

6th EUROPEAN  
AGROFORESTRY  
CONFERENCE



## Agroforestry in Society and Culture



Subtopic: EDUCATION, TRAINING, DISSEMINATION AND  
PROMOTION

***Title: Increasing tree cover on Irish dairy and drystock  
farms: Main barriers and perceptions that impede  
agroforestry uptake***



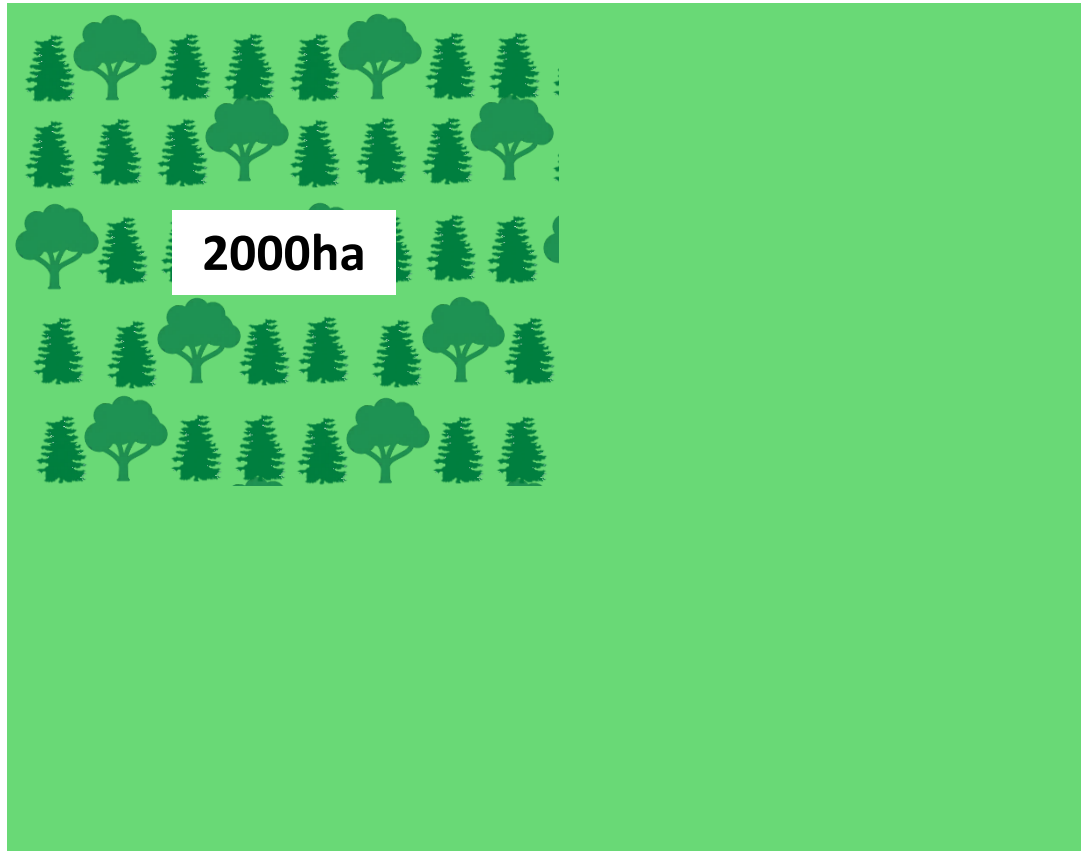
Author and co-authors: Rachel Irwin, Aine Ni Dhubhain, Ian Short, Mohammad  
Mohammadrezeai

# Objectives of Project

1. Impacts of incorporating agroforestry practices, such as small woodlands, on dairy and drystock farms
2. Collate information on the management of existing and the establishment of new trees
3. Investigate farmer attitudes, perceptions and willingness to plant trees and adopt agroforestry practices

