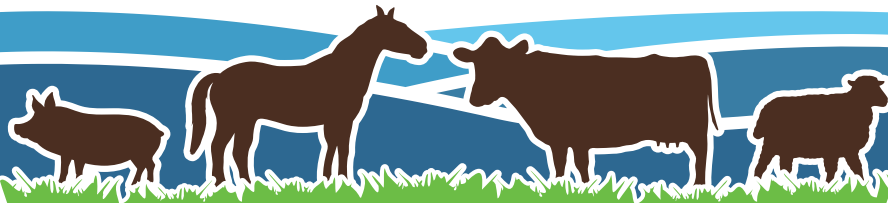


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Innovative Livestock Production Systems (ILPS): EU case studies from the Horizon Europe STEP-UP project**Á. Macken-Walsh**, D. Neumeister, V. Dalle, D. Kenny, W. Osawe

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Presenting author Áine Macken-Walsh. E-mail: aine.mackenwalsh@teagasc.ie**Application**

Assessment of Innovative Livestock Production Systems (ILPS) case-studies to accommodate experimental processes for future evidence-based sustainability of livestock project systems.

Introduction

Innovative Livestock Production Systems (ILPS) are operating at various scales EU-wide, offering evidence-based guidance for charting future sustainability pathways for livestock farming. Case-studies of ILPS offer potential to identify characteristics of these systems that are transferable to mainstream European Livestock Production Systems (ELPS) as they transition to have greater sustainability. This poster outlines the process of selection and assessment of ILPS case-studies EU-wide, which was carried out using both a 'top down' and 'bottom-up' process. 'Top down' knowledge within the STEP-UP consortium of established approaches to EU data collection/sustainability measurement; and the needs of experimental processes in developing and testing new indicators and sustainability metrics influenced the selection and assessment approach. However, the approach was also shaped by the knowledge and experiences within the ILPS themselves, which are experimenting 'on the ground' with new approaches and ways of assessing the impacts of these new approaches. The combined 'top-down', 'bottom-up' approach is presented as a framework to achieve a balance between the continued need for standardised data collection while also accommodating diversity among and innovation within ILPS themselves, offering capacity for developing new indicators and metrics for sustainability.

Materials and methods

Criteria for the selection of ILPS were identified through a multidisciplinary assessment of current sustainability indicators and metrics, which were thematically grouped. ILPS were purposively selected by members of the multi-actor STEP-UP consortium and associations representing livestock farming interests EU-wide on the basis of their innovativeness; and how they intersect with and offer guidance for the sustainable transformation of mainstream ELPS. A data collection template was developed to assess ILPS on the basis of standard sustainability indicators; new and experimental 'pipeline' sustainability indicators; and features of the ILPS. The ILPS case-study assessments were designed for implementation using a multi-actor, multi-disciplinary approach, involving mutual knowledge exchange between case-study actors and project scientists to scope potential for developing more holistic and comprehensive data capture for livestock farming sustainability.

Results

Classification of primary characteristics revealed that ILPS case-studies encompassing environment & health and economy attributes were most readily identified; while ILPS encompassing attributes pertaining to human nutrition & public health, animal health & One Welfare; biodiversity; and social sustainability attributes were less easily identified. However, on assessment of primary attributes of case-study ILPS, secondary functions revealed multi-functionality and cross-cutting relevance to multiple attributes. An intrinsic feature of all ILPS is that they are experimental in nature; and extension, innovation support and linkages with wider AKIS structures are vital in their operation. This indicates the needs for sustainability indicators oriented to governance, human capital and knowledge flows.

Conclusions

From a wide-ranging search for ILPS and a purposive selection and assessment process, this poster presents preliminary findings regarding the nature of the data available and the process of data collection as a multi-actor dialogue between ILPS actors on the ground and STEP-UP partners. This paper suggests that this dialogic and interactive process is necessary due to the highly dynamic nature of the concept of sustainability and associated challenges & opportunities in developing new indicators and metrics for sustainability in diverse EU regions.

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All the research reported in this issue complied with the relevant country regulations on ethics and animal welfare.