



Knowledge Framework

A living, working, active landscape valued by everyone.



Department of
**Agriculture, Environment
and Rural Affairs**

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**INVESTORS
IN PEOPLE**

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1. Introduction

The future success of the Northern Ireland agri-food industry, like any other industry, will be determined largely by the ability of its people to acquire, assimilate and deploy knowledge that equips them to prosper in changing markets and trading conditions and how quickly and efficiently they can do this in comparison with competitors in other regions.

Knowledge is the means by which challenges are overcome and opportunities exploited, and its acquisition is a continuous process and represents on-going investment.

Similarly, the difference between the economic or environmental performance of any two businesses will be determined primarily by the skills, competences, attitudes and behaviours of operators within those businesses.

This Knowledge Framework sets out the rationale for DAERA's involvement in education, training and technology exchange, the nature of its interventions and what the Department seeks to achieve.

This Framework firmly establishes the principle that involvement in education, training and technology exchange provision should be driven by DAERA's policy objectives and strategic goals. Wherever possible, encouraging knowledge and skills will be included within all of DAERA's work.

2. Background

The Department's statutory authority for involvement in education and training comes from the Agriculture Act (Northern Ireland) 1949¹ as amended by the Agriculture (Northern Ireland) Order 2004². Section 5(1) of the 1949 Act states that *"the Department may provide, equip and maintain colleges and other institutions for the purpose of instructing persons in agriculture and related subjects"*³ and Section 5(2) states that *"the Department may a) provide instruction in agriculture and related subjects; (b) arrange for the provision by others of such instruction;"*.

The Department provides a range of full time and part time education as well as industry short courses at the College of Agriculture, Food and Rural Enterprise (CAFRE). CAFRE is responsible for the competence development of those entering and those already working in the agri-food industry through the development and delivery of lifelong learning programmes and knowledge exchange provision.

In 2012 the Department (then Department of Agriculture and Rural Development (DARD)) made a commitment to create and deliver a targeted strategy for education and lifelong learning. The key driver for this was to help the agri-food industry prepare for future market opportunities and economic challenges. This commitment was reaffirmed in the Going for Growth Action Plan in September 2014.

Adaptability is vital to the sustainability and growth of not just agri-food, but any industry. This will be especially true given that the agri-food industry will be faced with great change in the coming decades, operating in a changing trading landscape with tough competition and increasing environmental demands and expectations.

¹ <http://www.legislation.gov.uk/apni/1949/2>

² <http://www.legislation.gov.uk/nisi/2004/3327/contents>

³ "related subjects" includes (in so far as they do not fall within the definition of agriculture)—
(a) the manufacture, processing, packaging, marketing and supply of food; (b) veterinary science and the keeping and care of animals; (c) the use of equipment, technology and business practices in the carrying on of agricultural activities; (d) the protection of the natural rural environment; (e) rural development and enterprise; (f) [forestry within the meaning of the Forestry Act (Northern Ireland) 2010;] (g) fisheries; (h) any science or applied science relating to any of the above; and (i) any other subject appearing to the Department to conduce to a knowledge of the science and practice of agriculture.]

The commitment to develop an Education and Lifelong Learning Strategy has therefore been taken further, to encompass not only education, but also training and technology exchange provision. This document has therefore been categorised as a '**Knowledge Framework**' and will be used by the Department to shape future interventions.

While this Framework focuses on the agri-food industry as its target audience, the subject matter addressed encompasses the full scope of the Department's objectives for agri-food, the environment and wider rural issues. It also establishes principles on how the knowledge needs associated with these objectives will be met.

3. Strategic Policy Context

The Northern Ireland Executive made the economy a top priority in its draft Programme for Government 2016-2021⁴, which states an overall purpose of 'Improving wellbeing for all – by tackling disadvantage, and driving economic growth. This purpose is underpinned by 14 objectives and 42 associated indicators, which include;

- Increase the competitiveness of the economy
- Improve the skills profile of the population

This is supported by the overarching goal of the current Northern Ireland Economic Strategy^{5,6} to improve the economic competitiveness of the Northern Ireland economy. Within that Strategy, the economic vision for 2030 is '*An economy characterised by a sustainable and growing private sector, where a greater number of firms compete in global markets and there is growing employment and prosperity for all*'.

In order to deliver the longer term priority of the Executive, five strategic rebalancing themes have been developed. These themes are:

- **Stimulating innovation, R&D and creativity;**
- **Improving employability and the level, relevance and use of skills;**
- **Competing in the global economy;**
- **Encouraging business growth; and**
- **Developing our economic infrastructure.**

The Strategy recognises agri-food as one of the areas in Northern Ireland which has the greatest potential for growth. It highlights the need to develop a world class education and skills system which is critical for economic growth, and indicates that improving the skills and employability of the entire workforce will allow people to

⁴ <https://www.northernireland.gov.uk/sites/default/files/consultations/newnigov/draft-pfg-framework-2016-21.pdf>

⁵ <https://www.northernireland.gov.uk/topics/work-executive/economic-strategy>

⁶ The Northern Ireland Executive is currently considering a refreshed Economic Strategy

progress up the skills ladder, thereby delivering higher productivity and increased social inclusion.

