



Social Sustainability Metrics in the NFS

Emma Dillon

Agricultural Economics & Farm Surveys
Rural Economy & Development Programme

Sustainable Food Systems

- A Sustainable Food System
 - is profitable throughout (economic sustainability)
 - has broad-based benefits for society (social sustainability) &
 - has a positive or neutral impact on the natural environment (environmental sustainability).



An evolving policy landscape

- Holistic nature of sustainability
 - Increasingly evident in policy
- Widening focus of the CAP
 - Overlapping dimensions
 - Broad ranging societal challenges
 - Changing evaluation needs
 - New metrics required



From FADN to FSDN

- Traditional focus of the EU Farm Accountancy Data Network
 - Physical & Structural Data
 - Economic & Financial Data
- National Farm Survey – a broader remit
 - Indicator evolution
 - Challenging to measure social sustainability
 - Can be subjective and sometimes sensitive



How to measure social sustainability?

- **Social sustainability is a measure of human welfare**

Specifying and managing both positive and negative impacts of systems, processes, organisations, and activities on people and social life (Balaman, 2018).

- Both internal and external dimensions (Brennan et al., 2020).
- **Internal** - issues such as wellbeing, both physical and psychological, demographic viability, education, working conditions for the farmer, families and employees.
- **External** - community oriented issues, relating to the values, concerns and demands of wider rural society e.g. animal health and welfare, generational renewal and rural viability.



Social dimensions



Health and Wellbeing



Connectivity



Social engagement



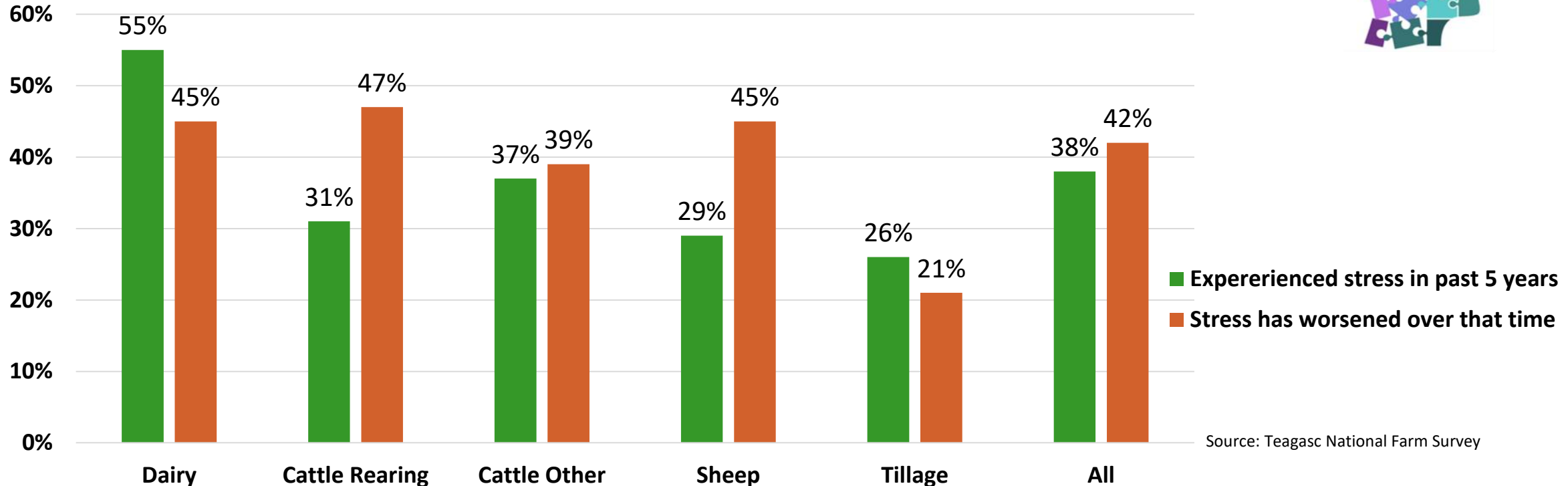
Farm labour

Special Focus - Social Sustainability 2021



- **Health and wellbeing**

Farm business related stress 2021



Source: Teagasc National Farm Survey

- **38% of farmers reported stress** relating to their farm business in the past 5 years
 - More than half of Dairy farmers. Approx. 1/4 to 1/3 across other systems
 - Significant **deterioration over time** across livestock systems
- However, comparable data from 2018 indicated a much higher incidence of stress
 - Drivers were weather, workload and finance in a particularly challenging year

