



**ENABLING AGTECH TO PLAY ITS FULL PART
IN IRELAND'S AGRICULTURE AND FARMING SUSTAINABILITY**

**LOBBYING SESSION – TUESDAY 12TH DECEMBER 2023
BUSWELL'S HOTEL, MOLESWORTH STREET, DUBLIN 2**



AgTech Ireland – Who are we?

AgTech Ireland is a not-for-profit industry representative group funded and led by members. We are governed by an Executive Council and have appointed Catherine Lascurettes as COO to drive our programme of action.



Catherine Lascurettes
COO

Agri-policy Consultant & Exec at Nuffield Ireland

Our Executive Council



Padraig Hennessy
Chairperson

CEO of Terra NutriTECH
Animal nutrition



David Leydon
Secretary

Head of Food & AgriBusiness at ifac
Professional Services



Lloyd Pearson
Treasurer

MD of Pearson Milking
Technology
Dairy technology



Deirdre O'Shea
Council Member

Food, Agribusiness & Beverage Leader at AON
Professional Services



James Greevy
Council Member

Head of Product at Herdwatch
Farm Management App



Ursula Kelly
Council Member

Managing Director of Cormac Tagging
Animal Identification



William Minchin
Council Member

CEO of Agricultural Trust
Agri Media



Sean Smith
Council Member

Commercial Director at Micron Agritech
Animal Health Start-up

Our members are companies from every sector of agricultural technology and innovation, from infrastructure, hardware, digital and data management tools, machinery, automation, biotechnology, veterinary and phytosanitary products and supplements, information monitoring and data analysis. Our members include Irish and international companies, startups and established businesses alike.

Our mission is to promote, support and enhance Ireland's agtech community, by connecting our members into a supportive ecosystem to create a network of agtech leaders in Ireland. We advocate and lobby for the sector, promote collaboration across industry, research and government departments and agencies. We help shape and communicate agtech in the context of sustainable agriculture. We aim to be the single point of contact for government, media, trade missions and research for our industry. We take good corporate governance extremely seriously and are fully registered with the Register of Lobbying.

What is agtech?

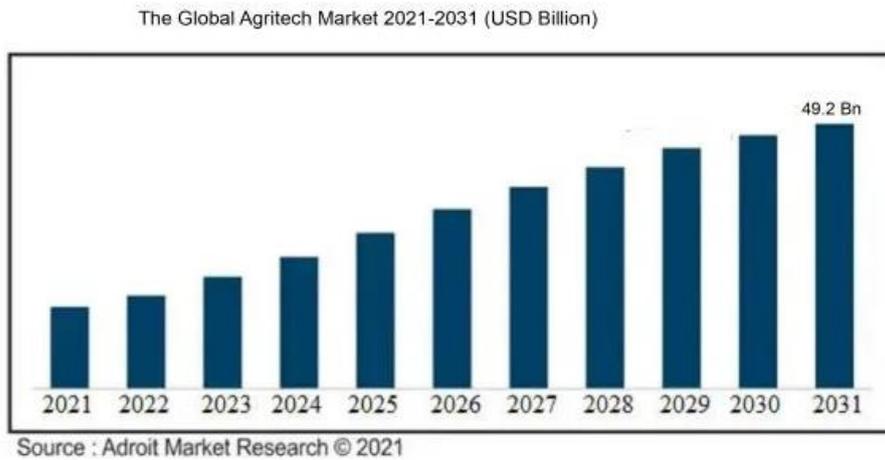
Agtech, short for agricultural technology, refers to the use of technology and innovation to enhance various aspects of agriculture. It encompasses a wide range of technologies, including precision farming, sensors, robotics, data analytics, artificial intelligence, and biotechnology. Agtech aims to improve efficiency, sustainability, and productivity in agriculture, addressing key challenges such as food security, resource management, and environmental sustainability.

The value of agtech

The global value of agtech has been variously estimated at around USD20-25bn, with expectations of spectacular growth, more than doubling by 2030 to USD 49-50bn.



At USD 24.4 billion in 2023, the size of the global agritech market is projected to grow at a compound annual growth rate (CAGR) of 12.33% to reach USD 49.2 billion by 2031



In Ireland, 2020 data gathered by Enterprise Ireland from 80 client companies shows 84% of established companies and 16% of startups. Irish agtech sales amount to around €1.1bn, of which 60% are generated through export. The sector is estimated to employ just short of 3000, with a strong rural economy footprint: 87% of the companies are based outside Dublin.

Agtech: evolving solutions

Technological advances in farming have enabled a growing human population to feed and clothe itself. They have evolved constantly to respond to new challenges.

Increased Productivity: Agtech solutions can significantly enhance agricultural productivity by optimizing resource use, improving crop yields, and reducing waste. This contributes to economic growth, food security and sustainability.

