TAiM

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## QuickBeam: ground-truthing for AI mapping trust

Developing a new mobile app for mapping data validation

Omanos Analytics specialise in the value-add of data flow between the space sector and on-the-ground knowledge, focusing on:

- ground-truthing of EO mapping data
- EO follow-up of community narrative
- integrating community context for practical application of EO insights.

Within TAiM, Omanos has supported ecological survey fieldwork and worked to understand the role of ground-truthing in the trustability of EO and AI mapping data. From this work, Omanos has designed and built QuickBeam.

QuickBeam is a smartphone app designed for two-way data delivery to simplify ground survey processes for non-GIS specialist users, and those not familiar with using maps. This design is also informed by Omanos' broader work with communities in remote areas, gathering environmental impact data and social context, where two-way data communication is complex but essential, and users have limited experience with smartphones.
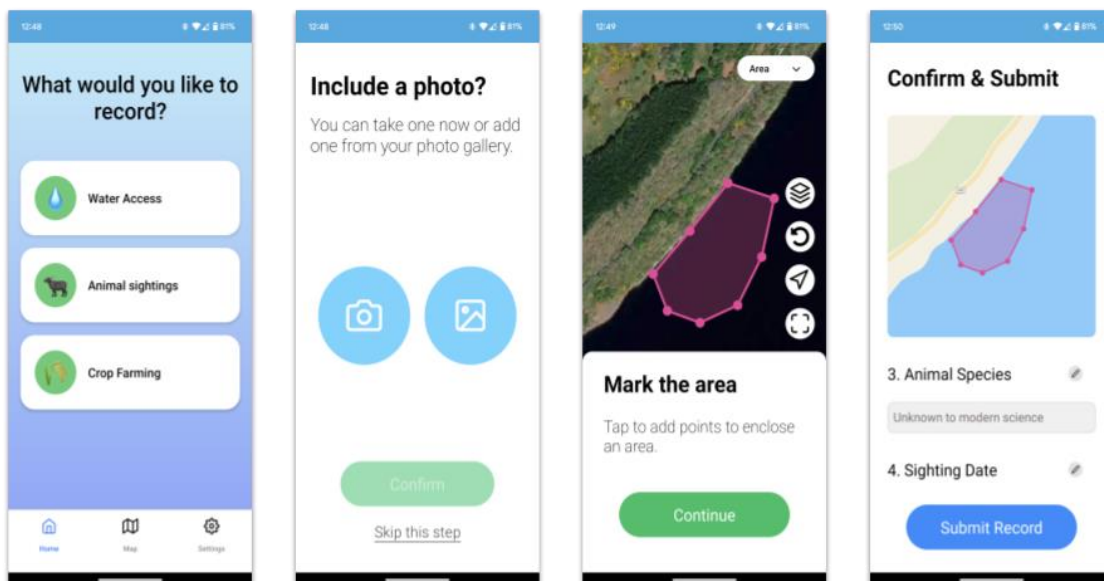
In the context of mapping data trustability, the app is designed to give the facility to add trust and confidence to EO and AI mapping data through targeted ground-truthing. Low

confidence or complex areas within mapping outputs can be highlighted for ground-truthing, giving the user an accessible way to find and verify mapped areas.

QuickBeam also enables users to add details to EO and AI mapping features that cannot be determined from these methods, such as details of biodiversity, ecological condition, signs of pests, etc, further adding to the trustability of this data by incorporating the expertise of on-the-ground professionals.
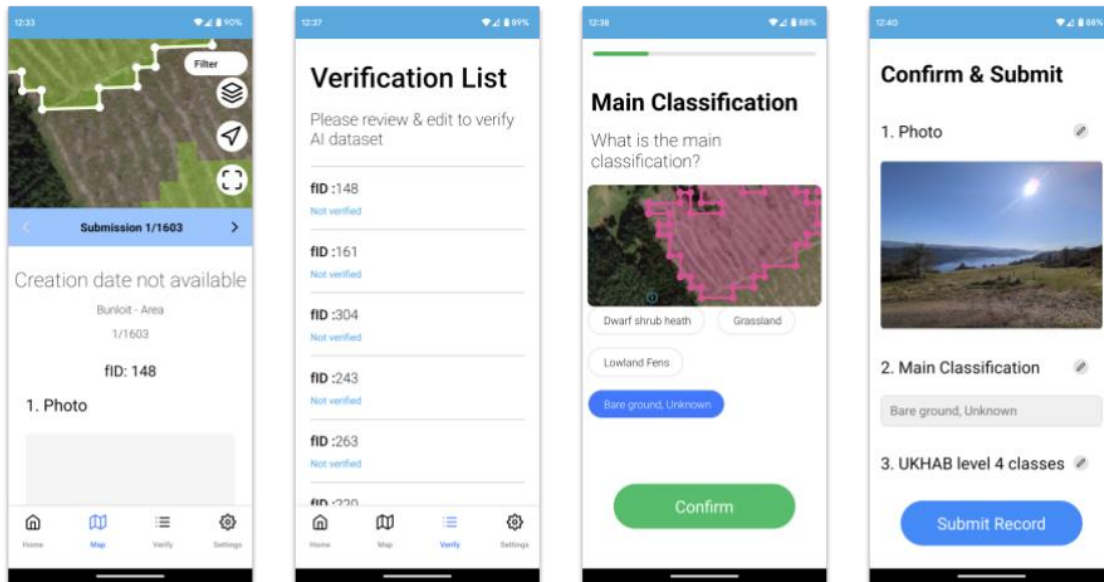
QuickBeam was trialed at Bunloit in March 2025 by TAiM consortium members, targeting discrepancies between ecological classification maps from field survey and EO-based AI mapping.

After TAiM, Omanos is preparing for a full pilot of QuickBeam Beta for ground-truthing of AI mapping of small-holdings farms with partners and future customers in Sri Lanka, Nigeria, and Mexico.