UC4a "Geotagged Photos" (Ireland / DAFM)

Description of the Use Case

UC4a will design and develop an application for mobile devices to facilitate a farmer and/or advisor to upload a geotagged photograph as supporting evidence to scheme applications. The 'Geotagged Photo Application' will be an integral part of the Area Monitoring System which will be a component of the Integrated Administration & Control System in the CAP post 2020.

The geotagged system is constituted by a mobile application and supporting notification system. It will include a secure and verifiable technique of picture capturing within land parcels and their agronomic land use, combined with a secure protected mode for near real time image sending to the central system. The application will be a usable, responsive, functional, reliable and secure method of communication.

Innovation in the Use Case

This project will exploit novel features of Galileo Global Navigation Satellite System (GNSS) preventing location spoofing (e.g. authentication within Galileo signal). The App will demonstrate the ways to receive notifications from the supporting system and the ability to notify and guide farmers to successfully locate, line up, frame and capture images for the requested points of interest. The pilot will address precise, timely and accurate in-situ verifications, allowing a multi-actor approach to real agronomic land monitoring performed by both administrative surveyors (top down) and farmers, or their associations (bottom up). Using the knowledge acquired from this work, appropriate interventions will be selected and designed to introduce the smartphone app to the farming community which will address issues or concerns that farmers may have, and which could otherwise lead to low uptake of the technology.

Benefits

One of the main aims of this project is a multi actor approach in understanding, designing and piloting the application. The end user will have more options in terms of engagement with the paying agency. The incentive for the farmer may be a reduced chance of an on the spot inspection, if they upload the photographic evidence of activity or clarify the query. The Administration will have an electronic record of the response and a comprehensive profile of agricultural activity in the parcel.

Involvement of stakeholders

In this Use Case, social and behavioural scientists, Teagasc, will identify the factors which are likely to influence farmers' acceptance of and engagement with the technology (a smartphone application). Telecommunication and Software Systems Group (TSSG) and Teagasc will fully integrate a multi-actor approach from the initial design stages of the smartphone application to explore social and behavioural issues and barriers related to the acceptance of and engagement with this technology. The multi-actor approach will be integrated at development and implementation phases. The app will be developed following user-centred design principles. A series of user-centred workshops will be carried out with farmers, advisors, graphic/UX designers and software developers.