The draft DAERA 2020 strategic plan is in line with the wider Strategic context, noting the following strategic outcomes;

- **Sustainable agri-food, fisheries, forestry and industrial sectors**
- **A clean, healthy environment, benefiting people, nature and the economy**
- **A thriving rural economy, contributing to prosperity and wellbeing**

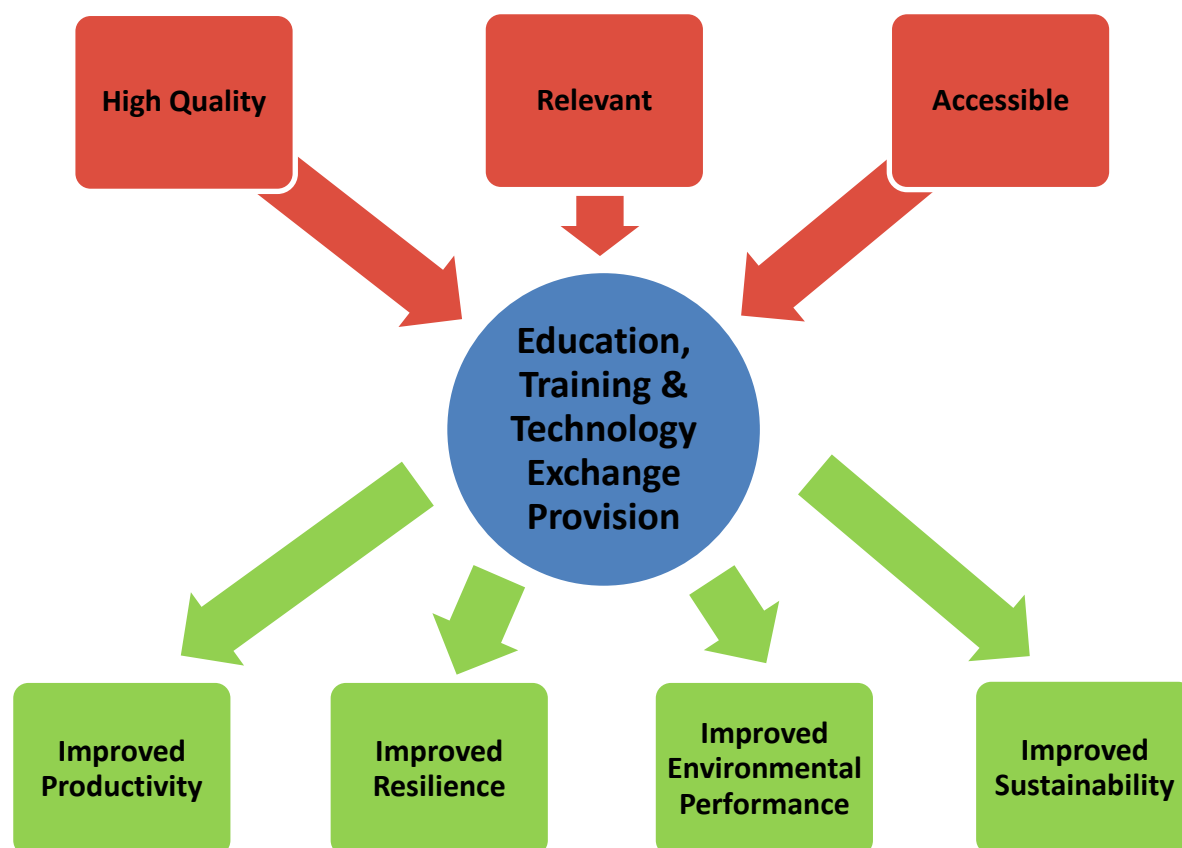
and an underlying outcome in relation to how DAERA operates;

- **A well led, high performing organisation focused on outcomes**

The development of this Framework has been informed by an evidence base, which is published on the DAERA [website](#).

4. Objective

The Framework aims to ensure that individuals, organisations, and businesses within the agri-food industry⁷ have access to **high quality, relevant and accessible education, training and technology exchange provision** to improve **productivity, resilience, environmental performance and sustainability**.



This objective will be achieved by;

- Focussing the Department's investment in knowledge on **delivering its strategic goals**, and ensure knowledge interventions are **directly relevant to the achievement of its policy agenda**.

