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# 2012 2013

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## ANNUAL REPORT & STATEMENT OF ACCOUNTS

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**Agri-Food and Biosciences Institute**  
Annual Report and Accounts  
For the year ended 31 March 2013

Laid before the Northern Ireland Assembly  
Under the Agriculture (Northern Ireland) Order, 2004  
By the Department of Agriculture and Rural Development  
On the 2nd of January 2014

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Belfast BT9 5PX  
Northern Ireland

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# Foreword from the Chair



Mr Seán Hogan,  
Chair of the AFBI Board

I am delighted to introduce this seventh Annual Report and Statement of Accounts for AFBI which reflect another highly successful year for the Institute.

AFBI has delivered the Department of Agriculture and Rural Development (DARD) Assigned Work Programme for 2012/13 to the performance standards set by the Department. The wide range of statutory, diagnostic/surveillance, research and development and specialist advice work carried out by AFBI makes an important contribution to the achievement of DARD's strategic goals and to supporting the ambitious expansion targets of the local industry. This is delivered across the broad range of animal and plant health, marine and freshwater fisheries, food science, environment and agri-food and rural economics.

The growth in AFBI's wider market activities continued during 2012/13 to the extent that approximately one-third of AFBI's total resource revenue is now derived from outwith core grant-in-aid from DARD. The significance of this achievement should not be underestimated as it has permitted maintenance of scientific capacity in the Institute and provided a valuable contribution to the running costs of AFBI as core grant-in-aid from DARD continues to reduce. I believe that the extent of the growth in non-grant-in-aid income in AFBI since the Institute's foundation in 2006 has greatly exceeded all expectations.

Excellent progress was made during the year in terms of implementation of the strategic review of the organisation. I am particularly pleased with the substantive appointments made to the newly configured Executive Management Team. I believe that these and other organisational changes implemented during the year will greatly enhance AFBI's ability to meet the challenges in the years ahead.

As I am due to retire from AFBI on 31 March 2014, after having served two terms as Chair, this will be the last annual report from the Institute that I will have the pleasure of introducing. I would like to take this opportunity to thank my current and former Board colleagues for their dedication and support during the formative years of AFBI. The high international standing of AFBI scientists, increased demand for their scientific work and their dedication to the Institute augers well for its future in times of continuing economic uncertainty. I would like to thank the Executive and staff of AFBI for their support of the Board during my tenure as Chair.



Mr Seán Hogan  
Chair



## Chief Executive's Review



Professor Seamus Kennedy,  
AFBI Chief Executive

I am pleased to report that during 2012/13, AFBI successfully delivered the assigned programme of statutory testing, diagnostic / surveillance activities, research and development (R&D), emergency response capability and specialist advice for the Department of Agriculture and Rural Development (DARD).

In doing so, AFBI has contributed to the achievement of DARD's strategic goals and assisted the continued competitiveness and sustainable expansion of the local agri-food industry. Details of some key scientific achievements during the year are included elsewhere in this annual report.

AFBI has world leading scientists who, through participation in international research consortia, have added considerable value to the DARD-funded R&D projects carried out in the Institute. The value of these research and other contracts, together with royalty and other sources of income, amounted to £18.8m during the year and represents considerable growth on the corresponding figures of £16.8m for 2011/12, £14.7m for 2010/11 and £10.8m for 2009/10. This record level of non-grant-in-aid income, which equates to approximately one-third of total income, has added significantly to AFBI's skill base and scientific capacity. The additional skills and technologies, developed through the conduct of externally funded research, make a major contribution to the Institute's preparedness to respond to animal and plant health, food chain and environmental emergencies on behalf of government.



L R: All Ireland Chalara Control Strategy document, Japanese larch infected with *Phytophthora ramorum* , and a badger photographed using a remotely operated camera.

During the year, AFBI provided an emergency response to ash dieback disease. In anticipation of the arrival of this disease from continental Europe, AFBI staff had already developed a molecular testing capability which proved useful in allowing DARD to check the progress of the outbreak and demonstrate that only recently imported nursery stock had been affected. AFBI staff played an important role in preparing a Pest Risk Assessment for *Chalara fraxinea*, the cause of this disease, for DARD and the Department of Agriculture, Food and the Marine as part of an all-island response to this pathogen.

AFBI also provided testing and advice to DARD in relation to sudden oak death syndrome (caused by *Phytophthora ramorum*) which was identified in Northern Ireland for the first time in 2010 in Japanese larch in Co. Antrim.

Serological testing in AFBI identified evidence of caprine arthritis encephalitis (CAE) virus infection in goats imported to Northern Ireland from Great Britain. This testing allowed DARD to implement action to prevent spread of the virus, from which Northern Ireland is currently free.

In May 2012, AFBI submitted written and oral evidence to the Assembly's Agriculture and Rural Development Committee as part of its review of bovine tuberculosis (TB). The Institute also provided continued input to DARD's bovine TB eradication strategy by delivering a programme of statutory testing to required standards, and participating in several collaborative research projects with other institutes. Highlights of the latter research included the demonstration of a degree of genetic resistance of cattle to TB, and a reduction in the sensitivity of the TB skin test caused by liver fluke infection. Evidence of transmission of TB infection between badgers and cattle, at farm level, was demonstrated for the first time through whole genome sequencing of *Mycobacterium bovis* isolates cultured by AFBI from badgers and cattle.

The year under report saw a continued focus on governance, efficiency and financial management within AFBI. The main recommendations of an organisational review, completed in March 2012, were accepted by the AFBI Board. Consequently, a recruitment competition was completed successfully for the posts of Director of Sustainable Agri-Food Sciences Division (SAFSD), Director of Veterinary



AFBI's new divisional Directors, L R: Dr Sinclair Mayne, SAFSD, Dr Stanley McDowell, VSD and Mrs Lesley Hogg, FCAD.

Sciences Division (VSD) and Director of Finance and Corporate Affairs Division (FCAD).

Preparatory work for the amalgamation of the former Agri-Food and Environmental Science Division (AFESD) and Applied Plant Science and Biometrics Division (APSBD) to form SAFSD, the amalgamation of the former Food Chemistry and Food Microbiology Branches to form a single Food Science Branch, and the relocation of Agri-Food Economics Branch and Biometrics and Information Systems Branch to SAFSD and FCAD, respectively, was also completed to allow the implementation of these changes on 1 April 2013. These organisational changes will permit more effective and efficient delivery of several scientific work programmes with a continuum of scientific expertise in SAFSD encompassing the growing environment, sustainable plant and animal production systems, aquatic ecosystems, food safety and quality, and agri-food and rural economics. They will also result in a strengthened corporate services function.

During the year, AFBI joined several other research organisations in the Centre for Excellence for UK Farming (now known as "Farming Futures"). The aim of this strategic alliance is to assist the agri-food industry through research, innovation and knowledge exchange. Participation in this group will assist AFBI's efforts to win competitive R&D funding to complement that provided by DARD.

During the year, AFBI continued to develop its international business. In July 2012, an AFBI business development executive was appointed in Washington USA, based in the Northern Ireland Bureau. The appointee has made numerous contacts which have raised AFBI's profile significantly and identified several potential new business opportunities. I was pleased that the DARD Minister witnessed the signing of cooperation agreements between AFBI and the Chinese Academy of Agricultural Sciences in Beijing, and the Shanghai Academy of Agricultural Sciences in Shanghai, in November 2012. I was delighted to welcome the President of the Kurdistan Region of Iraq to AFBI in February 2013 as a result of the developing business links between Northern Ireland and that region. These and other international links are important in order to maximise the value of AFBI's scientific resource.





L R - Minister Ali Saeed, Kurdish Regional Government Minister of Higher Education and Scientific Research, Dr. Fuad Hussein, Kurdish Regional Government Chief of Staff to President, Junior Minister Jonathan Bell MLA, OFMdfM, President Masoud Barzani, Prof Seamus Kennedy, AFBI CEO, Minister Falah Mustafa Bakir, Kurdish Regional Government Head of the Department of Foreign Affairs, Bayan Sami Abdul Rahman Kurdish Regional Government High Representative to the United Kingdom.



L R: Seán Hogan (AFBI Chairman), Martin McGuinness (Deputy First Minister), Michelle O'Neill (Agriculture Minister), Professor Xiaojun Gu, Vice President of Shanghai Academy of Agricultural Sciences (SAAS) and Seamus Kennedy (AFBI CEO).



Professor Serwan Baban, Minister of Agriculture and Water Resources, Kurdistan Region of Iraq, is welcomed to AFBI by Professor Seamus Kennedy (CEO).



Signing the AFBI- SAAS collaboration agreement in Shanghai, China in the presence of DARD Minister, Michelle O'Neill

Finally, on behalf of the Senior Management Team, I would like to thank AFBI staff for their continued commitment and dedication to AFBI. The *Going For Growth* report of the joint DARD-DETI Agri-Food Strategy Board has highlighted the major potential for expansion of the local agri-food industry through innovation. AFBI is well placed to support all sectors of the agri-food industry in achieving the ambitious targets set out in the *Going For Growth* report, through the continued provision of high quality applied research and innovation.

A handwritten signature in black ink, appearing to read "S Kennedy".

**Professor Seamus Kennedy**  
MVB PhD MRCVS FRCPath  
Chief Executive and Accounting Officer

Date: 18 December 2013



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# Management Commentary

## Scope

The Agri-Food & Biosciences Institute presents its accounts for the financial year ended 31 March 2013. The Institute was formed on 1 April 2006 with the amalgamation of the Department of Agriculture and Rural Development (DARD) Science Service division and the Agricultural Research Institute of Northern Ireland, which was a separate Non-Departmental Public Body (NDPB) funded by DARD. AFBI is established under the Agriculture (Northern Ireland) Order, 2004, as a DARD NDPB.

### Accounts Direction

The accounts have been prepared under the Accounts Direction given by the Department of Agriculture and Rural Development, with the approval of the Department of Finance & Personnel, in accordance with the Agriculture (Northern Ireland) Order 2004.

### Vision

“Scientific excellence in Northern Ireland.... Serving the World”

### Our mission

Supporting Government policy and industry innovation across the agri-food and rural sector through the provision of high quality scientific services, advice and expertise.

### Corporate Goals

Successfully deliver the assigned work programme to DARD and in doing so support DARD in achieving its goals

- Provision of scientific support to DARD and other Government departments and agencies in managing the impact of animal and plant health, food and environmental emergencies
- Actively manage and grow AFBI's commercial portfolio and in doing so build our reputation as a customer-first organisation
- Sustain and develop AFBI's knowledge base and position AFBI as a leader in the delivery of innovation and scientific support to the agri-food sector

- Invest in our people and ensure that the best systems and processes are in place to manage our organisation efficiently and effectively
- Ensure the long-term financial sustainability of AFBI

AFBI has an important role in assisting DARD to achieve its goals. DARD's goals are:

#### Goal 1:

To help the agri-food industry prepare for future market opportunities and economic challenges.

#### Goal 2:

To improve the lives of rural dwellers.

#### Goal 3:

To enhance animal, fish and plant health and welfare.

#### Goal 4:

To help deliver improved sustainable environmental outcomes.

#### Goal 5:

To manage our business and deliver our services to our customers in a cost effective way.

AFBI supports DARD's objectives by delivering:

- statutory, analytical and diagnostic work;
- research and development;
- specialist scientific advice;
- an emergency response capability in the context of animal and plant disease outbreaks and other emergencies in the food and environment areas.

### Funding

AFBI is an NDPB sponsored by DARD and is mainly funded through Grant-in-Aid. The Grant-in-Aid is voted in DARD's Estimate and is subject to Assembly control. AFBI's current and capital expenditure form part of DARD's Resource DEL and Capital DEL respectively. AFBI also raises funds through receipts generated in the course of its operating activities. In 2012/2013 the grant-in-aid amounted to £40.0m (2011/2012: £40.1m). This included an additional £5.7m which was due from DARD for payment of Corporation Tax and related penalties and interest charges.

## Relationship with DARD

AFBI's main point of contact is the Sponsor Branch (ASB) in the department. Regular meetings are held with the Sponsor Branch where matters relating to corporate governance, performance measurement, budgets, financing and accountability matters are discussed. A wider customer-contractor relationship also exists between AFBI's science delivery branches and the policy branches in DARD who specify DARD's required work programme.

AFBI's responses to the quarterly monitoring rounds and Comprehensive Spending Reviews are all routed through ASB.

## Relationships with other Government Departments and agencies

AFBI has signed Service Level Agreements to provide services to Department of Culture, Arts and Leisure (DCAL) and Food Standards Agency (FSA NI). It also does a significant body of work for Department for Environment, Food and Rural Affairs (DEFRA) and its agencies and NDPBs.

## Relationships with educational establishments

AFBI continues to co-operate on projects with both local universities and has also developed close working relationships with universities and institutions in the United Kingdom and in the Republic of Ireland, Republic of India, People's Republic of China and the United States of America.

## Marketing

As part of AFBI's Marketing and Business Development Strategy, AFBI has focused on promoting its specialist services and research capability in targeted markets locally, nationally and internationally. The Institute has continued to work with consortia of local companies, research providers and Invest Northern Ireland to develop two Invest Northern Ireland-sponsored Centres of Competence; the Centre for Renewable Energy Research and the Centre for Agri-Food Innovation. These Centres will deliver significant collaborative R&D partnerships between local industry and research providers in Northern Ireland.

AFBI has continued to develop opportunities for international cooperation in order to access scientific capability through formal agreements. These agreements significantly increase the knowledge base available to local industry through its contact with AFBI, as well as generating revenue for AFBI from collaborative R&D and other opportunities.

## Performance

The table below summarises performance against AFBI's 2012/2013 business plan targets with the outturn position having been validated by Internal Audit.

BUSINESS PLAN TARGET	OUTCOME 31 MARCH 2013
Agree charging policy for recovery of platform costs by 30 December 2012	<b>Target on Hold*</b>
Use Strategic Cost Model for the negotiation of the Assigned Work Programme by 31st January 2013	<b>Target on Hold*</b>
Deliver at least 95% of test results to agreed time and quality standards by 31st March 2013	<b>Achieved</b>
Deliver 95% of DARD Evidence and Innovation R&D project reports within agreed timescales by 31st March 2013	<b>On Target</b>
Maintain and extend accreditation as agreed with DARD by 31st March 2013	<b>Partially Achieved:</b> AFBI has maintained its ISO9001 accreditation, but there are a number of specific test methods within certain Branches where accreditation was delayed mainly due to resourcing issues. However, a number of tests were later accredited in April with others scheduled for progression during 2013-14.
DARD Customer Account Plan completed by 31 July 2012	<b>Achieved past deadline</b>
Current suite of emergency response contingency plans updated by 31st March 2013	<b>Achieved</b>
Mutual requirements agreed between AFBI and customers requiring an emergency response capability by 31st March 2013	<b>Achieved</b>
New Contingency Plans developed as required or informed by relevant authorities and emerging threats by 31st March 2013	<b>Achieved</b>
An AFBI-wide exercise, maintenance and review regime for Contingency Plan implemented by 31st March 2013	<b>Partially Achieved:</b> AFBI developed a 'Maintenance, Review and Exercise Regime' during 2012-13 and certain elements of Divisional Contingency Plans were subject to testing, however the testing regime was not fully implemented.

BUSINESS PLAN TARGET	OUTCOME 31 MARCH 2013
Agree Year 2 implementation plan for Business Development and Marketing Strategy and monitor performance quarterly during 2012/13 by 31st March 2013	<b>Partially Achieved:</b> The Implementation Plan for the second year of AFBI's Business Development and Marketing Strategy was developed in advance of the year, but updates to the Executive Management Team were only reported in respect of the half year and three quarterly positions during 2012-13.
Branch Business Development and Marketing Strategy work plans integrated within Branch Business Plans for 2012/13 and reviewed 6 monthly by 31st March 2013	<b>Partially Achieved:</b> Business Development and Marketing Plans were developed by each of the 14 Branches for 2012-13, but in two instances these were not reflected in the Branch Business Plans and not all reviews took place as scheduled.
Appoint a Non-DARD Business Manager and AFBI US representative by 30 September 2012	<b>Partially Achieved:</b> The AFBI US representative was appointed in July 2012, but whilst a recruitment exercise was undertaken in respect of the non-DARD Business Manager post, no appointment was made.
Divisional income to match targets as agreed in 2012/13 budget by 31st March 2013	<b>Achieved</b>
Undertake Customer Satisfaction Survey by 30 September 2012	<b>Achieved</b>
Finalise and approve AFBI's Science Strategy by 30 December 2012	<b>Target On Hold*</b>
Agree and initiate an implementation plan for AFBI's Science Strategy by 30 January 2013	<b>Target On Hold*</b>
Deliver the implementation plan arising from review of AFBI's Structure and Operating Model, present and agree progress with AFBI Board quarterly during 2012/13 by 31 March 2013	<b>Achieved</b>
Produce AFBI Estate Strategy VSD-Stormont Outline Business Case by 31 December 2012	<b>Target on Hold*</b>

BUSINESS PLAN TARGET	OUTCOME 31 MARCH 2013
AFBI's IP Policy actively promoted to staff by 31 December 2012	Achieved
Publish 80 scientific papers in peer reviewed journals by 31st March 2013	Achieved
95% of 2011/12 End of Year Reviews completed by 30 June 2012	Achieved After Deadline
AFBI "Staff in Post" complement agreed by 31 May 2012	Not Achieved
75% of all approved vacancies filled within 4 months of date of approval by 30 September 2012	Achieved
Staff Morale and Motivation Survey conducted, evaluated and communicated to staff by 30 September 2012	<b>Partially Achieved:</b> A Staff Morale and Motivation Survey was undertaken in November 2012 and the results communicated in to staff in July 2013.
Maintain staff absenteeism below 9 days per FTE by 31st March 2013	Not Achieved
Implement 90% of 2012/13 audit actions by agreed target dates by 31 March 2013	Not Achieved
Complete the risk assessment to inform DARD's sponsorship, governance and oversight by 31 July 2012.	Achieved After Deadline
AFBI to work with DARD on implementation of Sponsorship Manual during 2012/13 by 31 March 2013	Achieved
Finalise and agree with DARD the MoU by 30 June 2012	Achieved
Work with DARD to develop and agree the revised MS/FM by 31 December 2012	Target on Hold*
Ensure all outstanding audit recommendations prior to 2012/13 are implemented by 30 June 2012	Not Achieved
Balanced Scorecard implemented at corporate level by 31 August 2012	Target on Hold*
Site-specific Incident Management Plans (IMPs) developed to reflect "silver" level incident response 31 March 2013	<b>Partially Achieved:</b> An AFBI template was developed to reflect "silver" level incident response, but site-specific Incident Management Plans were not introduced.



