

Irish Cattle Breeding Federation Society Limited (ICBF)

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SUMMARY of 2016

ICBF exists to benefit our farmers, our agri-food industry and our communities through genetic gain. We do this through the delivery of high value, low cost services from the cattle breeding database, by developing and applying science and technology to ensure our farmers and industry make the most profitable and sustainable decisions. The headline project at ICBF in 2016 was the Beef Data and Genomics Scheme. Over 26,000 had farmers joined the scheme in 2015, the main job in 2016 turned to getting all the samples through the labs, and get the genomic evaluations flowing to farmers. The first official genomic evaluations for beef, launched in August of 2016, and farmers have continued to respond in an extremely favourable manner to the scheme.

On both dairy and beef, we continue to be focused on providing a breeding infrastructure that will facilitate on-going profitability and sustainability of the sectors.

In 2016 the major contributions ICBF made towards its mission included:

- The continued high usage of genomically selected (GS) bulls in dairy cattle breeding, with an increase in the numbers of females genotyped
- Working with the Beef and Dairy Herdbooks to in the genotyping of all newly registered pedigree stock bulls to ensure correct parentage
- Delivery on behalf of the Dept of Agriculture (DAFM) of the Beef Data and Genomics Programme (BDP).
- Growth in the HerdPlus® service to Beef and Dairy herds to 23,200 herds, an addition of almost 6,000 herds to the service (a 32% increase).
- Continuation of the Maternal Beef Breeding Programme, including the continued use of Tully in its role as a performance test centre for commercial cattle.
- On-going engagement with the dairy processors on the Coop Performance Reports in and the use of the ICBF database in their strategic planning efforts
- Provision of the background information system to support the Animal Health Ireland (<u>www.animalhealthireland.ie</u>) BVD eradication program, again with over 2,000,000 animals tested in 2016.

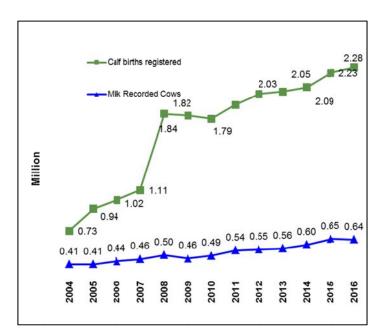


Figure 1

In 2016, 79,116 herds, with 2.21 million calvings (dairy and beef) (Figure 1) were participating in one or more aspects of the ICBF database.

The 2016 Beef Data and Genomics Programme, which followed on from the 2015 Programme, has continued to enhance the amount of data on beef cattle (as well as providing genotypes) in Ireland and has enabled substantial further progress in the development of our genetic evaluations for traits relevant to beef cattle in Ireland.

The ICBF cattle breeding database continues to improve the scope of both beef and dairy genetic evaluations. As in previous years, 2016 saw the AI companies to purchasing Irish bred Holstein Friesian bulls for subsequent progeny testing through the G€N€IR€LAND® dairy program. They also continued to facilitate the wide use of GS bulls at a young age. The Irish dairy industry is benefiting from rapid genetic gain giving rise to cows that are more productive, more fertile and more robust. In 2016 beef genetic evaluations for calving, docility, direct weaning weight, carcass, maternal milk and female fertility all benefited significantly from the extra data collected through the Dept of Agriculture schemes, as well as data received from a variety of other sources. As beef and dairy breeding decisions are increasingly based on genetic evaluations, the opportunity for increased profitability of beef and dairy farming is being advanced.

Although we had a difficult year in terms of Tag Income, thanks to continued strong support from DAFM, and robust service income from our service

providing partners, ICBF ended the year with a small financial surplus.

Our research has shown that those herds who are fully engaged across the range of cattle breeding services are more profitable. Thus, the ICBF strategic plan is focused on increasing farmer uptake of those recording and breeding services that give them the greatest economic returns. The focus on how this will be done is through greater engagement with the service providers and industry stakeholders. ICBF's development effort is increasingly focused on streamlining the flow of data from all sources, while improving the quality of the information returned to farms. Initiatives with industry partners are being undertaken to use the ICBF database to provide better quality information to improve decision-making at farm, service providers, and industry, research and breeder levels.

As part of ICBF's commitment to facilitate Animal Health Ireland (AHI) there has been a substantial amount of database development work again in 2016 to support AHI's various initiatives.

MISSION

ICBF exists to benefit our farmers, our agri-food industry and our wider communities through genetic gain. We do this by the application of science and technology to ensure that our farmers and industry make the most profitable and sustainable decisions. Genetic improvement comes about when the parents of the next generation are genetically superior to their contemporaries. Bringing about improvement requires:

- Identification, ancestry and quantitative data on those traits of importance for large numbers of animals in each generation.
- A genetic evaluation system to identify the genetically superior animals in each generation. Ongoing investment in quality controls on the genetic evaluations will be required as more and more of the industry relies on them.
- A breeding scheme design that ensures the required data is available, and that farmers use genetically superior animals in each generation.
- Well informed farmers and industry partners who willingly provide accurate data from their own farms and make full use of the information available in their breeding and farm management decisions.

The ICBF Strategy continues to have at its core the engagement of farmers in the use of cattle breeding

services. This is the primary focus of ICBF's activities.

This Annual Report has been prepared for the purpose of providing ICBF shareholders and other stakeholders with a summary of activities and achievements in relation to the objectives of the Society for the 2016 calendar year.

Genomics

Cattle breeding continues to undergo a transformation as a result of the use of genomics. This technology is enabling Ireland to be at the forefront of cattle breeding developments internationally.

That Ireland is able to lead in the exploitation of genomic technology is a consequence of a number of key factors.

- The availability of large volumes of phenotypic data on large numbers of animals in the ICBF database
- Having access to highly skilled and wellmotivated technical staff in both ICBF and Teagasc.
- Partnerships with international collaborators that are providing access to knowledge, technology and research material.
- The creation of one of the world's biggest databases of genomic data.
- Access to the ICBF database and genetic evaluation system, to support the research and, roll out subsequent genomic services to the industry
- Dairy and beef farmers who are convinced of the merits of the EBI and Eurostar Indexes respectively and use them as the main basis for selecting AI sires and stock bulls.
- A forward looking AI breeding industry that responds quickly to the availability of new evaluation models and breeding technology, and is willing to invest to help them better meet the needs of Irish farmers.
- One of the significant achievements in this area in 2016 was the implementation of new genomic evaluations for Beef animals as part of the Beef Data and Genomics Programme

Genomic Services

ICBF continues to develop the infrastructure to enable the Irish cattle breeding industry to fully exploit the benefits of genomic information while at the same time minimising costs. During 2016 the focus

continued to be on enhancing the systems and services to support the process from selecting a calf for genotyping through collecting a tissue sample, to sending the sample to the lab for testing, to receiving the genotype back into the ICBF database, to incorporating the genomic information in the genetic evaluation for the animal and finally, to the distribution of the results. One of the critical elements we focused on in again in 2016 was on reducing the turnaround times. The 2016 Beef Data and Genomics Programme really pushed the systems to the limit with around 550,000 genotypes processed.

