



# *Challenges and Opportunities for Irish Beef Production*

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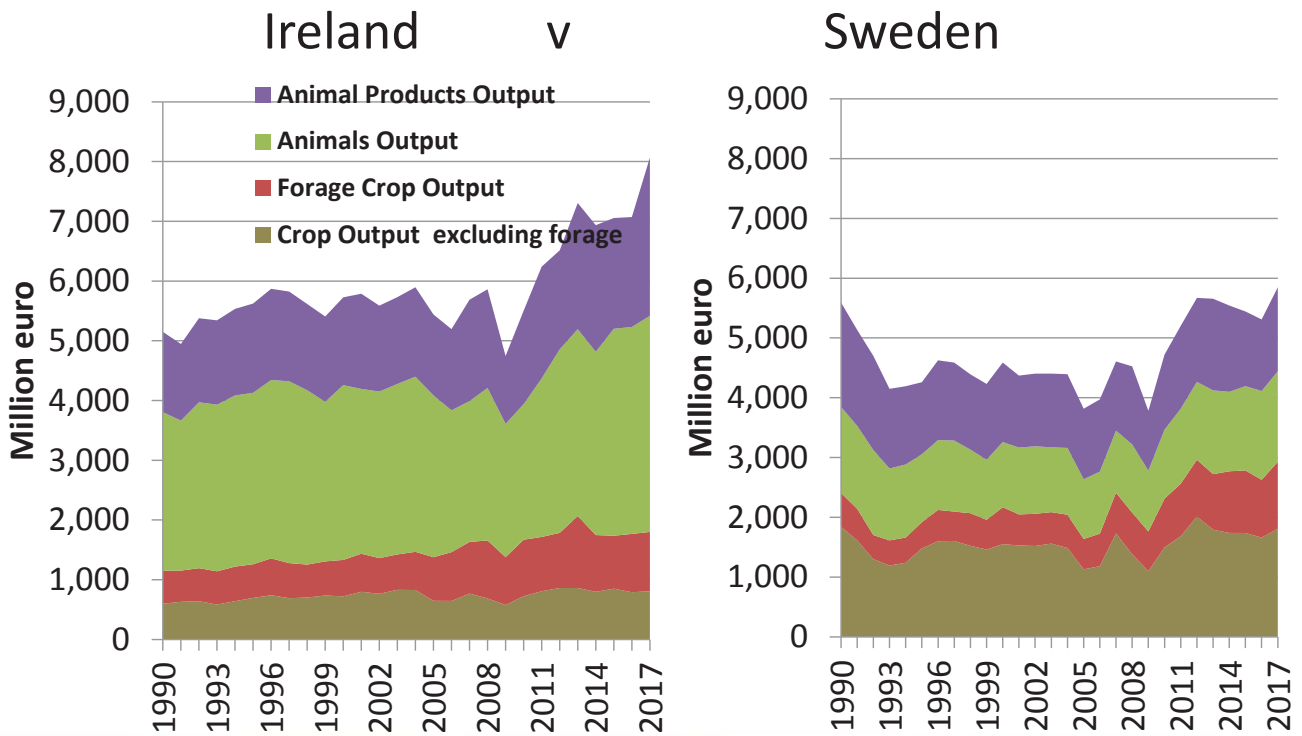


## **Presentation outline**

- **Both countries compared**
- **Irish beef production**
- **National strategies for Agri-food**
- **Promoting sustainable beef**
  - **Two examples: Origin Green and Beef genomics**
- **Ability to respond to crisis**
  - **Fodder shortage and Brexit**
- **Summary**



## Agricultural Output at Basic Prices:



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## Farm Structure Survey 2016

### Ireland

**Total of 137,560 farms**  
**72,960 Specialist cattle-rearing and fattening farm**  
**Average Cattle farm: 26.5 ha**  
**Average Cattle Standard Output/farm: €20k**  
**SO/ha: €744/ha**  
**Decoupled Payments €11,985**  
**Payments share of FNVA 71%**