BUSINESS PLAN TARGET	OUTCOME 31 MARCH 2013
Exercises undertaken and awareness seminars run in conjunction with NI Emergency Services within agreed programme of delivery. 31 March 2013	<b>Partially Achieved:</b> Exercises were undertaken with the Northern Ireland Fire and Rescue Service at AFBI's Stormont and Loughgall sites during the year, but no awareness seminars were delivered.
Exercise, maintenance and review of AFBI Incident Management Plans undertaken within agreed programme of delivery by 31 March 2013	<b>Partially Achieved:</b> A "Maintenance, Review and Exercise Regime" was developed during 2012-13. Although some exercises were undertaken, the full regime will not be implemented until 2013-14.
Achieve provisional resource outturn and provisional capital outturn of between 98.5% and 100% of budget	<b>Achieved</b>
Ensure that AFBI Branches and Divisions remain within agreed budget limits for 2012/13 by 31 March 2013	<b>Achieved</b>
Finance training for Senior Staff delivered by 31 May 2012	<b>Achieved</b>
Devolve budget management (income and expenditure) to Branches by 30 August 2012	<b>Achieved</b>
Plans to balance income and expenditure at Divisional and Branch Level agreed by 31 December 2012	<b>Achieved</b>
Provide timely reporting to DARD on AFBI's financial position including early warning on emerging pressures	<b>Achieved</b>

\*AFBI's Board agreed that certain targets be placed on hold as the target completion date had been revised due to delays in key dependencies and are no longer required to be delivered in-year.

## AFBI Board

AFBI is managed by a Board which has responsibility for providing strategic leadership for the organisation, ensuring that it fulfils the delivery objectives set by the Department of Agriculture and Rural Development (DARD) and for promoting the efficient and effective use of staff and other resources by AFBI.

The main responsibilities of the Board are:

- to ensure that AFBI meets its agreed objectives and targets as set by the DARD Minister, and set down in the Management Statement and Financial Memorandum;
- to provide strategic leadership in the formulation of AFBI's strategy for the discharge of its responsibilities, taking account of the Minister's and DARD's priorities, as outlined in the science and technology strategies and in Service Level Agreements (SLAs) set by DARD and other AFBI customers;
- to ensure that effective arrangements are in place to provide assurance to DARD and the Minister on risk management, governance and internal control;
- to communicate AFBI's strategy and services to stakeholders in NI and beyond;
- to understand and articulate science and research and development needs and advise the Chief Executive on drawing these requirements into the formulation of a strategic plan for AFBI;
- to oversee AFBI's functions, including encouragement of the highest standards in the disbursement of finance, and the efficient and effective use of staff and other resources throughout AFBI;
- to represent AFBI to its key audiences, for example industry, academic institutions and other research providers, locally, nationally and internationally;
- to engage with the Minister and DARD on matters pertaining to the work of AFBI and its strategic direction and input to the overall DARD strategic objectives;
- to identify and assess current and future developments in the agri-food and rural economy sector, and to recommend opportunities to expand into new markets and innovations to meet customers' needs.

## Role of the Chairperson of AFBI

The Chairperson is responsible to the Minister. The Chairperson ensures that AFBI's policies and actions support the wider strategic policies of DARD and that AFBI's affairs are conducted with probity. The Chairperson shares with other AFBI Board members the corporate responsibilities set out in the Management Statement and Financial Memorandum (MSFM), and in particular for ensuring that AFBI fulfils the aims and objectives set by DARD and approved by the Minister. The Chairperson shall also set performance measures for the board, corporate and individual board members.

### Board Members

Members are appointed in accordance with the Office of the Commissioner for Public Appointments (OCPA) NI Code of Practice. The terms of appointment of members are for either three or four year periods, with the Chair appointed for four years. The Chair receives an annual remuneration of £24,970 and is expected to commit approximately 40 days per annum to the post. The Deputy Chair receives £10,405 and has a commitment in the region of 20 days per annum. Members are expected to commit in the region of 15 days per year and receive £3,745. Further remuneration was received for committee work carried out.

**Chairperson Mr Seán Hogan** is the current Chairman of the Agri Food & Biosciences Institute and Chairman of Northern Ireland Water Ltd. His former appointments include non-executive directorships with the Northern Ireland Transport Holding Company, Warrenpoint Harbour Authority and the Southern Health & Social Services Board, and Chairmanships with Newry & Mourne Health & Social Services Trust and Designate Chairman with the Education & Skills Authority. He currently is a Fellow of the Institute of Directors, the Institute of Sales & Marketing Management and the Chartered Management Institute, and is an Advisory Board Member of the Chartered Institute of Public Finance and Accounting in Northern Ireland.

**Deputy Chairperson Professor Bill McKelvey** is an Ulsterman, born and raised on a dairy farm in County Down, who has spent most of his professional career to date working in Scotland. He currently lives near Peebles in the Scottish Borders.

He was Chief Executive and Principal of the Scottish Agricultural College for ten years until early 2012. He is currently a member the Court (Governing Body) of the University of the Highlands and Islands and is a Non-Executive Director of Scotland's largest farming business, Glenrath Farms. He holds two other Ministerial appointments: he is a member of the Board of the Scottish Environmental Protection Agency, and a member of the Scottish Food Advisory Committee.

He holds a first class honours degree in veterinary science from the University of Glasgow, a postgraduate diploma from the University of Guelph, Canada, and a PhD from the University of Aberdeen. He is a Fellow of the Royal Agricultural Societies, serves as a member of the Veterinary Policy Group of the British Veterinary Association and is a member of the Advisory Committee for Rural Development of Scottish Land and Estates.

In May 2011, he was elected as a Fellow of the Royal Society of Edinburgh, in recognition of his contribution to science, and was awarded an OBE in the Queen's Birthday Honours (June 2011), for services to agriculture. In June 2012 he was awarded an Honorary Doctor of Science Degree from the University of Edinburgh.

**Mr Bob McCann** lives in Newtownabbey. He is a Chartered Certified Accountant and has a broad management background having held a number of senior management posts in both the private and public sectors, including Group Financial Controller and General Manager (Finance) in NIE, and Director of Finance in the IT company Sx3. He is currently a Non-Executive Director in the Northern Health and Social Care Trust and Warrenpoint Harbour Authority, Chair of the Audit and Risk Committee for NI Commissioner for Children and Young People, Independent Member



Mr Seán Hogan

Prof Bill McKelvey

Mr Bob McCann

Mrs Hilary McCartan

Mr Trevor Hinds

Mr Seamus McCaffrey

Mr Alan McKeown

of the NI Housing Executive Audit Committee, member of the Solicitors Disciplinary Tribunal, and a member of the NI Valuation Tribunal.

**Mrs Hilary McCartan** is a Chartered Accountant by profession and lives in Belfast. Mrs McCartan has over 20 years post qualifying experience in executive and non-executive roles in the private and public sectors.

Mrs McCartan has three other public appointments. She is a Member of the Probation Board for Northern Ireland, a Commissioner on the Northern Ireland Legal Services Commission and a Non-Executive Director of the Business Services Organisation (DHSSPS).

**Mr Trevor Hinds** lives in Holywood, Co Down, and is currently a self-employed management consultant with over twenty years' experience in human resources. He is a Member of the Chartered Institute of Personnel and Development, a member of the Institute of Directors and a past President of the Rotary Club of Belfast. Trevor has considerable senior executive experience in each of the Public, Private and Voluntary sectors in Northern Ireland, having formerly been General Manager and Company Secretary of a wholly owned subsidiary of Bank of Ireland, and laterally Director of Executive Resourcing in PwC, Northern Ireland. He has been reappointed as a member of the Drainage Council of the Rivers Agency for NI, is a Board member of Bryson Future Skills, a wholly owned subsidiary of the Bryson Group, is a Board member and Trustee of Mindwise, the Northern Ireland Mental Health charity and a Board Member of the Ulster Supported Employment Ltd.

**Mr Seamus McCaffrey** lives in Irvinestown. He is a practising accountant and a livestock farmer at Irvinestown. He is a member of the Ulster Farmers Union. He is past Chair of Business in the Community's Western Team and a past member of the Western 'Investing for Health Partnership', representing the interests of the private sector along with other members from the statutory and voluntary sectors. Mr McCaffrey is a past Chair of the Ireland-Poland Business Association, an all-island trade association.

**Mr Alan McKeown** is Group Business Development Director at Dunbia, one of the UK and Ireland's largest meat processing businesses headquartered in Dungannon. Mr McKeown holds a first class honours degree in Biochemistry and has previously worked as a management consultant for PricewaterhouseCoopers and Accenture. He lives in Cookstown, and has a keen interest in all aspects of agriculture and rural affairs.

**Mrs Hilda Stewart** lives in Randalstown and is actively involved in the family farm partnership. She has an MSc in Sustainable Rural Development from Queen's University Belfast. Mrs Stewart is currently Chair of the CAFRE College Advisory Group (CAG). She has previously held a number of public appointments and voluntary positions including World President of the Associated Countrywomen of the World and Chairman of the Federation of Women Institutes of Northern Ireland.



The members of  
the AFBI Board  
2012-2013

Mrs Hilda Stewart

Prof Patrick Murphy

Dr Cecil McMurray

Mrs Sarah Havlin

Mr David Lindsay

Mr Ken Millar

**Professor Patrick Murphy** lives in Rostrevor, Co Down. Professor Murphy has been involved in management, governance and teaching at every stage of education from nursery to university level, including seven years as Director and Chief Executive of Belfast Institute of Further and Higher Education. He currently represents the education sector on the CAFRE College Advisory Group and holds a Ministerial public appointment in the Southern Education and Library Board, where he chairs the Audit and Finance Committees. He is also a member of the Northern Ireland Medical Research Ethics Committee.

**Dr Cecil McMurray** lives in Helens Bay, Co. Down. Dr McMurray has held a number of senior positions with DANI and DARD and the Queen's University of Belfast (QUB). He is an independent consultant, operating through Sci-Tec Consultancy, who has worked for the World Bank, the European Commission and Ministries of Agriculture in several countries world-wide. Dr McMurray is currently chairing a DEFRA's Diagnostics Advisory Group on Bovine Tuberculosis. Dr McMurray holds no other Ministerial Public appointments. He was awarded a CBE for Public Service in 2002.

**Mrs Sarah Havlin** is the Certification Officer of Northern Ireland; a quasi-judicial and regulatory public office in the field of Trade Union Law. A solicitor by profession, she has a background in agricultural law, including the Chairmanship of the Independent Agricultural Appeals Panel for Farming Grants and Subsidies and Animal Valuation, and she currently serves as the Chair of the Agricultural Wages Board.

She is a visiting tutor at the Institute of Professional Legal Studies at Queen's University and an Associate Lecturer in Law with the Open University. Mrs Havlin also holds Ministerial public appointments in the Consumer Council of Northern Ireland, The Exceptional Circumstances Tribunal and the Regulation and Quality Improvement Authority.

**Mr David Lindsay** lives in Killinchy, Co Down. Mr Lindsay has a First Class Honours degree in Food Technology. He is a fully chartered member of the Chartered Quality Institute and has a certificate of competence in project sponsorship that is awarded by the National School of Government and College of Estate Management to the Office of Government Commerce (OGC) approved syllabus. Mr Lindsay is the Project Sponsor for the Northern Ireland Fishery Harbour Authority (NIFHA), and also holds a Ministerial public appointment with The Northern Ireland Food Advisory Committee.

**Mr Ken Millar** lives in Comber, Co Down. Mr Millar was CEO and Accounting Officer of a DFP Agency between 1996 and 2002. He also acted as CEO and interim Accounting Officer for a short period for the Northern Ireland Law Commission. Mr Millar was involved in preparatory work in relation to the formation of AFBI and in its organisational development between 2006 and 2010. Mr Millar also holds a Ministerial public appointment with the Northern Ireland Housing Executive Board.



## Board Sub-Committees

There are four sub-committees of the Board.

### Appointments and Remuneration Committee

The role of the Appointments and Remuneration Committee is to advise the AFBI Board in respect of the remuneration of members of the Senior Management Team (SMT) and to provide recommendations to the Board on the implementation of AFBI's Rewards to Staff incentivisation scheme. Whilst the terms and conditions of employment and remuneration of all AFBI employees are in accordance with the overall terms and conditions of the NICS, as described above, any proposed changes to the overall framework are also subject to review and scrutiny by this Committee.

Non-executive chair

Professor Bill McKelvey

Non-executive director

Professor Patrick Murphy

Non-executive director

Mr Ken Millar

### Audit Committee

The Audit Committee advises the Board and Accounting Officer on issues of risk, internal control, governance and any material items affecting the accounts.

### Audit Committee

Non-executive chair

Mr Bob McCann

Non-executive director

Mr Trevor Hinds

Non-executive director

Mrs Sarah Havlin

### Other Attendees include:

Head of Internal Audit

DARD Internal Audit

Northern Ireland Audit Office

AFBI Sponsor Branch

Chief Executive Officer, AFBI

Head of Corporate Services, AFBI

Head of Finance Branch, AFBI

### Science Strategy Committee

The role of the Science Strategy Committee is to assist the Executive in developing a Science Strategy for AFBI. In particular, to:

- Identify and prioritise areas of existing scientific work which are of strategic importance to AFBI
- Identify and prioritise areas of existing scientific work which are of lower strategic importance to AFBI and which could therefore be reduced or ceased in order to transfer resources to work of higher priority.

### Science Strategy Committee

Non-executive chair

Mr Alan McKeown

Non-executive director

Dr Cecil McMurray

Non-executive director

Mr David Lindsay

### AFBI Board Finance Sub-Committee

The role of the AFBI Board Finance Sub-Committee is to support the Board in its responsibilities for the oversight of financial management including, in particular, the review of financial plans and budgets as well as financial monitoring.

### AFBI Board Finance Sub-Committee

Non-executive chair

Mrs Hilary McCartan

Non-executive director

Mrs Hilda Stewart

Non-executive director

Mr Seamus McCaffrey



## Management Board

The executive board of the Institute were as follows:

Chief Executive Officer	Professor Seamus Kennedy
Deputy Chief Executive Officer	Dr Michael Camlin
Acting Deputy Chief Executive Officer	Dr John Davis <sup>1</sup>
Acting Deputy Chief Executive Officer	Dr Walter Crozier <sup>2</sup>
Acting Deputy Chief Executive Officer	Dr Alistair Carson <sup>3</sup>
Acting Deputy Chief Executive Officer	Dr D G Kennedy <sup>4</sup>
Deputy Chief Executive Officer	Dr S Mayne <sup>5</sup>
Deputy Chief Executive Officer	Dr S McDowell <sup>6</sup>
Acting Head of Corporate Services	Mr Joel Ferguson <sup>7</sup>
Deputy Chief Executive Officer	Mrs L Hogg <sup>8</sup>

<sup>1</sup>Dr John Davis was Acting Deputy Chief Executive Officer of AFESD from 10 October 2011 to 28 February 2013, on a rotational basis.

<sup>2</sup>Dr Walter Crozier was Acting Deputy Chief Executive Officer of AFESD from 11 December 2011 to 28 February 2013, on a rotational basis.

<sup>3</sup>Dr Alistair Carson was Acting Deputy Chief Executive Officer of AFESD from 12 February 2012 to 28 February 2013, on a rotational basis.

<sup>4</sup>Dr D G Kennedy was Acting Deputy Chief Executive Officer of VSD from 6 April 2012 to 31 January 2013.

<sup>5</sup>Dr Sinclair Mayne was appointed Deputy Chief Executive Officer of AFESD on 4 March 2013.

<sup>6</sup>Dr Stanley McDowell was appointed Deputy Chief Executive Officer of VSD on 25 February 2013.

<sup>7</sup>Mr Joel Ferguson was Acting Head of Corporate Services from 12 December 2009 to 31 January 2013.

<sup>8</sup>Mrs Lesley Hogg was appointed Deputy Chief Executive Officer of CSD on 21 January 2013.

The Management Board meets at least monthly with a standing agenda covering finance, resources, operational management, health and safety and business development. The minutes of these monthly meetings are available on AFBI intranet.

## Role of the Accounting Officer

AFBI's Chief Executive is designated Accounting Officer for the NDPB by the Departmental Accounting Officer and as such is accountable to Northern Ireland Assembly for AFBI's use of resources as set out in the Management Statement/ Financial Memorandum (MSFM).

In particular, the Accounting Officer shall ensure that:

- AFBI's strategic aims and objectives support DARD's wider strategic aims and current PSA objectives and targets;
- the financial and other management controls applied by DARD to AFBI are appropriate and sufficient to safeguard public funds and for ensuring that AFBI's compliance with those controls is effectively monitored ('public funds' include not only any funds granted to AFBI by the Assembly but also any other funds falling within the stewardship of AFBI);
- the internal controls applied by AFBI conform to the requirements of regularity, propriety and good financial management; and
- any grant-in-aid to AFBI is within the ambit and the amount of the Request for Resources and that NI Assembly authority has been sought and given.

### Details of significant interests held by the Management Board members

- The Management Board Members do not hold any other directorships or any other significant interests which may conflict with their management responsibilities.