Special Focus - Social Sustainability 2021



- Health and wellbeing

Self-reported farmer health, by system 2021				
%	Poor	Fair	Good	Very Good
Dairy	0	11	55	34
Cattle Rearing	6	21	41	33
Cattle Other	1	23	51	25
Sheep	1	30	37	33
Tillage	0	8	50	42
All	2	20	47	31

Source: Teagasc National Farm Survey

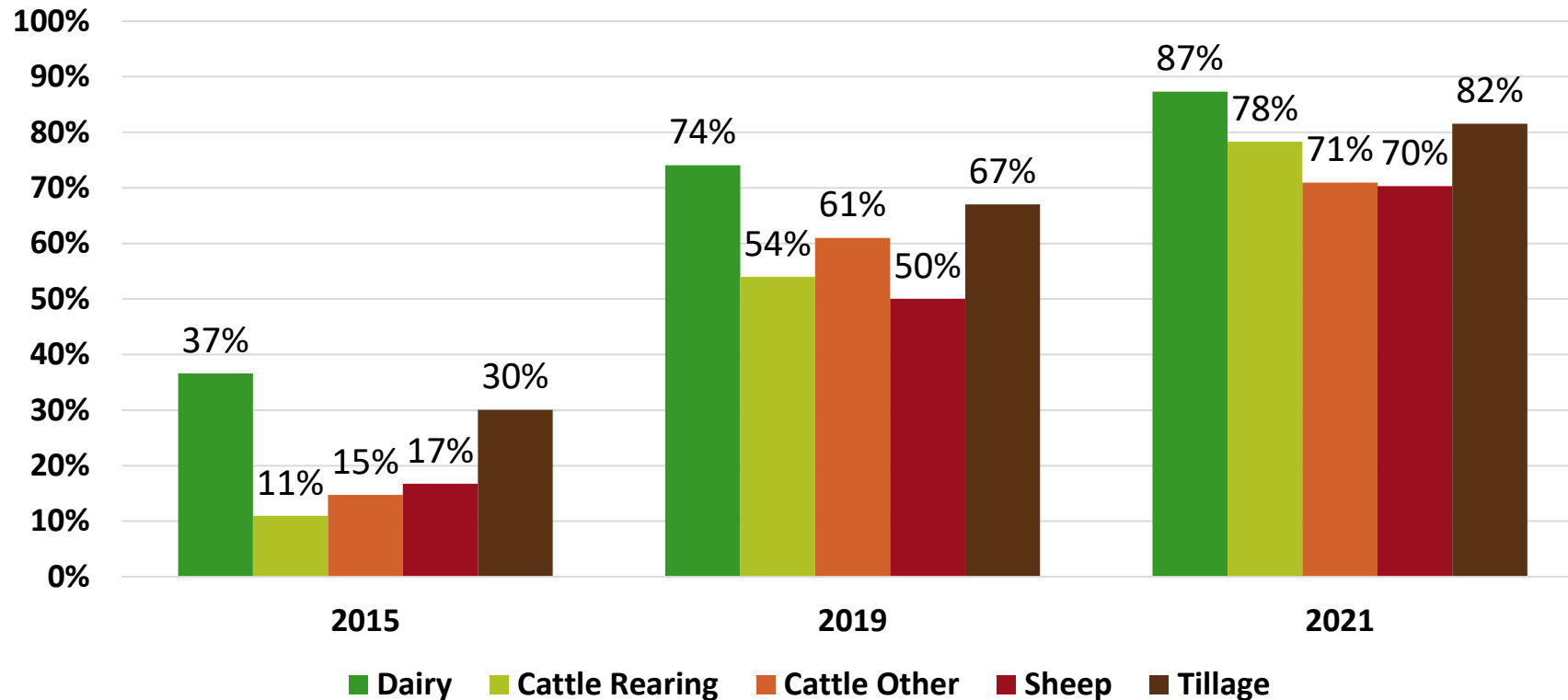
- **78% of farmers themselves report good or very good health**
 - Highest amongst Tillage farmers, lowest amongst Sheep farmers
- **Between about 1/4 and 1/3 of Drystock farmers report poor or fair health**
 - compared with about 1/10 of Dairy and Tillage farmers
- **Of those reporting poor or fair health, almost half have no replacement labour**
 - Sheep farmers were least likely to have an identified replacement