⁷ i.e. principally those enterprises engaged in agriculture, horticulture and the processing of food and drink into value-added food items

- Investing only where there is **evidence** to **support the rationale** for that intervention. (This may require some re-focussing of existing education programmes).
- Ensuring that there is an appropriate **balance of investment and impact** across the Department's strategic policy interests.
- A presumption that the enhancement of knowledge and skills will be an integral component of any policy intervention. Interventions may include; promotion and marketing (to tackle the lack of value attached to education), incentives (e.g. subsidising the cost of acquiring skills where appropriate, improving accessibility, making education and knowledge a mandatory gateway to entering other programmes) or regulation (e.g. requiring certain minimum skills levels to be achieved by operators).

5. Key Principles

i. Remit

- The primary focus will be on the education, training needs and technology exchange requirements of the agriculture, horticulture and food sectors. Interventions in other land based sectors (such as equine) will be determined and shaped by Departmental strategic priorities.
- The main educational and training needs of the fisheries sector are addressed by Seafish⁸. Training needs of the aquaculture sector are identified and addressed through the Aquaculture Initiative⁹.
- The main educational and training needs for environmental sciences are addressed by Higher and Further Education institutions. Knowledge interventions undertaken by DAERA in relation to the environment will focus on the target groups of land managers and the food processing sector.
- Knowledge interventions in furtherance of the rural affairs agenda will be delivered via the rural champion role i.e. influencing educational policy and delivery in the Departments of Education and Economy.
- Education, training and technology exchange provision delivered by DAERA will contain components, across a range of disciplines, relevant to the efficient, safe, environmentally sustainable and animal welfare compliant conduct of agri-food businesses.

ii. Access to Life Long Learning

- DAERA will seek to encourage continuous life-long learning for its target audiences. Access to training will be designed to be flexible and formal education programmes will, wherever possible, allow progression.

⁸ <http://www.seafish.org/>

⁹ <http://www.aquacultureinitiative.eu/index.html>

- DAERA will maximise the use of channels and methods that meet the particular needs of the target audiences – balancing ease of access, quality of offering, cost of delivery and cost recovery. This includes an obligation to ensure equality of opportunity for all – for example those with dependents and those with particular needs.

iii. Partnership and Collaboration

- DAERA will seek to work with other providers and encourage delivery options that will help the Department achieve its strategic objectives. DAERA will work to avoid duplication of provision and avoid displacement. It will also be open to the possibility of directing training provision which would be undertaken by a suitable delivery agent.
- DAERA will seek to build stronger and closer ties with the local Further Education and Higher Education sectors and stakeholders at a policy level to ensure that there is shared understanding of need and complementary provision.
- DAERA invests significantly in research and development with the aim of improving productivity, sustainability and supporting innovation and this investment can only ever generate a return if its outcomes are communicated through education and lifelong learning and adopted by industry. DAERA will work to ensure that Knowledge Exchange maximises its potential to make a significant positive economic impact on agri-food businesses and on their environmental performance.
- There will be close engagement between CAFRE and the Agri-food and Biosciences Institute (AFBI) in identifying research/evidence needs and communicating these through the DAERA Evidence and Innovation commissioning processes, and in facilitating and encouraging the uptake of research findings by industry.
- CAFRE will ensure that it engages with other relevant research providers and sources of innovation nationally and internationally to capitalise on the

knowledge and opportunities flowing from research. It will also involve researchers in the delivery of innovation whenever relevant.

iv. Quality

- DAERA will protect and further enhance the reputation of its education, training and technology exchange provision.
- DAERA, in conjunction with the Department for the Economy, will work to ensure that education, training and technology exchange provision adhere to educational Quality Assurance (QA) standards.
- DAERA will provide assurances about quality and standards in its education and training through the use of appropriate and relevant inspection methods.
- DAERA will employ the systematic use of benchmarking and reporting data to monitor performance of education, training and technology exchange provision.

v. Affordability

- Provision of knowledge represents a significant investment by DAERA. Therefore, this investment will be targeted so that it delivers the best possible returns in terms of achieving DAERA's strategic objectives.
- Prioritisation of DAERA's allocation of resources for knowledge provision will be informed by its strategic objectives and by evidence of market failure. The main focus of DAERA funding will be the Northern Ireland agri-food sector in terms of enhancing its economic and environmental performance.
- DAERA has no strategic interest in funding education, training and technology exchange provision in response to demands not linked to its policy objectives and strategic goals. Education and training in areas deemed non-core will be subject to regular review to ensure provision is justified, and when sanctioned DAERA will work towards making any such provision cost neutral. New non-

core¹⁰ education and training provision, when justified, will be on the basis of full cost recovery.

- DAERA will seek to avoid crowding out private sector provision through inappropriate cost recovery arrangements and will encourage alternative, high quality provision where applicable.