## Financial Matters

### Financial results for the year

AFBI's Statement of Comprehensive Net Expenditure shows a net operating cost of £44,955k (2011/12: £39,919k). Within this net position AFBI raised income of £18,847k (2011/12: £16,821k).

Service level agreements are agreed with FSANI and DCAL securing funding in important areas of work. AFBI presented monthly financial reports to the AFBI Board and reviewed expenditure against budget at the Senior Management Team Meetings to ensure that AFBI's expenditure did not exceed its budgeted resources.

At the year end the net assets of AFBI is £14,531k (at 31 March 2012: £16,295k).

### Treatment of pension liabilities

The treatment of pension liabilities is described in the accounting policy Note 1 under the heading of Pensions on page 97.

### Events since the End of the Financial Year

There have been no significant events since the end of the financial year which would affect the results for the year or the assets and liabilities at the year end.

### Future Funding

The outcome of each Comprehensive Spending Review determines the amount of funding available to AFBI in the future.

In view of the current economic climate and the coalition government's determination to reduce the deficit, further cuts in funding are anticipated. AFBI continues to face price increases in energy and other costs. The impact of these factors requires AFBI to realise increased income from other commercial sources and to increase the efficiency of its operations.

AFBI is committed to widening its funding base and increasing the level of non-Grant in Aid revenue generated year on year. Particular focus is being placed on increasing collaborations with the local agri-food sector and on winning funding through international collaborations, particularly in the EU, where the forthcoming Horizon 2020 Programme will fund European research and innovation between 2014 and 2020.

AFBI continues to develop international business with the support of Invest NI, UK Trade and Investment and the Northern Ireland Bureau in Washington DC.

## Other Matters

### Career Development

AFBI continues to promote opportunities for career development internally and during the course of this year a total of 21 staff have achieved promotion in a wide range of disciplines and grades.

One of AFBI's strategic goals is to sustain and develop our knowledge base through attracting and investing in talented people.

In support of this objective, AFBI's Learning and Development Unit provide expert advice on learning and development opportunities covering the diverse range of skills required across the organisation.

This Unit also administers AFBI's Assistance to Study programme which has provided support for 28 staff this year in their pursuit of professional qualifications specific to AFBI's business.

### Recruitment

AFBI continues to develop its workforce in line with its business aims which has resulted in a total of 13 new appointments this year, covering grades across the scientific, administrative and industrial disciplines. This number reflects both permanent and temporary appointments.

### Work Experience

AFBI is committed to providing work experience opportunities for students at all levels to assist them in developing the key skills required to be successful in today's working environment.

20 students in higher education were given the opportunity to develop key work-related skills through a relevant, supervised work placement programme. Work experience was also given to 131 students covering a range of areas within AFBI.

### Sickness absence

AFBI had an operational objective of an average of 9 working days lost per staff member. NISRA have provided an outturn figure of 11.5 days for 2012-13. (9.6 days in 2011-12)

### Sustainability

The Executive's Programme for Government 2008-11 identified sustainability as a cross cutting theme and stated that building a sustainable future was a key requirement of our economic, social and environmental policies and programmes.

DARD was the lead department within the NI Sustainable Development Implementation Plan for strategic objective – Promote Sustainable Land Management. Sustainability continues to be an underpinning principle of the Executive's Programme for Government 2011-15. AFBI assists DARD in the achievement of this objective through the conduct of underpinning R&D on production of biomass and renewable energy, nutrient management bioremediation of farm and municipal effluents and greenhouse gas production by livestock and soils.

### Other key actions in 2012/2013 included:

#### AFBI Estate

In all its land-based operations, AFBI ensures that it maintains land in good agricultural and environmental condition.

As much of AFBI's estate comprises energy-inefficient buildings, DARD has set up an 'AFBI Estate Programme Board' comprising senior representatives from DARD and AFBI to consider options for providing a fit for purpose estate for AFBI. This Board has developed an Outline Business Case in respect of the replacement of the main building at Stoney Road for submission to DFP for approval.

## Energy Usage

AFBI has developed a baseline of energy usage across all its sites, against which future consumption is and will continue to be measured. Efforts will continue to be made to reduce energy consumption both from the viewpoint of saving costs and reducing the carbon footprint. In the case of AFBI Hillsborough, levels of consumption and measures to reduce the same are regularly discussed and demonstrated to the many and growing number of visiting groups to the Environment and Renewable Energy Centre (EREC). Most recently a well attended Biomass Open Day was held at AFBI Hillsborough showcasing the research work and accumulated data. The demonstration of how we reduce our energy consumption and carbon footprint is gaining interest by the agriculture sector and the general public including the water utility and environmentalists.

## Environment and Renewable Energy Centre (EREC), AFBI Hillsborough

With the need to reduce greenhouse gas emissions, reduce dependence on fossil fuels and increase our energy security, activities at the EREC, have been on-going with a strong focus on sustainability.

The EREC delivers heat and electricity to the Hillsborough site from biomass and solar sources. The main sources of biomass are animal manures, short rotation coppice willow, forest residues and some miscanthus grass. An anaerobic digester, supplied with animal manures and silage, produces biogas which generates about 100kW of electricity and heat through a combined heat and power (chp) generator. This chp will substitute even more of the electricity usage at the AFBI Hillsborough site as well as taking advantage of the four renewable obligation certificates for the electricity produced. About 12kW of electricity is also supplied by an array of photovoltaic cells.

About 450kW of heat is delivered around the site through a district heating system, generated from the combustion of biomass at the EREC. The majority of this is derived from plantations of short rotation coppice (SRC) willow grown on AFBI's Hillsborough and other research sites, Forestry timber and some forest brash and miscanthus also grown on site.

The SRC willow is fertilised by farmyard waste water. The irrigation protocol is environmentally controlled taking account of ambient conditions through a logic controller (environmentally sound and sustainable solution for waste water recycling). This not only negates the requirements for fertiliser imports improving the sustainability of such an intensive biomass energy crop but also helps with the cost and carbon associated with machinery and resources which would otherwise be employed for the agricultural spreading of the dirty water. This technology is beginning to be investigated by the private and utility sectors. Hot water is also supplied to the dairy parlour by solar panels.

The introduction of renewable energy to the Hillsborough site has been significantly responsible for the decrease in heating oil usage. Taking 2008/2009 as a base line, the annual savings in 2012/2013 are equivalent to approximately 80,000 litres of oil (saving approximately £48,000) and 240 tonnes of CO<sub>2</sub> per year.

The production of electricity on site in 2012/2013 accounts for approximately 130,000 kWh. The total yearly carbon saving is estimated to be in the region of 70 tonnes of carbon.

## Other Matters (continued)

### Carbon reduction

AFBI has taken the appropriate measures to ensure it is compliant with the Carbon Reduction Commitment Energy Efficiency Scheme. AFBI has established baseline information as part of a DARD-funded project and will continue to measure and adjust these values. This will be used to measure any future reduction in the carbon output.

### Waste

Clinical waste: Under existing legislation, AFBI is obliged to incinerate all clinical waste. AFBI is reviewing its current autoclaving facilities with a view to reducing the volume of clinical waste that has to be transported off-site for incineration.

### Other waste

Recycling measures are in place for a proportion of AFBI's waste in relation to paper, cardboard, plastics, metal and wood.

### Social

AFBI does not have a policy covering corporate and social responsibility.

### Internal Audit

An independent firm of auditors continue to provide Internal Audit services to the AFBI Accounting Officer and provides senior management and the AFBI Audit Committee with assurances of the adequacy of AFBI's systems of internal control and risk management.

The DARD Internal Audit unit also carried out audits of AFBI to provide assurances to the DARD Accounting Officer, DARD Sponsor Branch and the DARD Audit and Risk Committee that AFBI complies with the terms of the Management Statement and Financial Memorandum and other relevant legislative requirements.

### Risk Management

AFBI has a risk management strategy and maintains a Corporate Risk Register (CRR) which is subject to scrutiny by the Institute's Internal Auditors. The CRR is also reviewed by the Risk Management and Business Planning Group (RMBPG) and the Audit Committee on a quarterly basis.

Significant risks are escalated from Branch level, through Divisions, for consideration by the RMBPG in the context of the Corporate Risk Register.

### Performance Assessment of the AFBI Board

Arrangements are in place for an annual self assessment exercise by the AFBI Board to review and refine the objectives of the Board. The Chair of the AFBI Board also sets targets for the AFBI Board and assesses the performance of the individual Board members on behalf of DARD Sponsor Branch. The performance of the AFBI Chair is assessed by DARD's Accounting Officer and Permanent Secretary.

### Compliance with HM Treasury Code of Good Practice on Corporate Governance

AFBI complies with the HM Treasury Code of Good Practice on Corporate Governance and generally complies with the Combined Code on Corporate Governance 2005. All the directors of the AFBI Board are non-executives and the Audit and Risk Committee and the Remuneration Committee chairs and members are all non-executives.

### Supplier Payment Policy

AFBI is committed to the Better Payments Practice Code as set out in Annex 4.6 of Managing Public Money and is subject to the Late Payment of Commercial Debt Regulations 2002. AFBI shall comply with the British Standard for Achieving Good Payment Performance in Commercial Transactions (BS 7890). DAO (DFP) 12/08 refers.



Payment is regarded as late if it is made outside the agreed terms, or 30 days after the receipt of a valid invoice where no terms are agreed. In response to the current economic position, the Department for Business Enterprise and Regulatory Reform (BERR) announced in October 2008 that the Central Government was committed to paying businesses in 10 days.

AFBI managed to pay 93% (2011/2012 78%) of the invoices on AFBI's behalf in accordance with the agreed terms or within 30 days.

### Security of Personal Data

AFBI is committed to the safeguarding of personal data and has set in place appropriate measures to ensure its security. Detailed information has been made available to staff on the intranet site on the type of information which is considered to be private data and how it should be handled.

All members of staff have been advised that it is their personal responsibility to ensure that any document with sensitive information, including personal data, is appropriately secured and to ensure that, and in the case of data held electronically, appropriate access controls are put in place to prevent unauthorised access, whether accidental or deliberate, by others. There were no incidents of loss of personal data during the year.

### Disabled Employees

It is the Institute's policy to give equality of opportunity when considering applications from disabled persons. The Institute complies with all existing legislation in respect to its disabled employees and has recently completed a Disability Action Plan.

### Equality of Opportunity

The Institute's policy is to give all eligible persons an equal opportunity for employment and advancement on the basis of their ability, qualifications and aptitude for the work.

### Employee Involvement

AFBI maintains regular communications and contact with staff and managers through meetings, team briefings, seminars, bulletins and postings on the intranet. It also has well established arrangements for formal consultation with recognised Trade Union representatives on all significant developments affecting staff.

### Health and Safety

AFBI complies with all relevant Health and Safety legislation and where practicable with all Health and Safety best practice. AFBI has a team of dedicated Health and Safety advisers and a system of health and safety committees throughout the Institute.

### Audit of Accounts

The financial statements are audited by the Comptroller and Auditor General for Northern Ireland. As Head of the Northern Ireland Audit Office, he and his staff are wholly independent of the Institute and findings are reported to Northern Ireland Assembly. The annual fee for the audit of financial statements for 2012/2013 was £31,000 (2011/2012: £40,000).

### Remuneration of Auditors

The external auditors have not been instructed to undertake any non-audit work.

### Disclosure of Information to the Auditor

All information deemed by the auditor to be relevant to their investigations is made available. The Chief Executive, as AFBI's Accounting Officer, has taken all steps to make himself aware of any relevant audit information and to establish that the auditors are aware of that information and have access to it.

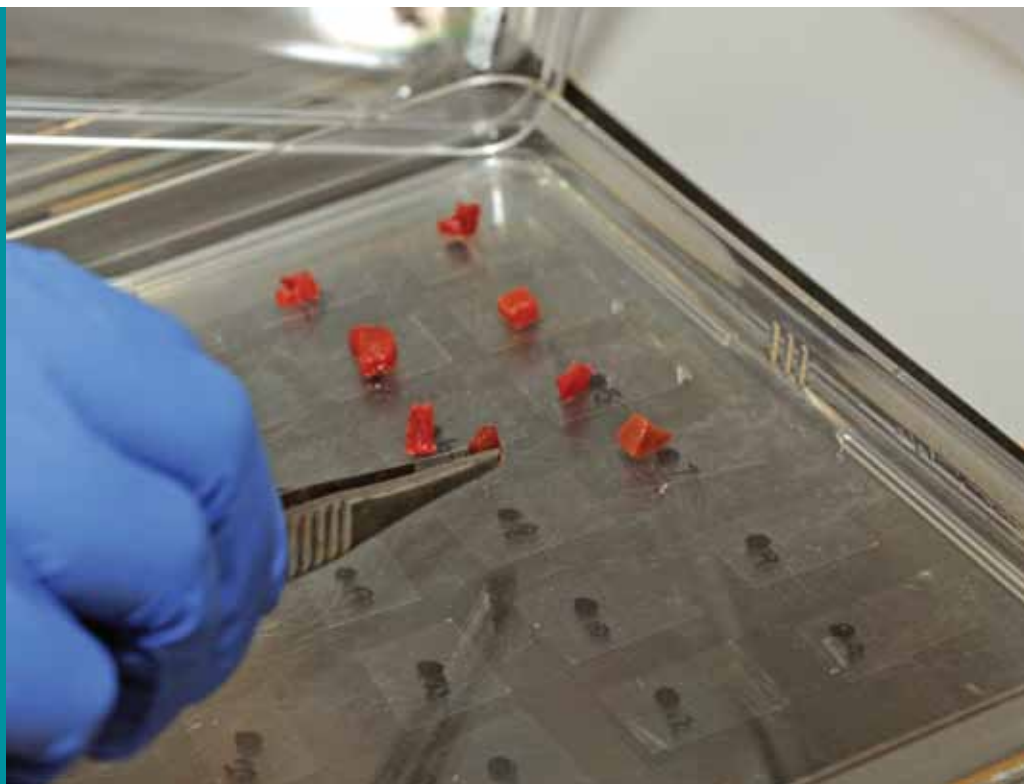




# AFBI Science



## Veterinary Sciences Division



Sample preparation in Chemical  
Surveillance Branch at AFBI Stormont

During the year, AFBI's Veterinary Sciences Division (VSD) continued to undertake integrated programmes of work in relation to animal health and welfare, and the protection of public health by ensuring the safety of food of animal origin. The division currently employs approximately 280 veterinary, scientific, technical and support staff across its five scientific branches i.e. Bacteriology, Chemical Surveillance, Disease Surveillance and Investigation, Immunodiagnostic and Virology branches. This work assists DARD in achieving its strategic goals, particularly those of enhancing animal, fish and plant health and animal welfare, and helping the agri-food industry prepare for future market opportunities and economic challenges.

The major work themes of the division are statutory testing, emergency response and contingency planning, animal disease surveillance, research and development, and commercial services and industry support. An important feature of the work of the division is the interdependency and linkage

between these work themes. For example, VSD's emergency response capability is dependent on the scientific capacity that resides within the statutory and animal disease surveillance work areas and that is developed as a result of participation in DARD-funded R&D programmes and a range of internationally competitive research and development projects.

The division has multidisciplinary scientific capability in the areas of:

- Microbiology
- Molecular biology
- Genetics
- Immunology
- Serology
- Parasitology
- Pathology and histopathology
- Chemical surveillance
- Epidemiology
- Ecology
- Veterinary investigation and advice



Immunodiagnostic testing of samples for *Brucella abortus*

## Statutory Work for DARD

The range of statutory testing carried out for DARD included testing in support of its brucellosis and tuberculosis eradication programmes, transmissible spongiform encephalopathy (TSE) surveillance, and testing associated with demonstrating disease freedom and supporting animal trade guarantees. More than 2 million ISO 17025:2005-accredited tests were carried out by the division; during the year VSD's extensive testing programme successfully underwent a four-yearly accreditation reassessment inspection by the United Kingdom Accreditation Service (UKAS).

A high volume of serological testing, amounting to 1.15 million samples requiring 1.38 million tests, was completed in 2012-13 in support of DARD's brucellosis eradication programme. This work, which was supported by specialist bacterial culture, advanced molecular typing, and animal identity / parentage testing, has been vital to maintain the progress made towards eradication of this disease

from Northern Ireland. A highlight of the year's testing programme was that no isolates of *Brucella abortus* were detected in 2012/13; this is the first financial year since the early 1990s in which no culture-confirmed cases were detected.

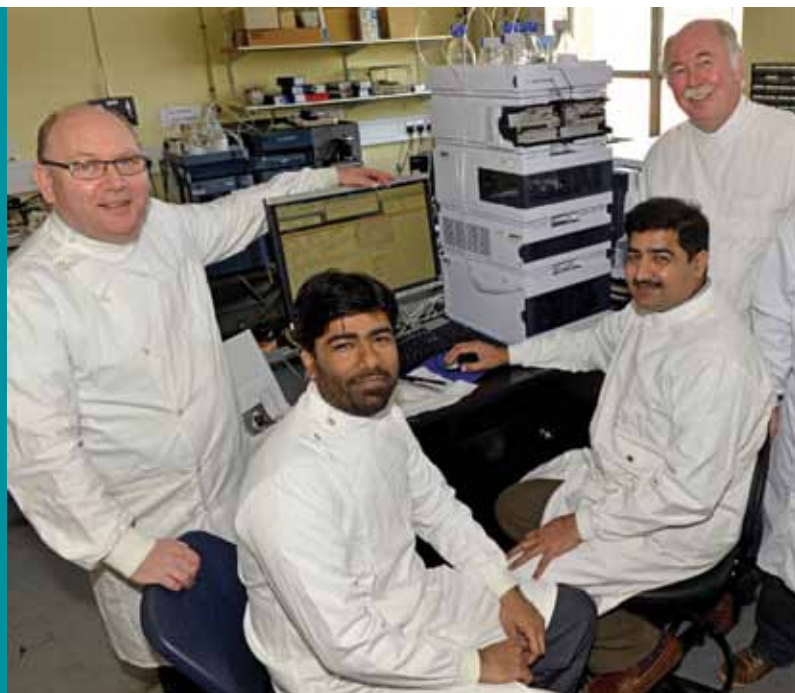
VSD continued its rapid turnaround TSE testing of cattle, sheep and goats, with more than 1.18 million samples tested since 2000. Scientific investigational work in support of this programme in 2012/13 included identification of the first "H type" atypical BSE case found in Northern Ireland. This case was detected as part of a retrospective study of BSE cases from 2000.

