



# Submission to 2025 Agri-Food Strategy Group

*Irish Cattle Breeding Federation*

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## **1 Background**

In making this submission we have assumed that the realisation of the targets contained in 2025 Agri Food Strategy will be to a large extent dependent on the level of profitability in the both the dairy and beef industry. Our particular focus is on the production sectors and, within that, on genetics, and management information as tools for improving the profitability of milk and meat production.

We firmly believe (and have demonstrated in the past) that the genetic improvement and data management capabilities that are at the industry's disposal through the ICBF infrastructure will play a key role in delivering the targets that are generated through the 2025 Strategy Development process.

## **2 Has Food Harvest 2020 delivered on its vision for the Agri-Food Sector in Ireland?**

### **2.1 Are we on course to deliver on the strategy envisaged in Food Harvest 2020?**

From an ICBF perspective, we believe that the strategy envisaged is well on the way to being delivered in high level numbers. Of course, there are areas that have progressed more than others. The dairy target of a 50% expansion by 2020 is very much on track. The beef expansion has also been significant, driven by global commodity prices.

The challenge is and will continue to be around ensuring that the growth is matched by growth in net margin at farm level – i.e. to ensure that we are not growing output without a corresponding increase of profitability at the primary producer level.

### **2.2 How can the strategy for the Agri-food sector be improved for the next decade?**

The critical element of the strategy for the next decade has to be around sustainability – and sustainability starts around ensuring that there is a sufficient return for the primary producer to keep him/her in business

The targets must not just be focused on revenue growth, but have a focus on margin. To do this, the strategy should set targets around profitability at each of the stages throughout the supply chain, and ensure that Ireland has efficiencies at each stage of the supply chain. To manage this at the primary production stage this requires the ability to measure. ICBF, with its extensive database, has the capability to assist in this regard. Genetics will be one of the key tools to keep all boats rising, and we cannot afford to leave behind any potential benefits that genetics can offer.

From an ICBF perspective, there needs to be continued and increased focus on using the 'perfect storm' of advances in information technology and genetics to drive competitive advantage for the Irish agri-food industry. For example, the dairy cows in 2020 will be producing 60% more milk solids than they did 30 years previously, with the same levels of fertility. This is in spite of sub-optimal breeding programmes for much of that period. The same is possible across beef and sheep, if we organise ourselves properly to take advantage of the technologies available.

### **2.3 Are there emerging market opportunities that should be considered as part of a new strategy for the sector to 2025?**

The area of clean functional foods (natural unprocessed food produced in a grass fed, hormone, non-gmo environment) is still in relative infancy, in terms of its value in dealing with a worldwide obesity crisis. There is an opportunity to position Ireland at the head of this area internationally due to a combination of our predominantly grass-fed, outdoor reared production systems around dairy, beef, and sheep, and reap the market premiums that are available in this area.

The ability to breed animals that will be profitable in this environment is something that we can deliver on. We are already on target to have our dairy cows producing 60% more milk solids in genetic terms, than they did in 1990, with similar levels of fertility. Our work with Animal Health Ireland will help provide the data that farmer need for both management and breeding decisions to breed animals that are more resistant to disease. This will mean less money spent on treating animals, more productive animals, and a very significant marketing advantage backed by science.

### **2.4 What should be the scale of our ambition for the sector?**

From a cattle genetics perspective, we should be looking at generating €300m (cumulative) of genetic gain in our dairy cow population by 2025. In terms of our beef cows, we should be looking to also double our current average genetic merit of females coming into the herd from €50 to €100, generating €120m of cumulative gain to the industry in the process by 2025. Our ambition must be to achieve optimal genetic gain. That will then help drive profit, sustainability, and output within the sector. On the beef side, we are currently achieving no genetic gain. All the gains in increased output are being lost by increasing costs of production. The technology is available for this to change, and the new beef genomics scheme is a key mechanism to kick-start this.

### 3 Sustainability / Climate Change

#### 3.1 How can Ireland build on existing policies and standards to promote more sustainable agriculture, forestry and fisheries and to meet our national, EU and international commitments in these areas? How do we reconcile these actions with the need to optimise food production, economic growth and job creation?