¹⁰ not linked to DAERA policy objectives and strategic goals

6. Target Groups

Land Managers and Workforce

- i. The agri-food industry is becoming increasingly complex with ongoing technological advances and it needs able, well qualified and versatile people to utilise these advances. The future success of the industry depends on the development of young people with the ability, training and leadership skills to realise the opportunities for the industry to grow.
- ii. Evidence indicates that education is undervalued by those in the agriculture sector, with disengagement from mainstream post-primary education, in particular, by young farm family members who are planning to work on the family farm. However, evidence also shows that managers and workers in agriculture who receive training have higher levels of output than untrained farmers and that family farm income is higher for agriculturally educated workers.
- iii. Managers and workers in the agriculture and horticulture sectors must be equipped with the appropriate business and technical skills to operate a business that can be economically and environmentally sustainable, and meets regulatory requirements. It is recognised that some holdings are operated on the basis of other motivations, such as lifestyle choice, and commercial success is not the primary objective. However all workers should possess at least the basic competences so that they will not present a risk to themselves (health and safety), to consumers (food safety), to the environment (pollution and habitat and species degradation) or to other business (e.g. through the spread of animal or plant diseases).

Food Processing Workforce

- iv. The Northern Ireland food processing industry comprises a diverse range of business operations, from small scale, family owned food production and processing enterprises with a domestic or niche market orientation to larger firms focused on the national retail and food service markets and the exploitation of wider international markets.

- v. The food sector requires a broad spectrum of knowledge to meet its needs, such as food technology, science, engineering, logistics, information technology, marketing and business management. The arguments relating to under-investment and market failure, in terms of knowledge acquisition and deployment, are not as obvious in the food processing sector compared with primary production. Nevertheless, while larger employers can engage individuals with the specific skills that they require or train existing employees to meet business objectives, many food businesses are small and have similar challenges to sole traders operating on family farms.

- vi. From a knowledge perspective, DAERAs interest in the food sector is to ensure that it has adequate access to the necessary sources of knowledge to enable it to meet its needs and capitalise on opportunities. The food sector is part of the manufacturing sector and generic knowledge provision for manufacturing is delivered primarily by the Further Education (FE) and Higher Education (HE) sectors, as well as manufacturers themselves investing in relevant and necessary training. Any investment that DAERA may make in food education at FE or HE level needs to be carefully targeted at meeting clearly identifiable gaps in provision that are not being or likely to be met by other educational establishments. The Department will not duplicate or displace that which is on offer by other providers

- vii. The cost of investment in lifelong learning and operative skills within the food processing sector primarily falls to employers. Where there is evidence of barriers to participation, DAERA will consider if targeted financial supports, or other interventions, are required.

7. Intended Outcomes

By engaging with DAERA under this Knowledge Framework, individuals, organisations, and businesses within the agri-food industry will see improvements in **productivity, resilience, environmental performance** and **sustainability**. DAERA will seek to ensure that:

- i. By 2025, anyone taking over as head of a commercial farm or horticulture business (i.e. one where the farm represents the primary source of income) should have at least a Level 3 relevant qualification (equivalent to National Diploma, Extended Diploma NVQ or Work based Diploma), i.e. the minimum qualification for anyone in a managerial position.
- ii. By 2025, working with other providers, all new manager level appointees in the food processing sector should have at least a Level 5 qualification in a relevant discipline (equivalent to foundation degree or higher national diploma (HND)), i.e. the minimum qualification for anyone in a managerial position.
- iii. There is a general increase in educational attainment and uptake of lifelong learning opportunities for target groups.
- iv. A quality service is provided and independently assessed through relevant assurance bodies.
- v. There is high customer satisfaction across all agreed programmes.
- vi. Education, training and knowledge exchange programmes will continue to be informed by emerging research findings which can be applied in a Northern Ireland context.

8. Monitoring and Evaluation

- i. DAERA's knowledge interventions will be based on evidence to drive sustainable economic and environmental outcomes. To that end, there will be on-going investment in research to inform the direction and delivery of the knowledge agenda (e.g. who and how we educate and the long term impact of the education). This will also be informed by the on-going monitoring of programmes, as well as stakeholder engagement and feedback. It will be subject to periodic review and assessment to gauge need, quality of provision, measure impact, assess value for money and guide any on-going provision.
- ii. The Department will identify and systematically capture information to help inform its interventions. In this respect:
 - It will establish a baseline from which the Department can monitor and evaluate the impact of intervention measures going forward.
 - Instead of recording information of educational attainment at different levels, attainment should be recorded so that there is information available to benchmark and to assist in identifying the long term benefits of the education provided.
 - The Department will track the outcomes of its investment in knowledge, ensuring that resources are directed towards interventions that have tangible and quantifiable outcomes.

9. Review

- i. This DAERA Knowledge Framework will be subject to a policy review commencing in 2024.

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