# Agroforestry in Ireland


## Afforestation in Ireland



## Grant/Premium Category (GPC) 11



## Importance of Study

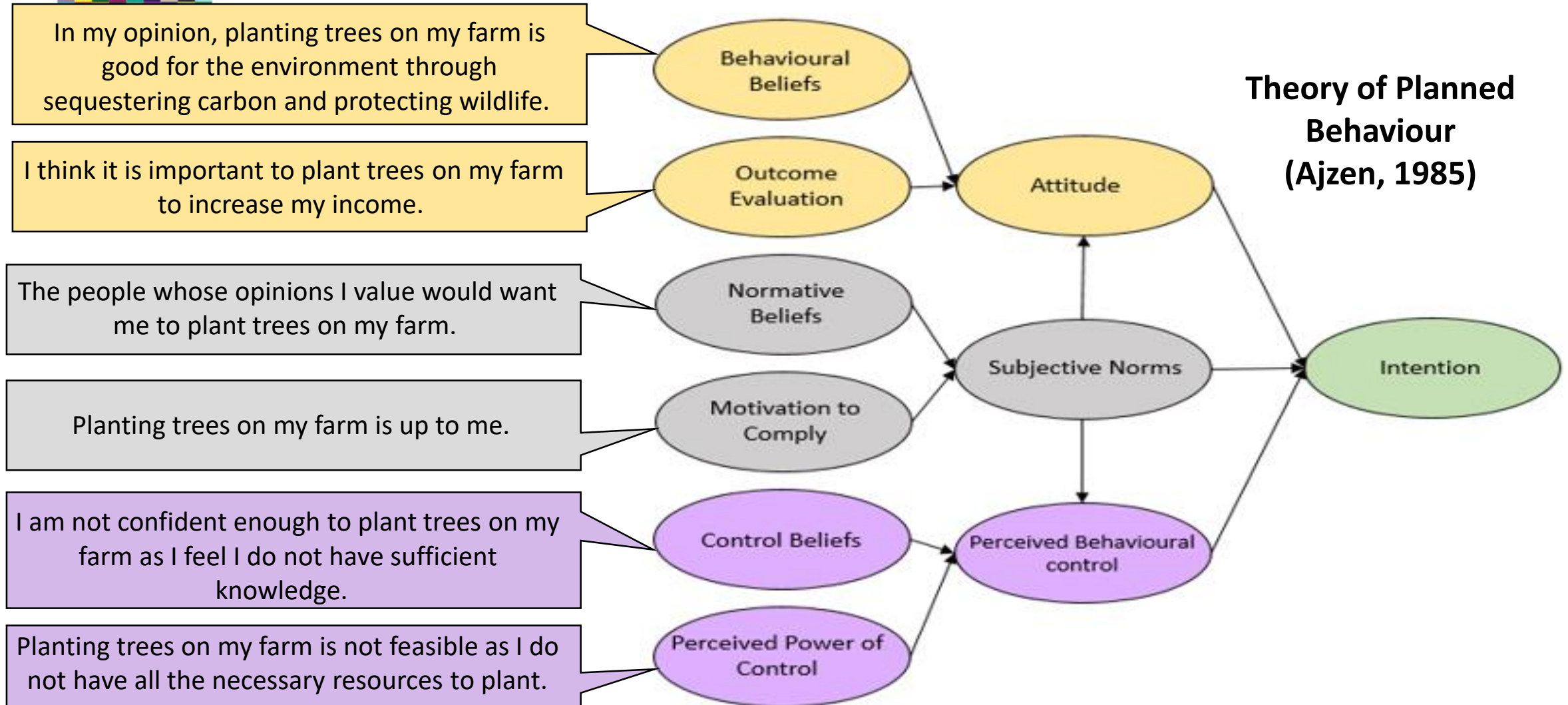
-  Sustainable Agricultural Systems
- 1 ha of trees would be required on every EU farm as a potential initiative of the Post-2020 CAP.... **agroforestry**
- Eco-schemes



€€€€€  uptake



# Methodology – Theoretical framework





# Methodology

## Quantitative Study: Online questionnaire

- Advertised via a number of publications
- Dairy and drystock farmers (n = 415)
- SPSS and SmartPLS

# Have your say on trees

In recent years, there has been increased emphasis on the multiple values of trees on farms. MSo Walsh Scholar Rachel Irwin is conducting an online survey of dairy and drystock farmers' perceptions of, and attitudes towards, trees on farms.

The results of this study will be collated and analysed to aid policy and help create guidelines for policy makers.

To anonymously complete the survey, please either scan the QR code with your smartphone or go to <https://tinyurl.com/fkj3n85z>.