### Sweden

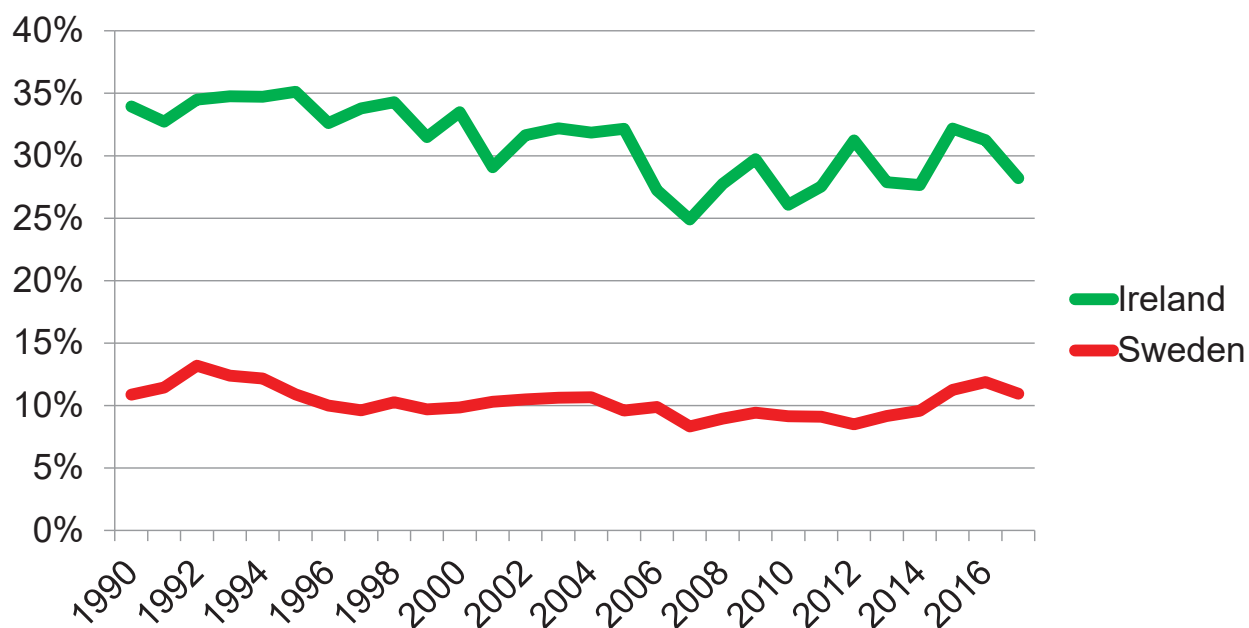
**Total of 62,940 farms**  
**10,330 Specialist cattle-rearing and fattening farm**  
**Average Cattle farm: 56.7 ha**  
**Average Cattle Standard Output/farm €66k**  
**SO/ha €1,169/ha**  
**Decoupled Payments €16,014**  
**Decoupled Payments share of FNVA 57%**



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## Share of **Beef** in Agricultural Output

### Ireland & Sweden



Source: Eurostat Economic Accounts for Agriculture aact\_eaa01



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## Beef production in Ireland

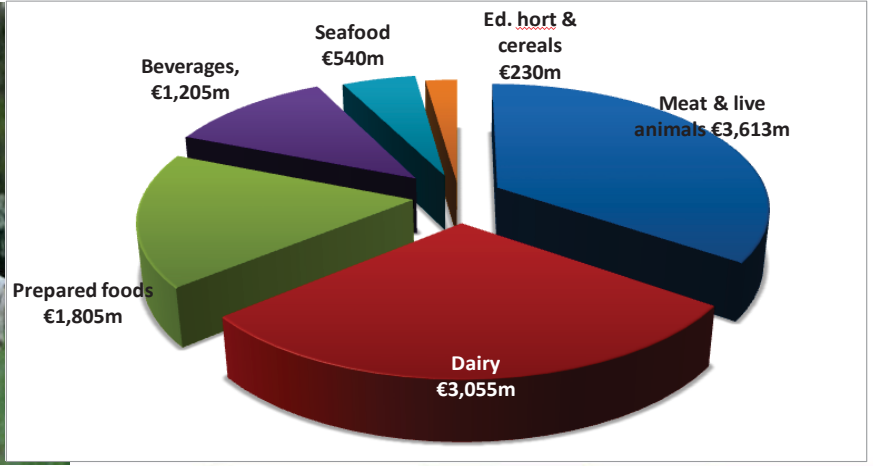


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# Irish agri-food sector

- Ireland is primarily an exporting nation: worth ~ **€12 billion**
- (€4.6 billion to UK: **Brexit!!!!!!**)
  - 90% of beef and dairy products exported



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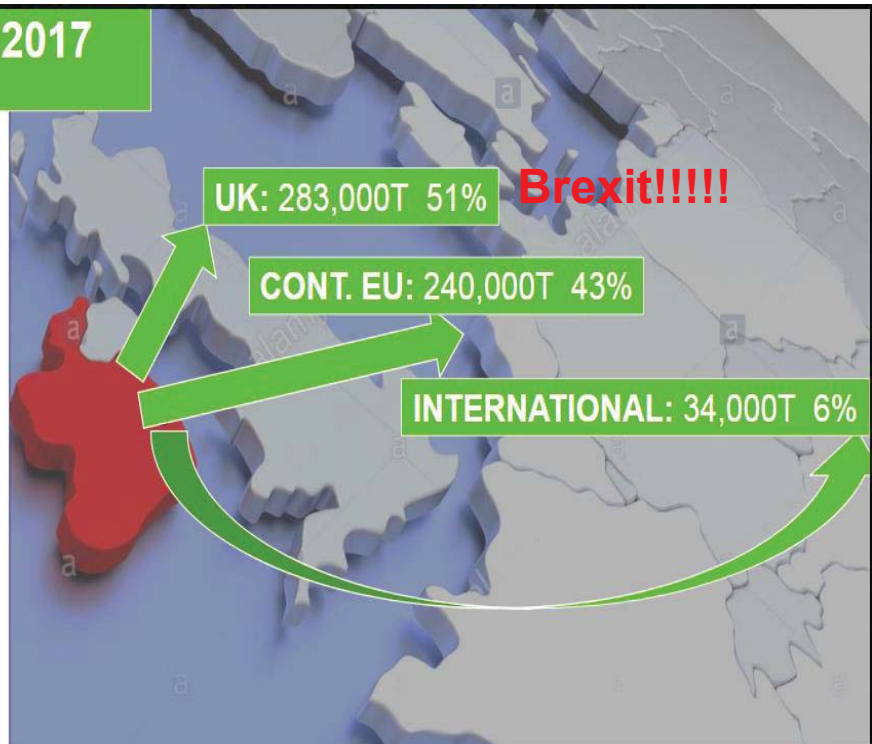
## Irish Beef Exports 2017



