# MAgrSc INNOVATION SUPPORT PROGRAMME 2020-2022

**Study Title:** *Farmer and Advisor Engagement in Occupational Health and Safety*

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**Office location:** Roscommon

Teagasc Agriculture and Food Development Authority

HEALTH AND SAFETY AUTHORITY

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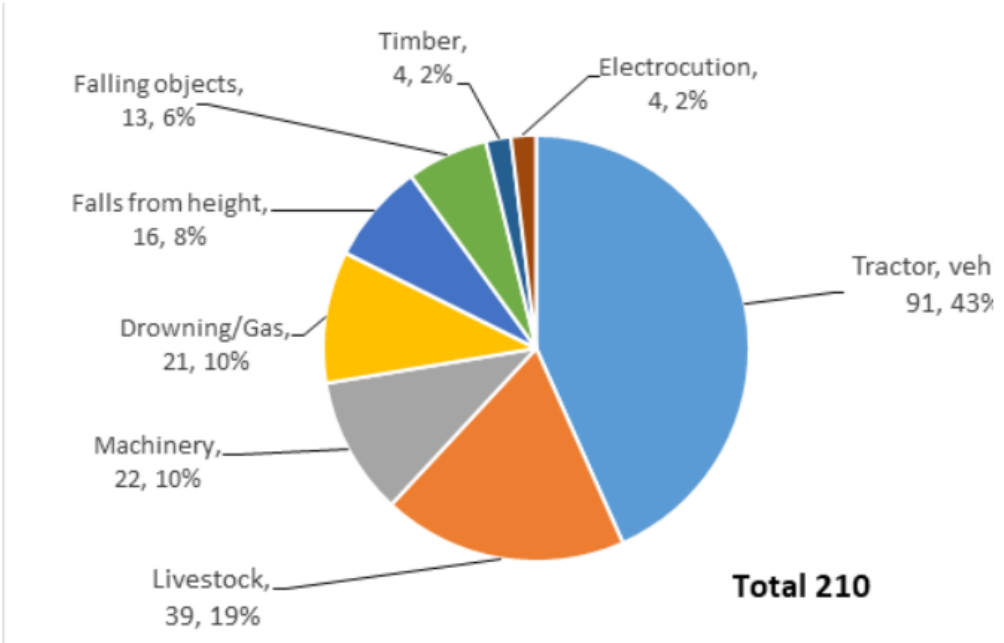
# Study Background

- “The level of farm accidents is not decreasing. Similar accidents occur each year” (HSA, 2020).
- Everyday farm hazards.
- Limited implementation of occupational health and safety (OHS) controls by farmers.

**Main causes of deaths in Agriculture and Forestry over the last 10 years 2011-2020**




*Source: hsa.ie*

# Study Rationale

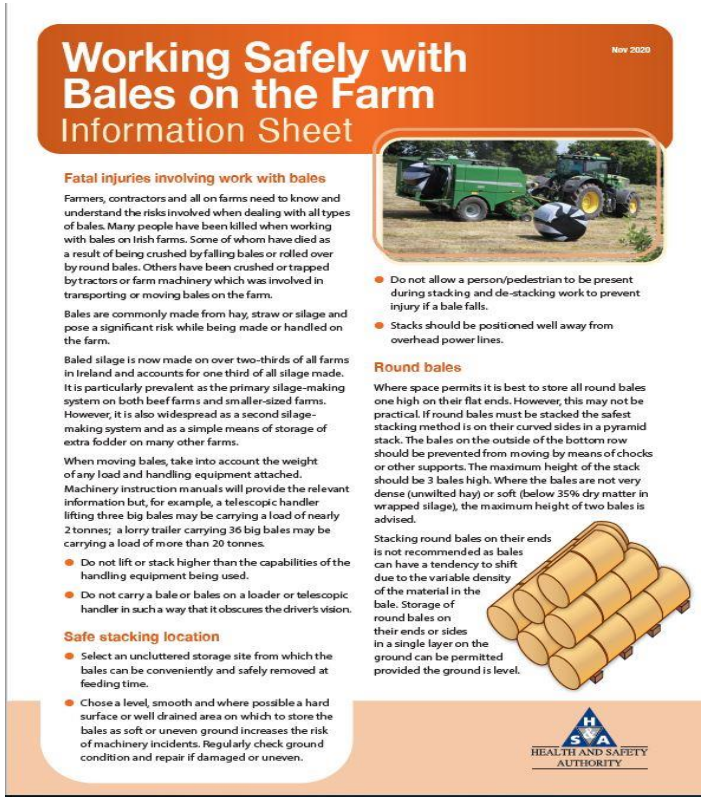
- McNamara (2014) stated that for future programmes, advisors in the study requested **shorter format material** such as fact sheets and farm hazard inspection checklists.