Serological testing at VSD detected evidence of caprine arthritis encephalitis virus (CAE) in goats imported to Northern Ireland from Great Britain. Northern Ireland is currently free of this notifiable disease and the division conducts annual screening to demonstrate freedom from CAE.

## Veterinary Sciences Division



Preparing oyster samples in VSD for testing



Dr Mazhar Iqbal and Dr Mohammad Ismail Chughtai from Pakistan were on a 4 month placement within Chemical Surveillance Branch. Also pictured are Dr Robert McCracken and Dr Armstrong Hewitt

VSD responded to increased submissions for bovine tuberculosis in 2012/2013 (3620 submissions for organism culture and more than 18,000 for interferon-gamma testing). Similarly, the number of routine samples and samples from TB reactors continued to rise in 2012/2013 – increasing by 13% cases over the previous year.

Statutory surveillance of more than 1,000 cultured and wild fish for the presence of a wide range of notifiable diseases, including infectious haematopoietic necrosis, viral haemorrhagic septicaemia, infectious salmon anaemia, koi herpesvirus, spring viraemia of carp, bacterial kidney disease and infection with *Gyrodactylus salaris*, revealed no non-compliant results. In shellfish, ostreid herpes virus-1  $\mu$ var was detected in Pacific Oysters from Strangford Lough, resulting in increased sampling and testing. Real-time polymerase chain reaction (PCR) testing and genetic sequence analysis showed that 78% of the follow-up samples were positive for this virus. Samples of native oysters and mussels were demonstrated

by laboratory testing to be free from the pathogens, *Bonamia ostreae* and *Marteilia refringens*.

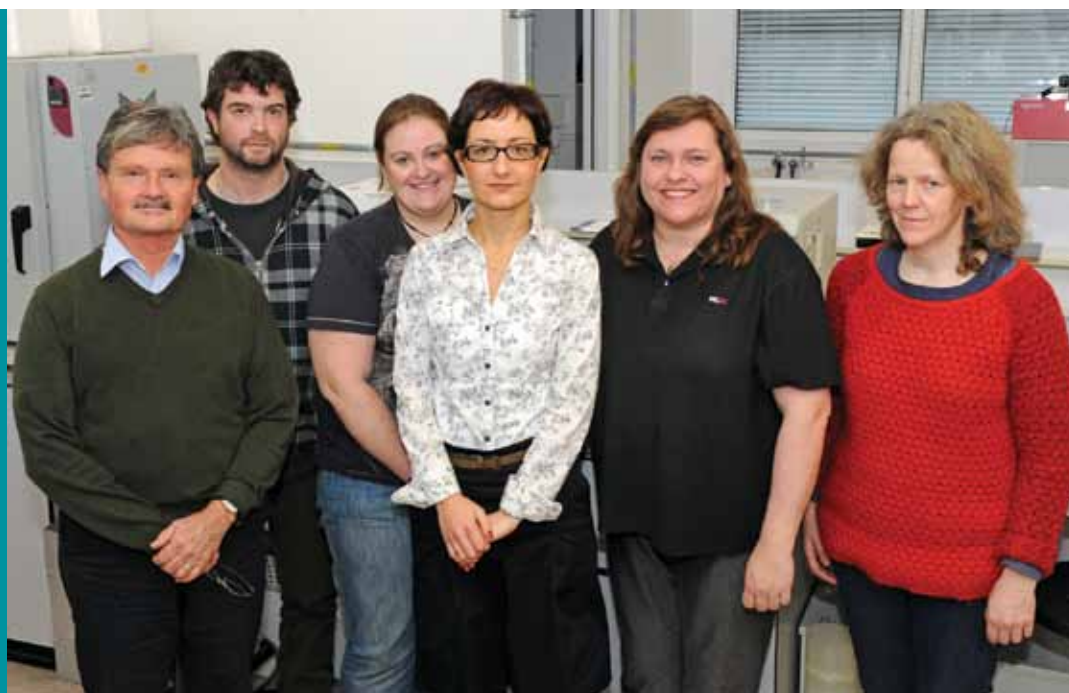
Testing for veterinary drug residues carried out under the annual National Residues Control Plan for 2012, resulted in the detection of only four non-compliant results. One was for residues for phenylbutazone in a cow and three for antiparasitic drugs in samples of bovine (1) and ovine (2) liver. The Chemical Surveillance Branch has a comprehensive suite of validated and accredited analytical methods and maintained its Flexible Scope of ISO 17025 Accreditation to enable it to respond rapidly to new challenges or emergency responses to incidents relating to feed contamination, veterinary drug residues or marine biotoxins.

### Statutory Work for Food Standards Agency

During the year VSD was reappointed by the Food Standards Agency as the UK's National Reference Laboratory for marine biotoxins for another four-year term. (This is a statutory function under EC Regulation 882/2004).



L R, Dr Danny Todd, James Trudgett,  
Heather Jewhurst, Dr Marina Bidin,  
University of Zagreb, Dr Victoria Smyth  
and Rose Jane Peck



Dr Marina Bidin, a veterinarian and researcher, from the University of Zagreb Veterinary Faculty carried out 9 weeks of molecular research with the Avian Virology Group at VSD.

## Emergency Response and Contingency Planning

A core function of VSD is to maintain an emergency response capability and contingency planning for the major epizootic diseases of farmed animals in order to be able to respond to incidents involving feed contamination, veterinary drug residues or marine biotoxins.

The diagnosis of viral agent threats is handled by Virology Branch, Immunodiagnostic Branch (IDB) and Disease Surveillance and Investigation Branch (DISB). Bacterial threats are primarily dealt with by the Bacteriology Branch, along with scanning surveillance input from DSIB. The cross-branch approach to scanning disease surveillance, in conjunction with VSD contingency plans for outbreaks of notifiable diseases, form the front line emergency response for diseases such as avian influenza, Newcastle disease virus, bluetongue virus, swine fever virus and a range of bacterial pathogens.

Contingency plans for the major epizootic diseases of cattle, sheep, pigs, equine, poultry and aquatic species are updated and exercised on a regular basis to ensure ongoing fitness for purpose. During 2012/13, a major review of VSD's contingency plans was undertaken and several additional plans, including for equine infectious anaemia and exotic viral agents, were added to the existing portfolio.

The VSD epizootic disease contingency group meets regularly with the DARD Epizootic Disease Planning Group (CPED) and contributes to the preparedness activities of the DARD Field Epizootic Team. During the year a number of desk top scenarios were simulated, including incidents of equine infectious anaemia and highly pathogenic avian influenza. At the UK level, VSD also participates in the Disease Emergency Response Committee, which is coordinated by the Animal Health & Veterinary Laboratories Agency.

Throughout the year, VSD carried out laboratory testing for epizootic disease agents on a number of submissions from DARD. These included several

## Veterinary Sciences Division



During the 2012/2013, the first clinical case of Schmallerberg virus was confirmed by VSD. The disease is conveyed and transmitted by biting midges.

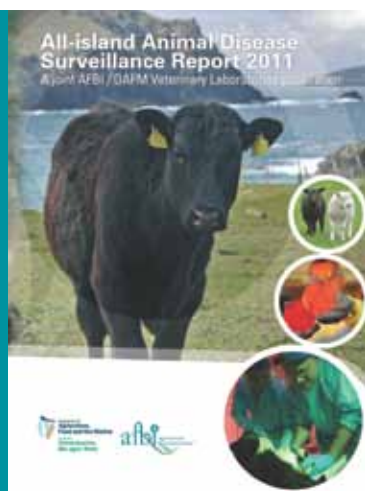
avian cases where influenza, Newcastle disease, paramyxoviruses and infectious laryngotracheitis were possible diagnoses. All cases tested negative for these pathogens. During the year antibodies to avian influenza H5 virus were detected in a duck flock in County Down. The infection was likely to have arisen from an environmental exposure to wild birds.

### Animal Disease Surveillance

The animal disease diagnostic service, operated by AFBI's Stormont and Omagh laboratories, helps to safeguard animal and public health and promote the competitiveness of the agri-food industry by identifying the causes of disease in submitted material. Surveillance for notifiable, zoonotic (transmissible to humans) and emerging diseases forms an important part of this work. The work undertaken includes post-mortem examinations of food producing species and an extensive range of clinical pathology tests. During the period 2012/13, a total of 4,200 post-mortem examinations were carried out.

The first clinical case of Schmallerberg virus disease in Northern Ireland was confirmed by VSD in October 2012. The virus, which was first identified in Germany in 2011 is transmitted by biting midges and causes the birth of malformed calves and lambs. Collaboration, developed through research and development projects, with other European institutes was instrumental in allowing VSD to develop appropriate test methods for detection of this emerging pathogen.

Two incidents of fowl typhoid (due to *Salmonella Gallinarum*) were also identified during the year. These were the first isolates of this pathogen to be made in Northern Ireland since 1984. Although *Salmonella Gallinarum* is specific for poultry and is not regarded as a zoonotic disease (i.e. communicable to humans) or a food safety risk, the organism is capable of causing significant mortality in poultry. Both incidents were the cause of significant economic losses in the affected flocks.



The second All Island Animal Disease Surveillance Report to be jointly prepared and published by AFBI and DAFM



Ulster Immunology Group (UIG) Meeting at AFBI Stormont. L R: Dr Michael McMenamy (UIG/VSD), Dr Jayne Hope (Roslin Research Institute), Dr Jim McNair (VSD) and Simon Doherty (UIG/VSD)

Laboratory submissions during the year highlighted increasing problems with liver fluke infection in sheep. This has been due to the warm summers in recent years, exacerbated by increasing resistance of fluke to triclabendazole anthelmintic.

The second All-Island Animal Disease Surveillance Report (for the year 2011), prepared by VSD and the veterinary diagnostic laboratories operated by the Department of Agriculture Food and the Marine (DAFM) in Ireland, was published in September 2012. This is one of the actions agreed by DARD and DAFM to help deliver the All-island Animal Health and Welfare Strategy. Quarterly animal disease surveillance reports were also compiled and published in the *Veterinary Record* journal during the year.

## Research and Development

Veterinary Sciences Division undertakes a range of research activities in relation to its animal health and food safety programmes. Much of the research, funded by DARD and other bodies, is undertaken to improve understanding of the impact of infectious agents on animal health and welfare, and support

intervention strategies to enhance their control for the benefit of the local agri-food sector.

Bovine tuberculosis (TB) remains a key focus for research in the division as it is probably the most complex endemic animal disease currently facing governments and the farming industry in the UK and Ireland. Funders for the research undertaken at VSD are DARD and a range of EU and other external funding bodies. In May 2012, the CEO and senior staff from the Bacteriology branch presented written and oral evidence to NI Assembly Agriculture and Rural Development (ARD) Committee's review of bovine tuberculosis. The evidence presented to the Committee highlighted the international reputation of the research carried out within VSD and its importance in controlling bovine TB.

A significant challenge in the control of bovine TB is the accurate diagnosis of infection in cattle. VSD research, carried out with several partner organisations, has provided strong evidence that liver fluke infestation may reduce the sensitivity of the bovine TB skin test. VSD scientists, in collaboration with partners, have also found important genetic



## Veterinary Sciences Division



Nobel Laureate, Professor Peter Doherty delivered a special lecture at AFBI, in association with the Ulster Immunology Group.

L R: Prof Seamus Kennedy (CEO, AFBI), Dr Donal Sammin (DAFM, ROI), Prof Peter Doherty (Guest Speaker), Colette McMaster (DARD Policy), Simon Doherty (VRO, AFBI)

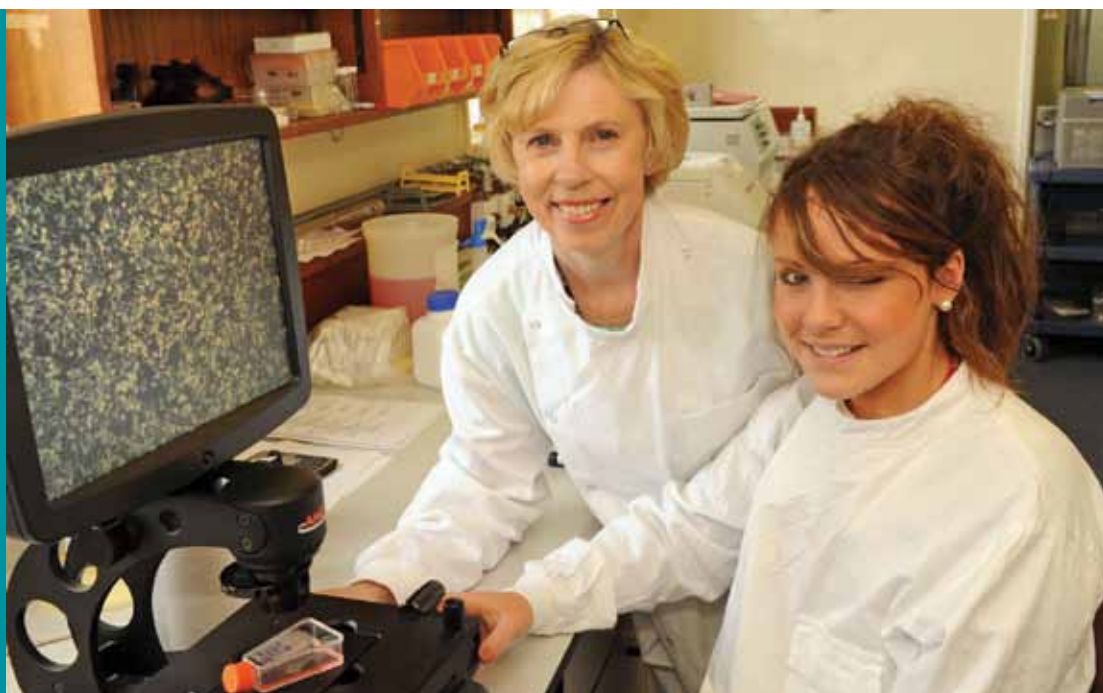
differences in resistance to TB in the cattle population. This finding indicates the potential for future genomic selection for improved disease resistance. In joint work with the University of Glasgow, VSD scientists tracked the transmission of bovine TB at the highest resolution using advanced genetic sequencing technology. This work provided the first direct evidence of ongoing TB transmission between cattle and badgers at farm level.

VSD completed a survey of foxes for *Echinococcus multilocularis* on behalf of the Food Standards Agency. No evidence of infection was found. *E. multilocularis* is a tapeworm parasite of dogs and wild canids that is transmissible to humans and is one of the most pathogenic parasitic zoonoses in central Europe. Currently the UK and Ireland are considered free of the parasite and this work was part of a wider UK and Ireland survey. Dogs, cats and ferrets travelling under the Pet Travel Scheme require treatment with an anti-tapeworm drug before returning to the UK or Ireland. This survey was required by the EU to demonstrate the absence of this parasite these islands, thus maintaining the requirements of the Pet Travel Scheme.

VSD collaborated with Queen's University Belfast in a study of the effects of climate change on ovine parasitic gastroenteritis from 1999 to 2009. The project examined veterinary surveillance and meteorological data for Northern Ireland during this period and found that climate change was the most likely explanation for the recently observed extension of the period of expected seasonal transmission of the parasites that cause this common disease of sheep.

### Commercial Services and Industry Support

VSD continued to offer a range of tests on a commercial basis to support industry animal disease control initiatives. These services include AFBI's Cattle Health Scheme, which is a voluntary scheme for the control of four of the most economically important endemic diseases of cattle i.e. bovine viral diarrhoea (BVD), infectious bovine rhinotracheitis (IBR), Johne's disease and leptospirosis. The scheme is conducted according to the UK-wide Cattle Health Certification Standards (CHCS) rules and the



Faye Gabbey with Irene McNair examining a cell culture flask for cytopathic effect during her placement in Virology Branch as part of the Nuffield STEM Bursary Scheme

testing is accredited to ISO 17025:2005 standard. In October 2012, a Cattle Health Scheme training day was attended by almost 60 local veterinary surgeons, showing a growing interest in the control of endemic diseases of cattle. AFBI is also a designated laboratory for the testing of samples under the industry-led voluntary BVD eradication programme operated by Animal Health and Welfare Northern Ireland.

During the 2012/13 financial year, Virology Branch received poultry submissions from Northern Ireland, UK, and a number of other countries for disease diagnosis purposes. Over 1000 quantitative real time-PCR tests were performed using methods developed by AFBI, together with over 2500 serology tests and 500 samples tested for virus isolation in tissue culture.

The Virology Branch also provided a commercial diagnostic service for the global aquaculture industry, mainly focusing on Ireland and Scotland. Diseases tested for during 2012/13 include salmon pancreas disease virus, piscine reovirus, *Paranucleospora*

*theridion* parasite, infectious pancreatic necrosis virus, *Neoparamoeba perurans* (associated with amoebic gill disease) and cardiomyopathy syndrome. AFBI also assisted two European countries in confirming their first outbreak of sleeping disease virus and amoebic gill disease respectively.

The Immunodiagnostic Branch conducted commercial serology testing for a range of customers including private veterinary practices, government agencies and commercial companies. This included a wide range of testing in support of trade guarantees and disease investigations.

Chemical Surveillance Branch provided accredited analytical services, training on analytical methods, Proficiency Test material preparation and consultancy services on a commercial basis to government and industry customers worldwide. The branch also provided accredited analytical services for meat speciation and marine biotoxins locally and nationally.