Dairy Genomics

2016 saw the on-going roll-out of genomic selection for dairy cattle. In spring 2016, 70% of recorded dairy inseminations were from such bulls. Refer to figure 2 for a summary of the EBI and uptake over the last number of years.

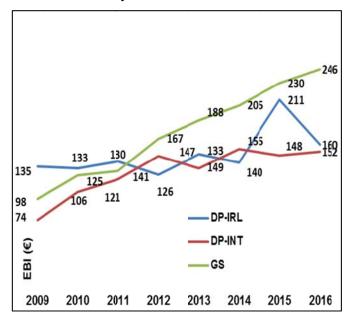


Figure 2a. Average EBI for daughter proven in Ireland (DP-IRL), daughter proven internationally (DP-INT) and genomically selected (GS) bulls

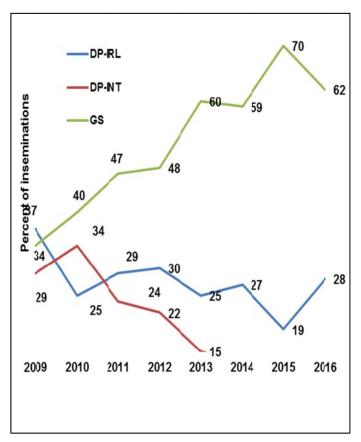


Figure 2b. Percent of inseminations for daughter proven in Ireland (DP-IRL), daughter proven internationally (DP-INT) and genomically selected (GS) bulls

Dairy Females

With difficult milk prices in 2016, the growth in the genotyping of dairy females was not as robust as we had expected, even though many farmers now see the genotyping of young stock as a routine part of running their dairy enterprise. As the cost of genotyping continues to fall, the levels of genotyping of heifers by farmers is expected to increase significantly.

Beef

The development of genomic selection for beef cattle breeding has progressed significantly in 2016. The launch of the Beef Data and Genomics Programme by DAFM has seen a major shift in the level of Beef Genotyping and saw Ireland become the first country in the world to publish across breed genomic evaluations in 2016.

Genetic Evaluations

Our overall goal is to ensure the ready availability of accurate genetic evaluations for all traits, breeds and animals (national & international) of significance to Irish cattle farmers. Open consultation meetings provide a forum where the breeding industry and the development team meet and discuss developments in genetic evaluations.

Our strategy is spread over traits common to beef and dairy, and those specific to dairy or beef.

Common to Beef and Dairy

Our strategy for traits common to beef and dairy is to research, develop, implement and continuously improve across-breed evaluations that make optimal use of all national and international data relevant to calving, fertility, survival, beef production, and suckler-cow maternal traits.

Having started in 2005, across breed genetic evaluations for a wide range of calving and beef traits are routinely provided to the Irish cattle breeding industry. These evaluations enable animals of all breeds (beef and dairy) to be compared with each other for many traits including direct and maternal calving ease, gestation length, calf mortality, carcass weight, carcass grade, carcass fat score and mature cow live weight. These developments have been made possible by the widespread use of the animal events recording system by farmers to report calving details, and by access to mart and slaughter records from the industry.

Dairy Specific

Our goal for the dairy herd is to continuously enhance the accuracy and relevance of the EBI (Economic Breeding Index) as a guide for breeding dairy replacements. We are also seeking to continuously improve genetic evaluations for all the current traits and introduce new traits as the research allows.

The EBI had a 'Base Change' implemented in 2016 which brought the base animals forward from 1995 to 2005. The research on the genetics of Health and Disease traits will continue to get a lot of focus, and the initial results are quite compelling. We continued our work on the Test Day Model, and will look to implement a number of significant changes to the EBI in the second half of 2017.

Beef Specific

Our strategy is to research, develop, implement and continuously improve the accuracy and relevance of the EuroStar index as a guide for beef breeding decisions. Significant developments in 2016 included:

- A significant amount of research around incorporating genomics into our beef evaluations which was implemented in 2016.
- Research into traits around meat eating quality.

Throughout 2016, the Beef Data Programme and Beef Genomics Scheme played a key role in building the data set on which genetic evaluations are based. This was critical, as on-going supply of quality data is critical to building confidence around the genetic evaluations for the beef traits.

Interbeef

ICBF is playing an important leadership role in the development of Interbeef to facilitate the international evaluation of beef breeds and traits. In 2016, significant progress was made around the weaning weight evaluations with the first official evaluations published.

Cattle Breeding Services

The level of participation in cattle breeding services continues to grow. This firstly benefits herd owners who are now using breeding stock that give greater farm profitability. It is also providing a substantial benefit to ICBF's members who are enjoying increased service uptake, with the benefits that an integrated database brings. This in turn provides valuable data and service income to ICBF.

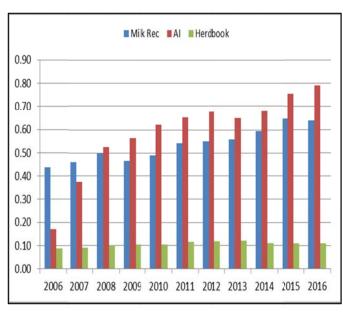


Figure 3. Cattle breeding participation (millions).

Services to Herd Books

There was on-going development in relation to the herdbook processing service in 2016. The major initiative around the genotyping of pedigree males born in 2014/2015 paved the way for more extensive levels of genotyping in 2016 through the Beef Data and Genomics Programme.

Milk Recording

ICBF's strategy is to work closely with its milk recording members, and to make full use of new technology to reduce labour, reduce inconvenience for farmers and to reduce the cost of recording. Our long term goal is to help the service providers increase usage of milk recording to 10,000 dairy herds.