- Further and more **focused extension approaches** are required to widen the perspective of the farmer in relation to OHS adoption (McNamara *et al*., 2017).

- **Targeted interventions** have a greater likelihood of success (Lilley *et al.,* 2009).

# Study Aim

- To develop and test user-friendly materials that will help to increase farmer and advisor engagement in OHS and that can be used regularly in advisory scenarios.



Working Safely with Bales on the Farm
Information Sheet

Nov 2020

**Fatal injuries involving work with bales**

Farmers, contractors and all on farms need to know and understand the risks involved when dealing with all types of bales. Many people have been killed when working with bales on Irish farms. Some of whom have died as a result of being crushed by falling bales or rolled over by round bales. Others have been crushed or trapped by tractors or farm machinery which was involved in transporting or moving bales on the farm.

Bales are commonly made from hay, straw or silage and pose a significant risk while being made or handled on the farm.

Baled silage is now made on over two-thirds of all farms in Ireland and accounts for one third of all silage made. It is particularly prevalent as the primary silage-making system on both beef farms and smaller-sized farms. However, it is also widespread as a second silage-making system and as a simple means of storage of extra fodder on many other farms.

When moving bales, take into account the weight of any load and handling equipment attached. Machinery instruction manuals will provide the relevant information but, for example, a telescopic handler lifting three big bales may be carrying a load of nearly 2 tonnes; a lorry trailer carrying 36 big bales may be carrying a load of more than 20 tonnes.

- Do not lift or stack higher than the capabilities of the handling equipment being used.
- Do not carry a bale or bales on a loader or telescopic handler in such a way that it obscures the driver's vision.

**Safe stacking location**

- Select an uncluttered storage site from which the bales can be conveniently and safely removed at feeding time.
- Chose a level, smooth and where possible a hard surface or well drained area on which to store the bales as soft or uneven ground increases the risk of machinery incidents. Regularly check ground condition and repair if damaged or uneven.
- Do not allow a person/pedestrian to be present during stacking and de-stacking work to prevent injury if a bale falls.
- Stacks should be positioned well away from overhead power lines.

**Round bales**

Where space permits it is best to store all round bales one high on their flat ends. However, this may not be practical. If round bales must be stacked the safest stacking method is on their curved sides in a pyramid stack. The bales on the outside of the bottom row should be prevented from moving by means of chocks or other supports. The maximum height of the stack should be 3 bales high. Where the bales are not very dense (unwilted hay) or soft (below 35% dry matter in wrapped silage), the maximum height of two bales is advised.

Stacking round bales on their ends is not recommended as bales can have a tendency to shift due to the variable density of the material in the bale. Storage of round bales on their ends or sides in a single layer on the ground can be permitted provided the ground is level.

