HORIZON-CL6-2022-CircBio-02-07-two-stage: Harnessing the digital revolution in the forest-based sector

Specific conditions	
Expected EU contribution per project	The EU estimates that an EU contribution of between EUR 6.00 and 8.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 15.00 million.
Type of Action	Innovation Actions
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).
Technology Readiness Level	Activities are expected to achieve TRL 6-7 by the end of the project – see General Annex B.

Expected Outcome: In line with the EU Forest Strategy and the European Digital Strategy, successful proposals will demonstrate the potential of digital solutions in forestry and forest-based value chains contributing to the multifunctionality and management of forests in Europe based on the three pillars of sustainability (economic, environmental and social). Project results are expected to contribute to all of the following expected outcomes:

- Deployment of ICT innovations in forestry to optimise productivity as well as the delivery of ecosystem services.
- Application of innovative approaches along the forest-based value chain by more accurate tracing methodologies of forest resources.
- Greater competitive advantage for European industries that utilise forest resources more efficiently.

Scope: Improved utilisation of information flows and intelligent digital solutions, increasingly available in forest monitoring, management and forestry operations, provide huge potential to improve and unlock the efficiency of wood supply chain activities. Modern digital applications offer also promising possibilities to support forest managers in improving decision making in a precious and complex forest environment and to improve ecosystem monitoring.

This topic addresses innovations in information systems for forest managers, forest-based industries and policy makers as well as advances in precision forestry, harvesting systems and forest nursery operation, optimised harvest planning, operations management, timber transport and logistics, as well as safety, ergonomics and smart assistance for human workers. The synergetic use of geo-spatial, statistical, and modelling technologies together with information and communication technologies such as aerial and satellite retrievals, (in particular from the Copernicus Programme) and the 'web of things' combined with big-data analytics is highly encouraged.

The aim is to realise the potential of ICT and new technologies to improve the sustainability of forest management and logging operations with a view to sharing data throughout the wood value chain, thereby driving greater sustainability, to offer new business models along the value chain and to improve the traceability of forest resources for optimised and transparent supply chains. The integration in the new technologies of climate change impacts on these wood chains should be an essential component. Activities may also include robust and transparent methods and tools for high resolution forest and ecosystems services assessments, natural disturbance risk monitoring and analysis (including pests and forest fires) and disaster response systems.

Besides activities such as prototyping, testing, demonstrating and piloting in a near to operational environment, proposals may include limited research activities. Assessing and deepening the understanding of economic, social and environmental impacts through an enhanced application of digital technologies for foresters, SMEs and industries, as well as end-consumers will be of special interest, including the assessment of risks and opportunities for jobs in forestry, the wider forest-based sector and rural communitiesProposals shall apply the concept of the 'multi-actor approach[299]' and ensure adequate involvement of the primary sector and the wider forest-based value chain.

If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, they must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).

Cooperation with other selected projects under this topic and other relevant projects is strongly encouraged.

The Joint Research Centre (JRC) may participate as member of the consortium but is not eligible for funding.

[299] See definition of the 'multi-actor approach' in the introduction to this Work Programme part.