

rePLANT PRESENTS RESULTS OF WORK DEVELOPED TO ADD VALUE TO THE FOREST

Use of new “smart” forestry equipment, robotics in forest clearing operations, new smartphone applications, forest monitoring through optical cameras, new digital sensors, and processes for data communication in forestry machines. These were the main highlights of a work developed over three years by 20 entities – including companies, universities, and research centres – presented at the “Floresta Digital: Entre no próximo nível (Digital Forest: Enter the Next Level)” event.

In this initiative, held in Lisbon, rePLANT presented the work developed over three years, with emphasis on four trials of different species and provenances of pine, several installed trials, nine technical manuals for improving forest management, two decision support systems for fire management, three new devices, eight tested technologies, and ten test pilots, with field demonstrations on topics such as genetic improvement, fire protection, and ignition detection and fire monitoring, new ways of forest planting, digitisation of the value chain, and making production estimates accessible.

This collaborative project led by CoLAB ForestWISE and by The Navigator Company was structured into three main areas of action – the first, dedicated to Forest and Fire Management (led by Sonae Arauco and by Instituto Superior de Agronomia of the University of Lisbon); the second, dedicated to Risk Management (coordinated by REN – Redes Energéticas Nacionais and by the University of Coimbra); and a third pillar, concerning Circular Economy and Value Chains (under the management of The Navigator Company and CoLAB ForestWISE).

For Carlos Fonseca, Scientific and Technological Director of CoLAB ForestWISE, “rePLANT is the first major project of CoLAB ForestWISE, and it is also the first collaborative project for our forest. We are very proud to see that the strong involvement and commitment of the various corporate and academic partners in this mobilising project has enabled the development of products and results that are in line with the main needs of the forest and fire areas in Portugal”.

José Luís Carvalho, Head of Forestry Innovation and Development at The Navigator Company, said that “without false expectations, rePLANT is still a small step for the sector, but a great hope that the seed now germinated and planted can become an active and dynamic forest, based on the best technical and scientific knowledge with Portuguese roots. There will be no amazing

landscapes, no controlled risk in the forest, no high-quality forest-based products exported to the world, without the collaborative effort that rePLANT represents, and that the new transForm project anticipates brings forward”.

For João Gaspar, Head of REN’s Sustainable Networks and Easements Area, “rePLANT has enabled us, together with the University of Coimbra, to give a new purpose to our energy infrastructures, which are mostly in the forest, by placing a set of surveillance cameras on our poles and managing our network, the forest, and wildfires more effectively. These systems combine fire detection and monitoring and enable us to predict fire behaviour, using a simulator, as well as to know in real time the wind speed and air temperature”, he added.

For Nuno Calado, Sustainability and Forestry Area Manager, Sonae Arauco, “The results of this collaborative project are promising and will impact the Portuguese forest in a very positive way, in productivity, resilience, and knowledge”.

Boosting the future of the forest

This presentation of results also included a round table with the participation of João Faria Conceição, Executive Director of REN, António Redondo, Executive Director of The Navigator Company, José Soares de Pina, Executive Director of Altri, and José Ferrari Careto, Executive Director of E-REDES.

Taking the results of this mobiliser as a starting point, the round table promoted an interesting debate in which innovation and technology in the forest in the era of digital transformation, the relationship between companies and universities, the future of the forest, and its contribution to the bioeconomy were the main topics explored.

João Faria Conceição, Executive Director of REN, mentioned that “reducing the risk of forest fires is one of the company’s priorities, not only because REN has 66% of its infrastructure in forest areas, but mostly because of the sector’s importance to the country. We have over 200 people working daily in the forestry sector and, from May to October, teams of firefighters are on the ground 24 hours a day. We believe that academia and scientific research, as well as the exchange of experiences, are critical in preventing and fighting fires, which is why we have a strong link with the University of Coimbra, namely with the team of Professor Xavier Viegas and of the Centre for Forest Fire Studies, and why we joined the creation of rePLANT and CoLAB ForestWISE”.

For the Executive Director of The Navigator Company, António Redondo, “it is important to show the younger generations that the forest has a future, and rePLANT, with its technological facet, based on the Forest 4.0 concept, represents this future”. He adds that, “by sharing knowledge between companies and science centres, this project also goes hand in hand with the forest-based bioeconomy, which is an important issue as well, not only for the forestry sector, but for The Navigator Company too”.

José Soares de Pina, Executive Director of Altri, stated that “the challenges faced by modern forest management and the indispensable protection of all natural resources require the development of innovative technologies and equipment for the acquisition and analysis of information, as well as for decision-making processes. The success of the rePLANT project is certainly an important milestone for the future of forest in Portugal”.

Finally, José Ferrari Careto, Executive Director of E-REDES, pointed out that “rePLANT has enabled new approaches to support E-REDES’s decision making, regarding the management of vegetation around electrical infrastructures, which requires effective and safe responses, something that is only possible by the joint efforts of the main agents”.

The Secretary of State for the Economy, Pedro Cilínio, closed the session, highlighting that “this project that we celebrated today arises from the need to develop integrated and innovative solutions that promote the sustainable management of our forests. rePLANT has brought a new dynamic, which has been intensified in various economic sectors, among companies”, he added.

This project lasted three years and had an investment of 5.6 million euros aimed at developing products and services that guarantee the sustainable management of Portuguese forests.

About rePLANT:

rePLANT is a mobilizing project that unites 20 entities, including leading companies in the sector and non-business entities in research and innovation, in a common and coordinated effort to enhance the value of the Portuguese forest through the implementation of strategies for integrated forest and fire management. The Portuguese forest is a source of environmental, social, and economic wealth, mobilising approximately 24,000 companies and supporting around 100,000 jobs, while also



grounding collaborative strategies
for integrated mngt of forests & fire

contributing to 10% of Portuguese exports. rePLANT is a project co-funded by the Competitiveness and Internationalisation Operational Programme under the Lisbon Regional Operational Programme, Portugal 2020, and the European Union through the European Regional Development Fund. With activities aimed at developing products and services that ensure the sustainable management of Portuguese forests, this project had an investment of 5.6 million euros.

Additional information at:

www.rePLANT.pt

media@forestwise.pt

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