2.5 Billion  
+5%



556,000T (cwe)  
+4%

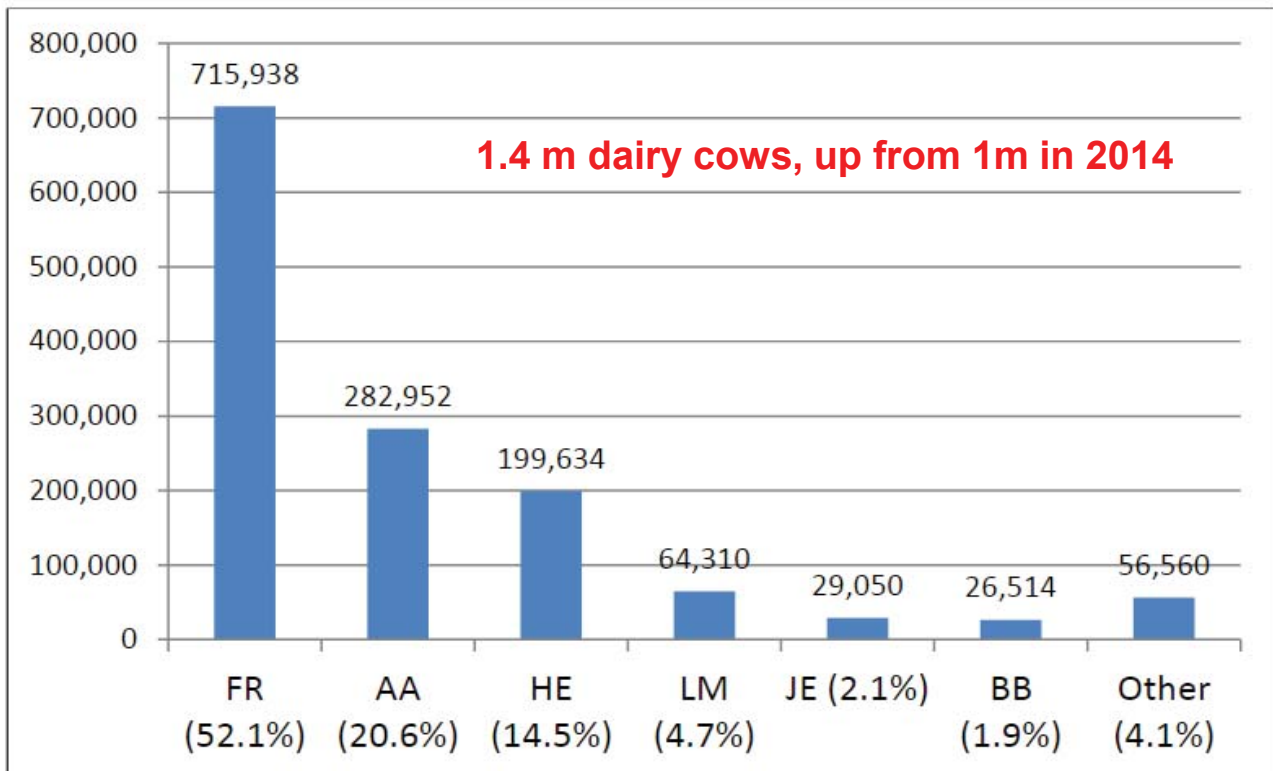


Growing the success of Irish food & horticulture



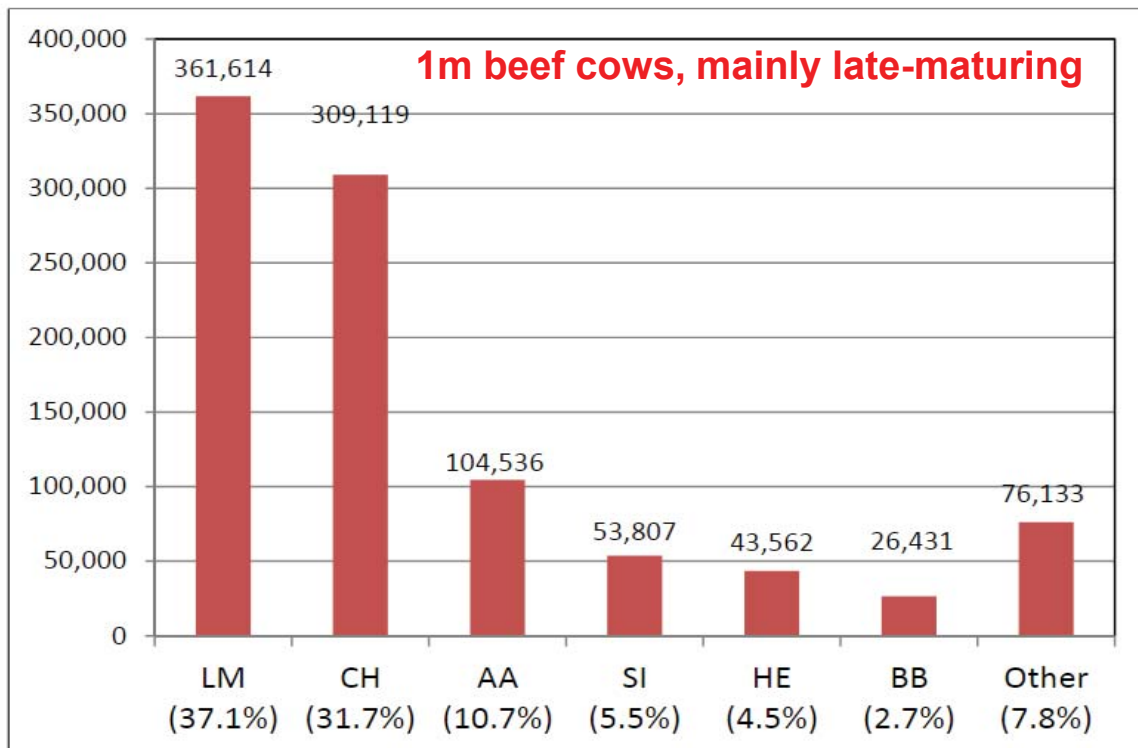
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## Sire Selection for Dairy Dams



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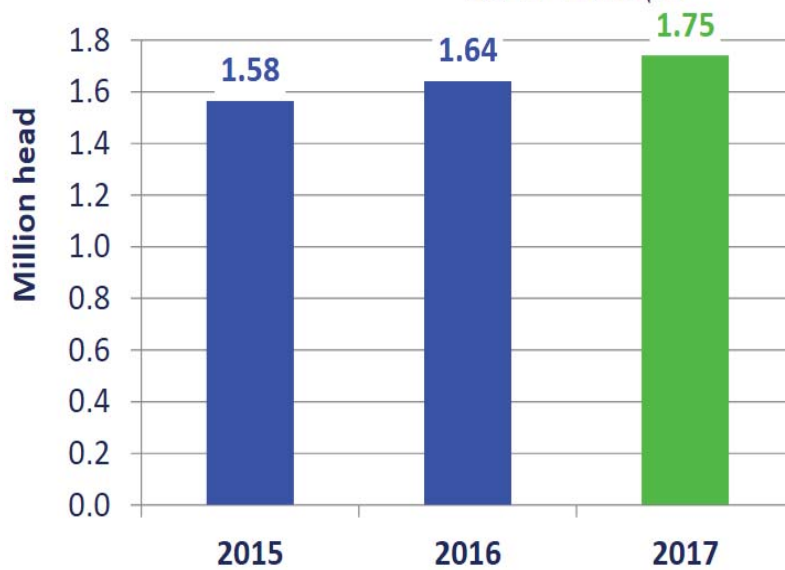