In 2016 the uptake of milk recording was impacted by a difficult year on milk prices. Milk recording levels were at 0.64 million cows (across 6,200 herds), a slight decrease on milk recording in 2015 This was an excellent performance by the milk recording organisations in difficult (milk price) circumstances.

The EDIY (electronic do-it-yourself) service continues to work well for farmers because it reduces the cost of getting into milk recording by allowing the rental of meters. The cost of the EDIY meters, while relatively high on a unit basis, is minimised through achieving high utilisation over many farms. This service has continued to attract herds to milk recording as well as taking the place of the conventional recording service. 33% of cows milk recorded in 2016 were recorded under the EDIY service.

Electronic Data from Farms

Our strategy is to work closely with service-providing members to expand farmer electronic data recording through the introduction of new recording systems and increased usage of electronic systems at farm level. Results for 2016 again show growth in ICBF website usage. The bull search on the ICBF website was used for over 3 million searches in 2016, a 28% increase on the 2015 figures. The development of our website (pc and mobile versions) and Apps to collect data directly from farms, when coupled with the wide range of links to DAFM, and other systems, provides great potential to reduce the cost of animal events recording and processing, while, at the same time, reducing error levels and providing farmers with a more responsive information service.

Electronic Data from Technicians

In close collaboration with AI members and other AI field service licence holders, a handheld computer based system for recording AI technician inseminations was launched in 2006. In 2016 some 790,000 inseminations were recorded through this system, an increase as a result of more technicians using the service. (figure 4).

This system has eliminated delays due to processing dockets while at the same time providing farmers with near real-time information for mating decisions. The facility for avoiding inbred matings has proven to be particularly useful in pedigree matings where comprehensive data is available for bulls and cows.

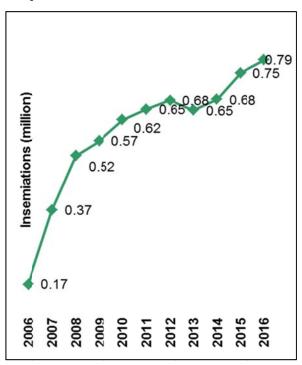


Figure 4. Inseminations recorded via Al Handhelds.

Supporting Health and Disease Services

Our strategy is to extend the genetic indices to include a greater focus on the Animal Health and Welfare traits. This has become an area of increasing focus for ICBF and our service providers as we move towards better evaluations for all 'Cost of Production' traits. Our relationship with Animal Health Ireland continues to be particularly constructive in delivering value for the Irish industry. In 2016 this included the provision by ICBF of the key information system infrastructure for the AHI National Programmes.

HerdPlus®

In September 2006 the HerdPlus® service for dairy herds was launched with the goal of providing dairy herd owners with management information that they would find valuable. In 2007 the service was extended to beef herds. The HerdPlus® service is built around genetic evaluations and reproduction information on a whole-herd basis. By focusing on the needs of farmers, ICBF has been able to design, build

and market a service that dairy and beef farmers are finding particularly good value for money.

The HerdPlus® service has enabled ICBF to save on costs associated with providing information (e.g. EBI reports, breeding charts, and cow reports) to farmers who did not require it and to generate income by providing information to those farmers who value it.

Sire Advice

To ensure farmers have ready access to breeding advice, ICBF's strategy is to ensure a sire advice facility is available to all cattle farmers to guide the selection of the most suitable sires for use in their herds, and to ensure that cows are mated to those sires that give the best economic returns in the future.

The service, first introduced in spring 2007, has been progressively enhanced on the basis of farmer feedback and the service for spring 2016 incorporated the most recent suggestions.

Criteria used in the advice include; avoidance of inbreeding, minimization of risk from lethal genes and maximization of future profits from the resulting progeny. The information is provided to the farmer, the farmer's breeding adviser(s) and is downloaded to the handheld computers used by AI technicians.

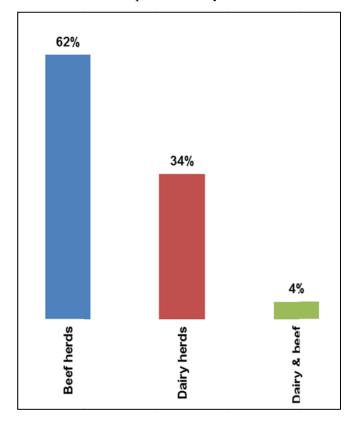


Figure 5. HerdPlus® percentages in 2016.

Advisory Support Service

ICBF is providing an information service to Teagasc advisors, private advisors and Veterinarians. The service provides advisors with access to herd reports (with herd owners' permission) along with discussion group information and analyses of herd performance statistics. This service reduces the amount of time advisors need to spend on gathering and analysing data, thus freeing up time for focusing on farm management decisions.

Milk Processors

The Coop Performance Report, which has been developed in partnership with milk processors, continued to be very popular in 2016. This service makes use of data held in the respective databases (ICBF and processor) to provide herd owners with information that allows them to assess the performance of their herd on a number of key performance indicators.

EEIG

ICBF continued its partnership with Teagasc and fifteen Milk Recording and Research organisations in other EU countries. The EEIG is a follow on to the OptiMIR (www.optimir.eu) project which finished in 2015 and was focused on improving the sustainability of milk production by providing improved management information to herds. The new EEIG industry group will continue on from where the Optimir project left off and ICBF and the Irish Milk Recording Organisations will continue to be centrally involved in future initiatives in the area of spectral data.

Breeding Schemes

ICBF's strategy is to ensure that the cattle breeding industry achieves optimal economic returns for Irish cattle farmers. This requires a clear understanding of both optimal breeding scheme design and the currently operating design for each breed of cattle in Ireland. Further, it implies that ICBF will then seek to ensure the industry moves towards the optimal design. This approach is most advanced for the Holstein Friesian breed, and huge credit must go to the indigenous AI companies and IHFA for the proactive approach they have taken to genotyping large volumes of animals.

G€N€IR€LAND® Dairy and Beef

Our strategy is to work closely with NCBC, Dovea and other AI organisations to provide support for bull

selection and progeny testing, in tightly targeted herds, in order to achieve the optimal design for dairy and beef breeds in Ireland.