From an ICBF perspective, improved genetics is one of the key mechanisms to deliver sustainable dairy and beef production, by continually delivering more from less. This has been demonstrated on the dairy side, where cows born in 2020 will be producing 60% more milk solids than they did in 1990, with the same inputs (Donagh Berry, Teagasc). In beef production, we can achieve similar results, aided by the new investment in genomics. This strategy is completely consistent with proposals currently being put forward as part of the Beef genomics scheme which has the potential to generate a reduction of 1,500 kilotonnes of CO<sup>2</sup> through breeding efficiencies generated through the scheme.

#### 3.2 In the context of the development of the agri-food sector to 2025, what specific actions should be taken by farmers/fishermen, processors and the State on:

##### Greenhouse gas emissions and sequestration

At all times, we need to ensure that we are breeding the most efficient dairy and beef animals, that are consuming the minimum amount of resources to achieve a given output (e.g. through better feed efficiency, fertility, health, etc). The top 1/3 of farmers also have the lowest carbon emissions per unit of product produced (Teagasc NFS Sustainability indicators, 2013). Thus, ensuring farmers are using the most efficient (profitable) genetics on their farms is the first and most important action that must be taken on. ICBF provides genetic evaluations on all animals that allow this to be measured in detail. The key is to put programmes in place that encourage farmers to use this information. The Beef Genomic Scheme, as mentioned in 3.1 above is already planning an impact of 1,500 kilotonnes reduction in CO<sup>2</sup>.

## **4 Competitiveness & innovation**

### **4.1 What can be done to improve the competitiveness of the agri-food sector over the next decade? Are there examples of best practice from abroad that could be adopted in Ireland?**

At primary producer level, there are a number of key items that need to be focused on in order to improve the competitiveness level.

Firstly, ensuring that our farming systems are efficient and resilient systems (based on measurable criteria, many of which ICBF routinely provide to farmers in conjunction with Teagasc, Coops, etc), which allow us to survive the downturns, and maximise profitability when prices are strong.

Secondly, we need to ensure that we do not expose our reputation for product integrity and reliability to any unnecessary risks by ensuring that we are farming in the most sustainable manner possible, with no compromise on our stated standards.

Thirdly, industry information systems will increasingly provide part of the tactical and strategic management of farming operations in Ireland, allowing farmers to make better decisions and extract better value from commercial products and services being provided. The opportunities for comprehensive industry data collection are expanding as new technologies are adopted on farms. It will be critical that we dovetail the use of systems for regulatory and compliance purposes with on-farm management purposes, reducing duplication, and creating value from data previously viewed as 'bureaucracy'. This is especially true of animal level data such as health recording on-farm, which has the potential to be a powerful tool as we strive to breed more disease resilient animals.

### **4.2 What measures should be adopted at farm level to improve competitiveness?**

The ICBF genetic indexes for dairy and beef animals are 'Profit Based' figures – they take into account both the value of output, and the cost of production. We need to ensure that farmers are working with genetics that give them the best chance of making a profit. For example, the current 'calves per cow per year' in the beef herd is running at 0.79 – thus we are only producing 79 calves for every 100 cows. As a starting point, this makes it very difficult for farmers to be competitive at farm level. This level of fertility also existed in the dairy herd 20 years ago, but due to genetic improvement on the dairy side, this has been significantly improved.

Thus dairy and beef farmers need to ensure that as a starting point they are dealing with the raw material (genetics) that gives them a chance to be competitive.