Special Focus - Social Sustainability 2021



- **Connectivity**

Smartphone usage amongst farmers



- **Dramatic increase in smartphone usage amongst farmers**
 - Going from 20% across systems in 2015 to 76% in 2021
 - Above 70% across all systems, highest amongst Dairy and Tillage farmers

Special Focus - Social Sustainability 2021



- Connectivity

Internet access across farm households

%	2011	2019	2021
Dairy	84	95	97
Cattle Rearing	66	68	88
Cattle Other	67	80	83
Sheep	66	78	85
Tillage	94	90	92
All	76	80	88

Source: Teagasc National Farm Survey

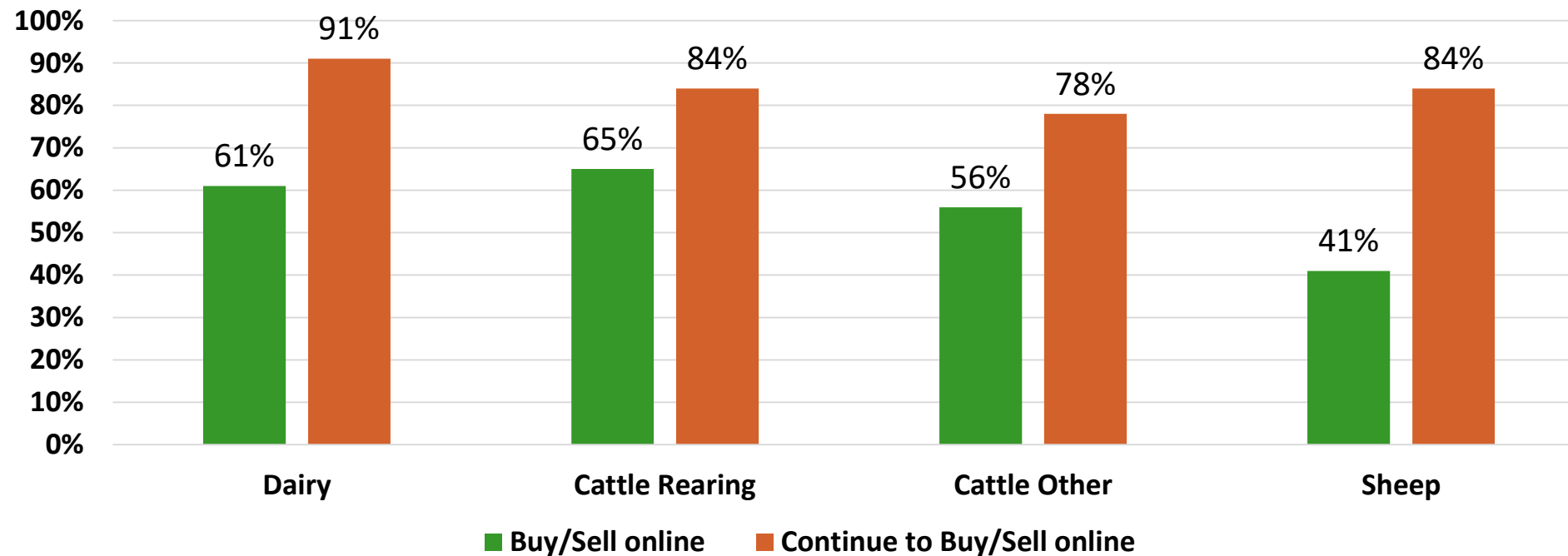
- Steady increase in internet access/utilisation amongst farm households since 2011
 - Almost universal amongst Dairy farms in 2021
 - Increase evident since Covid-19 pandemic
 - Dairy farmers more likely to use ICT for farm business
- Quality - 57% report good/very good, broadly similar across systems
 - 28% report average quality, with 15% poor/very poor

