

June 2022



## UNIQUE SATELLITE-DERIVED FORESTRY INSIGHT FOR DEFRA

### >>> A few years later

The true value of this solution capability is unleashed when a client, from either the public or private sector, starts adopting it over a larger area. The initial area in Devon (UK) was a valuable test because it provided the confidence required for Department for Environment, Food & Rural Affairs (DEFRA) to expand the application over a much wider area. In the past few years, the validation and verification of the results allowed a more systematic use of the tool on a larger territory.

*Tim Vallings, Rezatec Limited*



BENEFICIARIES	Rezatec Limited	DEFRA (UK Government)	DEFRA (UK Government); Forest industry	Citizens and Society
SERVICES	<b>TIER 1: SERVICE PROVIDER</b> Sentinel-1; Sentinel-2	<b>TIER 2 PRIMARY USER</b> Tree locations maps; Change (temporal and spatial) in phenological behaviour (indicator of canopy stress)	<b>TIER 3 SECONDARY USER</b> Improved monitoring for early- warning signs of plant pest spread; Use of EO to inform on- the-ground response; Increased ability to detect, treat and prevent the spread of pathogens in monitored forests.	<b>TIER 4 END USER BENEFICIARIES</b> Improved overall safeguard of trees and forests; Better targeted plant-health monitoring of European forests

Value chain definition following SeBS Methodology - <https://earsc.org/sebs>

### The space-based solution

This Copernicus-based solution was produced by a commercial company for a Public Administration.

### The Usage Maturity Level

In the past few years, the solution has consolidated at (high) UML=4 and is being integrated into the workflow of the organisation.

Thematic Area



AGRICULTURE,  
FOOD, FORESTRY  
AND FISHERIES

Region of Application



DEVON

Sentinel mission used



S1  
S2

Copernicus Service used



-

Usage Maturity Level



4

## Overall benefits

### ECONOMIC



No noticeable additional modification/impact on the functioning of the public administration nor on the lives of the citizens since 2018.

### INNOVATION



No noticeable additional modification/impact on the functioning of the public administration nor on the lives of the citizens since 2018.

### ENVIRONMENTAL



No noticeable additional modification/impact on the functioning of the public administration nor on the lives of the citizens since 2018.

### SCIENCE



No noticeable additional modification/impact on the functioning of the public administration nor on the lives of the citizens since 2018.

### REGULATORY



No noticeable additional modification/impact on the functioning of the public administration nor on the lives of the citizens since 2018.

### SOCIETAL



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Benefits classification following SeBS Methodology - <https://ears.org/sebs>

## Interesting facts...

From perspective of technical advancement, the additional information is now generated by the solution. The product capabilities embedded in the initial technology have now grown and a greater value was onto the end-user. From a plant-health perspective, after the trial carried out in Devon (UK), the outputs were considered worthy of a deployment over the whole of England, which was undertaken after 2019 onwards.

## Outlook to the future

The technology of this solution is transferable across borders so in the future it can be tailor-made to specific areas or species and pest that require monitoring. Service provider is available to provide this Copernicus-based solution to other government departments from other countries upon request.

## Acknowledgements

Rezatec would like to mention that it would not have been possible to get to this point so quickly without the initial support it received from the UK Space Agency's 'Space for Smarter Government' Programme (SSGP) and the collaborative working with Forest Research. The funding has resulted in an end-user product that is now commercially available.

## Contacts

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## ABOUT COPERNICUS4REGIONS

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