Resource Efficiency: Precision farming technologies enable farmers to optimise resource use, while reducing fertilizer and pesticide use. This reduces environmental impact and aligns with sustainable agricultural practices.

Data-Driven Decision Making: Agtech relies on data analytics to provide insights into crop performance, weather patterns, and market trends. This enables better decision making at farm level, more effective compliance with agricultural regulations, policies and support systems.

Rural Development: Investing in Agtech can stimulate economic development in rural areas. Farmers with access to advanced technologies are empowered to modernise practices, increase income, and contribute to the rural economy.



Climate and Environmental Resilience: Agtech plays a crucial role in building climate-resilient, low environmental footprint agriculture. Technologies that monitor and predict weather patterns, reduce nutrient loss, coupled with crop varieties developed to withstand changing climate conditions, help to reduce agriculture's environmental impact.

Innovation and Competitiveness: Supporting Agtech encourages innovation within the agriculture sector, making it more competitive on a global scale. This is essential for Ireland's ambition as global leader in sustainable food production.

Job Creation: Agtech creates job opportunities in technology, research, and related fields. It can help make farms safer and more appealing work places with better work/life balance which attract a diversified and skilled workforce.

Global Leadership: By investing in Agtech, a country can enhance its trade relationships and contribute to addressing the global challenge of feeding a growing population sustainably.

Agtech provides solutions for agriculture sustainability

The role of agtech is specifically recognised in [Food Vision 2030 Mission 4 \(An innovative, competitive and resilient agri-food sector, driven by technology and talent\)](#); but it also enables action relevant to all the other Missions in Food Vision 2030.

Here are a few examples.

Agtech solutions can help **reduce methane emissions** through slurry or feed additives, the latter delivered through grazing-system friendly, slow-release boluses, through the application of genetic and genomic selection, and through hardware-based technologies enabling capture and neutralisation of methane (for example, the [Cargill ZELP "cow masks"](#)).

Reducing nutrient losses to water and reducing air pollution can also be substantially assisted by agtech solutions, such as Low Emissions Slurry Spreading systems, the use of protected urea, precision application of fertiliser using GPS driven machinery, and soil sampling and analysis.

Farm information monitoring and data analysis software such as those provided by homegrown [Herdwatch](#) in Tipperary, are probably farmers' most widely adopted form of agtech. They enable farmers to measure every aspect of the farm's performance through a smartphone app, analyse the information to reduce inputs, monitor and optimise animal, plant and soil health, meet regulatory obligations on animal or crop records, secure traceability and improve labour efficiency.

Automation is also playing a huge role in improving the social as well as economic sustainability of the farm. Automated structures like drafting gates, automated milking parlour such as manufactured by [DairyMaster](#) in Kerry or [Pearson Milking Technology](#) in Athy, and milking and feeding robots sold by [Lely](#) and others, can improve labour efficiency and help cope with labour shortages, also making the farm a safer, and more attractive workplace.



To **reduce AMR and reliance on anthelmintics, improve animal health, thrive and welfare**, agtech companies can already provide rapid testing kits for pathogens e.g. [Micron Agritech](#) in Dublin; others provide infection prediction tools that enable selective treatment to only the sick animals e.g. [Cotter Agritech](#) in Limerick. Others still supply mineral, probiotic or other feed/water supplements and additives, like [TERRA NutriTECH](#) in Athy, or [Precision Microbes](#) in Co. Dublin.

Agtech research and development companies like [Germinal](#) are bringing to market **more climate resilient, less fertiliser dependent** multispecies swards and forage crop seeds.

Biotech companies which develop new seeds and plant material also support **greater diversification and improvement in the profitability and sustainability of fruit, vegetable and other horticulture productions**, including organics production, not only in coherence with Food Vision 2030, but also with the [National Strategy for Horticulture 2023-27](#). A good example here would be [Beotanics](#) in Kilkenny.

Enabling agtech to support Ireland’s agricultural sustainability

Given engagement by government departments and agencies, integration with research institutes and universities, and with the right type of policy supports and financial access, agtech can help achieve Ireland’s climate and environmental obligations to 2030, 2050, and beyond.

Agtech companies will play a crucial part in speeding and scaling on-farm adoption of better farm practices and technologies to enable Irish agriculture to reduce its GHG emissions by 25% by 2030, reach net zero by 2050. They will also help farmers reduce their use of fertiliser, pesticides, antimicrobials and anthelmintics, improve nutrient management to improve water quality, and reverse biodiversity loss.

A recent report by [KPMG titled “Driving innovation and adding value through agri-tech”](#) makes a number of recommendations for the Irish agtech sector as it concerns not only farming, but also food processing.