Special Focus - Social Sustainability 2021



- **Connectivity**

Use of online livestock marts



Source: Teagasc National Farm Survey

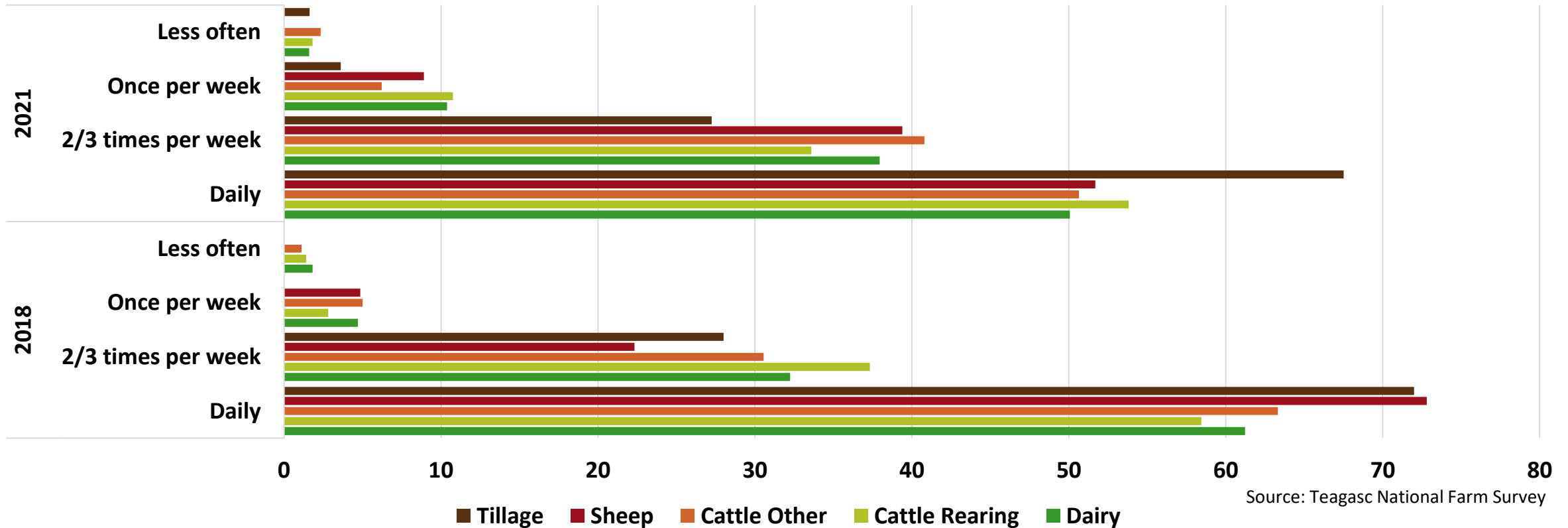
- **Behavioural change evident around livestock mart participation**
 - 2/3 of farmers watched marts online during the pandemic
 - Over half bought/sold in this way (across all systems)
 - 83% of those plan to continue doing so
 - Sheep farmers least engaged in buying/selling online

Special Focus - Social Sustainability 2021



- **Social engagement**

Frequency of farmer social contact outside of household, % by farm system 2018 & 2021