## Sire Selection for Beef Dams



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## Finished Cattle Supplies - Export Meat Plants

2015 - 2018(F)



### Challenges

- **Increasing supply.**
- **Must keep existing markets and find new ones**
- **How?**
- **We must be different!!!**

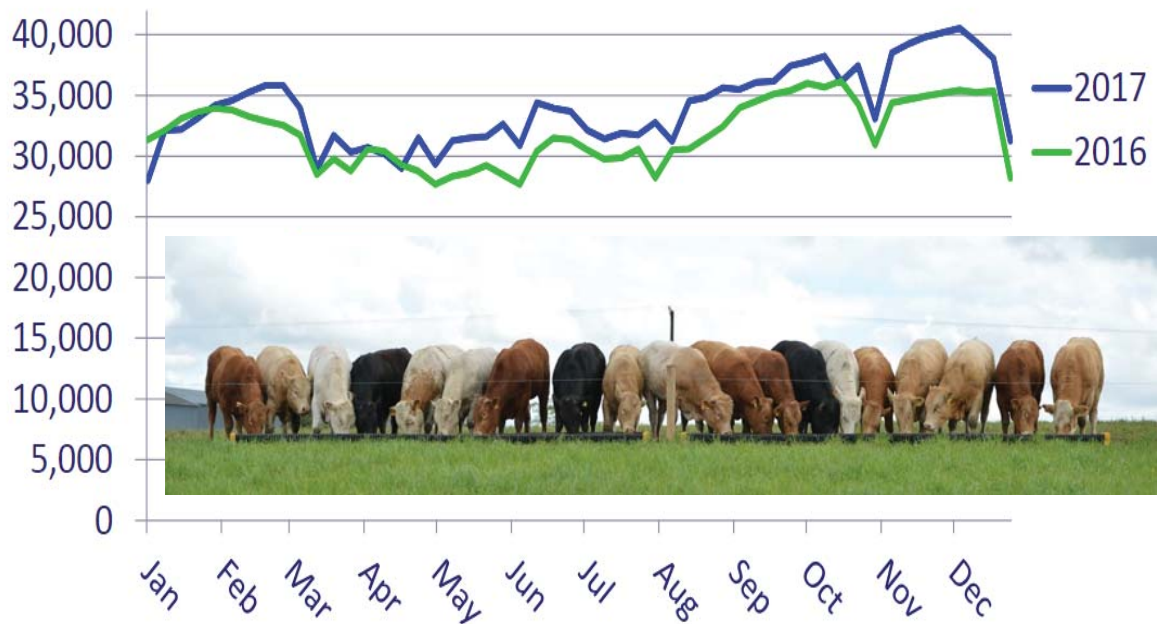
Growing the success of Irish food & horticulture