The following are AgTech Ireland’s own recommendations, to enable agtech to deliver its full potential for Irish agriculture and the Irish economy,:

- **Our most pressing request relates to the current VAT refund debacle on certain types of on-farm investment. Government must ensure farmers continue to be supported in making structural investment critical for sustainability improvements**
 - While no amendment has been made to the relevant legislation (SI 201 of 2012), a significantly different approach has in recent times been taken by Revenue regarding the VAT 58 refund claims by non-VAT registered farmers. This has meant that some equipment, such as bulk milk tanks and other critical on-farm fixtures, which were previously deemed eligible, have been rejected for VAT refunds.
 - As the TAMS grant is based on the price of equipment net of VAT, the inability of farmers to claim VAT on those items increases substantially the cost of investments



essential to improving the sustainability of their farms, throwing farmers' financial planning.

- Those combined cost implications are resulting in mounting order cancellations by farmers to agricultural equipment, machinery and other agtech manufacturing and installation companies.
- Cancelling or delaying investments to replace energy inefficient and potentially higher emission equipment is retrograde from an Irish agricultural sustainability policy perspective.
- From an agtech economic and employment perspective, this is putting pressure on rural jobs as order cancellations for certain equipments mount up.
- This new interpretation of long-standing rules by Revenue runs counter government policy on agriculture, and it will cost rural jobs.
- **Revenue must promptly return to its previous approach to approvals.**
- **Improving operational efficiency of the new TAMS rollout.**
 - A new CAP understandably creates operational challenges for DAFM, but it is crucial that delays in rolling out tranches and approving on-farm investments be minimised as they can result in serious cash flow issues for agtech companies.
 - Speed of decision is also important to ensure investments can be made/structures erected at the optimal time in the farming calendar.
- **Developing a pathway for inclusion of agtech innovations in TAMS, ACRES and other CAP Schemes.**
 - Innovations can be difficult to include in schemes which rely on pre-determined lists of eligible items.
 - A pathway must be developed, in collaboration with the agtech sector, which allows for ongoing review of the TAMS and other schemes' eligibility considerations for new, but proven and validated solutions shown to meet the objectives of the scheme.
- **Considering other types of incentive schemes to encourage on-farm adoption of tech which helps reduce emissions**
 - For example, through the use of feed or slurry additives.
- **Developing agreed validation protocols with state agencies and other institutions**
 - For agtech innovators, having their product or service validated by recognised authorities trusted by farmers is critical to commercial success, which in turn is critical to wider adoption of sustainability enhancing new technologies.
 - While some agtech companies have been able to work in this space with universities, organisations like Teagasc is where validation needs to come from to secure farmers' trust.
 - To build trust between agtech operators and Teagasc, protocols need to be developed in collaboration between the two for validation of product and services.
- **Taxation of R&D investment by agtech operators**



- In coherence with Food Vision 2030, the tax treatment of investment by agtech companies in research and development for products and services which can support sustainability goals at farm level must be reviewed and optimised.
- **Including marginal agricultural sectors in support policies and schemes**
 - Because of their prevalence in Irish agriculture and export values, livestock sectors, especially beef, dairy and sheep, understandably dominate the focus of policy.
 - Agtech products and services directed to more marginal sectors -for example fruit and vegetable growing, ornamental horticulture, poultry and others - which are sectors vital to the diversification aims of both Food Vision 2030 and the National Horticultural Strategy, must be included in supportive policies and schemes.
- **Creating mechanisms, including incentives, to allow the leveraging of agrifood and farming data to underpin Ireland's food sustainability credentials**
 - Sustainability metrics currently in use fall short, especially in the climate space – measuring progress requires a base line, and actual measurement as opposed to proxy averages or “representative” base lines. It is critical to progress rapidly a genuine assessment of individual carbon storage bases, from which improvements can be made and measured, including through the use of technology.
 - A great deal of on-farm production, animal/plant health and other sustainability data is being collected, through ICBF, the DAFM databases, Bord Bia and more – but legitimate concerns around ownership and data privacy protection have restricted the full use of this data. By bringing together all stakeholders, it is important to find mechanisms to guarantee privacy and ownership security while optimising aggregation and interoperability of the data, to enable leveraging the proof points this would enable our agriculture to credibly claim.
- **Accessing venture capital/start up finance/other financial and business supports**
 - Investors and venture capital funds often have insufficient understanding of the relatively slow dynamic of tech adoption in agriculture, and can be impatient on returns and less supportive than agtech startups require.
 - ISIF and EI involvement is critical in educating investors and supporting startups and established companies optimise their impact on Irish agricultural sustainability, but also their economic value to the economy, especially when it comes to accessing global markets and increasing export revenue.

Conclusion

To help deliver the mandated 25% cut in greenhouse gas emissions the agricultural sector must achieve by 2030, farmers, many of whom have already made significant progress, must continue to adopt at speed and at scale both new farming practices and new technologies.



A vibrant, well supported Irish agtech sector will be instrumental in this: it offers a pathway to address pressing agricultural challenges, promote sustainability, boost economic growth, and position a country as a leader in the global agricultural landscape.

CL/AgTech Ireland – 11th December 2023