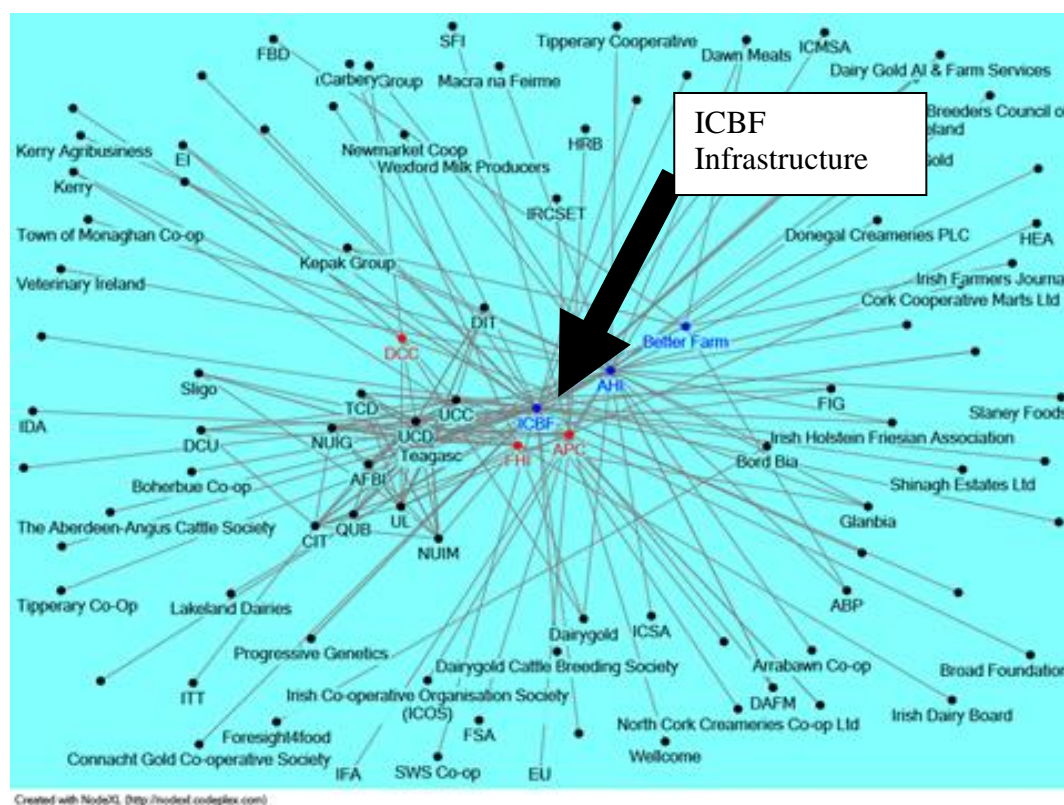
Routinely genotyping animals at farm level will help ensure that producers have the most accurate genetic assessment of their breeding animals and can then accurately select those replacement animals that will make up the next generation, guaranteeing that they will be more profitable (in genetic terms) than the previous generation.

#### 4.3 What emerging / existing technologies might significantly impact on the agri-food sector in the years ahead?

The current explosion in both information technology (Big Data) and DNA based technologies will continue to have a very significant impact on the Agri-food sector. Ireland is very well positioned in this area at the moment with the ICBF and Teagasc leading much of the work in this area, but it will require on-going investment to stay ahead. It will be critical that all our animals are routinely genotyped at birth to ensure that (a) our traceability systems are optimised right through the supply chain and (b) that we are maximising the advantages that improved genetics can provide, again, across the food chain. We need to move to this position as quickly as possible.

#### 4.4 What areas should we prioritise to encourage increased innovation in the agri-food

As mentioned above, the further utilisation of DNA technologies, coupled with an integrated, industry wide information system has huge potential to facilitate innovation in the sector. Realising this potential will require on-going investment, but the network that is already in place is hugely promising. Professor Alan Renwick presented the following graphic (June 2014) as part of his work on Innovation in the Irish Agri-Food Sector, which highlights the ICBF infrastructure as a key part of much of the current innovation.



## 5 Risks

### 5.1 What do you consider the most critical risks facing the Irish agri-food sector and rank in order (1=highest risk, etc)?

- (1) A breach of Bio-security/Product integrity. Ireland's dependence on international markets means it is critical to maintain internationally credible product integrity criteria. Product integrity includes food safety, but also includes the method of production and animal welfare standards.
- (2) Profitability risks. Long term discrepancies between output prices and input costs have the potential to decimate the profitability of both the dairy and beef industries, and really challenge the sustainability of a large number of dairy and beef farmers.
- (3) Animal health. The impact of animal health related issues on both profitability and on the reputation of Irish farming will continue to be significant.
- (4) Financial risks/debt levels. Large scale expansion of herd sizes will increase the debt levels on Irish farms. This will bring increased risk to the operations and will expose farmers to interest rate risk, and to risks around land values. Volatility in international commodity markets will require farmers to draw on increased credit to handle working capital needs.
- (5) Policy and political risks. Regulatory changes, especially in relation to the environment and political upheaval, leading to disruption of markets will remain significant risks to the Irish Agri-Food industry, given our dependence on exports.