*Bord Bia*  
Irish Food Board



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## Irish weekly finished cattle supplies (head)



Growing the success of Irish food & horticulture

*Bord Bia*  
Irish Food Board



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# eprofit monitor (breeding herds)

Suckling to Beef farms 2017 – per hectare analysis (620 Farms)

|                           | Top 10% | Top 1/3 | Average | Bottom 1/3 | Bottom 10% |
|---------------------------|---------|---------|---------|------------|------------|
| Farm Size (cattle ha)     | 44.7    | 47.4    | 47.7    | 46.2       | 43.4       |
| Stocking Rate LU/ha       | 2.60    | 2.32    | 1.91    | 1.55       | 1.48       |
| Liveweight Produced kg/LU | 399     | 369     | 321     | 261        | 247        |
| Liveweight Produced kg/ha | 1,038   | 855     | 613     | 405        | 366        |

Financial €/ha

|                         |        |        |        |       |       |
|-------------------------|--------|--------|--------|-------|-------|
| Gross Output Value      | €2,362 | €1,932 | €1,334 | €821  | €678  |
| Variable Costs          | €902   | €821   | €662   | €559  | €663  |
| Gross Margin            | €1,460 | €1,112 | €671   | €262  | €15   |
| Fixed Costs             | €644   | €619   | €526   | €425  | €474  |
| Net Profit excl. Premia | €816   | €493   | €145   | -€163 | -€460 |
| Total Premia *          | €539   | €489   | €486   | €477  | €454  |
| Total Premia Retained * | 251%   | 201%   | 130%   | 66%   | -1%   |

(\* Includes Basic Payment, AEOS, ANC, GLAS, BDGP, & STAP payments)



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# eprofit monitor (non breeding)

Non-Breeding Farms 2017– per hectare analysis (513 Farms)

|                           | Top 10% | Top 1/3 | Average | Bottom 1/3 | Bottom 10% |
|---------------------------|---------|---------|---------|------------|------------|
| Farm Size (cattle ha)     | 37.0    | 36.3    | 36.0    | 31.7       | 27.5       |
| Stocking Rate LU/ha       | 2.45    | 2.22    | 1.78    | 1.36       | 1.36       |
| Liveweight Produced kg/LU | 604     | 494     | 413     | 333        | 324        |
| Liveweight Produced kg/ha | 1,481   | 1097    | 735     | 453        | 441        |
| Financial €/ha            |         |         |         |            |            |
| Gross Output Value        | €3,285  | €2,402  | €1,547  | €848       | €697       |
| Variable Costs            | €1,336  | €1,050  | €777    | €616       | €724       |
| Gross Margin              | €1,949  | €1,352  | €770    | €232       | -€26       |
| Fixed Costs               | €796    | €638    | €534    | €461       | €506       |
| Net Profit excl. Premia   | €1,154  | €714    | €236    | -€229      | -€532      |
| Total Premia *            | €470    | €452    | €460    | €464       | €479       |
| Total Premia Retained *   | 346%    | 258%    | 151%    | 51%        | -11%       |

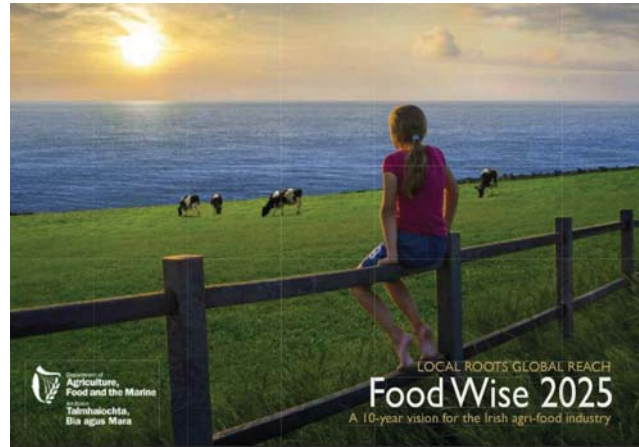
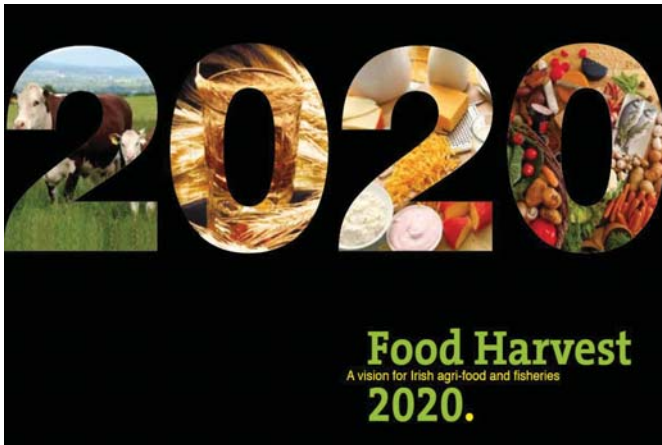
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# National strategies for Agri-Food



- Ireland has a strategy for Agri-food!!!!
- To grow in a more sustainable manner
- Market Irish Beef as being different!!!!!!



