



Submission by AgTech Ireland Draft Sixth Nitrates Action Programme (2026–2029)

1. Introduction

AgTech Ireland's main mission is to represent the agricultural technology innovators who support farmers and the food chain in their resource efficiency, their environmental performance, their regulatory compliance and their labour and social sustainability.

We work to link the companies that develop and commercialise on-farm efficiency, environmental and digital transformation solutions across the agriculture and food ecosystem with government decision makers, state agencies, research institutions and the public.

We nurture the ecosystem through information and networking events, but also through informed and pertinent lobbying on important policy issues.

This is why, in recognition of the central importance of the NAP in protecting water quality and meeting Ireland's obligations under the Nitrates Directive and the Water Framework Directive, we value the opportunity to contribute to the public consultation on the draft Sixth Nitrates Action Programme (NAP).

This submission highlights:

1. the essential role agricultural technology (agtech) can play in enabling farmers to meet the objectives of the Sixth NAP,
2. the need for targeted financial, taxation and other supports to ensure farmers can adopt the technologies required, and
3. recommendations to ensure the NAP is implemented in a manner that is fair, feasible and future-proofed.

AgTech Ireland strongly supports the overall aims of the NAP and believes that technology-enabled nutrient management and water-protection systems will be indispensable to achieving national water-quality targets while maintaining the social licence for a higher stocking density under a prolonged Nitrates Derogation.

2. General Comments on the Draft Sixth NAP

It is crucial that the Sixth NAP adopts an evidence-based approach, including the strong foundation provided by the EPA's reporting, the Agricultural Catchments Programme, and the Water Action Plan's emphasis on spatially targeted measures. The combination of strengthened regulation, expanded advisory support (ASSAP), and enhanced scientific research must reflect an integrated approach.

Accurate measurement, timely decision-making, and improved tracking of nutrient flows are key. These functions cannot be delivered at scale without the strategic deployment of agricultural technologies. From digital nutrient balances to slurry management tools, from precision spreading equipment to water-quality monitoring, agtech solutions now form the backbone of modern compliance and environmental protection.

AgTech Ireland welcomes the recognition of non-regulatory measures in the NAP, including targeted advisory programmes and the Farming for Water EIP, which can be significantly strengthened through the integration of appropriate technologies.

3. The Role of AgTech in Achieving NAP Objectives

3.1 Digital Nutrient Management and the Farm Nutrient Balance (“Know Your Number”)

The proposed requirement for nutrient balance assessment, to be effective and accessible, must ensure farmers are provided with tools that can automatically calculate nutrient imports, exports, surpluses and balances, drawing from multiple datasets including the National Fertiliser Database, AgNav, slurry movements and on-farm applications.

Agtech platforms allow for:

- seamless integration of multiple data sources;
- automated and accurate nutrient balance calculations;
- real-time decision supports for nutrient application;
- digital record-keeping that facilitates compliance.

These tools significantly reduce the administrative burden on farmers and advisers while improving nutrient-use efficiency and reducing the environmental risk of over-application.

3.2 Slurry and Soiled Water Management Technologies

The Sixth NAP proposes increased slurry storage requirements and strengthened measures to reduce nutrient run-off. Advanced technologies can support compliance with these requirements, including:

- slurry-storage level sensors ensuring tanks do not overflow during closed periods;
- weather-linked spreading scheduling tools;
- low-emission slurry spreading (LESS) technologies
- slurry nutrient-analysis technologies enabling precision application.

Such innovations reduce nutrient losses, improve nitrogen-use efficiency, and lower the reliance on chemical fertiliser.

3.3 Precision Soil and Crop Monitoring

Accurate soil data is essential for reducing nutrient surpluses. Technology supports this through:

- improved soil analysis methodologies ;
- GPS-enabled soil sampling enabling variable-rate nutrient application;
- satellite and drone-based monitoring of crop nutrient demand and drainage risk;
- field sensors monitoring moisture and run-off conditions in real time.

These tools enable the four R “right nutrient, right place, right time, right rate” principle embedded in the NAP.

3.4 Organic Nutrient Movement and Traceability Tools

The expansion of the organic-nutrient movement database can be significantly strengthened through digital traceability systems. Technologies can:

- record movements in real time and generate logs for regulatory auditing;
- integrate seamlessly with national databases;
- reduce paperwork for farmers and contractors.