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## Letter: farmers' perceptions of, attitudes towards & willingness to plant trees

"A survey for farmers on trees" - Aine Ni Dhúshain, UCD Forestry School of Agriculture and Food Science




**Letters to the Editor**  
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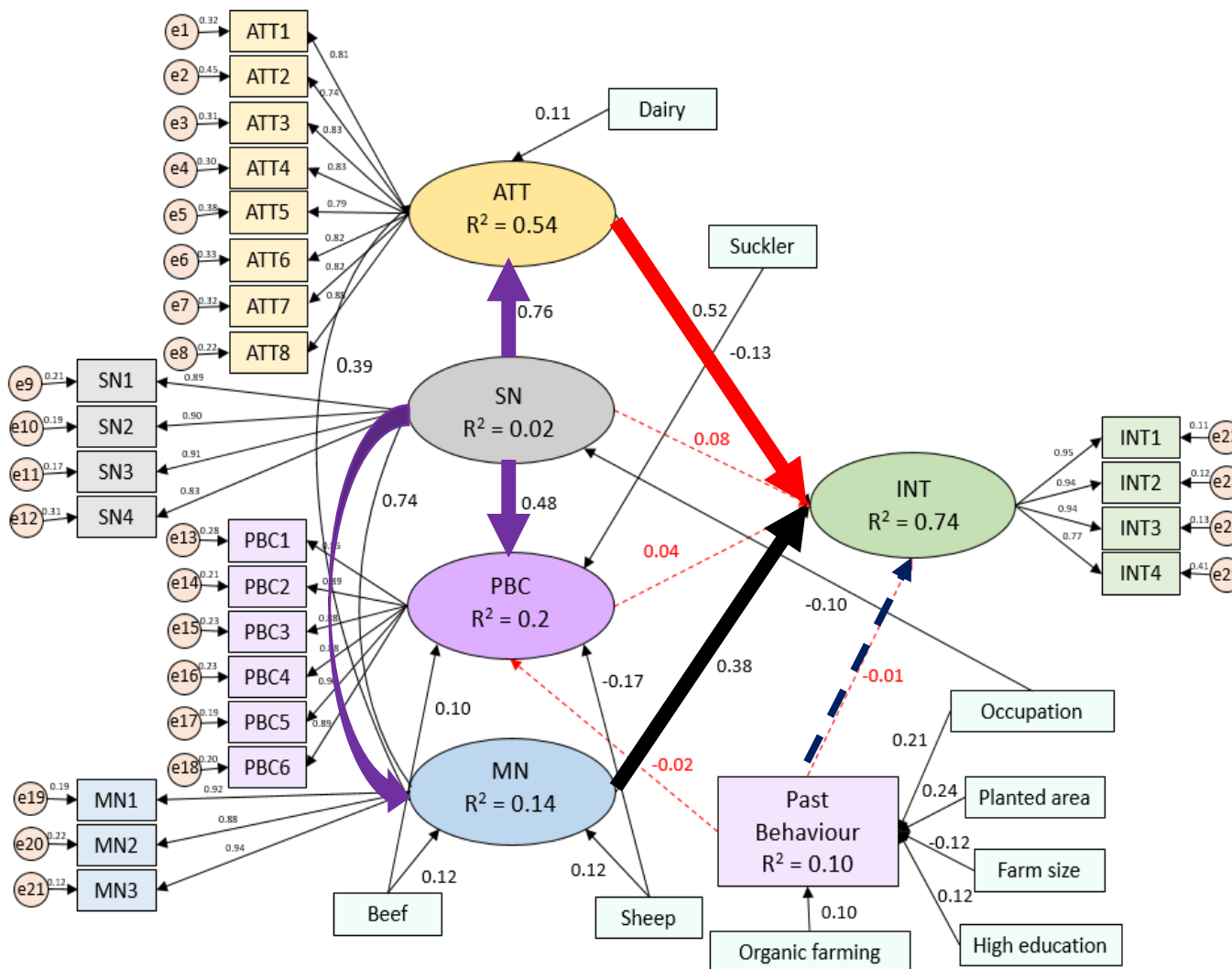


# Results to Date – PLS SEM

## Intentions to plant trees on own farm in next five years

Add. Background  
Factors:  
Age  
Geographical location  
Gender  
Experience  
Awareness of agroforestry  
Family size

<0.1



**Attitude had greatest  
direct effect on Intention  
( $\beta = 0.52$ )**

**Moral norms ( $\beta = 0.38$ )**

**Subjective norms had greatest  
total effect ( $\beta = 0.78$ ) through  
directly impacting Attitude ( $\beta = 0.76$ ), Perceived Behavioural  
Control ( $\beta = 0.48$ ) and Moral  
Norms ( $\beta = 0.74$ )**

**No significant effect of  
Background Factors nor Past  
Behaviour on Intention**

## Subjective Norms - Influential People (Likert scale)

1. Family -> 79% (n = 314)
2. Teagasc -> 68% (n = 268)
3. Other farmers -> 59% (n = 234)

## Intentions – Locations of trees (Likert scale)

1. Along field boundaries -> 71% (n = 281)
2. On marginal land -> 39% (n = 156)
3. Along watercourses -> 27% (n = 107)

# Results to Date

**Table 1: Influential person or organisations scored 5 and above.**

Influential person or organisation	Frequency (n)	Percentage (%)
Family	314	79
Teagasc	268	68
Other farmers	234	59
Close friends	212	54
Policy makers	160	41
Forestry company	158	40
Newspaper articles	116	29
Neighbours	104	26
Vet	55	14
Social media	53	13

Note: Participants could select one or more options.