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## By 2025 *Food Wise* strategy aims to deliver

- Increased value of agri-food exports by 85% to €19 billion.
- Increasing the value of Primary Production by 65% to almost €10 billion.
- The creation of an additional 23,000 direct jobs in the agri-food sector
- Must be as focused on managing a sustainable natural resources as they are on increasing production.
- Must be more efficient and environmentally sustainable compared to alternative intensive feed systems.
- *Guiding principle is that environmental protection and economic competitiveness are equal and complementary: one will not be achieved at the expense of the other.*



# Promoting sustainable beef

## Example 1. Origin Green

- **Ireland's Sustainable Beef Production Programme**
- **Setting and achieving measurable sustainability targets that respect the environment**
- ***Origin Green is about measuring and improving how we do and its on-going!***

## How does Origin Green work?

- More than 100 farm auditors undertake almost 800 independent farm audits each week.
- Bord Bia's pre-existing (20 years) Quality Assurance infrastructure for over twenty years- focused on traceability, animal health & welfare, and general environmental issues and food safety.
- In 2012 expanded into Sustainable Assurance Schemes, marking the beginning of Origin Green.



## What is measured?



- Fertiliser usage, concentrates fed, timing of slurry spreading, turnout and housing date, diesel usage, all farm inputs.....
- Information gathered is combined with data from two other national livestock databases;
- the [Animal Identification & Movement \(AIM\)](#) and the [Irish Cattle Breeders Federation \(ICBF\)](#).
- Used to generate farm carbon footprint

## Assessment reporting

- Farmer receives feedback report on the farm's performance, with [reassessments every 18 months](#).
- Farmer can make informed [decisions on](#) improving sustainability and also improving efficiency and farm viability.
- To date, >90% of exported Irish Beef from Quality assured Origin Green monitored farms
- Extended to slaughter houses and retailers

# Origin Green for food businesses

- Origin Green Charters for [Manufacturing](#), and [Retail and Foodservice](#).
- The mandatory targets are set to form the basis of a business's 3-5 year sustainability plan.
- The plan is independently verified by international inspection, testing and verification specialists, [Mabbett](#), to ensure the targets are viable and robust.
- Each plan is reviewed annually and monitored for progress against the set targets.

## Who is included from Industry?

- **Membership of the programme is confined to those setting and achieving targets.**
- **The mandatory mix of areas include:**
  - Raw material sourcing (minimum 1 target in this area)
  - Manufacturing processes and operations such as energy, water, waste, emissions, etc., (minimum 3 targets in this area)
- **Social sustainability, including health and nutrition; community initiatives; and employee wellbeing (minimum 2 targets in this area)**
- **At present, over 300 companies with independently verified and annually monitored sustainability plans.**
- **Examples of targets:**
  - Reduce carbon footprint by 30%
  - Zero waste to landfill
  - Reduce water usage by 50%
  - Reduce energy usage by 30%



# Sustainable beef production

## Example 2

# Beef data and genomic programme



## Beef Data and Genomics programme

- Launched in 2015 as part of Ireland/EU Rural Development Program (2014-2020).
- €300m over 6 years.
- 24,000 farmers with 550,000 cows participating in the scheme;
  - =55% of the total suckler beef cow herd.
- **Objective**  
using genetics/genomics to address the decline in key maternal traits within the National suckler herd,  
in doing so improve the profitability and carbon efficiency of National cattle herd.
- 5 requirements
  - Calving data, Herd surveys, Genotyping, Heifer Replacement strategy, Carbon navigator and Training

## Requirement 1 – Calving Details

- Tag and register all calves by 27 days old (existing statutory requirement).
- Record the sire's number or AI code.
- Complete the Calving Ease Survey for each animal beef cow

## Requirement 2 – Surveys

- Required to complete surveys in respect of all cows, calves and stock bulls.
- Complete surveys relating to the calves docility, quality, vitality and health traits.
- Calves must be kept herd for at least five months- earlier data on younger animals will result in inaccurate results.
- Record information on cows including docility, milk score and culling reasons.
- The docility, functionality and culling reasons for bulls to be recorded.