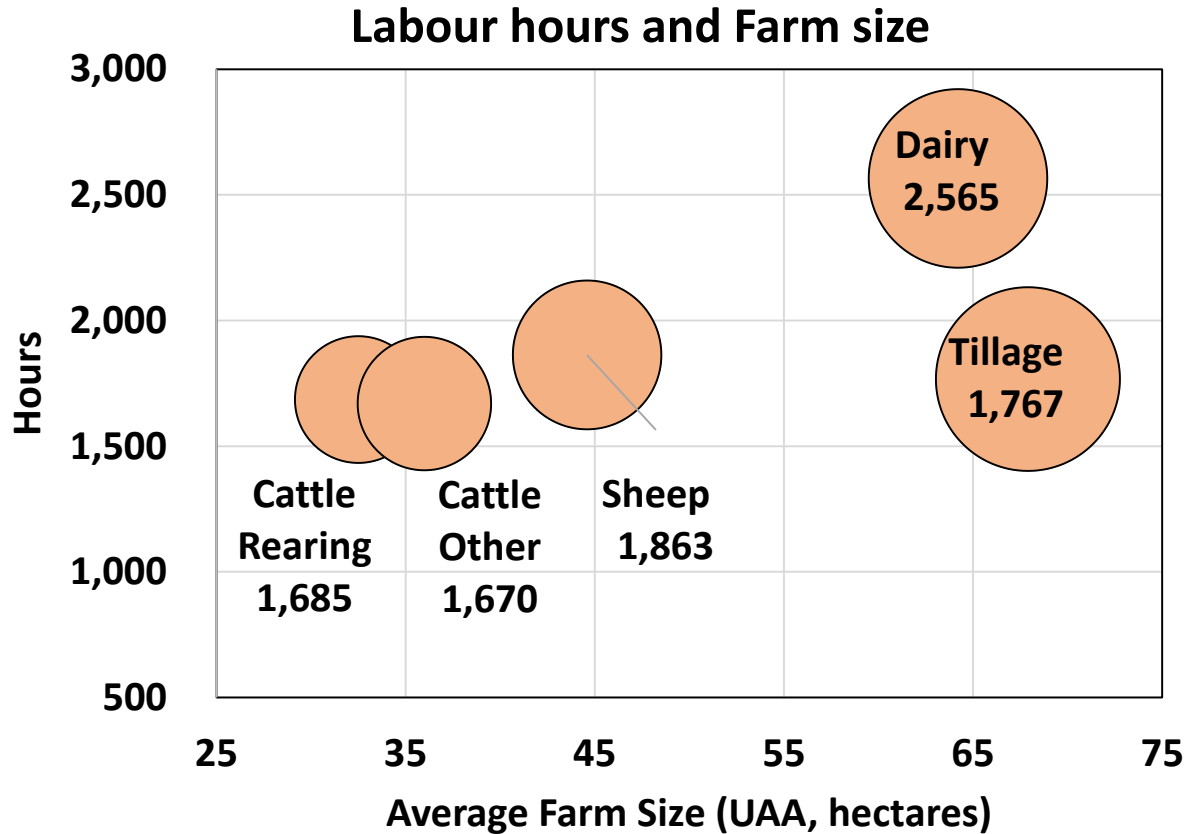
- **Impact of Covid-19 evident in terms of daily contact across systems**

- Daily contact by Sheep farmers went from 73% to 52% from 2018 to 2021
- Dairy and Cattle Other down about 10 percentage points to 50% also
- Subsequent increase in the proportion of farmers with less social contact

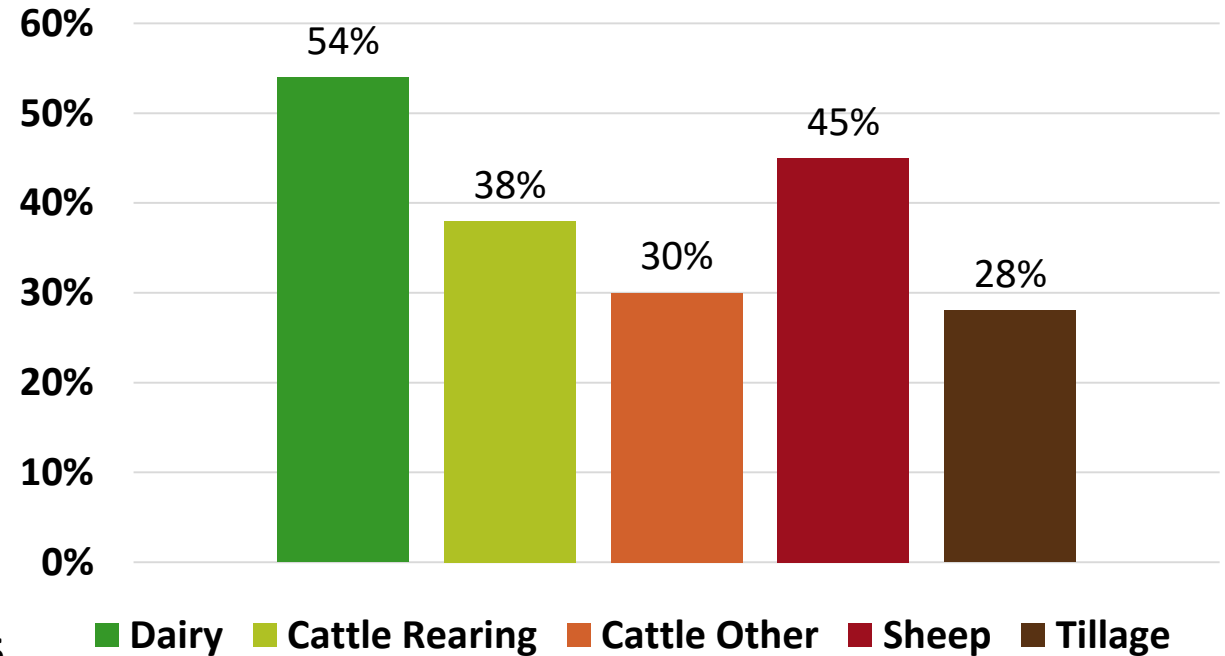
Special Focus - Social Sustainability 2021