**Table 2: Intention to plant trees**

Intention to plant trees	Frequency (n)	Percentage (%)
Along field boundaries	281	71
On marginal land	156	39
Along watercourses	107	27
In a block plantation	86	22
Scattered in pasture	83	21
Around houses or sheds	77	19
No intention to plant trees on my farm in the next five years	42	11

Notes: Participants could select one or more options.



# Results to Date

## Knowledge of Agroforestry

- Scattered managed trees in pasture (64%)
- Trees planted in a linear format to provide a windbreak or shelterbelt (41%)
- Trees within hedgerows (29%)

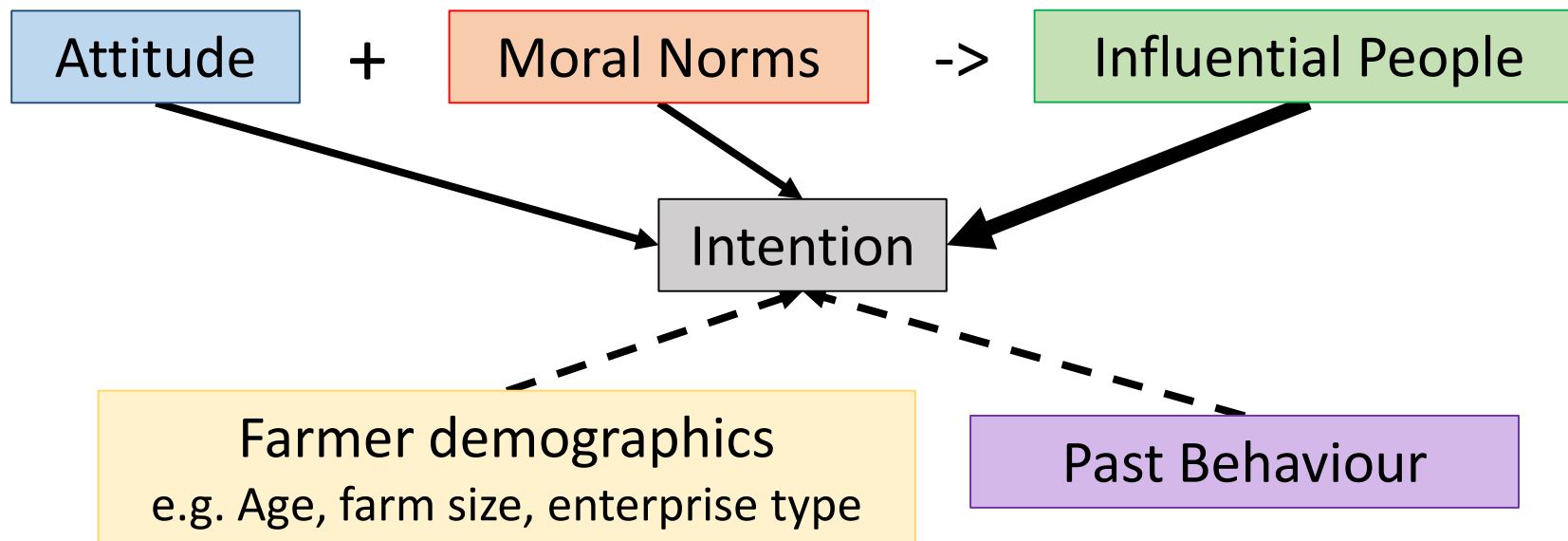
**Table 3:** Statements relating to participants perceptions of agroforestry

Statement	Frequency (n)	Percentage (%)	
Scattered managed trees within pasture.	252	64	
Trees planted in a linear format to provide a windbreak or shelterbelt.	162	41	
Trees within hedgerows.	116	29	
Trees planted along a watercourse such as a river or stream.	95	24	Percentage (%)
Naturally occurring trees that are present within an agricultural context that are neither managed nor part of the farm.	82	21	71
Trees in a plantation forest where livestock are omitted and only timber is harvested.	76	19	39
Scattered unmanaged trees within pasture.	44	11	27
None of the above	9	2	22
			21
			19
			11