In 2005 and 2007 respectively for dairy and beef, the $G \in \mathbb{N} \in IR \in \mathbb{L}AND^{\otimes}$ progeny test schemes were launched in collaboration with the AI industry. The number of bulls (figure 6) progeny tested and herds participating (figure 7) remains strong. Genomics has led to a stabilising in the overall numbers of bulls being tested through $G \in \mathbb{N} \in IR \oplus \mathbb{L}AND^{\otimes}$

Genetic Gain – Dairy

The genetic trends in dairy bulls on the Active Bull list relative to the dairy replacements born each year are shown (figure 8). A strong rate of increase seen over the past few years has been established due to the continued use of genomic selection.

The net impact on the future national dairy herd is improved profitability from increased milk production (increased protein, increased fat and no increase in water), and improved fertility (shorter calving intervals) from more robust cows (greater survival).

These improved trends are a direct result of ICBF's efforts and demonstrate that ICBF is delivering, in conjunction with the cattle breeding industry, on its mission of increasing the rate of genetic gain in Irish dairy cattle.

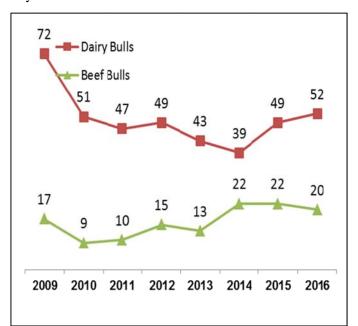


Figure 6. Bulls tested in G€N€ IR€LAND[®] dairy and beef progeny test programs.

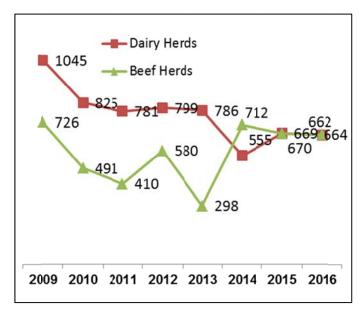


Figure 7. Herds participating in G€N€ IR€LAND® dairy and beef progeny test programs.

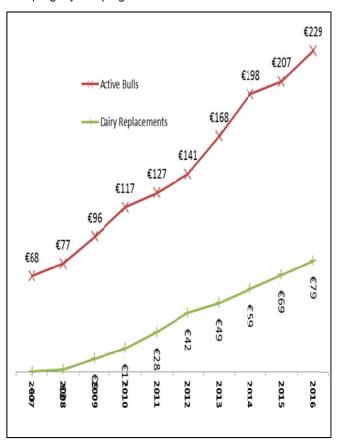


Figure 8. EBI averages by birth year for females and for bulls on active bull list in each year

Tully

The role of Tully was significantly changed at the end of 2012 and it continues to provide extremely

valuable data to the industry. Continued investment from DAFM in a new electronically feed measurement system has improved efficiency at the centre. It has proved to be a very worthwhile exercise with excellent cooperation between ICBF, Teagasc, and the meat processors to ensure that the maximum amount of data is captured from those animals.

The future role of Tully is as an integral element of $G \in \mathbb{N} \in \mathbb{IR} \in \mathbb{L}$ AND[®].

Genetic Gain - Beef

Genetic progress in the suckler herd continues to be slow. While gain is positive on the Terminal index, it is declining on the Maternal Index. The slight overall gains are slow relative to the optimal rates that are achievable from well designed and well executed beef breeding programs. Ireland faces a major challenge addressing the decline in the Replacement Index, and the on-going profitability of the suckler industry is largely dependent on this.

Beef Gene Ireland

The Beef Gene Ireland programme continues to make good progress. A review is currently being finalised as to how we improve it, as we move it towards an optimum model.

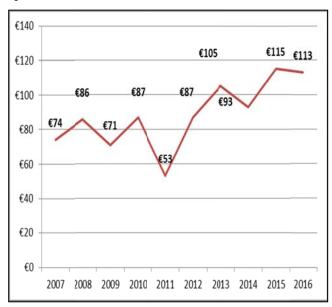


Figure 9. Replacement index (€) for Gene Ireland Beef Bulls

The initiatives are as follows:

Maternal Bull Breeder/Whole Herd Performance Recording Programme. This element of the Beef Gene Ireland programme was designed to (a) achieve more accurate and complete data in

- beef breeding herds and (b) place more emphasis on maternal traits in pedigree beef breeding.
- Weight recording. The operation of a National Weight Recording Service continued in 2016, and with a network of 29 contractor technicians operating throughout the country. While uptake has continued to be disappointing, we will continue to look to increase the levels of on-farm weight recording taking place.
- G€N€ IR€LAND® Beef Progeny Testing Scheme. The model by which the progeny testing is carried out underwent a significant change in 2013 and 2016 was the second full year of implementation. ICBF is now buying the bulls for testing from breeders, in consultation with the breed societies, commercial farmers, and the AI industry.
- **Genomics.** DAFM's Beef Data and Genomics Programme, a huge initiative by international standards, has moved the level of genomics data on beef animals to a new level.

Financials

2016 Results

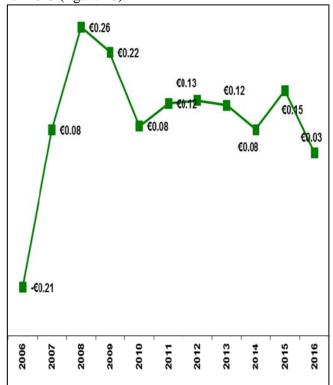


Figure 10. Income trends in € million.

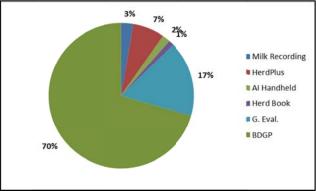


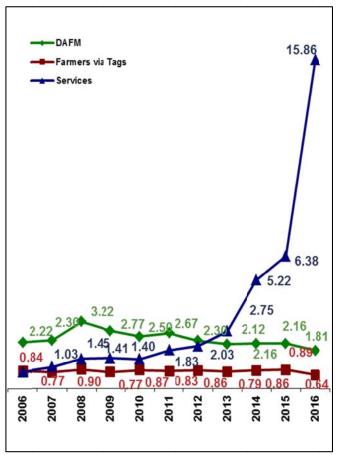
Figure 12. Breakdown of services income

In 2016 ICBF income (figures 11, 12) included contributions from the following sources:

 DAFM in the form of a Grant, Suckler Scheme costs, and Cattle Breeding Infrastructure contributions to infrastructure projects. Cattle Breeding Infrastructure funds made contributions towards G€N€ IR€LAND®, and projects for the development of genetic evaluations and the de-

- velopment of systems for collecting data and reporting information to farmers.
- Cattle farmers through the Tag Contributions and
- The cattle breeding industry and farmers through service fees, which include the significant genotyping costs of the BDGP scheme. There were two years (2015 and 2016) of BDGP income processed in 2016.