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Source: hsa.ie


Farm Safety Message

Source: YouTube

Calving Checklist

| | |
|---|---|
| Are Cows Scanned? *Use ICBF Expected Calving Profile*<br>*Expected Calving Dates*<br>*Cows Carrying Twins*<br>*Peak workload* | |
| Cows vaccinated against Scour, IBR etc | |
| Calving pens Cleaned and Disinfected | |
| Dry Cow Minerals for 6 weeks Pre calving | |
| Are cows clean? (Tails/Flank) | |
| Have you got frozen colostrum/biestings? | |
| Are Calving cameras clean and serviced | |
| Are calving sensors working and have new batteries | |
| Have you ordered sufficient tags? | |
| Equipment on Hand | |
| Calving Gloves | |
| Calving Lubricant | |
| Calving Jack | |
| Good Calving Ropes + spares | |
| Iodine | |
| Chlorohexidine | |
| Stomach Tube/Feeding Bottle | |
| Electrolyte/Kaolin Powder | |
| Thermometer | |
| Warming Box/Calf Jacket | |
| Calciject/Magnijject | |
| Flutter Valve | |
| Cow Lifter | |
| | |

**Points to Remember**


Source: Teagasc.ie

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# Study Objectives

1. Identify **key problem areas** in farm OHS which become the focus of the study.
2. Establish farmers' and advisors' current **level of engagement** with OHS and the **nature** of this engagement.
3. Develop user-friendly **supports and materials** (e.g. prompt sheets) with practical design, needed to increase advisor/ farmers engagement in good OHS practices.
4. Test the materials developed and **establish their effectiveness** in increasing farmer and advisor engagement in OHS.