3.5 Water-Quality Monitoring and Buffer-Zone Technologies

Sensors, digital mapping tools and portable testing equipment can provide early warning of nutrient losses and help target interventions at field and catchment scale. These tools can greatly enhance ASSAP advisers’ ability to diagnose problems and recommend targeted, site-specific solutions.

3.6 Advisory & Knowledge-Transfer Technologies

Knowledge transfer - whether from peer to peer in discussion groups, open days, formalised courses, conferences, communication through specialised agricultural press - is absolutely crucial in building farmer confidence to optimise the adoption of new farming practices and essential technologies.

The expansion of ASSAP and the Farming for Water EIP offers significant opportunities to integrate decision-support platforms, mobile advisory apps and digital toolkits to scale knowledge transfer around nutrient management and water quality. This will also help maximise the return on public investment in advisory services.

4. Barriers to Technology Adoption

4.1 Financial Barriers

- Many environmental and nutrient-management technologies involve substantial upfront capital investment.
- Ongoing software subscription costs—now essential for nutrient management—create continued financial pressure.
- Smaller, or fragmented farms face disproportionate cost burdens relative to output and income.

4.2 Skills and Training Barriers

- Many farmers require additional support in using digital tools effectively.
- Advisers must also be supported so technologies can be integrated seamlessly into advisory visits.

4.3 Data and Interoperability Barriers

- Lack of standardisation and agreed access protocols between State or State sponsored platforms (AgNav, PastureBase, NFD) and private agtech operators can limit adoption, create duplication of effort, and restrict the ability of agtech developers to deliver necessary innovation.
- Agtech innovators, especially SMEs, need support to integrate with national datasets and ensure compatibility.

5. Recommendations

5.1 Grants for Agri-Environmental Technologies

A dedicated, ring-fenced funding stream within TAMS or equivalent is needed for:

- digital nutrient-management platforms;
- soil and crop sensors;
- slurry storage monitoring tools;
- precision spreading equipment (including LESS technology);
- water-quality monitoring devices;
- integrated digital record-keeping systems required for regulatory compliance.

5.2 VAT Reductions or Refunds for Sustainability Technologies

VAT refunds have been used historically under the provision of VAT58, in recognition of the importance of on-farm investment in certain types of equipment to modernise farms and improve their sustainability. These need to be reviewed and optimised, with reduced VAT rates or VAT-refund mechanisms applied to environmental and nutrient-management technologies, similar to existing supports for solar PV and other environmental goods.

5.3 Tax Credits and Accelerated Capital Allowances

Tax incentives should be used to ease technology adoption, including:

- accelerated capital allowances for environmental and digital tools;
- eligibility of software subscriptions and nutrient-management platforms;
- incentives for early adopters in priority catchments.

5.4 Funding for Standards, Data Integration and Interoperability

AgTech Ireland recommends:

- development of access pathways and necessary consent protocols to enable private agtech innovators to integrate with State sponsored data platforms. This would optimise data efficiency and eliminate the need for labour intensive multiple entries by farmers;

- public investment to support agtech innovators, especially SMEs, through this integration;
- development of open standards for nutrient data and interoperability;
- partnership programmes connecting industry with Teagasc, ASSAP and the Agricultural Catchments Programme.

5.5 Pilot Programmes and Demonstration Farms

Expansion of EIP and catchment-based pilot initiatives will:

- test new technologies in real-farm conditions;
- build farmer confidence;
- generate best-practice case studies;
- validate the environmental impact of technologies on Irish soils and climates.

6. Ensuring Fairness and Feasibility for Farmers

Farmers should not shoulder the entire cost of delivering public-good environmental outcomes. Regulatory ambition must be matched by financial and technical support to ensure:

- high compliance;
- viable farm businesses;
- reduced administrative burden;
- accelerated environmental progress.

Agtech solutions allow farmers to reduce chemical fertiliser use, prevent nutrient losses, protect water quality and improve efficiency—aligning environmental and economic objectives.

7. Conclusion

Technology is central to achieving the ambitions of the Sixth NAP, to optimise nutrient efficiency, water protection and catchment-level environmental improvement. To succeed, the NAP must be matched with targeted financial supports—grants, VAT reforms, tax incentives—and with investment in advisory integration and data interoperability.

AgTech Ireland stands ready to collaborate with Government, advisers, farmer organisations and researchers to ensure that Ireland leads in sustainable, technology-enabled agriculture.

We appreciate the opportunity to provide this submission and are available for further discussion.