## Sustainable Agri-Food Sciences Division



Visitors to the Apple Blossom Fair at AFBI Loughgall were given a tour of the apple research orchards by Dr Sean Mac An tSaoir

The Sustainable Agri-Food Sciences Division (SAFSD) was established on 1 April 2013, following a merger of two Divisions: Agriculture, Food and Environmental Sciences Division (AFESD); and Applied Plant Sciences and Biometrics Division (APSBD) and incorporating Agricultural and Food Economics Branch (AEB). This restructuring, which was one of the recommendations of the strategic review of AFBI carried out in 2012/13, has created an even stronger focus than before on the integrated agri-food supply chain, with a continuum of scientific expertise in the new Division from the growing environment, through to plant and animal production systems, aquatic ecosystems, food safety and quality and finally profitability of the agri-food sector. This integrated and holistic approach to agricultural/food production systems ensures that the Division is very well placed to address the important topic of sustainable intensification of food production, particularly the development of agricultural systems that make sustainable use of resources a priority.

The new division is structured around seven Branches: Agri-Environment; Crops, Grassland and Ecology; Plant Health and Environmental Protection; Agriculture, Fisheries and Aquatic Ecosystems; Food Science; and Agricultural and Food Economics. The work of SAFSD is driven by the ongoing needs of a wide range of customers. Whilst DARD is the major customer, the division also carries out work for a number of other government departments and agencies including the Department of Culture, Arts and Leisure (DCAL), the Northern Ireland Environment Agency (NIEA), the Food Standards Agency (FSA) and several other funding organisations, including AgriSearch, Defra, Department of Agriculture, Food and the Marine in Ireland (DAFM), the European Union, and a wide range of commercial customers from the agri-food industry. In 2012-13 the component sections of the new division, AFESD, APSBD and AEB, generated external income of £9.74m from these and other sources. This funding, along with grant-in-aid from DARD, supported a broad programme of statutory testing, research and development in addition to the provision of specialist advice and technical services to government and industry.





EU Commissioner of Research, Innovation & Science, Máire Geoghegan-Quinn and Mr Jim Nicholson MEP were given a tour of AFBI's Renewable Energy Centre by Prof Seamus Kennedy (AFBI CEO)



Dundalk IT students tour AFBI Hillsborough's biomass research projects.

The key functions of SAFSD are to:

- Undertake basic, strategic and applied multi-disciplinary research for DARD and other government departments and agencies, industry and commercial organisations, and bodies representing the agri-food industry.
- Provide evidence-based scientific advice to government policy makers, to regulators and to industry, on agriculture, food, fishing and environmental issues.
- Provide a wide range of statutory, regulatory and commercial analytical services such as chemical and microbiological analyses of food and animal feed and certification and monitoring of pasture, horticultural and agricultural crops and the wider environment. This also includes maintaining specific scientific preparedness for emergency responses in these areas.

In this way, SAFSD assists DARD in achieving its strategic goals of (1) helping the agri-food industry prepare for future market opportunities and economic challenges, (2) improving the lives of rural dwellers, (3) enhancing animal, fish and plant health and animal welfare, and (4) helping to deliver improved sustainable environmental outcomes. It also assists the local agri-food sector in increasing competitiveness and sustainability.

The division has established a reputation for the high quality of the work it delivers locally, nationally and internationally and examples are given below of key Branch achievements and highlights during the year.

## Sustainable Agri-Food Sciences Division



Above: DOLMANT staff member analysing phytoplankton samples from project lakes

Left: DOLMANT launch at AFBI attended by Project Partners and funders, SEUPB. (L R) Shaun Henry (SEUPB), Dr. Yvonne McElarney (AFBI), Brenda Walker (NIEA), Prof Brian Rippey (UU), Dr Deirdre Tierney (EPA).

### Agri-Environment Branch

Agri-Environment Branch activities are focussed on assessing the environmental impacts of agriculture, with the overall objective being to develop an integrated research programme to address land and nutrient management issues. This work provides a sound scientific basis for government policy on agriculture and the environment and helps Northern Ireland comply with a range of EU legislative measures. Key research programmes on greenhouse gas emissions, water quality, soil quality and sustainable nutrient management were progressed during the year. For example, the results of experimental work on nitrous oxide emissions from soils and fertilisers undertaken by AFBI in association with collaborators in Great Britain and funded by DARD and the devolved administrations, is being used to improve the UK inventory of greenhouse gas emissions from agriculture. The branch is also contributing to the Research Stimulus programme and the Agricultural Greenhouse Gas Research Initiative for Ireland, funded by DAFM. This work includes investigating potential mitigation strategies for nitrous oxide emissions and enhancing carbon sequestration in grassland soils.

The Branch continues as lead partner in an INTERREG-funded DOLMANT project to develop ecological lake management tools to help Ireland/Northern Ireland meet its commitments under the Nitrates Directive and Water Framework Directive, especially in relation to cross-border shared aquatic resources. Project partners are the environment agencies, University of Ulster, Trinity College Dublin and Inland Fisheries Ireland. A range of management options are being evaluated to lower nutrient losses from soil to water, to establish pathways of loss and critical source areas. The Branch's expertise in geographical information systems (GIS) has also been used to derive nutrient export coefficients by land cover class and soil type.

Long-term monitoring and experimental investigation of soil quality is helping to identify the potential effects that different land use activities may be having on long-term soil quality e.g. trafficability, compaction, erosion and the impact of changes in fertiliser usage (organic and mineral) on soil and water quality, as a result of the Nitrates Action Plan in Northern Ireland. This information is being used to help manage our soil resources in a sustainable manner.



Above: Dr John Bailey, NI Regional Coordinator of DAIRYMAN, presenting the project to representatives of the European Commission and the European research community during Green Week in Brussels



Right: Dr David Johnston and John Archer inspect swards at the Grass Breeding programme at AFBI Loughgall

The Branch also played a pivotal role in one of the largest and most effective INTERREG-funded multi-stakeholder projects of its kind (DAIRYMAN). AFBI has made several keynote presentations on this project to the European Commission and European Parliament in Brussels, as an example of an effective partnership between farmers, advisors, technologists and researchers, aimed at enhancing the competitiveness and ecological performance of dairy farming in Northwestern Europe including Northern Ireland.

### Crops Grassland and Ecology Branch

Plants are fundamental to all life on earth. The objective of current work within the Branch is to exploit the diversity and range of crop plants which can be successfully and economically grown in Northern Ireland while considering options and adaptations to cope with predicted climate change. Perennial ryegrass is the most important grass species used locally and the branch's breeding programme, a unique combination of commercially-funded development of DARD-funded strategic research, released four new AFBI-bred varieties approved for sale in 2012; these have captured over

30% of the Northern Ireland seed sales market. Grass breeders submit varieties for independent testing based on the most up to date scientific methodology. This is delivered at the branch's Plant Testing Station at Crossnacreevy where the annual recommended lists of grass and clover varieties are key tools for advisers and the seed industry. The EU Community Plant Variety Office has commissioned Crossnacreevy to conduct Plant Breeders Rights testing on ornamental white clover varieties across the European Union.

During the year the branch also provided important information to the industry on the growth of grass and grass/clover swards, with results published weekly in the local press. In 2012, growth rates on grass/grass-clover swards through the season were relatively poor. This subnormal growth was accurately predicted by the Grass and Clover Check growth models, funded by DARD and AgriSearch, thereby enabling farmers to prepare contingency plans in their grazing systems.



## Sustainable Agri-Food Sciences Division



Above: Entomologist, Joanna Kirbas of AFBI, answers visitors questions at the National Insect Week event at Belfast Zoo

Left: DARD Minister, Michelle O'Neill at the launch of the Future Trees Trust with Dr Jim McAdam, John Fennesy (Future Trees Trust), DAFM Minister of State, Shane McEntee and AFBI CEO Prof. Seamus Kennedy

Given the need to reduce greenhouse gas emissions from agriculture, to reduce dependence on imported feedstuffs and to increase food security, arable crops will become increasingly important in the future. The strategic potato breeding programme at AFBI Loughgall addresses the medium- to long-term requirements for novel traits in future potato varieties. The success of the programme is reflected by the 21% of the total area of protected seed potato varieties grown in Northern Ireland using AFBI-bred varieties.

The branch also conducts research on other crops including apples. The biology, output and economics of trellis (ultra high density) systems for Bramley apple production are being evaluated. AFBI research indicated that, from a trellis orchard planted in 1998, 2012 yields were unaffected by pruning at establishment and yields of 76.6 t/ha were achieved at the densest spacing (3.25 x 0.8m). Planting at half this density reduced yields to 34.6t/ha.

Trials conducted over a 7-year period, investigating the effect of two-vs three-year harvest intervals for short rotation coppice willow as a renewable energy option, suggest that there are no yield penalties,

although consideration must be given to the increased costs and carbon impacts associated with harvesting more frequently.

Other work of the branch on agro-forestry has shown that ash trees grown at low – density in pasture at age 22 years, had a total weight of 1655 kg (800 kg above ground and 855 kg below ground). These are the first reported total tree weights for wide-spaced trees and illustrate an increased potential to store carbon in grassland systems of approximately 3.8 tonnes of carbon per hectare.

### Plant Health and Environmental Protection Branch

This branch plays an important role in identifying and monitoring diseases in plants and also provides information on disease management and control. During 2012-13, the branch's plant health team forecast that there was a high risk that *Chalara fraxinea*, the cause of ash dieback disease, would eventually reach Northern Ireland. In anticipation of this event, the team put in place diagnostic tests for the pathogen and, as a result, were able to confirm the first cases in Ireland in autumn 2012.



International postgraduate students working on INTERREG funded ANSWER project (Agricultural Need for Sustainable Willow Effluent Recycling)

L-R: Michael Cairns (biosolids), Michel Garofolo (Effluent)

Dr. Alistair McCracken (supervisor), Sian Farrar (leachate) and Sabina Doll (pathogens).

Since then, they have been providing a diagnostic service for DARD and DAFM with thousands of tests carried out on suspect ash samples during the year. Advice has also been provided to DARD on measures for improving biosecurity at infected sites and reducing the risk of spread of the pathogen during site inspections and sampling.

Management of physical (abiotic) stresses such as extreme weather conditions and also biotic stresses, caused by plant pathogens in crop plants, is an important research area within the branch. There is growing evidence from studies of plant physiology, molecular biology and cell biology that biotic and abiotic induced stress levels in plants can be modified by the use of biostimulants, particularly those derived from stress tolerant plants, such as seaweeds. A collaborative project (BIOFECTOR, FP7) is in progress to evaluate seaweed extracts and phosphorus solubilising- cold adapted microorganisms for enhancing yield of low input winter wheat. In addition SME companies, Invest NI, DARD and DOE are funding research within the branch on the detection and alleviation of stress in crop plants.

EU Legislation is greatly restricting the number of crop protection products available to agriculture, horticulture and forestry. In the face of growing disease and pest pressures, the industry will require new chemicals and cultural techniques for maintaining crop production. The branch is focused on developing expertise and knowledge required for fabricating novel products using microorganisms, nanocellulose, biochar and plant/seaweed extracts.

The branch continues to actively monitor, and advise on the management of several insect vectors that have the potential to spread disease to crops. Bluetongue and Schmallenberg are two such insect-vectored animal diseases that have emerged in north-west Europe in recent years. With global warming, more insect-vectored diseases are likely in the future. Recent work in the branch has focussed on understanding the population dynamics, host preferences and habitat requirements of *Culicoides* midges, as vectors of bluetongue and Schmallenberg viruses. This DARD-funded work is essential for risk assessment, contingency planning and management of these diseases.



## Sustainable Agri-Food Sciences Division



A group of 16 dairy technical specialists from the Mole Valley Group in South West England spent two days at AFBI Hillsborough for an update on the dairy research programme.



Above: Advances in pig research were presented by scientists working at AFBI, Teagasc and Queen's University Belfast to an audience representing the pig industry at a seminar at AFBI Hillsborough.

L R: Elizabeth Magowan (AFBI), Ivor Ferguson (UFU), Caroline Buick (UFU), William Anderson (Pig Regen), Elizabeth Ball (AFBI) and Sinclair Mayne (DARD).

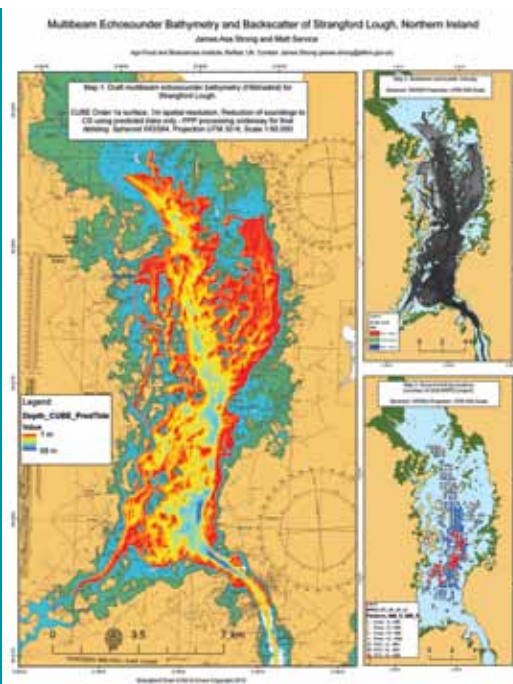
### Agriculture Branch

Research and development to underpin sustainable livestock and land-based renewable energy systems is undertaken by Agriculture Branch at the 310-hectare AFBI farm at Hillsborough, County Down. This resource, with its specialised experimental facilities, is used in multi-disciplinary research programmes with the analytical services laboratory providing a commercial forage analysis service for the dairy, beef and sheep sectors. Further research is conducted at a monogastric research facility and endocrinology laboratory at AFBI Newforge. The branch has developed an innovative research model that integrates applied on-farm studies with the strategic and more basic research undertaken at AFBI.

Branch resources are focused on the development of research programmes on climate change (measuring agricultural greenhouse gas emissions; renewable energy generation and use), sustainable livestock systems (dairy, beef, sheep and pigs & poultry) and knowledge exchange.

The Branch undertakes research for DARD and other funding bodies including the EU, Defra, farmer research levy boards (AgriSearch and PigRegen Ltd) and a range of commercial companies. Future research priorities will be shaped by the need for applied and fundamental research for the agri-food sector within a policy environment which has an increasing emphasis on promoting growth of the sector based on competitiveness in the marketplace, on food security, and on delivering an improved environment and addressing animal welfare concerns.

During the year over approximately 2,000 visitors attended knowledge transfer events organised by Agriculture Branch. On-farm knowledge transfer events were organised in partnership with AgriSearch and CAFRE for the dairy, beef and sheep sectors with over 600 attendees. A research seminar was held for technical specialists in the pig industry and over 900 attended a renewables event at CAFRE involving seminars given by Agriculture Branch staff.



Bathymetric survey of Strangford Lough

An ICES working group investigating the sustainability of salmon on a visit to AFBI Bushmills Salmon Station

## Fisheries and Aquatic Ecosystems Branch

One of the important resources within this branch is its marine research vessel, the RV *Corystes*. This ship is used to carry out projects in the Irish Sea. In the year under review, marine fisheries stock assessment work provided scientific evidence that was used by the DARD minister in 2012 to oppose a proposal by the European Commission for a 12% cut in the total allowable catches (TAC) of the *Nephrops* (prawn) fishery in the Irish Sea. Negotiations resulted in a 6% increase in TAC for fishing in 2013. The branch continued to conduct scientific survey work in partnership with the fishing industry, to support the development of a long-term management plan for the Irish Sea herring fishery.

The marine ecosystem team continued to play a leading international role in developing an understanding of ecosystem structure and function, to underpin assessments of ecosystem state and develop an ecosystem approach to managing Irish Sea fisheries and other marine resources. Key work in 2012 included the maintenance of unique long-

term time-series of data; leading the development of targets and indicators for a UK-level plankton monitoring programme and monitoring of the occurrence of harmful algae in Northern Ireland waters. Key outputs included reviews of the harmful marine algal blooms in relation to nutrient enrichment and the concept of ecosystem health and fish recruitment.

Work continued on the INTERREG-funded Inis Hydro seabed mapping project, a collaboration between institutes in Scotland, Northern Ireland, Ireland and England, with key inshore waters of Co Down from Carlingford to St John's Point being surveyed in 2012. In collaboration with DOE Marine Division and DARD, AFBI generated the first ever high resolution multi-beam sonar map of Strangford Lough (above right). These maps will provide the foundation for future resource management and planning decisions.

AFBI provides long-term data on the survival of wild salmon stocks at sea and monitors juvenile abundance at freshwater index sites. Key advances were made in-year on studies of genetic differentiation on local

## Sustainable Agri-Food Sciences Division



Sensory evaluation and microbiological testing of food at AFBI Newforge

sub-stocks and determination of the marine feeding areas of Northern Ireland salmon. This identifies which elements of the salmon stock and life cycle are under most pressure and supports advice on management of stocks. Based on AFBI data which indicated continuing declines in sea survival, DCAL decided to suspend all commercial salmon fisheries in 2012. As part of an EU INTERREG project, the first stock assessment of Lough Neagh commercial and recreational fish resources, which commenced in 2011, continued in 2012. The data generated from this project will provide a key platform for developing advice on sustainable management of Lough Neagh commercial and recreational fisheries.

### Food Science Branch

An integrated Food Science Branch (FSB) was created on 1 April 2013 from the amalgamation of the former Food Microbiology and Food Chemistry branches. The new Branch continues to offer specialist expertise in research, analytical services and training to DARD and industry, as well as providing an emergency response capability. During 2012-13, the predecessor branches of FSB carried

out statutory chemical and microbiological analyses for heavy metals, pesticides and other organic contaminants. Food Microbiology Branch continued to operate as the UK National Reference Laboratory for Milk and Milk Products. It also continued to develop and have new methods accredited under ISO17025. Significant support for the red meat industry was provided in the form of microbiological testing and chemical analyses.

The Branches continued to offer an emergency response capability for chemical, bacterial and radionuclear contaminants. This capability is underpinned by both the research and analytical capability, providing the ability to respond quickly to new situations, develop new methods and find solutions.