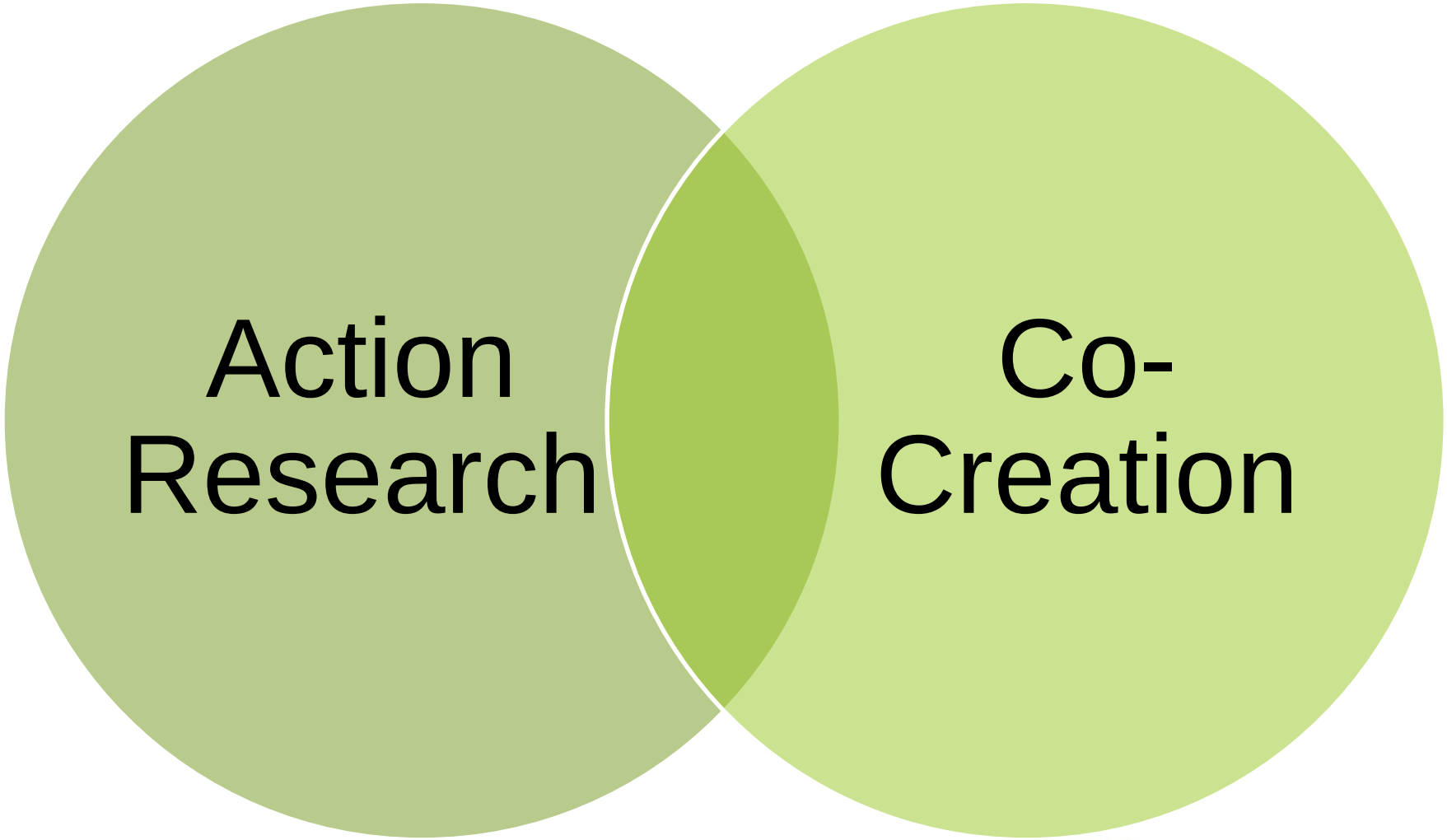
# What the Literature is Saying

Issues such as farming masculinities and rural isolation make farmers, as a target group, **'hard to reach'** when it comes to **health and safety engagement** and health interventions (Ní Laoire, (2005); Hammersley *et al.* (2020)).

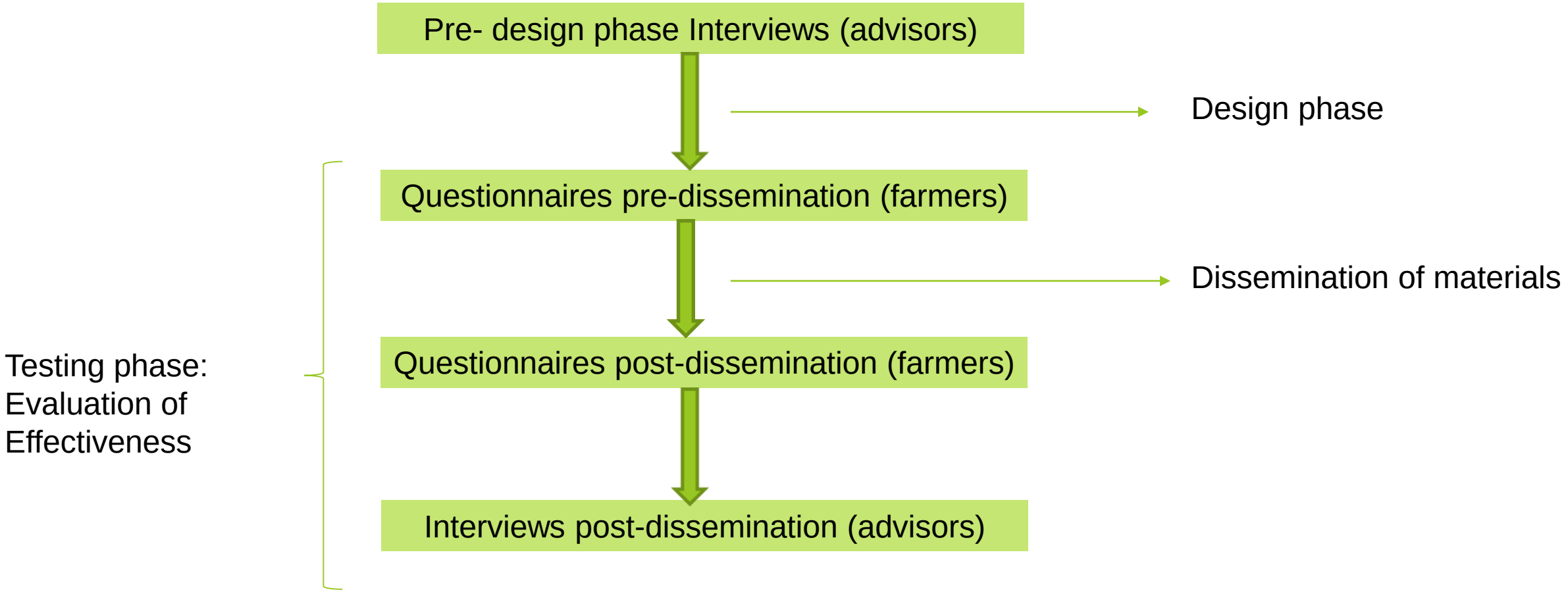
When addressing health and safety in the sector there is a need to **tailor the approach** in order to improve the situation (Teagasc, 2017).