## Requirement 3 – Genotyping

- Tissue tag sample for genomic testing from animals selected
- **Animals to be genotyped selected by ICBF**
- Must have 60% of the reference animals (number of suckler cows calved in 2014) available each year to be genotyped.
- **Animal that died or sold before sampling tags- must contact the Department's Beef Scheme Section or the ICBF substitute animal.**

## Requirement 4 – Replacement Strategy

- **Maintain a high proportion of high genetic animals on farm.**
- **At least one 4 or 5-star genotyped bull on farm from June 30, 2019, can be on Terminal or Replacement Index**
- **Bull must be retained on farm, but if replacement is necessary he must be replaced with a bull of similar genetic merit.**
- **If renting in a bull, DAFM must be notified in writing by June 2016.**
- **Rented bulls must have a 4 or 5-star rating on either the Replacement or Terminal indexes (within or across breeds).**
- **For herds using AI, at least 80% of the AI used must be from 4 and 5-star bulls on either the Terminal or Replacement Index (within or across breeds) by June 30, 2016.**



## Requirement 5 – Carbon Navigator

- Farmers must complete a Carbon Navigator by October 31, 2016.
- Must be carried out in conjunction with an approved advisor.
- Applicants must submit data annually to allow for updating of progress on the farm.

## Requirement 6 – Training

- Farmers must undertake a training course relating to the programme by October 31, 2016.
- Applicants will be paid €166 to cover the costs associated with participation in this training course.

## Significant improvement in key maternal traits

| Trait                             | 2014 | 2015 | 2016 | 2017 |
|-----------------------------------|------|------|------|------|
| Calves/cow/year.                  | 0.80 | 0.84 | 0.85 | 0.87 |
| % heifers calved at 22-26 months. | 17.2 | 19.2 | 21.2 | 25.8 |
| Calving interval (days).          | 407  | 399  | 391  | 393  |
| % calving's with recorded sire.   | 78.3 | 80.7 | 92.8 | 89.2 |

## An increase in genetic trend for replacement index

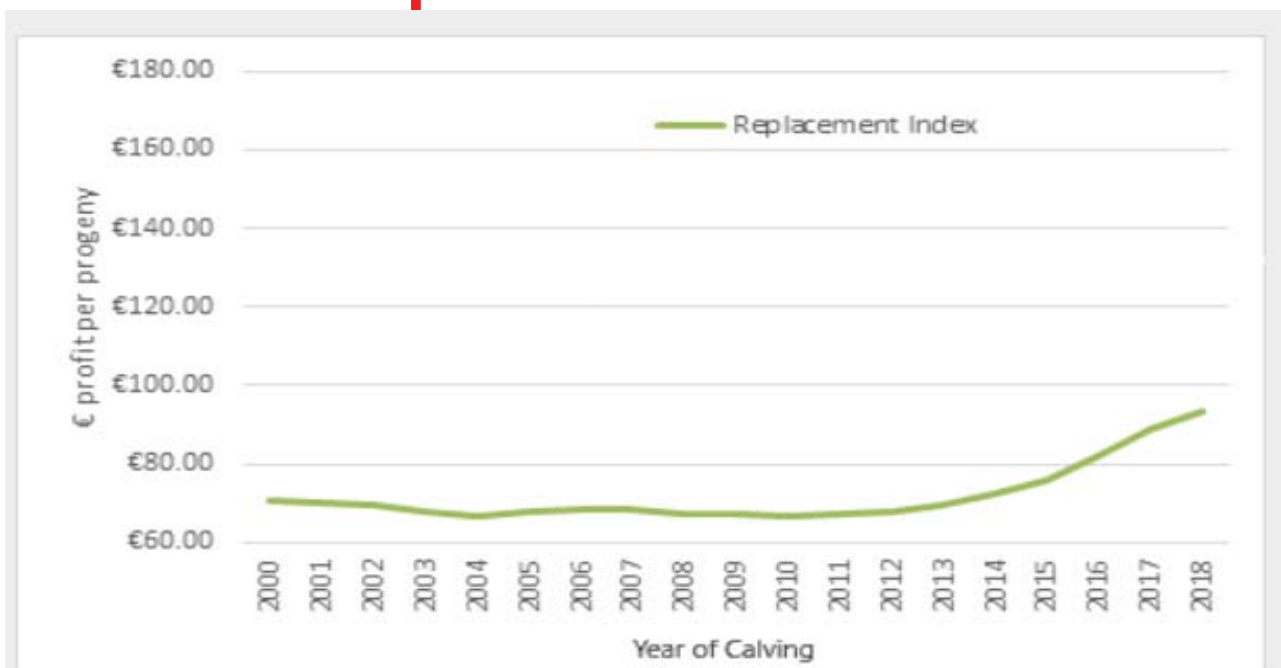


Figure 1. Genetic Trends in Replacement Index (2000 – 2018).