Figure 11 Financial outcome 2002 to 2016 in € million.



These funds cover the cost of on-going operations and the cattle breeding infrastructure projects undertaken in 2016 as outlined in the audited accounts.

Resources

ICBF is using a number of resources in pursuit of its mission. These include:

People

ICBF is a small organisation employing a total of 63 people. During 2016, as in previous years, staff and contractors put in a magnificent effort in achieving the many goals established under ICBF's strategic plan.

Offices

ICBF's main office and database computers are based at Highfield House which is a property owned by Shinagh Estates Limited (SEL) near Bandon, Co. Cork. The accommodation is rented from SEL.

Tully

The Bull Performance Test Centre at Tully. Co. Kildare is leased from DAFM. These facilities are in good condition, and have benefited from significant investment from Cattle Breeding Infrastructure Funds in new feed bins in recent years.

Database Computers

ICBF's database runs on computers located in Highfield House and Shinagh House. The ICBF database is constantly undergoing development and upgrades in order to keep on top of the ever growing requirements associated with increased volumes of data, especially in the new era of genomics.

EDIY Calibration Laboratory

This laboratory, located in Bandon, houses specialist equipment, which is used to ensure the EDIY electronic milk meters used by the industry are performing according to specification.

Communications

ICBF is involved in communicating on a wide range of subjects to a large national and international audience involved in all aspects of cattle breeding. Irish achievements in cattle breeding are being noticed internationally as the national infrastructure moves closer to the leading edge.

Our communications include:

Industry Presentations

ICBF continues to be heavily involved in presenting information to the Irish cattle breeding industry through a wide range of meetings and conferences. ICBF is typically involved in three to five meetings per week with farmers and industry staff. ICBF also participates in a number of international conferences presenting papers and playing an active role in leading the development of cattle breeding internationally.

Web Site

The ICBF web site (www.icbf.com) provides a wide range of information to Irish farmers and the cattle

breeding industry. All herd owners can access their own herd reports (using a sign-on and password) and can also make the reports available to designated advisors.

The publications section of the website is a repository for copies of the many presentations made by members of the ICBF team in 2016 and previous years.

Weekly Update

Every Friday ICBF provides via its website an Update covering its activities. This has become well established as a source of the latest information on a wide range of issues of interest to ICBF stakeholders.

International

ICBF maintains a number of important international linkages including:

- providing leadership for the development of international beef genetic evaluations through the ICAR Interbeef Working Group,
- participation in international research forums including EAAP, and
- participation in international research collaborations including the European Wide EEIG spectral data project.

This international network enables ICBF to keep up to date with scientific developments relevant to Irish cattle breeding.

Support

ICBF wishes to acknowledge and express its appreciation for the support and co-operation received from a large number of individuals and organisations. The relationships we have with the cattle breeding service providers are crucially important in delivering the benefits at farm level. The collaborative nature of ICBF's activities depends to a large extent on the goodwill of its membership, the wider agricultural community and cattle farmers.

The leadership and support provided by DAFM has been a key to the success of ICBF. DAFM has long recognised the value that can be created through the availability of a well-integrated cattle breeding database.

The financial support provided through the Cattle Breeding Infrastructure Funds towards the creation of an efficient cattle breeding infrastructure is now delivering benefits to farmers, to the cattle breeding industry and to the wider community. We wish to acknowledge this support and express our appreciation for the leadership and vision that DAFM provides to our industry and cattle breeding in particular.

These many and substantial acts of financial goodwill have been accompanied by a great deal of moral support which the team working for ICBF really appreciates.

Future Prospects

2016 has been a year where we have continued to exploit the new cattle breeding technologies for the benefit of Irish farmers. There are real challenges ahead in keeping up with the world's best in terms of the use of data and technology, and it will require ongoing investment.

However, the key to ICBF's success remains the same - the application of good science, a focus on the needs of farmers, working closely with our stakeholders and a 100% commitment to delivering by a talented and dedicated team.

We are most fortunate to operate in an environment where ICBF's vision is shared by our Board, our members, DAFM, and, most importantly, Irish Farmers.

Sean Coughlan Michael Doran

Chief Executive Chairman

Irish Cattle Breeding Federation Society Limited

Financial statements for the year ended 31 December 2016

SOCIETY INFORMATION

COMMITTEE OF MANAGEMENT

Mr. M. Doran (Chairman)

Mr. J. O'Sullivan (resigned 7 July 2016) Mr. R. Hinchion (appointed 31 March 2016) Mr. D. Beehan (resigned 21 Jan 2016) Mr. P. Mulvehill (resigned 8 Sept 2016)

Mr. D.Buckley *(resigned 31 March 2016)*Mr. G. Ryan

Mr. V. Gorman Mr. R. Whelan

Mr. P. Kelly (Vice chairman)
Mr. T. Fitzgerald
Mr. T. Wilson
Mr. H. Burns

Mr. K. Kiersey (resigned 7 July 2016) Mr. M. Ryan

Mr. K. Kinsella Mr. T.J. O'Sullivan (resigned 8 Sept 2016)

Mr. S. O' Leary (appointed 7 July 2016) Mr. K. Coffey (appointed 8 Sep 2016) Mr. P. Fleming (appointed 8 Sept 2016) Mr. P. Hannan (appointed 7 July 2016)

Mr. B. Callanan (appointed 21 Jan 2016)

SECRETARY Mr. J. Carty,

Department of Agriculture, Food and the Marine,

Pavilion A,

Grattan Business Park,

Portlaoise, Co. Laois.

CHIEF EXECUTIVE Mr. S. Coughlan

SOCIETY'S ADDRESS AND Highfield House,

REGISTERED OFFICE Shinagh,
Bandon,
Co. Cork.

SOLICITORS P. J. O'Driscoll & Sons,

Solicitors,

South Main Street,

Bandon, Co. Cork.

BANKERS AIB Bank,

South Main Street,

Bandon, Co. Cork.

AUDITORS Ernst & Young,

Chartered Accountants,

City Quarter, Lapps Quay,

Cork.

COMMITTEE OF MANAGEMENT'S RESPONSIBILITIES STATEMENT for the year ended 31 December 2016

The committee are responsible for preparing the financial statements in accordance with applicable law and regulations.