"Farming is one of the **most dangerous occupations** in Ireland with 1/3 of workplace fatalities occurring in the sector" (HSA, 2017)

# Research Approach



# Study Methodology



# Study Population

## Interviews

- Teagasc Dry-Stock and Dairy Farm Advisors from Sligo, Roscommon, Galway, Mayo, Laois, Longford and Westmeath.
- Purposive sampling based on- willingness to participate & relevance to the research being undertaken.

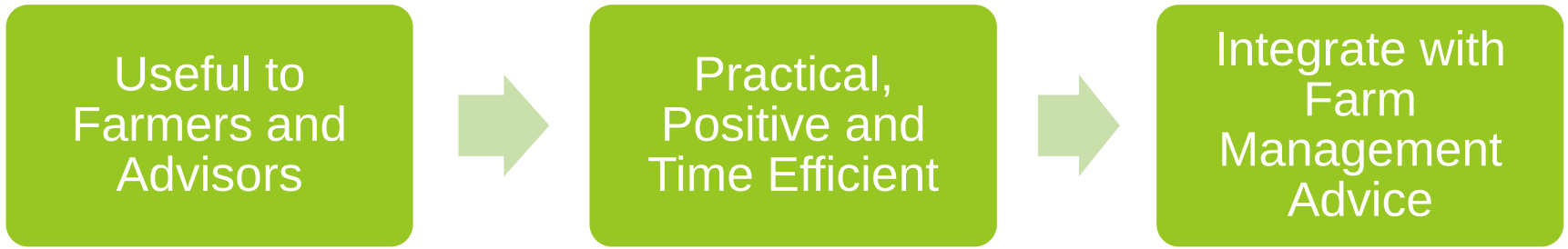
## Questionnaires

- Teagasc discussion group members – one group from each advisor participating (10-15 participants).
- n≈100 farmers (dry-stock and dairy).

# Practical utility of this study to the advisory service

- **Study Objective number 3:**

Develop user-friendly supports and materials (e.g. prompt sheets, checklists and video clips) with practical design, needed to increase advisor/ farmers engagement in good OHS practices.



# Schedule of Activities (Work Plan)

Jan 2021-June 2022

| | | Jan-Mar 2021 | Apr-June 2021 | July-Sept 2021 | Oct-Dec 2021 | Jan-Mar 2022 | Apr-June 2022 |
|---|---|---|---|---|---|---|---|
| Literature review | | | | | | | |
| Pre-design phase interviews | | | | | | | |
| Analyse interviews | | | | | | | |
| Research proposal and ethics review | | | | | | | |
| Design of materials | | | | | | | |
| Testing Phase | Design and distribute questionnaire 1 | | | | | | |
| | Dissemination of materials | | | | | | |
| | Distribute questionnaire 2 | | | | | | |
| | Conduct interviews | | | | | | |
| Overall analysis | | | | | | | |
| Thesis write up, review and submit | | | | | | | |

# MAgrSc Innovation and Support 2020-2022

*Farmer and advisor engagement in occupational health and safety.*

Questions?