# Confirmation that 5 star cows are more climate efficient

| Stars  | No of Animals | Replacement Index | Life CO <sub>2</sub> e* | AFC (days) | Calving interval (days) | Cow wt (kg) | Wean wt (kg) | Progeny Carcas wt (kg) | Progeny Slaughter age (days) |
|--------|---------------|-------------------|-------------------------|------------|-------------------------|-------------|--------------|------------------------|------------------------------|
| 5 star | 2,181         | €130              | 17,085                  | 860        | 375                     | 664         | 311          | 374                    | 604                          |
| 4 star | 1,881         | €87               | 17,260                  | 862        | 376                     | 672         | 305          | 373                    | 606                          |
| 3 Star | 1,984         | €58               | 17,378                  | 881        | 377                     | 684         | 299          | 370                    | 605                          |
| 2 Star | 1,020         | €31               | 17,484                  | 887        | 377                     | 689         | 296          | 364                    | 605                          |
| 1 Star | 724           | -€6               | 17,635                  | 896        | 383                     | 737         | 285          | 361                    | 610                          |

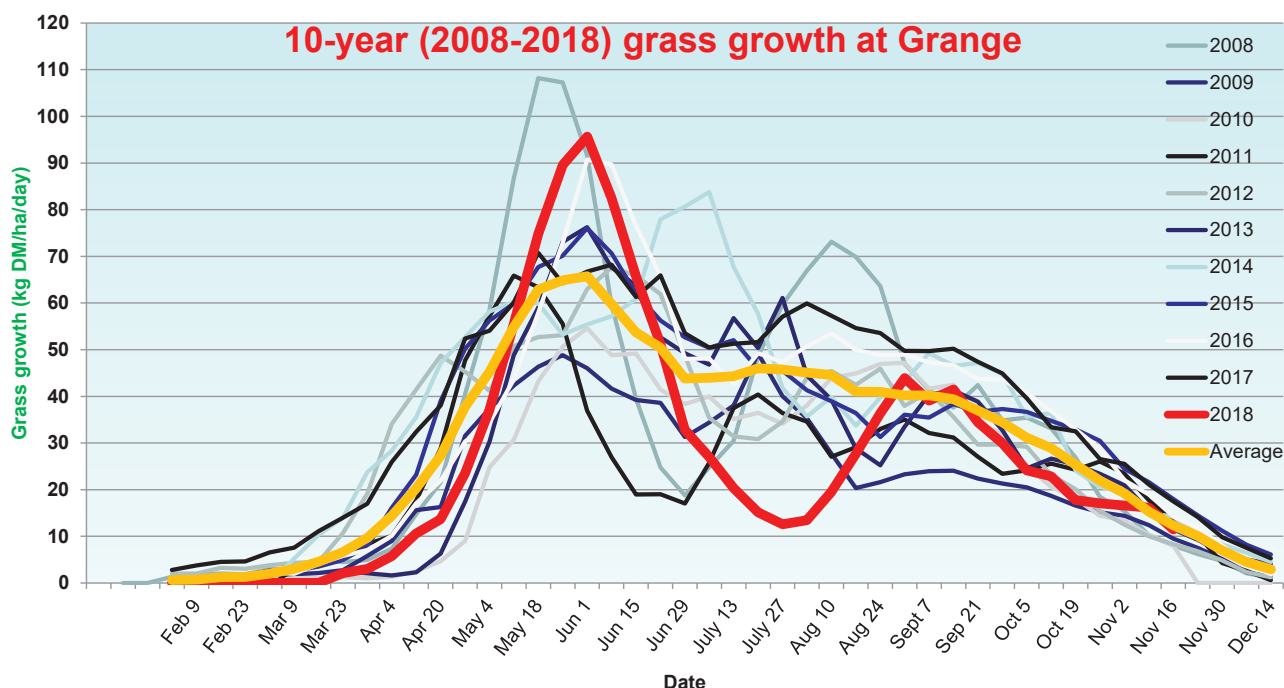
## Dealing with challenges

- 40,000 farmer clients
- ~500 advisors in total
- 112 Teagasc Beef Advisers have 5000 beef farmers in 297 Teagasc Knowledge Transfer Groups
- Information Flow to farmers
  - Monthly Beef Newsletter ,
  - Teagasc eProfit Monitor Analysis – Drystock Farms,
  - Teagasc Beef Budgets for farming systems,
  - Todays Farm Magazine – Bi-Monthly,
  - Beef Technical Notes





# Fodder shortage: Drought 2018



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# Fodder shortage: Drought 2018

- **Potential Fodder shortage identified early!**
- Local advisors (~300) monitoring with 40,000 clients
- Stakeholder/Agencies brought together
  - DAFM, Co-op's, Farm reps, banks, feed mills, agri consultants, Teagasc and media
- 3 national surveys (by Teagasc) – up-to-date picture
  - Wider media and social network
  - Key messages every 2-3-weeks
- Fodder register established (who had feed for sale?)
- At year-end ~20% of farms with 15% fodder deficit
- **Overall, deficit only 3%!**



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# Brexit

- Major problem (not of our making)
- UK is Ireland's biggest market for Agri-Food
- €4.6 billion of Agri-Food exported to UK
- Half of Irish beef goes to UK
- UK accounts for 24% (€19 billion) of all Irish imports
- Ireland imports ~€4 billion food/beverages from UK
  
- A no deal scenario (going to WTO tariffs) will be most challenging and see cost of imports and exports rising (?????)
- British House of Commons vote on Brexit deal next Tuesday



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## Summary/conclusions

- Many similarities but important differences between both countries
  - Irl- beef margin poor, on average, some highly profitable
  - Many depending on decoupled payments
- In IRL
  - Agri-food more important
  - 90% of Irish beef exported
- National strategy to grow Agri-food sector
- Sustainability important driver for future production
- Capability to respond to when crisis hits!
- But Brexit?????



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# Thank you....



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