- **Farm Labour**



Proportion of farms with female labour input



Source: Teagasc National Farm Survey

Source: Teagasc National Farm Survey

- **Larger labour requirement on Dairy farms** reflected in total annual hours worked on-farm
- **Dairy and Sheep farms** have a relatively higher proportion of female labour input

Indicator development in the NFS



Demographics
Education
Workload
Isolation
Farm Safety
Connectivity (ICT)
Succession
Stress
Wellbeing/Quality of Life*

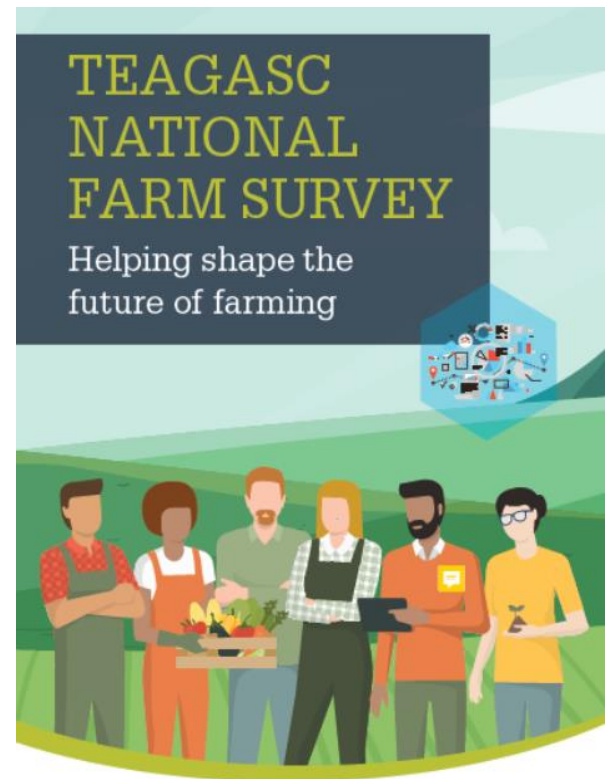
Health & Welfare*
Antibiotic use**
Farm Facilities*



Rural viability/access to services
Small Farms Survey
Biodiversity*

** Work in progress ** not currently collected*

Thank You



References

- Balaman, S.Y. (2018). *Decision-Making for Biomass-Based Production Chains: The Basic Concepts and Methodologies*. Academic Press.
- Brennan, M., Hennessy, T. and Dillon, E. (2020). Towards a better measurement of the social sustainability of Irish agriculture. *International Journal of Sustainable Development* 23.3-4.
- Brennan, M., Hennessy, T., Meredith, D. and Dillon, E. (2022). Weather, workload and money: Determining and evaluating sources of stress for farmers in Ireland. *Journal of Agromedicine*, 27(2).
- Brennan, M., Hennessy, T. and Dillon, E.J. (2021). Embedding animal welfare in sustainability assessment: an indicator approach. *Irish Journal of Agricultural and Food Research*, 60(1).