*Notes: Participants could select one or more options.*



# Overview of Main Findings to Date



## Current Method:

Policy  
↓  
Farmers

Top-Down + Focused on economic incentives

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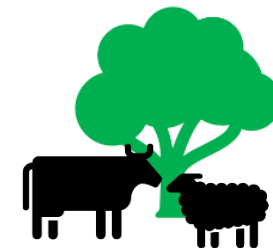


## New Method:

Promotion by influential people

+ Co-design/ co-creative systems

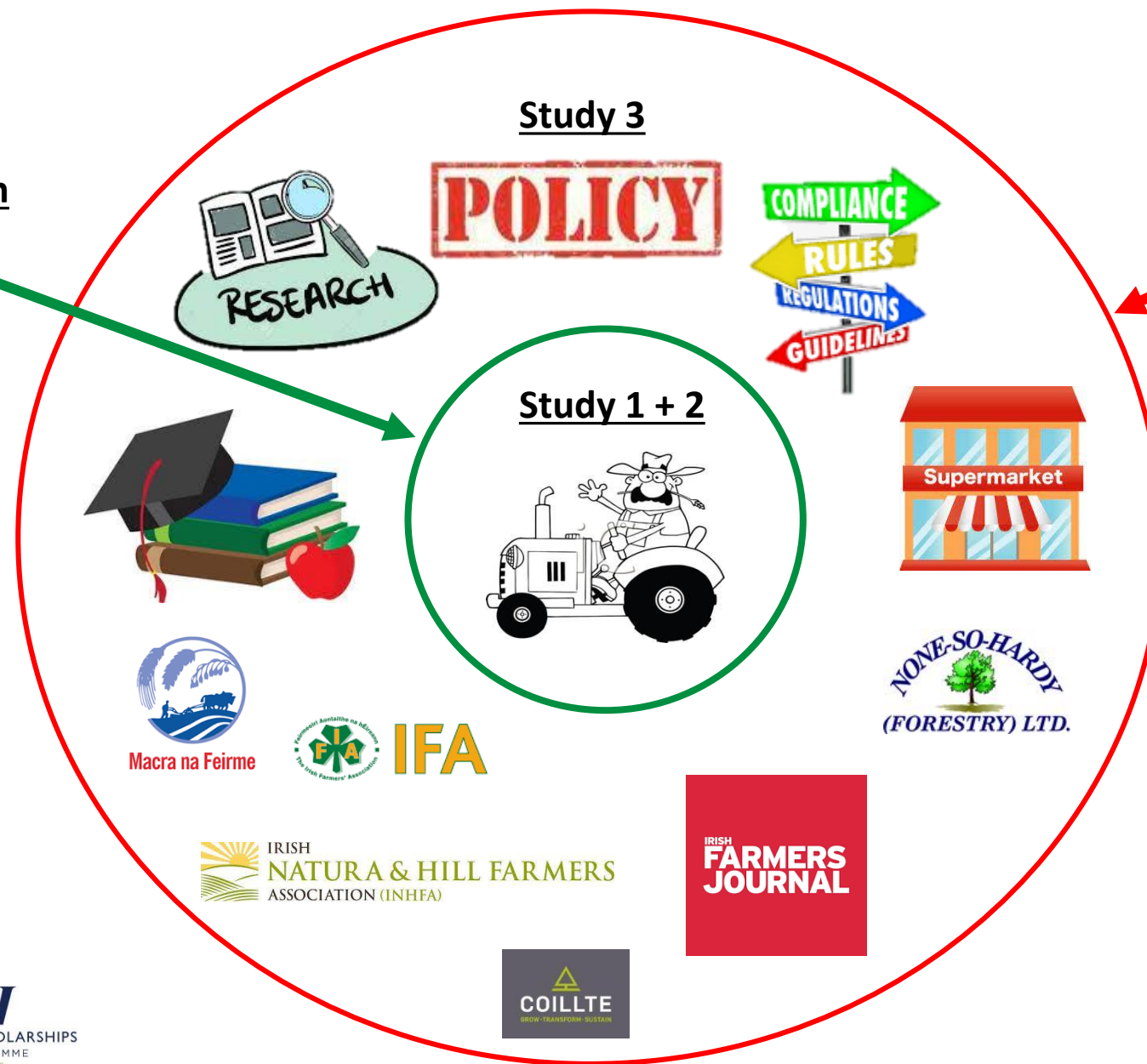
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# Future Research