The Branch also conducted research and provided specialist advice to both the public and private sectors. Collaboration with other AFBI branches allowed research encompassing the entire food supply chain through to the quality and safety of the food produced. DARD-funded research, conducted





Ground staff from Manchester City Football Club visited AFBI to find out about combatting the effects of nematode damage on the roots of turfgrass



CAP seminar at AFBI Newforge: L R Professor Seamus Kennedy, Dr Myles Patton, Dr Siyi Feng and Professor John Davis

with Agriculture Branch, showed eating quality differences between beef-breed and dairy-breed beef. Consumer panels preferred pure Holstein and Angus x Holstein striploin to that from continental cross-bred animals. The reasons for this are being evaluated in further research.

Microbiological containment Level 2 and 3 facilities permit research on food borne pathogens, funded by external bodies such as the Food Standards Agency, Safefood and DARD's Research Challenge Fund. A UKwide study of *Listeria* in ready-to-eat sliced meats purchased in small retailers was completed. Significant studies on *Campylobacter* in broilers and on the prevalence of *Salmonella* in retail pork products were conducted. A model to describe the decline of *M. bovis* during ripening of raw milk cheese was derived from studies to determine the survival of pathogens in food processing and associated environments.

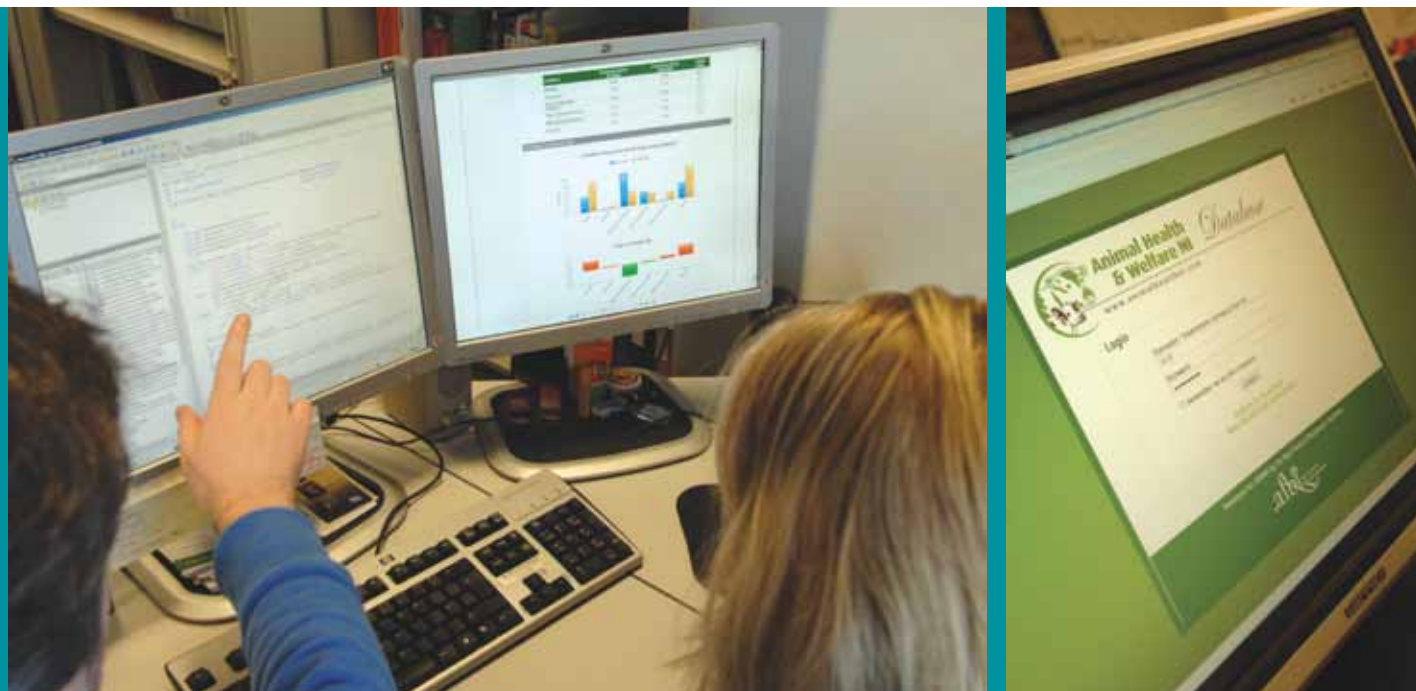
Research for DARD and industry has evaluated the potential to produce an omega-3 enriched cheese. Microbiology, chemistry and sensory expertise

was employed to ensure acceptable quality despite changes in ingredients. Several major research projects, commissioned by the local food industry, were carried out. AFBI's pilot scale facility was used on a commercial basis to enable local companies to test the market with high pressure-treated food products. Collaborative research was carried out with scientists in local universities, France, GB, Ireland, Poland, USA and Australia.

### Agricultural and Food Economics Branch

Agricultural and Food Economics Branch has an established national and international reputation for providing high quality socio-economic research to support decision making in the policy, NGO and private sectors. The research programme encompasses: sustainability of agri-food systems; environment and climate change; and rural development and policy impact analysis. This work provides an evidence base, in relevant and accessible formats, for stakeholders via policy and practice briefs, reports, research papers, seminars and tailored knowledge transfer events. In 2012-13 the main customers for the branch's research

## Sustainable Agri-Food Sciences Division



Biometrics and Information Systems Branch develops interactive applications for the agri food industry such as the Animal Health and Welfare NI database (right).

output were: DARD; Defra; SEERAD, Scotland; the Environment & Countryside Department, Wales and the private sector. This research covered the dairy, beef, sheep meat, pigs, poultry, cereals, oilseed and liquid biofuel sectors as well as the rural environment and rural society.

Eight policy briefings/research reports were completed with specialist presentations being made to the Agri-food Strategy Board; DARD's Science, Evidence and Innovation Policy Division, the Greenhouse Gas Implementation Partnership, Northern Ireland Statistics and Research Agency and Livestock Marketing Commission. Of note was a presentation on the "Impact of CAP Post-2013 Reforms on Agriculture in Northern Ireland" which was widely attended by a range of key agri-food industry stakeholders.

**Biometrics & Information Systems Branch (BIS)**  
During 2012-13 this branch was a part of the former Applied Plant Science and Biometrics Division.

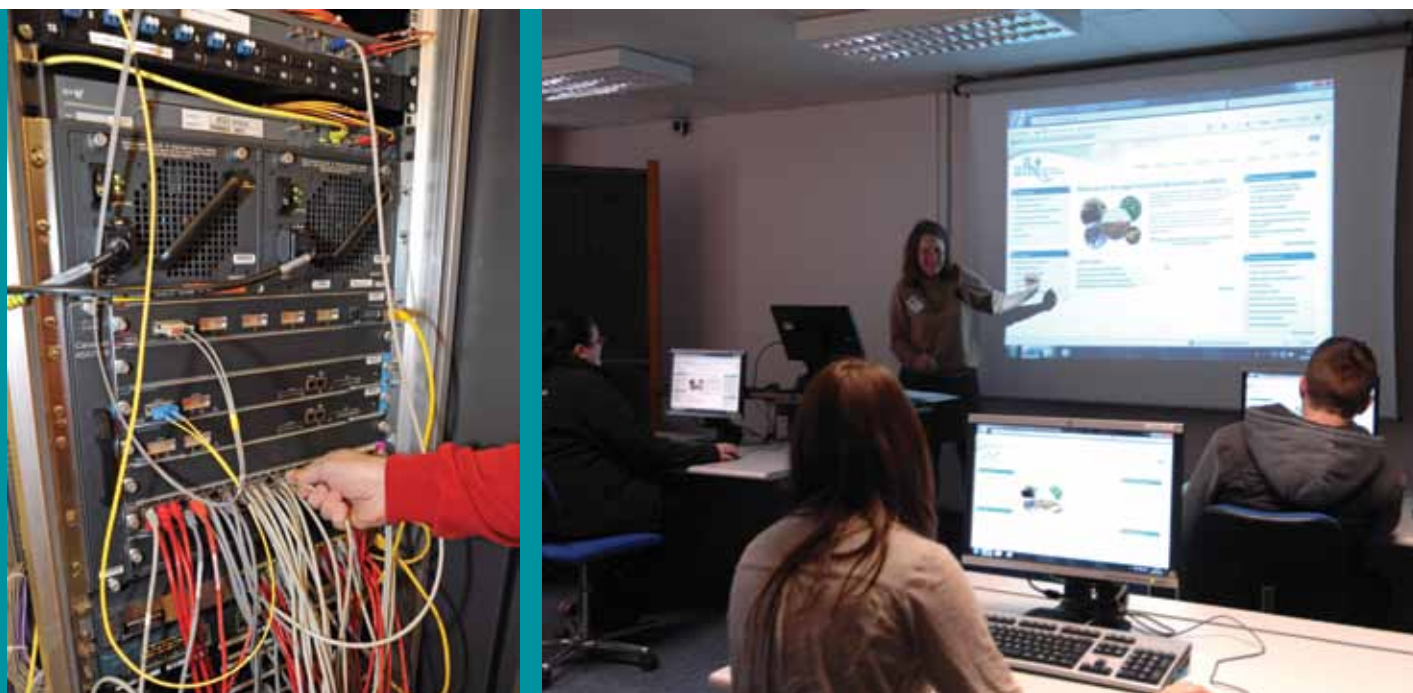
The branch provides an integrated statistical and IT service in support of AFBI business areas and external customers, co-ordination of AFBI quality assurance, and information management.

### Key Services and Expertise

This includes design of experiments and surveys, analysis, interpretation and reporting of scientific data, co-ordination and maintenance of the AFBI ISO9001 quality management system and training courses for Microsoft Office and statistical analysis.

The branch also develops interactive applications for DARD and the agri-food industry; solutions for the efficient and secure management of AFBI scientific and business data; manages AFBI's intranet and internet sites and co-ordinates AFBI information management requirements including Freedom of Information (FOI) requests. It also maintains compliance with public sector data security and





Biometrics and Information Systems Branch supports the work of AFBI through the delivery of training and support for the IT infrastructure of the Institute.

access requirements and accreditation of the AFBI IT infrastructure to NICS standards, and provides backup and resilience for key AFBI line-of-business IT systems.

During the year, the Branch developed a database to support the industry-led program for eradication of bovine virus diarrhoea (BVD) virus from the cattle population. It also developed online greenhouse gas calculators for dairy and beef sectors, updated its PiGIS online pig carcase grading application and developed an online carcase inspection analysis system for the pig industry. It provided direct support to DARD by completing a verification check on the Department's Land Parcel Identification System in order to insure compliance with the European Commission's regulatory requirements. It also supported DARD's farm business and pesticide usage surveys, its timber production forecasting system and provided a statistics consultancy to DARD's Veterinary Service.

The Branch also provided a wide range of support to AFBI corporate functions including renewal of AFBI IT Infrastructure accreditation and ISO9001 certification; installation of secondary computer circuits at AFBI Stormont in support of business continuity and upgrading of AFBI's desktop infrastructure to Windows 7; assisting the development of online questionnaires and surveys and with analysis of results.

It also co-ordinated AFBI's response to meeting its obligations under the EU INSPIRE regulations for making national-level spatial datasets available for download. Finally it developed a freshwater database system for the *DOLMANT* INTERREG project to assist in the development of programmes of measures to meet EU legislation and developed an aquatic systems database in support of the collection of data required by the EU.

## Finance and Corporate Affairs Division



At the Balmoral Show, AFBI Veterinary Research Officer, Simon Doherty shows some school pupils samples of parasites collected from farm animals.

The Finance and Corporate Affairs Division (FCAD) was established on 1 April 2013, following the incorporation of Biometrics and Information Systems. The division is responsible for the management of AFBI's corporate functions and, during the year under report, comprised four branches; Finance, Human Resources, AFBI Innovations, and Emergency Planning, Health & Safety and Estates.

The division takes the lead in supporting the Chief Executive and Accounting Officer in ensuring that good governance arrangements are in place. This includes coordinating the Institute's contact with the Board, its sub-committees and internal and external auditors.

AFBI has a Management Statement and Financial Memorandum with DARD that describes the governance arrangements under which it operates. These take account of The Agriculture (Northern Ireland) Order 2004 as well as Managing Public Money Northern Ireland. During the year DARD and AFBI commenced a review of the current Management Statement and Financial Memorandum.

A Memorandum of Understanding, which sets out the governance arrangements for the delivery of DARD's work programme, was finalised and signed in July 2012. In the autumn DARD's AFBI Sponsor Branch conducted an Arm's Length Body Risk Assessment which resulted in a number of further improvements for both DARD and AFBI. These will be implemented during 2013/14.

The Secretariat and Coordination Unit also resides within the Division and provides support to the AFBI Board, its committees and the Senior Management Team. The Unit also provides support to a number of other corporate committees such as the Health and Safety Committee and the Risk Management and Business Planning Group.

More detailed information on the functions and achievements of the division is set out below.

### AFBI Innovations

AFBI Innovations was established to support AFBI staff in taking new discoveries from AFBI's science base through the commercialisation process and





The Irish Government's Chief Scientific Adviser, Professor Patrick Cunningham delivered the 61st annual George Scott Robertson Memorial Lecture entitled "Science, Agriculture, Development- A personal journey".

to find markets for the Institute's new services and inventions. The scope of AFBI Innovations has since widened to include the management of the DARD-assigned work programme, the provision of legal support for licensing and contract management and delivery of AFBI's Research Support Office.

#### Key Services and Expertise:

##### Business Development and Intellectual Property Exploitation

Supporting scientists to commercialise novel technologies and services through the development of Branch Business Development Plans and support for the commercialisation of specific inventions. AFBI Innovations seeks strategic partners and funding to bring new technologies to market. The unit works with staff to secure new business locally and internationally.

##### Corporate Marketing and Communications

Marketing and brand, event and media management. This includes the production of corporate promotional and scientific material and displays to promote AFBI's activities and projects.

#### DARD and Key Public Sector Customer Management

DARD is managed as a prime customer through the DARD Business Manager. The DARD Business Manager coordinates the annual specification of services to be delivered to DARD under the assigned work programme and monitors the delivery of services. The delivery of services to other key public sector customers is also supported.

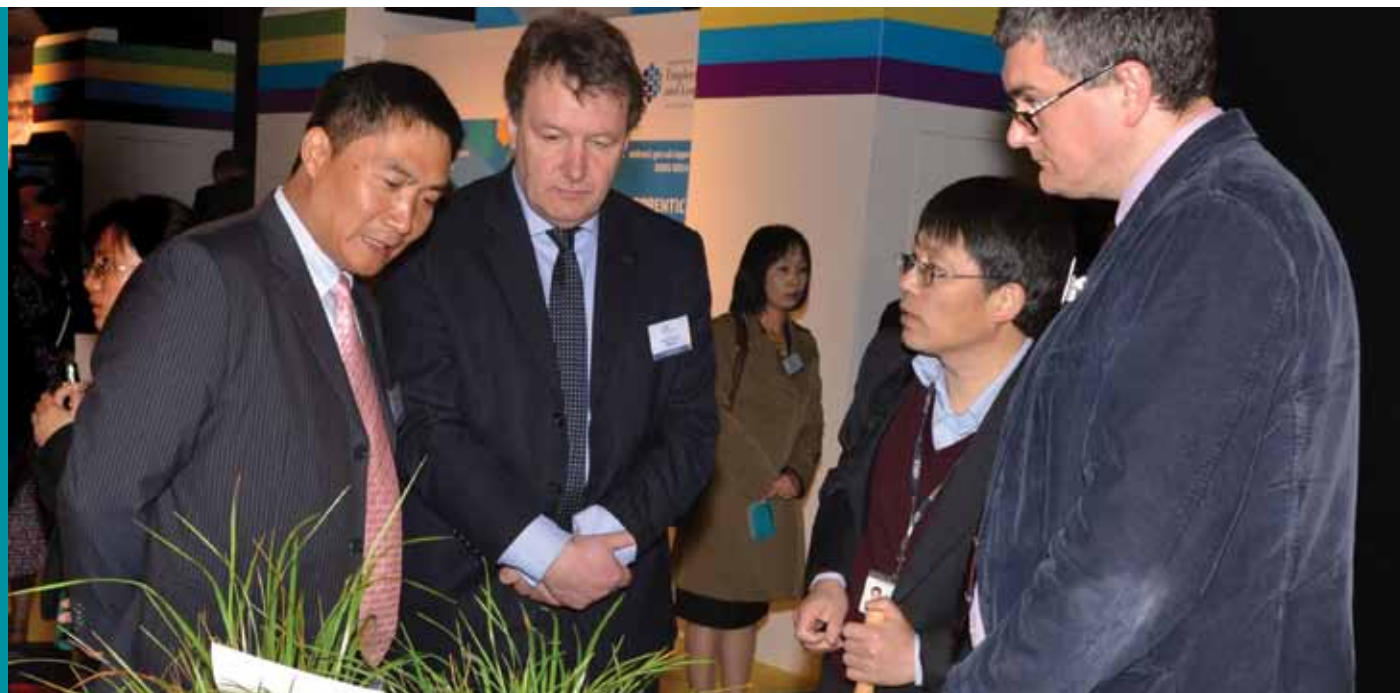
#### Licensing and Contract Management

AFBI Innovations supports scientists by negotiating and agreeing commercial agreements and contracts. The unit also provides support in managing and protecting Intellectual Property.

#### AFBI's Research Support Office

The Research Support Office assists staff in seeking research funding from external sources. A key priority for 2012/13 was the EU's Seventh Framework Programme for Research and Development and preparations for the forthcoming Horizon 2020 launch in 2014. The latter programme will run for six years with an estimated budget of €70 billion for research and innovation across Europe.

## Finance and Corporate Affairs Division



Professor Xiaojun Gu, Vice President of Shanghai Academy of Agricultural Sciences (SAAS) is shown the broad range of areas in which AFBI work by Prof Seamus Kennedy, AFBI CEO, Dr Ziping Wu and Mr Simon Doherty, at the Balmoral Show.

