



**Macra na Feirme**

**Benefits and opportunities in science and  
technology for young farmers**

**Submitted to:  
The Joint Committee on Agriculture, Food and the Marine**

**May 2018**

### Introduction:

Chairman, TD's and Senators, good afternoon, Macra na Feirme welcomes the opportunity to represent the views of young trained farmers on this discussion around the possible benefits and opportunities science and technology could bring for young farmers. My name is James Healy, National President and I'm joined by Derrie Dillon, Macra na Feirme's Agricultural Affairs Manager.

Throughout history, the agricultural sector has always benefitted from advancements in technology, particularly the application of what would be considered disruptive technology. For example the switch from horse-power to steam power, and then on to the internal combustion engine. Agricultural productivity jumped significantly after World War two, with the availability of internal combustion powered tractors and chemical fertilisers. The rate of scientific and technological in recent years and increased exponentially and it has the potential address some of the biggest challenges facing agriculture.

Labour has become a major issue impacting on the dairy sector but technology can help address some of these issues. For example Robot Milking Machines allow greater flexibility, enhanced efficiency and a better work life balance. Automatic calf feeders can also be used to reduce the labour required on-farm. An added advantage of both of these is that they will provide real-time data to the farmer, identify animals that may have issues even before it is visible to the farmer. Preventative measures can be taken, reducing the use of antibiotics and in turn reducing the risk of antimicrobial resistance. Recent research conducted concluded that monitoring animal health and well-being using sensors has the potential to increase herd survival and milk yields by 10%.

### The opportunities and potential of Precision Agriculture:

Precision agriculture has the potential to reduce the environmental and climactic impact of farming while also decreasing costs for farmers. The tillage sector has been the quickest to adopt the advantages of precision agriculture. New tillage machinery allows for optimal planting rates, application rates for treatments and the real-time measurement of yields. GPS-controlled smart tractors have the potential to reduce soil erosion and could save fuel costs by 10%. Sensors can be use to target application of fertilizer to the exact plant requirement in comparison to blanket spreading fertilizer, resulting in low input costs.

Drone mapping of crops has the potential to view crops from an altitude of up to 10,000 feet with the ability of zooming to within two inches of the plants on the ground. The ultimate aim of precision technology is to allow for plant by plant treatment, whether it is fertiliser or sprays resulting in huge decreases in the amounts used. However, the uptake of precision technology has been poor across other sectors and supports must be put in place to encourage the use as it will have a major impact in addressing the environmental and climactic issues being laid at the feet of Agriculture.

#### Attracting Young people:

Farming has suffered from a reputation of being an industry that requires long hours for below average financial return. Whether it is farmers themselves or those in the education system, there have been very few who have encouraged young people to consider agriculture as a career. The use of technology has the potential to allow those in farming a work-life balance much closer to that available in other careers. Also, the use of precision farming will allow farmers to reduce costs and increase yields, thus providing increased profits, making farming a more attractive prospective career.

There are huge opportunities across all sectors and to attract young people we must be positive about these. We must sell the modern reality of farming, the reality that involves, soil management, animal health management and also the added business nature of farming, making farming a career like any other offering opportunities to continually advance and grow.

#### Young Farmers Schemes:

Macra na Feirme believes there is a need across Europe for legislative action to allow the Rural Development Programme to facilitate the establishment of national programmes aimed at facilitating land mobility/succession planning services. Funding provided to establish similar services to the land mobility service in Ireland, aimed at facilitating generational renewal, should be a key priority at EU level.

We believe a new focus on farm succession is required. To create a positive view around farm succession, that supports older generations, Macra na Feirme proposes the following plan:

- Upon reaching 63, it becomes mandatory for a farmer to complete a farm succession plan
- At the age of 65 farmers avail of a transition payment up to the age of 70
- If a farmer wishes to continue to receive CAP supports beyond the age of 70, such a farmer would need to get involved in a collaborative arrangement

#### Additional Issues:

Support for knowledge, innovation and technology will be crucial to future-proofing the Common Agricultural Policy. Schemes which are aimed at enhancing economic, social or environmental performance must be linked to the advisory services which will be providing knowledge, advice and skills to farmers. Agriculture is becoming more reliant on precision farming technology and access to high speed broadband being available in rural areas for the day to day running of a farm is crucial. Therefore, its crucial access to stable high speed broadband is available in rural areas across the EU to facilitate the increase in e-farming. Broadband is a key obstacle in achieving our goals, and farmers / rural areas are falling behind their urban neighbors in relation to connectivity and modern technologies, a phenomenon called the digital divide. Bridging the digital divide is one of the most fundamental challenges facing agriculture and rural areas today. Currently, it's like possessing the most advanced tractor money can buy and not having the diesel to fuel it. We call for increased urgency in the rollout of the rural broadband scheme, and for further research in to the alternative ways of providing high speed broadband to rural Ireland. This scheme is now as critical to the development of this country as the rural electrification scheme was to that generationd

The adoption of new technology and management systems by Irish farmers has traditionally been low. Therefore, there is a growing need for an increased emphasis to be placed on education and extension services to help increase the skills and knowledge base of farmers and food producers. This increase in knowledge obtained by advisors will ensure farmers will fully capture the benefits that digital communication and technologies can provide. In our Macra na Feirme CAP post 2020 member survey, a staggering 79% believed grant aid for precision farming technology should be included in the rural development programme.

Macra na Feirme welcomes the award winning 'Milkflex' loan scheme which is designed to provide Irish dairy farmers with an innovative funding product. This loan scheme includes on farm technological improvement such as milking robots, monitoring equipment etc. Macra na Feirme call for similar loan schemes for young farmers to be made available as financial instruments under the RDP.

Macra na Feirme also firmly believes there is a need for schemes under the Rural Development Programme to further target Knowledge Transfer (KT) and CPD, particularly in the areas of risk management. The co-financed nature of the Rural Development Programme allows Member States the ability to focus programmes to the requirements of their country and needs to be continued in the future. Macra na Feirme proposes a voucher system be introduced, to allow every farmer the option to avail of specific knowledge transfer event tailored to their needs. Currently from an Irish perspective, a €100 million budget is dedicated to the knowledge transfer scheme. Macra na Feirme's proposal will allow all 139,100 Irish farm owners be provided with a €718 voucher to be used for a course/KT event of their choice. This would allow all Irish farmers access to a knowledge transfer measure compared to the mere 20,000 farmers currently benefiting.

Precision technology in agriculture has the potential to radically change the landscape of farming as we know it and it must be encouraged through all possible avenues. We thank you again for the opportunity to address the committee and are happy to answer any questions you may have.