The Industrial and Provident Societies Acts, 1893 to 2014 requires the committee to prepare financial statements for each financial year. Under that law the committee have elected to prepare the financial statements in accordance with accounting standards issued by the Financial Reporting Council and promulgated by the Institute of Chartered Accountants in Ireland, including FRS 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland* (Generally Accepted Accounting Practice in Ireland).

In preparing these financial statements, the committee are required to:

- Select suitable accounting policies and then apply them consistently;
- . Make judgements and estimates that are reasonable and prudent;
- State whether the financial statements have been prepared in accordance with applicable accounting standards, identify those standards, and note the effect and reasons for any material departure from those standards; and
- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the society will continue in business.

The committee is responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the Society and which enables it to ensure that the financial statements are prepared in accordance with Irish Generally Accepted Accounting Practice and with the Industrial and Provident Societies Acts, 1893 to 2014. It is also responsible for safeguarding the assets of the Society and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities

On behalf of the Committee of Management

MICHAEL DORAN
Chairman

PATRICK KELLY Vice Chairman

7 April 2017

INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF IRISH CATTLE BREEDING FEDERATION SOCIETY LIMITED

We have audited the financial statements of Irish Cattle Breeding Federation Society Limited for the year ended 31 December 2016 which comprise the Income and Expenditure Account, the Statement of Comprehensive Income, the Statement of Changes in Equity, the Statement of Financial Position, the Statement of Cash Flows and the related notes 1 to 19. The financial reporting framework that has been applied in their preparation is Irish law and accounting standards issued by the Financial Reporting Council and promulgated by the Institute of Chartered Accountants in Ireland, including FRS 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland* (Generally Accepted Accounting Practice in Ireland).

This report is made solely to the society's members, as a body, in accordance with section 13 of the Industrial and Provident Societies Act, 1893 to 2014. Our audit work has been undertaken so that we might state to the society's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the society and the society's members as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of committee of management and auditors

As explained more fully in the Committee of Management's Responsibilities Statement set out on page 3, the committee are responsible for the preparation of the financial statements giving a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with Irish law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the society's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the committee of management; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF IRISH CATTLE BREEDING FEDERATION SOCIETY LIMITED (Continued)

Opinion on financial statements

In our opinion the financial statements

- give a true and fair view of the state of the society's affairs as at 31 December 2016 and of its surplus for the year then ended; and
- have been properly prepared in accordance with FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland;

As required by Section 13(2) of the Industrial and Provident Societies Act 1893 to 2014, we examined the balance sheets showing the receipts and expenditure, funds and effects of the society, and verified the same with the books, deeds, documents, accounts and vouchers relating thereto, and found them to be correct, duly vouched, and in accordance with law.

Ernst & Young Chartered Accountants and Registered Auditors

Cork

2 May 2017

INCOME AND EXPENDITURE ACCOUNT for the year ended 31 December 2016

	Note	2016 €	2015 €
Income – continuing operations		17,401,430	7,685,480
Operating expenses		(17,342,298)	(7,527,235)
Operating surplus – continuing operations		59,132	158,245
Interest payable and similar charges Bank interest received	3	(26,381) 1,269	(24,351) 13,158
Surplus on ordinary activities before taxation		34,020	147,052
Tax on surplus on ordinary activities	4	-	-
Surplus on ordinary activities after taxation		34,020	147,052

Approved by the Committee of Management on 7 April 2017

MICHAEL DORAN Chairman PATRICK KELLY Vice Chairman

STATEMENT OF COMPREHENSIVE INCOME for the year ended 31 December 2016

	Note	2016 €	2015 €
Income and Expenditure Surplus for the financial year		34,020	147,052
Total comprehensive income for the year		34,020	147,052

STATEMENT OF CHANGES IN EQUITY for the year ended 31 December 2016

	Share capital €	Income and expenditure account €	Total €
At 1 January 2015 Surplus for year	2,027,022	972,486 147,052	2,999,508 147,052
At 31 December 2015 Shares issued during the year Surplus for year	2,027,022 508	1,119,538 - 34,020	3,146,560 508 34,020
At 31 December 2016	2,027,530	1,153,558	3,181,088

STATEMENT OF FINANCIAL POSITION at 31 December 2016

	Note	2016 €	2015 €
FIXED ASSETS	_	4 470 504	5 004 440
Project development expenditure	5	4,470,531	5,061,443
Tangible fixed assets	6	803,823	998,367
		5,274,354	6,059,810
CURRENT ASSETS			
Stocks	7	348,270	1,296,509
Debtors	8	1,528,260	1,609,502
Cash at bank		1,754,878	1,606,262
CREDITORS (amounts falling due within		3,631,408	4,512,273
one year)	9	(2,376,490)	(3,767,400)
NET CURRENT ASSETS		1,254,918	744,873
TOTAL ACCETOLECC			
TOTAL ASSETS LESS CURRENT LIABILITIES		6,529,272	6,804,683
CREDITORS (amounts falling due after more		((
than one year)	10	(434,936)	(642,113)
GOVERNMENT GRANTS	12	(2,913,247)	(3,016,010)
TOTAL ASSETS LESS LIABILITIES		3,181,089	3,146,560
FINANCED BY			
SHAREHOLDERS' FUNDS			
Share capital	14	2,027,530	2,027,022
Income and expenditure account	17	1,153,559	1,119,538
moonto ana experientare account			
Shareholders' funds		3,181,089	3,146,560
			

Approved by the Committee of Management on 7 April 2017

MICHAEL DORAN PATRICK KELLY
Chairman Vice Chairman

STATEMENT OF CASH FLOWS for the year ended 31 December 2016

	Note	2016 €	2015 €
NET CASH INFLOW FROM OPERATING ACTIVITIES	15	964,507	1,077,678
INVESTING ACTIVTIES Project development expenditure Payments for tangible fixed assets Project development grants received		(1,490,069) (46,111) 920,000	(1,885,599) (1,058,331) 1,010,000
Net cash flow from investing activities		(616,180)	(1,933,930)
FINANCING ACTIVTIES Receipts from issue of ordinary share capital (Decrease)/increase in finance leases Net cash flow from financing activities		508 (200,219) ————————————————————————————————————	842,332 ——————————————————————————————————
Increase/(decrease) in cash Cash and cash equivalents at 1 January		148,616 1,606,262	(13,920) 1,620,182
Cash and cash equivalents at 31 December	15	1,754,878	1,606,262

NOTES TO THE FINANCIAL STATEMENTS 31 December 2016

1. ACCOUNTING POLICIES

1.1 Statement of compliance

Irish Cattle Breeding Federation Society Limited is a society registered in Ireland under the Industrial and Provident Societies Act 1893 to 2014. The Registered Office is Shinagh, Bandon, Co. Cork.

