

RURACTIVE OPEN CALL - CHALLENGE 9

Title of the challenge	Technologies or tools to help Scottish farmers plan, measure and monitor uses of their land better
Dynamo (pilot location)	North-East Scotland, UK
RDD (Rural Development Driver) <i>addressed by the challenge</i>	Sustainable agri-food systems and ecosystem management
Overall context description and specific context to be addressed by the challenge	<p>Land is not always managed well by farmers. Climate change is impacting the land we use, and farmers are struggling to adapt quickly enough to these changes.</p> <p>Our farmers need to:</p> <ol style="list-style-type: none"> 1. plan out the use of their land better, taking into consideration the need for <ol style="list-style-type: none"> i) climate change mitigation, including carbon sequestration, environmental health and water management; ii) enhanced biodiversity (above or below ground); and iii) affordable and healthy food production. 2. measure the use of their land better; and 3. monitor the use of their land and its characteristics better. <p>We are looking for technologies and/or tools that address one or more of these needs, informing farmers to enable them to pre-empt issues that negatively impact their land and ensuing food production.</p>
Scope of the Challenge	Provide farmers with new technologies or tools to help them make informed decisions to better manage their land, taking into consideration the need for climate change mitigation and adaptation, enhancing biodiversity, and the provision of and access to affordable and healthy food for all.
Solution requirements	<ul style="list-style-type: none"> • Digital technologies and/or tools that farmers can use to help them better manage their land. • Technologies/tools to inform management practices to mitigate the impact of climate change on land use. • Planning for the growth of affordable and healthy food as a priority for farmers.

Specific objectives and expected outcomes	<ul style="list-style-type: none"> • Use by a pilot group of farmers of the technologies/tools • Evidence of change in land management practices informed by new data or outputs from the tools • Adoption of the technologies/tools by farmers outside the pilot area (if the outcomes are positive).
Available resources	<ul style="list-style-type: none"> • Demonstration of technologies for digital monitoring and reporting of soil characteristics in near real time, at Glensaugh Farm (Laurencekirk) and Balruddery Farm (Fowlis, Dundee). • Access to personnel knowledgeable in requirements for digital monitoring and of soils. • Digital spatial data such as on soils, Land Capability for Agriculture (scales of 1:250,000 for entire area, 1:50,000 for lowland agriculture) are available from James Hutton Institute and Scotland's Environment Web.