### Key Customers / Sectors

AFBI Innovations is the “portal” for communication internally and externally, providing staff with a contact point for accessing commercialisation support and providing potential clients with an initial gateway into AFBI.

### Key Achievements in 2012-2013 Year

- Appointed a business development executive in Washington DC with the support of the Northern Ireland Bureau.
- Further strengthening of links with Ministries in the Governments of the Kurdistan Region of Iraq and with China.
- Participation in 14 EU projects under Framework and INTERREG Programmes
- Supported non-Grant in Aid income of £18.8 million for the year including £6.3 million in royalty revenue
- Published 94 press articles and facilitated 27 media interviews.

### Emergency Planning, Safety & Estate Branch

The Emergency Planning, Safety & Estate Branch provides overarching management of Emergency and Business Continuity Planning, Health & Safety and Estate functions within AFBI.

The function of the Branch is to coordinate:

- an emergency planning capability for the Institute including Business Continuity Management and Incident Management with an input to delivery of the Emergency Response Capability required of AFBI by DARD and other government departments/bodies;
- estate and property management services across the AFBI Estate across six of the seven AFBI sites; and
- Health and Safety advice.





Pictured at the launch of the Teagasc Willow Variety Guide at the National Ploughing Championships at Athy, Co. Kildare, are Professor Gerry Boyle (Director Teagasc), Shane McEntee (DAFM Minister of State), Barry Caslin (Teagasc), Prof Seamus Kennedy (Chief Executive AFBI) and Dr John Finnan (Teagasc). Photo O Gorman Photography.

The key customers of the Branch are the AFBI business units and associated administrative and scientific staff. In taking forward its responsibilities, the Branch works in close association with a range of stakeholders which include DARD (AFBI Sponsor Branch, Business Support Branch, Estate Branch and Science Advisory Branch), DFP (Central Procurement Directorate, Enterprise Shared Services and Properties Division), the NI Environment Agency, Health & Safety Executive NI, and NI Fire & Rescue Service.

AFBI leases the estate which it occupies from DARD and operates across seven different sites. A Service Level Agreement is in place for Estate and Property Management Services which sets out the key roles and responsibilities for both AFBI and DARD in relation to the estate. The main budget of circa £2.5m for maintenance of the estate is held and managed by DARD Estate Branch.

Much of AFBI's estate is inefficient and no longer fit for purpose. DARD and AFBI therefore established an AFBI Estate Programme Board to consider these issues.

## Key Achievements in 2012 – 13

### Estate Management

During 2012-13 a wide range of maintenance works were undertaken across AFBI's estate through the annual planned preventative maintenance schedule, associated remedial works, reactive maintenance, and minor works projects.

Some examples of minor works projects included resurfacing of the main avenue at AFBI Hillsborough, provision of a new roofing skin to the AFBI Crossnacreevy main building, refurbishment of the AFBI Stormont specified pathogen free (SPF) building, replacement of high voltage switch gear at AFBI Newforge and provision of a new concrete yard at AFBI Omagh.

A capital project to provide new ducting at AFBI Stormont was undertaken in order to improve IT resilience at the site and allow roll-out of internet phone telephony. Capital funding was also obtained to undertake improvements to the contingency laboratory at AFBI Stormont.

## Finance and Corporate Affairs Division



The Manor House at AFBI Loughgall

Following internal audit recommendations, the AFBI Estate Unit, in conjunction with the DARD Security Officer, undertook security reviews of the Hillsborough, Loughgall, and Omagh sites. Recommendations from the reviews are being taken forward in 2013-14.

### Emergency Planning

AFBI's Emergency Response Capability Contingency Plans were reviewed and updated by the respective scientific branches. This review also identified the requirement for a number of additional plans which are being put in place. These 19 plans detail how AFBI will respond to external emergencies on serious pests & plant health diseases, exotic pests and diseases on honey bees, epizootic diseases, fish diseases, shellfish contamination incidents, fish kills in freshwater, and marine pollution incidents for customers including DARD, the Food Standards Agency NI, and the Department of Culture Arts and Leisure. AFBI scientific staff also contributed to a review to determine DARD's emergency response capability needs and the ability of AFBI, as DARD's main service provider, to meet these needs.

Work on embedding business continuity management within AFBI continued during the year with 25 Business Unit Resumption Plans drafted. The availability of such plans should improve AFBI's resilience against business disruption and its ability to achieve its key objectives.

AFBI also worked with the NI Fire & Rescue Service by hosting familiarisation visits to AFBI sites. Scenario based exercises were undertaken at AFBI Stormont and AFBI Loughgall.

### Health & Safety

The AFBI Health & Safety Unit has continued to provide the Institute with advice and guidance on relevant issues throughout the year. Accident statistics for the Institute remain relatively low with no significant increase in the number of adverse events reported from 2011/12.



AFBI attends a variety of events throughout the year across Northern Ireland to promote services and provide knowledge transfer from current research.  
Above: the promotional unit at the Armagh Show in Gilford.

An annual audit programme of the laboratory and office accommodation commenced in 2012/13 whereby the AFBI Health and Safety Officers visit targeted work areas to observe ongoing work practices, current facilities and identify possible hazards in relation to the work activities. The aim of the inspections is to be proactive in Health and Safety matters therefore avoiding foreseeable accidents and ill health conditions. During 2012/13 the RV Corystes, AFBI Stormont Lamont building and AFBI Hillsborough Environmental & Renewable Energy Centre and Farm Mechanisation Unit were inspected.

Training in aspects of Health and Safety was provided during the year via the AFBI e-learning package and specific training such, as the animal handling course organised and delivered in conjunction with AFBI Hillsborough, was organised as required.

## Finance Branch

The Finance Branch provides support to AFBI's Senior Management Team and the wider organisation on financial management, governance and control issues. This includes financial planning; budgeting and accounting; strategic and business planning and financial systems.

Of critical importance to the Corporate Services Division is the maintenance of the high standards of financial management and corporate governance. A strategic review of AFBI identified that capability and capacity in the Branch should be enhanced. AFBI appointed an Interim Head of Finance (pending the recruitment of a substantive position) and two additional accountants. The need for the appointment of a Director of Finance and Corporate Affairs was also identified and a new Director was appointed towards the end of the year.

AFBI is now operating in a period where budgets are under significant pressure and the requirement to increase sources of non Grant-in-Aid income and improve efficiency increases year on year in order



## Finance and Corporate Affairs Division



AFBI attends the annual Sentinus Event at the Belfast Odyssey to promote careers for young people in STEM (Science, Technology, Engineering and Maths) subjects. Pictured here are Gavan Duffy & Sophie Tynan of Veterinary Sciences Division, AFBI Stormont.

to be able to balance AFBI's budget and maintain the same levels of service delivery to DARD. This is becoming increasingly difficult.

### Key Achievements in 2012-2013 Year

A 'Finance Improvement Plan' was developed and implemented which included the provision of finance training for budget holders, the appointment of Finance Business Partners to work alongside Divisions and a significant improvement in the quality of financial information provided both internally and to DARD.

During the year AFBI also conducted an organisational wide assessment of its vulnerability to fraud and a Fraud Action Plan was developed to address the resulting improvement recommendations.

AFBI resource outturn for 2012-13 was a surplus of £0.1m against a gross budget of £58.5m. This represents an outturn of 99.7% of the budget provided by DARD.

### Human Resources

The Human Resource (HR) Branch provides strategic and operational support for the delivery of all personnel related functions to AFBI's Senior Management Team and its staff. AFBI's Terms and Conditions of employment follow those of the Northern Ireland Civil Service and AFBI's HR service has been structured in conjunction with the role of HRConnect.

The Branch is made of four discrete business function sections:

- Employee Relations and Management of Attendance
- Workforce Planning and Pay Remits
- Learning & Development and Performance Management
- Equality and Equal Opportunities

The HR Branch provides support for all staff, administrative and scientific, across AFBI business units, as well providing input to the Senior Management Team and the AFBI Non-Executive Board. In support of these services the Branch





During a visit to AFBI Hillsborough by Caroline Spelman MP, (Defra Secretary of State) the technique used to measure methane production from grazing dairy cows was explained by Dr Conrad Ferris.

works with a range of stakeholders including AFBI Sponsor Branch in DARD, other core departments, Principal Civil Service Pensions Scheme (PCSPS NI), HRConnect, Occupational Health Service (OHS), Health & Safety Executive NI and the Equality Commission.

### Key Achievements in 2012 – 13

During the year there have been a number of key HR developments within AFBI.

In support of a recommendation for a structural reorganisation of AFBI arising from an external strategic review of the organisation, AFBI HR administered a structural reorganisation programme to move to a three Divisional structure comprising two scientific divisions and a Finance and Corporate Affairs Division, as well as additional changes to Branch structures. The revised structures were successfully implemented on 1 April 2013.

AFBI HR developed an Equality Scheme which was submitted to the Equality Commission for Northern Ireland in October 2012. This was formally approved by the Chief Commissioner of the Equality

Commission for Northern Ireland in February 2013. The Scheme was published on the AFBI intranet and website in March 2013.

In support of our staff, AFBI HR conducted a Morale and Motivation Survey and, in partnership with Northern Ireland Public Service Alliance, introduced a Stress in the Workplace initiative facilitated by the Health and Safety Executive for Northern Ireland. The key activities arising from them are being taken forward under a formal improvement plan.

Career development opportunities resulted in a total of 34 new appointments and the Assistance to Study programme provided financial support for 28 staff, for qualifications ranging from HNC to PhD. AFBI also accommodated a total of 20 work placements as well as providing work experience for 131 students.

A number of new appointments were made at Executive Team level and a leadership programme is being developed to support the changes to the executive team structure and the supporting layer of management below it.





# Accounts

# Remuneration Report

## Chairman and Board Members

The Chairman is appointed for a fixed period of four years, the Deputy Chair for three years and the Board members are appointed for a fixed period of three or four years. Thereafter they are re-appointed in accordance with the Code of Practice.

The remuneration of the Board is set by DARD. Increases are calculated in line with the recommendations of the Senior Salaries Review Body. There are no arrangements in place for the payment of a bonus. Neither the Chairman nor any Board Member receives pension contribution from AFBI or DARD.

AFBI reimburses the Chairman and Board members for any incidental expenses incurred for carrying out their duties relevant to the organisation.

## Details of remuneration of the Chairman and Board Members

In 2012/2013, the remuneration for members of the Board was-

	2012/13*		2011/12	
	Salary £000	Benefits in kind (to nearest £100)	Salary £000	Benefits (to nearest £100)
Mr Seán Hogan, Chairman	20 - 25	-	20 - 25	-
Prof. David McDowell	-	-	10 - 15	-
Prof William McKelvey	10 - 15	-	-	-
Prof. Grace Mulcahy	-	-	0 - 5	-
Prof. Stewart McNulty	-	-	0 - 5	-
Mr Jim Noble	-	-	0 - 5	-
Mr John Rankin	-	-	5 - 10	-
Mr Michael Walker	-	-	0 - 5	-
Mr Trevor Hinds	0 - 5	-	5 - 10	-
Mr Seamus McCaffrey	5 - 10	-	0 - 5	-
Mr Alan McKeown	0 - 5	-	0 - 5	-
Mrs Hilda Stewart	5 - 10	-	0 - 5	-
Mr Bob McCann	0 - 5	-	5 - 10	-
Mrs Hilary McCartan	5 - 10	-	0 - 5	-
Prof Patrick Murphy	0 - 5	-	-	-
Dr Cecil McMurray	0 - 5	-	-	-
Mrs Sarah Havlin	0 - 5	-	-	-
Mr David Lindsay	0 - 5	-	-	-
Mr Ken Millar	0 - 5	-	-	-

\* The figures quoted above relate to payments made for 2012-13. A business case has been submitted to DARD in relation to additional payments, but no decision has yet been made in this respect.



The following members completed their term of office on 31 March 2012:

Prof. David McDowell  
Mr Jim Noble  
Mr Michael Walker  
Prof. Stewart McNulty  
Prof. Grace Mulcahy  
Mr John Rankin

There were no members who completed their term of office on 31 March 2013.

## Sub-committees of the Board

The following sub-committees continued to operate during the year:

### Audit Committee

Mr Bob McCann, Chair	£939
Mr Trevor Hinds	£939
Mrs Sarah Havlin	£313

The Audit Committee advises the Board on the issues of risk, control and governance. The Accounting Officer, Acting Head of Corporate Services, Interim Head of Finance, representatives from internal and external audit and DARD's AFBI Sponsor Branch were generally in attendance at Audit Committee meetings.

### Appointments and Remuneration Committee

Prof. William McKelvey, Chair*	-
Prof. Patrick Murphy	£313
Mr Ken Millar	£313

\* Prof William McKelvey, Deputy Chair of AFBI Board does not receive any remuneration for chairing the meetings of the Remuneration Committee.

The Appointments and Remuneration Committee advises the Board on the remuneration of Senior Management Team (SMT) and provides recommendations to the Board on the implementation of AFBI's Rewards to Staff scheme. Whilst the terms and conditions of employment and remuneration of all AFBI employees are in accordance with the overall terms and conditions of the NICS, any proposed changes to the overall framework are also subject to review and scrutiny by this Committee. The Accounting Officer and the Acting Head of Corporate Services (replaced towards the end of the year by the newly appointed Director of Finance and Corporate Affairs), generally attended the Appointments and Remuneration Committee meetings.

### Science Strategy Committee

Mr Alan McKeown, Chair	£626
Dr Cecil McMurray	£626
Mr David Lindsay	£626

The Science Strategy Committee guides the Executive in developing a Science Strategy for AFBI. This includes assisting SMT to prioritise existing areas of scientific work and identify strategic scientific areas or technologies in which AFBI should potentially become engaged.

### Finance Committee

Mrs Hilary McCartan, Chair	£1,878
Mrs Hilda Stewart	£1,565
Mr Seamus McCaffrey	£1,565

The Finance Committee supports the Board in discharging its responsibilities for the oversight of financial management including, in particular, the review of financial plans and budget monitoring. The Accounting Officer, Acting Head of Corporate Services and Interim Head of Finance were generally in attendance.

## Chief Executive and Senior Management Team

### Remuneration Policy

The remuneration of senior civil servants is set by the Minister for Finance and Personnel. The Minister approved a restructured SCS pay settlement broadly in line with the Senior Salaries Review Board report which he commissioned in 2010. The commitment to a Pay and Grading Review for SCS was the second phase of the equal pay settlement approved by the Executive.

### Service contracts

Appointments in AFBI are made in accordance with the Civil Service Commissioners' Recruitment code which requires appointments to be made on merit on the basis of fair and open competition but also includes the circumstances when appointments may otherwise be made. Policy relating to notice periods and termination payments is contained in the Northern Ireland Civil Service (NICS) Staff Handbook.

### Duration of notice periods

At present, recruits or promotees to the analogous Senior Civil Service posts in AFBI are required to give three months notice of resignation. The Institute reserves the right to introduce a longer period of notice for individual posts up to a maximum of six months and incumbents will be notified accordingly. This may be likely where the recruitment of the replacement is likely to be a protracted process.

At the time of resignation, the Institute may, by agreement with the member of staff concerned, agree to waive the required notice.

Where the Institute is of the opinion that the appointee is unfit to continue in post or is incapable of adequately performing the duties of the post, it can terminate the appointment with due notice as per the NICS Staff Handbook/Terms and Conditions.

### Termination payments

If for any reason other than disciplinary dismissal, the minimum period of notice cannot be given, the member of staff will receive compensation in lieu of the unexpired period of notice. Compensation is not payable when the date of leaving is mutually agreed, for example, in cases of flexible early retirement, approved early retirement, voluntary redundancy or where the staff member resigns before the end of the notice period.

## Salary and Pension Entitlements

The following sections provide details of the remuneration and pension interests of the Senior Management Team of the Institute.

### (a) Remuneration (Audited)

	2012/2013		2011/2012	
	Salary £'000	Benefits in kind (to the nearest £100)	Salary £'000	Benefits in kind (to the nearest £100)
Prof S Kennedy, CEO	80 – 85	-	80 – 85	-
Dr M Camlin, DCEO <sup>1</sup>	35 – 40 (70-75 full year equivalent)	-	35 – 40 (70-75 full year equivalent)	-
Dr A Gilmour DCEO (Acting) <sup>2</sup>	0	-	40 – 45 (70 – 75 full year equivalent)	-
Dr D Bryson DCEO (Acting) <sup>3</sup>	10 – 15 (70-75 full year equivalent)	-	70 – 75	-
Mr J Ferguson Head of Corporate Services (Acting) <sup>4</sup>	50 – 55 (60-65 full year equivalent)	-	55 – 60	-
Dr J Davis DCEO (Acting) <sup>5</sup>	15 – 20 (65-70 full year equivalent)	-	10 – 15 (65-70 full year equivalent)	-
Dr W Crozier DCEO (Acting) <sup>5</sup>	25 – 30 (65-70 full year equivalent)	-	10 – 15 (65-70 full year equivalent)	-
Dr A Carson DCEO (Acting) <sup>5</sup>	5 – 10 (60-65 full year equivalent)	-	5 – 10 (60-65 full year equivalent)	-
Dr D G Kennedy <sup>6</sup>	55 – 60 (65-70 full year equivalent)	-	-	-
Dr S Mayne <sup>7</sup>	5 – 10 (65-70 full year equivalent)	-	-	-
Dr S McDowell <sup>8</sup>	5 – 10 (60-65 full year equivalent)	-	-	-
Mrs L Hogg <sup>9</sup>	10 – 15 (60-65 full year equivalent)	-	-	-

Band of Highest Paid

Director's Total Remuneration

80 – 85

80 – 85

Median Total Remuneration

26,158

27,633

Ratio

3.15

2.99



<sup>1</sup>Dr Camlin partially retired with effect from September 2010. An annual commuted pension in the range £25-30k is payable that has been abated by £0-5k per annum. On his partial retirement Dr Camlin also received a lump sum in the range £200-205k.