The society's financial statements have been prepared in accordance with applicable accounting standards issued by the Financial Reporting Council and promulgated by the Institute of Chartered Accountants in Ireland, including FRS 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland* (Generally Accepted Accounting Practice in Ireland).

1.2 Judgements and key sources of estimation uncertainty

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the amounts reported for assets and liabilities as at the statement of financial position date and the amounts reported for revenues and expenses during the year. However, the nature of estimation means that actual outcomes could differ from those estimates. The following are the society's key sources of estimation uncertainty:

(a) Project development expenditure

Development expenditure is capitalised in accordance with the accounting policy given below. Initial capitalisation of costs is based on management's judgement that technical and economic feasibility is confirmed, usually when a product development project has reached a defined milestone according to an established project management model. In determining the amounts to be capitalised management makes assumptions regarding the expected future cash generation of the assets, discount rates to be applied and the expected period of benefits.

(b) Impairment of non-financial assets

Where there are indicators of impairment of individual assets, the society performs impairment tests based on fair value less costs to sell or a value in use calculation.

1. ACCOUNTING POLICIES (Continued)

1.3 Significant accounting policies

(a) Accounting convention

The financial statements are prepared under the historical cost convention. The financial statements are expressed in Euro (€).

(b) Fixed assets and depreciation

Fixed assets are stated at cost.

Depreciation is calculated on a straight line basis by reference to the expected useful lives as follows:

Office equipment 5 years
Tully machinery 5 years
Weighing equipment 5 years
BDGP technology 5 years

(c) Project development expenditure

Project development expenditure on clearly defined projects whose commercial outcome can be assessed with reasonable certainty is capitalised. When the development of these commercial projects reaches completion the society provides services to its members in return for fee income. This expenditure is amortised over the useful lives of the projects. Costs relating to fully amortised projects and the related fully amortised government grants are written off after a period of nine years from when the expenditure was incurred.

(d) Government grants

Grants for operating expenditure:

Grants received from the Department of Agriculture, Food and the Marine to fund the operations of the society are credited to the income and expenditure account so as to match them with the expenditure to which they relate.

Grants for project development expenditure:

Grants received towards the cost of project development expenditure are deferred and amortised over the same period in which the related project development expenditure is amortised.

(e) Income recognition

Income is recognised on delivery of the service. Where monies are received in advance of the related goods or services being provided, the revenue is deferred until such time as the related performance criteria have been met to recognise the sale.

(f) Operating leases

Operating lease costs are charged to the profit and loss account as incurred, normally on a straight line basis over the lease term.

1. ACCOUNTING POLICIES (Continued)

1.3 Significant accounting policies

(g) Pensions

The Society operates a defined contribution pension scheme for certain of its employees and its annual contributions are charged to the incomes statement in the year to which they relate.

(h) Leasing commitments

At the commencement of the lease term, a lessee shall recognise its rights of use and obligations under finance leases as assets and liabilities in its statement of financial position at amounts equal to the fair value of the leased asset or, if lower, the present value of the minimum lease payments, determined at the inception of the lease.

(i) Stocks

Stocks have been consistently valued at the lower of cost and net realisable value. Cost is based on actual invoice cost. Net realisable value comprises selling prices less appropriate selling and distribution costs.

(j) Debtors

Known bad debts are written off and specific provision is made for any amounts the recovery of which is considered doubtful.

(k) Cash and cash equivalents

Cash and cash equivalents in the statement of financial position comprise cash at banks and in hand and short term deposits with an original maturity date of three months or less. For the purpose of the statement of cash flows, cash and cash equivalents consist of cash and cash equivalents as defined above, net of outstanding bank overdrafts.

(I) Short-term debtors and creditors

Debtors and creditors with no stated interest rate and receivable or payable within one year are recorded at transaction price. Any losses arising from impairment are recognised in the income statement in other operating expenses.

2.	STAFF COSTS	2016 €	2015 €
	The staff costs, including costs capitalised in project development, are comprised of:		
	Wages and salaries	2,774,967	2,443,750
	Social welfare costs	296,343	261,459
	Pension costs	170,839	101,725
		3,242,149	2,806,934

The average number of persons employed by the society in the financial year was 63 (2015: 53) and is analysed into the following categories:

	2016	2015
	No.	No.
Management	9	9
Administration	6	5
Technical	18	16
Fixed term subcontractors	30	23
	63	53
3. INTEREST PAYABLE AND SIMILAR CHARGES	2016 €	2015 €
Finance lease interest	26,381	24,351

4. TAXATION

Income is exempt from tax as the Society qualifies for charitable status under the provisions of sections 207, 208 and 609 of the Tax Consolidation Act, 1997.

Effective from 1 January 2017, the Society has registered for Corporation tax.

5.	PROJECT DEVELOPMENT EXPENDITURE	€
	Cost At 1 January 2016 Additions Elimination of fully amortised costs (b)	13,887,828 1,698,985 (1,184,820)
	At 31 December 2016	14,401,993
	Amortisation At 1 January 2016 Charge for the year Elimination of fully amortised costs (b)	8,826,385 2,289,897 (1,184,820)
	At 31 December 2016	9,931,462
	Net book value At 31 December 2016	4,470,531
	At 31 December 2015	5,061,443

- (a) Project development expenditure consists of computer hardware, software consultancy, database and other project costs.
- (b) Fully amortised projects are written off after a period of nine years from when the expenditure was incurred. As the project expenditure is fully amortised the write off has no impact on profits or on the carrying value of projects in the balance sheet.