Farmer focused approach

Wider sector approach





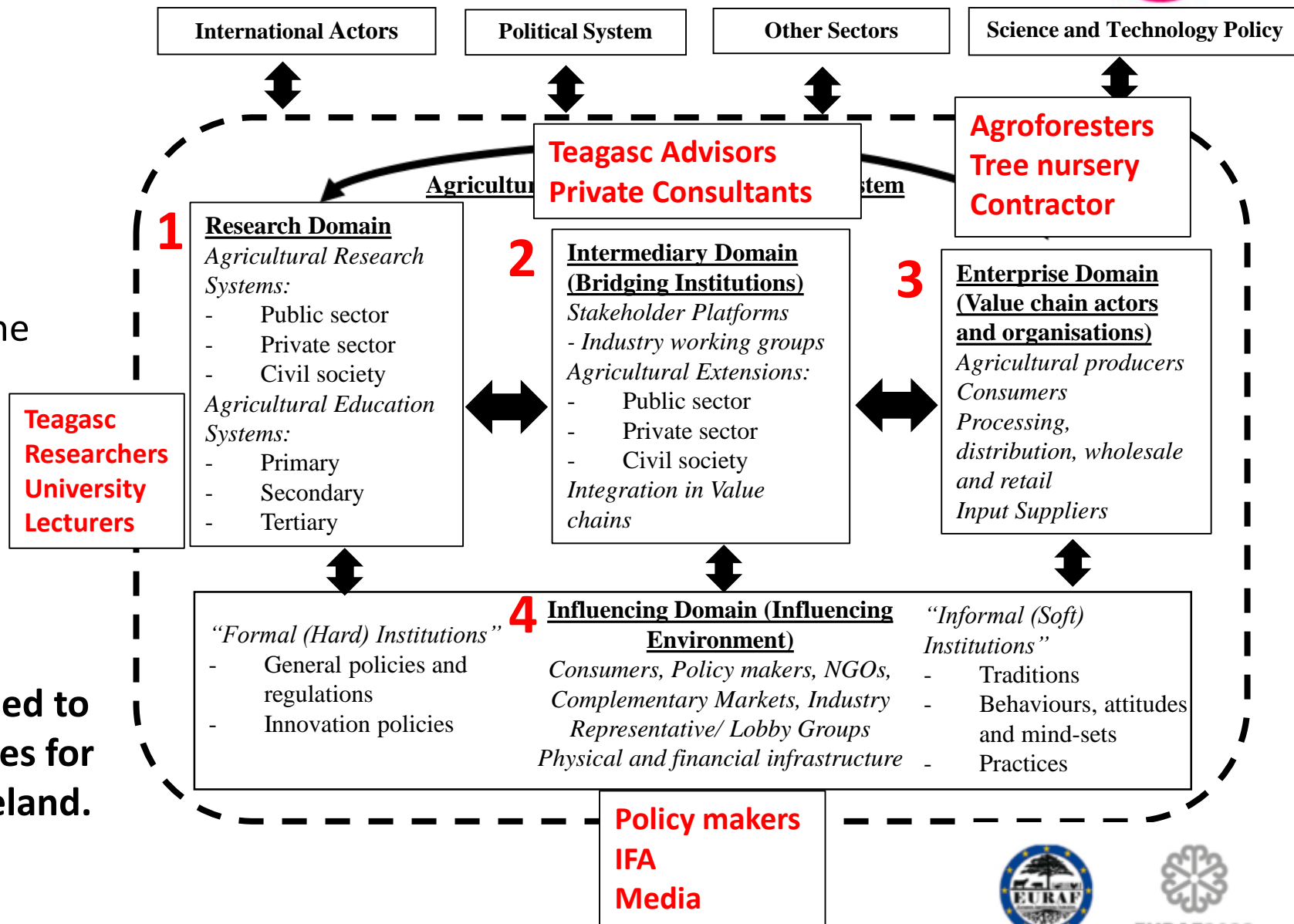
# Future Research



## Innovation System Approach

- Wider sector approach
- Failures within the innovation system = blocking mechanisms
- Qualitative analysis: interviews with key actors within each of the four domains:
  - Research Domain
  - Intermediary Domain
  - Enterprise Domain
  - Influencing Domain

Results of the research will be used to inform policy and create guidelines for increasing agroforestry within Ireland.





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## Agroforestry in Society and Culture



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