TOURS, FRANCE, February 3, 2023 /EINPresswire.com/ -- The SWIFTT consortium, composed of Wildsense (FR), Space Research Institute (UA), University of Bari (IT), Leibniz University Hannover (DE), Timbtrack (BE), Fürstliches Forstamt Bückeburg (DE), Groupe Coopération Forestière (FR), Rigas Mezi (LV), and Da Vinci Labs (FR) has been selected by the EU's key

SWIFTT is funded by the European Union under Grant Agreement 101082732.

funding program for research and innovation, Horizon Europe, to develop an AI and satellite-based solution for monitoring of forest risks.

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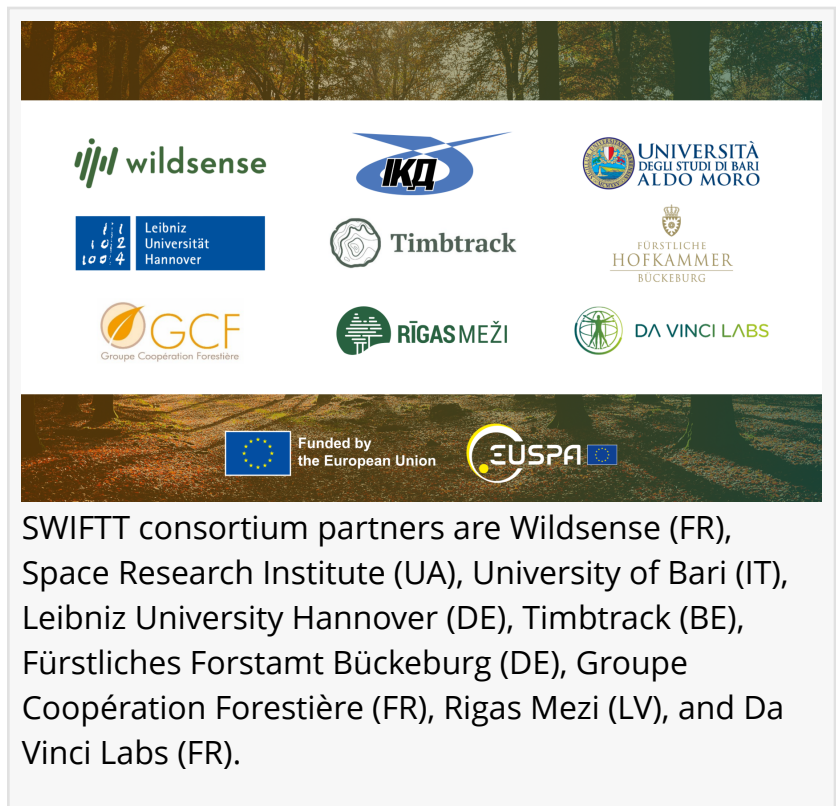> *Xavier Aubry, Da Vinci Labs' founder and managing partner*

The project has been awarded a highly competitive grant in the Horizon Europe funding programme, being one of seven projects selected in the topic 'EGNSS & Copernicus applications fostering the European Green Deal' managed by EUSPA. The partners will receive a cumulative €2.8 million grant from the EUSPA/European Commission over the next three years.

Forests worldwide are the habitat for the majority of amphibian, bird, and mammal species. They are also home to 300 million people and provide livelihood for another 1.6 billion. Benefits delivered by this ecosystem – in the form of hydrological regulation, erosion prevention, and carbon storage, among others – amount to over €100 trillion per year, more than the whole global GDP.

Despite being highly resilient to long-term changes in environmental conditions, forests are vulnerable to sudden changes, such as insect outbreaks, wildfires, and windthrow, i.e. the uprooting of a tree caused by the wind. Insect outbreaks are one of the leading causes of forest loss globally, destroying 85 million hectares of forest worth €15 billion annually. At the same time, wildfires destroy 400 million hectares annually on a global scale, according to the European Space Agency. The wind is also a significant forest disturbance agent in the temperate forests of France, Germany, and most of Europe.

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"Those risks are intensified by climate change and specifically hydric stress: insects breed more frequently, more dry fuel for wildfires becomes available, and the frequency and severity for large storms increase. As a result, countless habitats are lost, and CO_2 sequestered yearly decreases by over 4850 million tons. However, with early and appropriate action, risks can be contained, and the economic and ecological damage can be reduced", explains Xavier Aubry, Da Vinci Labs' founder and managing partner.

SWIFTT will provide forest managers with affordable, simple and effective remote sensing tools backed up by powerful machine learning models. Our solution will offer a holistic health monitoring service using Copernicus satellite imagery to detect and map, every month and at a 10-metre resolution across Europe, the various risks to which forests and their managers are exposed.

SWIFTT will be tested in real conditions by several end-users from the forest industry, which include Fürstliches Forstamt Bückeburg, a forest owner in Germany; Groupe Coopération Forestière, whose members are forestry cooperatives and their subsidiaries in France; and Rigas Mezi, which manages forest properties, parks and gardens owned by the city of Riga in Latvia. The consortium anticipates monitoring and protecting up to 40 million hectares of global forests by 2030, saving foresters over €468 million in monitoring costs.

Once completed, SWIFTT's maps detailing areas of windthrow damage, insect outbreaks, and fire risk will enable forest managers to act proactively and allocate resources efficiently for a timely intervention. With SWIFTT's sustainable, effective, and low-cost forest management tools, Europe will be better positioned to combat climate change and preserve its biodiversity through

healthier forests.

Learn more at SWIFTT's [website](), and [Twitter]() and [LinkedIn]() pages.

About Da Vinci Labs (Dissemination and Innovation Partner)

Da Vinci Labs is a research and incubation structure inspired by Leonardo da Vinci. Its interdisciplinary and humanistic approach aims to respond in a competitive way to the ecological challenges of tomorrow, and to bring out the future champions of deeptech, in particular in the field of quantum technologies, artificial intelligence and synthetic biology. To do this, Da Vinci Labs participates in European collaborative research projects and builds a technological infrastructure in Touraine which will be made available to researchers and entrepreneurs ready to tackle our major societal challenges.

Contact Details
Xavier Aubry, Founder & Managing Partner
contact@davincilabs.eu
[www.davincilabs.eu]()

Renan Picoreti Nakahara
Da Vinci Labs, on behalf of the SWIFTT consortium
renan.picoreti@davincilabs.eu
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