6.	TANGIBLE FIXED ASSETS					
		Office	<i>BDGP</i>	Tully	Weighing	
		equipment	technology	machinery	equipment	Total
		€	€	€	€	€
	Cost					
	At 1 January 2016	228,084	1,044,581	68,936	78,748	1,420,349
	Additions	37,927	_	8,184	-	46,111
	At 31 December 2016	266,011	1,044,581	77,120	78,748	1,466,460
	Depreciation					
	At 1 January 2016	214,049	104,458	40,475	63,000	421,982
	Charge for the year	4,268	208,916	11,723	15,748	240,655
	At 31 December 2016	218,317	313,374	52,198	78,748	662,637
						·
	Net book value					
	At 31 December 2016	47,694	731,207	24,922	_	803,823
	71. 01 2000111001 2010	=======================================	=======	=======================================		=======================================
	At 31 December 2015	14,035	940,123	28,461	15,748	998,367
7.	STOCKS			2	016	2015
7.	3100N3			2	€	2013
					C	C
	Livestock			199,	196	296,068
	Tully consumables			30,		25,518
	Other consumables			118,		974,923
				348,2	270 1	,296,509
				======		

Other consumables are comprised of testing kits (including tags) which are consumed in the provision of the Beef Data and Genomics Programme (BDGP).

The replacement cost of stocks is not considered to be materially different from the balance sheet value.

NOTES TO THE FINANCIAL STATEMENTS 31 December 2016 (Continued)

8.	DEBTORS	2016 €	2015 €
	Trade debtors and prepayments Amounts due from related party (note 17)	1,349,061 179,199	1,479,751 129,751
		1,528,260	1,609,502
9.	CREDITORS (amounts falling due within one year)	2016 €	2015 €
	Trade creditors Obligations under finance leases (note 11) Accruals and deferred income PAYE/PRSI VAT	309,154 207,177 1,740,931 97,931 21,297	1,576,221 200,219 1,893,648 97,234 78
		2,376,490	3,767,400
10.	CREDITORS (amounts falling after more than one year)	2016 €	2015 €
	Obligations under finance leases (note 11)	434,936	642,113
11.	OBLIGATIONS UNDER FINANCE LEASES	2016 €	2015 €
	Due within one year Due between one and two years Due between two and five years	207,177 214,134 220,802	200,219 207,177 434,936
		642,113	842,332

12. GOVERNMENT GRANTS

Government grants comprise grants received from the Department of Agriculture, Food and the Marine (DAFM).

5	€
Received	0.475.000
At 1 January 2016	8,475,889
Received during year	920,000
Elimination of fully amortised grants (a)	(811,945)
At 31 December 2016	8,583,944
Amortisation	
At 1 January 2016	5,459,879
Credited to the income and expenditure	
account in year	1,022,763
Elimination of fully amortised grants (a)	(811,945)
At 31 December 2016	5,670,697
Net amount	
At 31 December 2016	2,913,247
At 31 December 2015	3,016,010

⁽a) Consistent with the policy for related project expenditure, as outlined in Note 5, fully amortised grants are written off after a period of nine years from when the grant was received. As the grants are fully amortised the write off has no impact on profits or on the balance sheet.

NOTES TO THE FINANCIAL STATEMENTS 31 December 2016 (Continued)

13.	FINANCIAL INSTRUMENTS	2016 €	2015 €
	Financial assets that are debt instrument measured at amortised cost:		_
	- Other debtors	910,857	1,025,695
	Financial liabilities measured at amortised cost:	0.40.4.40	0.40.000
	- Finance leases	642,113	842,332
	- Creditors	309,154	1,576,221
14.	SHARE CAPITAL	2016	2015
		€	€
	Authorised:		
	28,768 "A" ordinary shares of €12.697381 each	365,278	365,278
	28,768 "B" ordinary shares of €12.697381 each	365,278	365,278
	28,768 "C" ordinary shares of €12.697381 each	365,278	365,278
	73,696 "D" ordinary shares of €12.697381 each	935,746	935,746
		2 021 590	2.021.590
		2,031,580	2,031,580
	Issued and fully paid:		
	28,768 "A" ordinary shares of €12.697381 each	365,278	365,278
	28,768 "B" ordinary shares of €12.697381 each	365,278	365,278
	28,449 "C" ordinary shares of €12.697381 each	361,228	360,720
	73,696 "D" ordinary shares of €12.697381 each	935,746	935,746
	70,000 D Gramary shares of C12.007001 each		
		2,027,530	2,027,022

All shares rank pari passu in all respects.

15. NOTES TO THE STATEMENT OF CASH FLOWS

(a)	Reconciliation of surplus to net cash inflow		
	from operating activities	2016	2015
		€	€
	Surplus for the year Amortisation of project development	34,020	147,052
	expenditure	2,289,897	1,642,274
	Project development grants amortised	(1,022,763)	(966,833)
	Depreciation of tangible fixed assets Movements in working capital:	31,739	35,838
	Decrease in debtors	81,244	129,420
	Decrease/(increase) in stocks	948,239	(1,084,872)
	(Decrease)/increase in creditors	(1,397,869)	1,174,799
	Net cash inflow from operating activities	964,507	1,077,678
(b)	Cash and cash equivalents	2016 €	2015 €
	Cash at bank and in hand	1,754,878	1,606,262

16. PENSIONS AND OTHER POST-RETIREMENT BENEFITS

The society operates a defined contribution pension scheme. The cost charged to the income and expenditure account in the year for the scheme was €170,839 (2015: €101,725).

17. RELATED PARTY TRANSACTIONS

The operations of Sheep Database Limited are administered by Irish Cattle Breeding Federation Society Limited. Costs incurred by the society, on behalf of the company, totalling €150,000 (2015: €95,000) were recharged during the year. The amount due by the company to the society at the year end is included in debtors.

17. RELATED PARTY TRANSACTIONS (Continued)

Key management personnel

All committee of management and certain senior employees who have authority and responsibility for planning, directing and controlling the activities of the society are considered to be key management personnel. Remuneration paid includes pension contributions to provide retirement benefits.

Total remuneration in respect of these individuals in 2016 (one member of the committee of management and nine senior employees) is made up of the following components:

- Basic salary cost of €814,998 (2015: €809,830) paid to individuals and which is set at market rates for equivalent roles
- Employer social insurance costs (ancillary to salary costs) which amounted to €87,612 (2015: €87,056)
- Pension benefits paid by the employer to provide retirement benefits amounted to €73,780 (2015: €41,622) for the year.

18. OPERATING LEASE COMMITMENTS

At the balance sheet date the society had annual commitments of €77,460 (2015: €46,476) under operating leases for land and buildings which expire within three years.

19. APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved and authorised for issue by the committee of management on 7 April 2017.



Our Farmer & Government Representation







Our AI & Milk Recording Organisations









Our Herdbooks





Droimeann Cattle Society





































Acknowledging Our Members