

AgNav: The new digital sustainability platform for agriculture in Ireland

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Summary

- AgNav is a newly developed digital sustainability platform that will be used to create farm specific sustainability plans.
- Streamlines the process by collating data from existing databases which will also improve accuracy of the assessment.
- Encourages and supports farmers in implementing management practices that improves the overall sustainability of their farming system.
- Supports clear communications on positive progress achieved at farm level and provides a mechanism to support the quantification of progress towards targets for the agricultural sector.

Introduction

A new digital sustainability platform, AgNav, is being developed to conduct robust sustainability assessments of farming systems in Ireland. Through years of collaboration Teagasc, Irish Cattle Breeders Association (ICBF), and Bord Bia have integrated Teagasc life cycle assessment (LCA) models into the ICBF infrastructure to calculate carbon footprints of Bord Bia certified farms. Using this infrastructure the collaboration has developed the AgNav platform, a digital platform for farmers and advisors that presents the environmental performance of commercial farms. Farm data residing in existing databases (e.g. ICBF and Bord Bia) will be collated to build a picture of each unique farming system. Collating existing data for individual farms streamlines the assessment process and improves the accuracy of results. For transparency, activity data is presented on user interfaces. The AgNav platform also provides the user with a live decision support tool that communicates the benefits of best practice adoption. This tool will be used for the creation of a farm specific sustainability plan.

Process

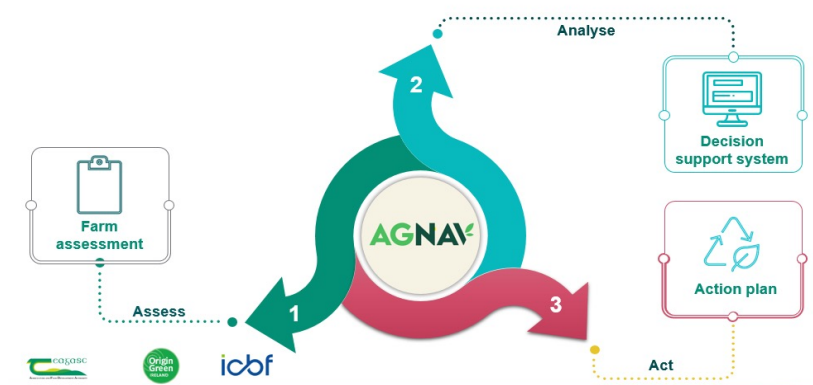


Figure 1. The AgNav process in creating a farm specific sustainability plan

Assess

Using collated data from ICBF and the Bord Bia sustainability survey, a farmer either individually or in consultation with a farm advisor can establish current farm performance for a number of relevant environmental sustainability indicators on the AgNav platform.

Analyse

Where farmers and/or advisors identify opportunities for changes to practices on farm that could result in improved performance, they can determine the impact of implementing these practices by using the “Forecast” decision support tool available in the AgNav platform.

Act

Following the identification of the most appropriate actions for their farm, a farmer and/or the advisor will use the “Action Planner” to create a sustainability plan for the farm which can include targets and timelines for implementation/completion. This plan will act as a guide for farmer/advisor engagement and demonstrate each farmer’s commitment to delivering the action plan.

Future plans

The initial phase of the AgNav platform will be available for beef and dairy farms that are Bord Bia quality assured and have signed up for the Teagasc Signpost Advisory programme. The scope of AgNav will expand to accommodate all cattle systems as well as other enterprises (e.g sheep, tillage, pigs) as the work programme progresses, regardless of their affiliation to AgNav partners. Furthermore, while the initial phase of the AgNav platform focuses on greenhouse gas and ammonia emissions, future phases will include other environmental indicators such as biodiversity, water quality, carbon sequestration and others. Where possible AgNav will establish data flows with relevant databases to improve user experience and assessment quality.

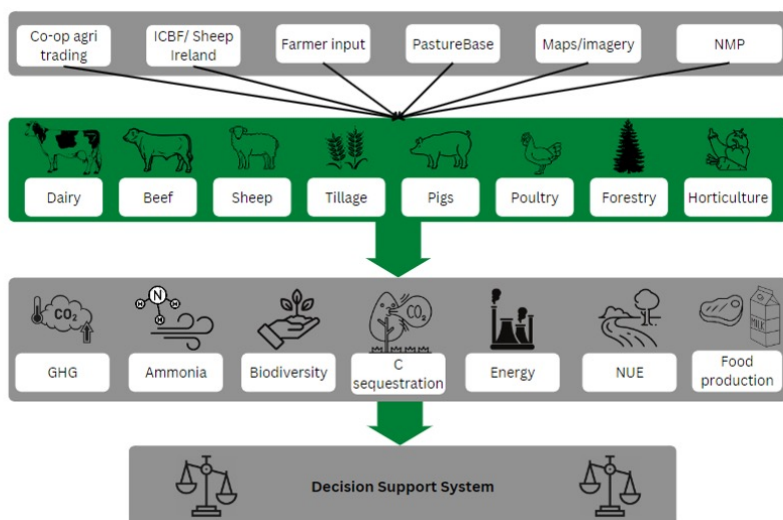


Figure 2. Proposed AgNav structure

Conclusions

AgNav is a digital platform that will assist farmers in improving sustainability of their farms. It will create farm specific action plans, which will support clear communications on positive progress achieved at farm and national level.