Multi-actor, transdisciplinary approaches have become mainstream across many policy and research funding programmes, such as the EU’s Horizon 2020 and EIP-AGRI programmes. The driver of this is official acknowledgement at policy-making level that scientific knowledge alone is insufficient to achieve innovation on the ground. The perspectives and knowledge of different professional and end user communities must be incorporated at the design stage, and iteratively to project completion, a process called multi-actor, transdisciplinary co-design.

By definition, multi-actor approaches must include different actors (such as end users) as partners from the beginning and throughout the progression of projects (as distinct from ad hoc stakeholder consultation). Transdisciplinary (as distinct from multi- or interdisciplinary) projects, by definition, require non-research partners, such as farmers and advisers. Authentic and rigorous implementation of multi-actor, transdisciplinary approaches requires methodological supports to create conditions in which different actors are supported to work in a mutually enriching way. In this context, participatory learning and action (PLA) methods can be practised to achieve excellence in multi-actor work. While social scientists are common practitioners, PLA is a transdisciplinary method and thus can be used by any trained actor.

Controlling Johne’s disease
Research conducted by McAloon et al. (2017) identified sociological factors (i.e., farmers’ routines, practices, beliefs and values) regarding animal health and implications for disease management, specifically implementation of critical control points (CCPs, following HACCP) to control Johne’s disease at farm level. The research findings were channelled into a transdisciplinary co-design process, involving the interrogation of the findings by groups of farmers, veterinary practitioners, veterinary scientists, policy-makers, farm advisers, and co-operative representatives. In a sequence of workshops, the multi-actor groups co-designed a suite of practical actions to implement the CCPs at farm level. The process evolved to include an artist and graphic designer, who worked with the multi-actor team to translate the practical implementation actions into interactive and visual tools. In addition to recording templates (e.g., hygiene, calving etc., necessary for implementing the HACCP approach), information briefs and storyboards (illustrated stories) were co-designed. Based directly on farmers’ and other actors’ stories, storyboards have diverse purposes. They present ‘how to’ information graphically, while also incorporating in vernacular language the social (relationship), cultural (pride) and economic (monetary) factors that arise in decision-making. Veterinarians and advisers can use storyboards to prompt discussion with farmers of contentious or sensitive issues, deflecting the focus onto a hypothetical case rather than focusing on the farmers personally. Storyboards were developed to show the negotiation of particular beliefs/values held by farmers in relation to disease control, necessary for practical implementation of the CCPs. Together with information briefs and CCP recording templates, the storyboards are presented in a comprehensive printed document, and in an interactive PDF for use on touchscreen and conventional devices such as tablets, androids and computers (Figure 1).

Managing grass
The AgileTECH project aimed to understand the relevance and use of existing scientific knowledge regarding grassland management among farmers. In this context, the project co-designed a method for use by advisers in a discussion group context. Sheep, beef and dairy farmers and farm advisers were involved in five focus groups, which were recorded, transcribed and analysed. The analysis informed subsequent co-design stages, involving scientists, specialists, farm advisers and graphic designers. A group facilitation method to encourage farmer engagement with grassland management was co-designed and prototyped by the group. The method reflects findings from across the focus groups conducted with farmers and advisers and contains four main elements: building farmer-adviser rapport and approaching ‘goal setting’ with clients, which was identified as a crucial first step; building ‘Managing Grass Action Plans’, which takes a flexible approach to supporting farmers to identify cost-effective, impactful and achievable actions on their farms; use of storyboards (illustrated stories) to facilitate the group to address social (relationship), cultural (pride) and
econom ic issues associated with managing grass; and, finally, a discussion group self-evaluation method (‘health check’) to improve group functioning (organisation, trust, solidarity, learning, fun and enjoyment). The group facilitation method is presented in print and interactive PDF form, accompanied by a customised carry bag containing the co-designed resource materials required to implement the extension method. Over 20 farm advisers (Teagasc and the co-operative sector) have received training to use the method and are currently practising it and generating feedback on its use.

Conclusions
These projects have utilised PLA methods to support multi-actor, transdisciplinary co-design processes. Co-designed outputs have been generated, which are currently in use directly by farmers and by professionals such as veterinarians and advisers. In the future, more co-designed outputs will be generated by projects and policies that increasingly demand a multi-actor approach. However, it is also the case that organisational cultures and professional value systems require adaptation to embrace co-designed outputs that have animated elements and vernacular language suitable for end users. The growing collection of digital co-designed extension tools is stored on Teagasc’s www.FarmAppvice.com, which is a web-based library for advisers.

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References

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