<sup>2</sup>Dr Arthur Gilmour retired on 10 October 2011.

<sup>3</sup>Dr David Bryson retired on 12 May 2012. Due to annual leave accrued he left on 5 April 2012. Dr Bryson did not attend any Management Board meetings during 2012-13.

<sup>4</sup>Mr Joel Ferguson was Acting DCEO from 12 December 2009 to 31 January 2013.

<sup>5</sup>Dr John Davis, Dr Walter Crozier and Dr Alistair Carson shared the duties of DCEO until 28 February 2013.

<sup>6</sup>Dr D Glenn Kennedy was Acting DCEO from 6 April 2012 to 31 January 2013.

<sup>7</sup>Dr Sinclair Mayne was appointed DCEO on 4 March 2013.

<sup>8</sup>Dr Stanley McDowell was appointed DCEO on 25 February 2013.

<sup>9</sup>Mrs Lesley Hogg was appointed DCEO on 21 January 2013.

#### Salary:

Salary includes gross salary; performance pay or bonuses and any allowance that is subject to UK taxation. This report is based on payments made by the Institute and thus recorded in the accounts. AFBI staff did not receive any performance pay or bonuses during 2012-13.

#### Benefits in kind:

The monetary value of benefits in kind covers any benefits provided by the employer and treated by HM Revenue and Customs as a taxable emolument.

(b) Pensions (Audited)

Name	Accrued pension at age 60 as at 31/3/13 and related lump sum £'000	Real increase in pension and related lump sum at age 60 £'000	CETV at 31/3/13 £'000	CETV at 31/3/12 £'000	Real increase in CETV £'000	Employer contribution to partnership pension account £'000
Dr M Camlin	30-35 plus lump sum 201-215	0-2.5 plus lump sum (2.5-5)	831	801	25	-
Dr S Kennedy	30-35 plus lump sum 95-100	0-2.5 plus lump sum 0-2.5	698	657	3	-
Prof J Davis	25-30 plus lump sum 85-90	0-2.5 plus lump sum 0-2.5	651	638	11	-
Prof J Davis	25-30 plus lump sum 85-90	(0-2.5) plus lump sum (0-2.5)	655	655	(1)	-
Dr W Crozier	20-25 plus lump sum 70-75	0-2.5 plus lump sum 0-2.5	484	458	11	-
Dr W Crozier	20-25 plus lump sum 70-75	0-2.5 plus lump sum 0-2.5	498	487	8	-
Dr A Carson	10-15 plus lump sum 35-40	0-2.5 plus lump sum 0-2.5	186	179	6	-
Mrs L Hogg	0-5	0-2.5	3	-	2	-
Dr DG Kennedy	25-30 plus lump sum 85-90	0-2.5 plus lump sum 5-7.5	609	533	48	-
Dr S Mayne	25-30 plus lump sum 85-90	0-2.5 plus lump sum 0-2.5	595	593	-	-
Dr D Bryson	30-35 plus lump sum 100-105	0-2.5 plus lump sum 0-2.5	792	790	-	-
Dr S McDowell	20-25 plus lump sum 30-35	0-2.5 plus lump sum 0-2.5	336	334	1	-
Mr J Ferguson	5-10	0-2.5	61	46	11	-

Notes: Figures in brackets are negative.

## Northern Ireland Civil Service (NICS) Pension arrangements

Pension benefits are provided through the Northern Ireland Civil Service pension arrangements which are administered by Civil Service Pensions (CSP). Staff in post prior to 30 July 2007 may be in one of three statutory based 'final salary' defined benefit arrangements (classic, premium, and classic plus). These arrangements are unfunded with the cost of benefits met by monies voted by Parliament each year. From April 2011 pensions payable under classic, premium, and classic plus are increased annually in line with changes in the Consumer Prices Index (CPI). Prior to 2011, pensions were increased in line with changes in the Retail Prices Index (RPI). New entrants joining on or after 1 October 2002 and before 30 July 2007 could choose between membership of premium or joining a good quality 'money purchase' stakeholder arrangement with a significant employer contribution (partnership pension account). New entrants joining on or after 30 July 2007 are eligible for membership of the nuvos arrangement or they can opt for a partnership pension account. Nuvos is a 'Career Average Revalued Earnings' (CARE) arrangement in which members accrue pension benefits at a percentage rate of annual pensionable earnings throughout the period of scheme membership. The current rate is 2.3%. CARE pension benefits are increased annually in line with increases in the CPI. For 2013, public service pensions will be increased by 2.2% with effect from 8 April 2013. Employee contributions are determined by the level of pensionable earnings.

The current rates are as follows:

Members of classic: Annual pensionable earnings (full-time equivalent basis)	New 2013 contribution rate before tax relief
Up to £15,000	1.50%
£15,001-£21,000	2.70%
£21,001-£30,000	3.88%
£30,001-£50,000	4.67%
£50,001-£60,000	5.46%
Over £60,000	6.25%

Members of premium, nuvos and classic plus: Annual pensionable earnings (full-time equivalent basis)	New 2013 contribution rate before tax relief
Up to £15,000	3.50%
£15,001-£21,000	4.70%
£21,001-£30,000	5.88%
£30,001-£50,000	6.67%
£50,001-£60,000	7.46%
Over £60,000	8.25%

Benefits in classic accrue at the rate of 1/80th of pensionable salary for each year of service. In addition, a lump sum equivalent to three years' pension is payable on retirement. For premium, benefits accrue at the rate of 1/60th of final pensionable earnings for each year of service. Unlike classic, there is no automatic lump sum (but members may give up (commute) some of their pension to provide a lump sum). Classic plus is essentially a variation of premium, but with benefits in respect of service before 1 October 2002 calculated broadly as per classic.

The partnership pension account is a stakeholder pension arrangement. The employer makes a basic contribution of between 3% and 12.5% (depending on the age of the member) into a stakeholder pension product chosen by the employee. The employee does not have to contribute but where they do make contributions, the employer will match these up to a limit of 3% of pensionable salary (in addition to the employer's basic contribution). Employers also contribute a further 0.8% of pensionable salary to cover the cost of centrally-provided risk benefit cover (death in service and ill health retirement).

The accrued pension quoted is the pension the member is entitled to receive when they reach pension age, or immediately on ceasing to be an active member of the scheme if they are at or over pension age. Pension age is 60 for members of classic, premium, and classic plus and 65 for members of nuvos. Further details about the CSP arrangements can be found at the website [www.dfpni.gov.uk/civilservicepensions-ni](http://www.dfpni.gov.uk/civilservicepensions-ni).

## Cash Equivalent Transfer Values

A Cash Equivalent Transfer Value (CETV) is the actuarially assessed capitalised value of the pension scheme benefits accrued by a member at a particular point in time. The benefits valued are the member's accrued benefits and any contingent spouse's pension payable from the scheme. A CETV is a payment made by a pension scheme or arrangement to secure pension benefits in another pension scheme or arrangement when the member leaves a scheme and chooses to transfer the benefits accrued in their former scheme. The pension figures shown relate to the benefits that the individual has accrued as a consequence of their total membership of the pension scheme, not just their service in a senior capacity to which disclosure applies. The CETV figures, and from 2003-04 the other pension details, include the value of any pension benefit in another scheme or arrangement which the individual has transferred to the CSP arrangements. They also include any additional pension benefit accrued to the member as a result of their purchasing additional years of pension service in the scheme at their own cost. CETVs are calculated in accordance with The Occupational Pension Schemes (Transfer Values) (Amendment) Regulations and do not take account of any actual or potential benefits resulting from Lifetime Allowance Tax which may be due when pension benefits are taken.



### Real increase in CETV

This reflects the increase in CETV effectively funded by the employer. It does not include the increase in accrued pension due to inflation, contributions paid by the employee (including the value of any benefits transferred from another pension scheme or arrangement) and uses common market valuation factors for the start and end of the period.

The Institute's accounting policy in respect of pensions is at Note 1 to the accounts.



Professor Seamus Kennedy MVB PhD MRCVS FRCPath  
Chief Executive and Accounting Officer

Date: 18 December 2013

# 2012/13 Annual Report and Accounts

## Governance Statement

### 1. Scope and Responsibility

I am pleased to introduce the Governance Statement for the year ended 31 March 2013. As required by DAO (DFP) 10/12, the Governance Statement replaces the Statement on Internal Control which was included in previous annual reports.

AFBI was established on 1 April 2006 under the Agriculture (Northern Ireland) Order 2004 as a Non-Departmental Public Body (NDPB) of the Department of Agriculture and Rural Development (DARD) and brought together the former DARD Science Service and the Agricultural Research Institute of Northern Ireland.

As Accounting Officer I am responsible for managing and controlling the resources used in AFBI, in accordance with the responsibilities assigned to me in *Managing Public Money Northern Ireland*. The Governance Statement sets out the governance, risk management and internal control arrangements that operated in AFBI during the financial year to assist me in discharging this stewardship role.

The governance structures and processes, risk management and internal controls during the year were effective. During the year governance arrangements were strengthened by implementing recommendations resulting from an independent strategic business review of AFBI which concluded in March 2012. These included the recruitment of three new Directors and the appointment of an Interim Head of Finance pending the appointment of the substantive post. Governance was also strengthened by implementing internal and external audit recommendations.

2012/13 was a productive year with a number of new governance initiatives launched. A Memorandum of Understanding, which sets out the governance arrangements for the delivery of DARD's work programme, was finalised and signed in July. In the autumn DARD's AFBI Sponsor Branch conducted an Arm's Length Body Risk Assessment, and towards the end of the year, the Board carried out a self-assessment effectiveness review. DARD and AFBI also commenced a review of the Management Statement and Financial Memorandum which sets out the broad framework under which AFBI operates. These reviews will result in a number of further improvements to the governance arrangements within AFBI and will be implemented during 2013/14. During 2012/13 AFBI also refreshed its risk register following a review of AFBI's Risk Management Strategy in February 2012.

### 2. GOVERNANCE ARRANGEMENTS

#### Governance Framework

AFBI's governance framework sets out the roles, responsibilities and procedures for the effective and efficient conduct of the organisation's business. AFBI is committed to governance excellence and to be accountable and transparent for its decisions and activities.

#### Governance Structure

The DARD Minister is responsible and answerable to the Northern Ireland Assembly (the Assembly) for the exercise of the powers on which the administration of the Department depends. The DARD Minister has a duty to the Assembly to account, and be held to account, for the policies, decisions and actions of the Department including AFBI as one of its NDPBs.

While in practice NDPBs operate with some independence and are not under day-to-day ministerial control, ministers are nevertheless ultimately accountable to the Assembly for NDPBs' activities and performance. This is because they are responsible for NDPBs' founding legislation; have influence over NDPBs' strategic direction; appoint their boards; and have the ultimate sanction of abolition or reform subject to the Executive's approval where this requires a change in statute.

DARD's Permanent Secretary is appointed as DARD's Departmental Accounting Officer by the Department of Finance and Personnel. AFBI Sponsor Branch is a part of the DARD's Policy and Economics Division and is responsible for managing the overall relationship between DARD and AFBI. AFBI Sponsor Branch holds monthly Finance and Governance meetings and quarterly Accountability Meetings with AFBI as part of its governance oversight.

DARD's Departmental Accounting Officer in turn has designated me as the Accounting Officer for AFBI. As Accounting Officer I am personally responsible for safeguarding the public funds for which I have charge; for ensuring propriety and regularity in the handling of those public funds; and for the day-to-day operations and management of AFBI.

In fulfilling my duties as AFBI's Accounting Officer I was supported by my Senior Management Team (SMT) for 2012/13 and a Board. The Senior Management Team consisted of the Deputy Chief Executive Officer (DCEO) of Applied Plant Sciences and Biometrics Division, the Acting DCEOs of the Agri Food and Environmental Sciences Division and the Veterinary Sciences Division, the Acting Head of Corporate Services Division and the Interim Head of Finance.

## The Board

AFBI's Board consists of 13 Non Executive Members appointed by the DARD Minister. Appointments are made in line with the Code of Practice issued by the Commissioner for Public Appointments Northern Ireland. The main responsibilities of the Board are to ensure that AFBI fulfils the aims and objectives set by DARD and approved by the DARD Minister; monitoring AFBI's compliance with applicable law and policy; and for promoting the efficient, economic and effective use of staff and other resources by AFBI. The Board fulfils its responsibilities by establishing the overall strategic direction of AFBI and by challenging the Executive Team in business planning, target setting and delivery of performance against agreed targets.

The attendance of members at Board meetings during the year was as follows:

AFBI Board	Number of meetings the member could have attended		Number of meetings attended	
	Board	Strategy	Board	Strategy
Mr Sean Hogan (Chair)	11	3	10	3
Prof. Bill McKelvey (Deputy Chair)	11	3	8	3
Mrs Sarah Havlin	11	3	9	3
Mr Trevor Hinds	11	3	10	3
Mr David Lindsay	11	3	9	3
Mr Seamus McCaffrey	11	3	9	3
Mr Bob McCann	11	3	10	3
Mrs Hilary McCartan	11	3	11	3
Mr Alan McKeown	11	3	8*	2
Dr Cecil McMurray	11	3	10	3
Mr Ken Millar	11	3	8	3
Prof. Patrick Murphy	11	3	10	2
Mrs Hilda Stewart	11	3	10	2

\* Alan McKeown was unable to attend meetings from February 2013 onwards because of extenuating circumstances

Members of SMT were present at all meetings.

## Board Sub-Committees

All decision making powers are reserved to the Board, although there are four sub-committees and a working group, which operate in an advisory capacity. These are as follows:

The **Audit Committee** advises the Board on issues of risk, control and governance. Membership and attendance was as follows:

Audit Committee	Number of meetings the member could have attended	Number of meetings attended
Mr Bob McCann (Chair)	4	4
Mrs Sarah Havlin	3	2
Mr Trevor Hinds	4	4



The Acting Head of Corporate Services, Interim Head of Finance, representatives from internal and external audit, DARD's AFBI Sponsor Branch and I were generally in attendance at Audit Committee meetings

The **Finance Committee** supports the Board in discharging its responsibilities for oversight of financial management including, in particular, the review of financial plans and budget monitoring. The Finance Committee reviewed the interim and final accounts, prior to submission to the Audit Committee to provide the Board with the assurance that it could authorise me to sign the accounts on their behalf. Membership and attendance was as follows:

Finance Committee	Number of meetings the member could have attended	Number of meetings attended
Mrs Hilary McCann (Chair)	7	7
Mr Seamus McCaffrey	7	6
Mrs Hilda Stewart	7	6

The Acting Head of Corporate Affairs, the Interim Head of Finance and I were generally in attendance.

The **Appointments and Remuneration Committee** advises the Board on the remuneration of SMT and provides recommendations to the Board on the implementation of AFBI's Rewards to Staff Scheme. Whilst the terms and conditions of employment and remuneration of all AFBI employees are in accordance with the overall terms and conditions of the NICS, any proposed changes to the overall framework are also subject to review and scrutiny by this committee. Membership and attendance was as follows:

Appointments and Remuneration Committee	Number of meetings the member could have attended	Number of meetings attended
Prof. Bill McKelvey (Chair)	3	3
Mr Ken Millar	3	3
Prof. Patrick Murphy	3	2

The Acting Head of Corporate Services (replaced towards the end of the year by the newly appointed Director of Finance and Corporate Affairs), and I generally attended the Appointments and Remuneration Committee meetings.

The **Science Strategy Committee** guides the Executive in developing a Science Strategy for AFBI. This includes assisting SMT to prioritise existing areas of scientific work and identify strategic scientific areas or technologies in which AFBI should potentially become engaged. Membership and attendance was as follows:

Science Strategy Committee	Number of meetings the member could have attended	Number of meetings attended
Mr Alan McKeown (Chair)	3	2*
Mr David Lindsay	3	3
Dr Cecil McMurray	3	3

\* Alan McKeown was unable to attend meetings from February 2013 onwards because of extenuating circumstances

The DCEOs, the Acting Head of Corporate Services and I generally attended the Science Strategy Committee meetings.

The **AFBI Operating Model Working Group** is tasked with developing and commissioning analysis and advice to support the implementation of the commercialisation and financial flexibility recommendations contained in an independent Strategic Business Review of AFBI report received in March 2012. Membership and attendance was as follows:

Operating Model Working Group	Number of meetings the member could have attended	Number of meetings attended
Prof. Bill McKelvey (Chair)	2	2

The working group also consisted of AFBI's CEO, Director of Finance and Corporate Affairs and Head of Innovations; DARD's Senior Sponsor and Finance Director; and a representative from the Strategic Investment Board.

## Board Performance

AFBI's Board reviewed its performance and undertook a self assessment effectiveness review towards the end of the year which was independently facilitated. The review focussed on purpose and outcomes, roles and responsibilities, values and governance, decision making and risk management, Board capacity and structure, stakeholder accountability and communication. The Board considered that its performance was effective but is constantly striving to improve its performance.

The Board reaffirmed that its role was to set the strategic direction of the organisation, provide constructive challenge, ensure robust governance, hold the SMT to account, set the tone of the organisation, ensure that relations with stakeholders are managed effectively and that it was answerable to the DARD Minister.

The review indicated that the Board clearly understood its role and strategic priorities and that it promoted high standards of governance, risk and financial management and a culture of performance and delivery.

The Board identified a number of actions to improve the effectiveness of Board meetings in the areas of structure, format of Board meetings, communications and relationship management. An action plan has been drawn up to take forward the improvement actions and these will be implemented during 2013/14.

## Quality of Information used by the Board

The quality of information provided to the Board has improved considerably during the year with the development of regular CEO, Divisional and Risk Register reports and more comprehensive financial reports. The Board is therefore satisfied that the format, content and quality of the information it has received enabled it to improve its effectiveness. Mindful of the need for continuous improvement, the Board's effectiveness review has highlighted some further improvements to the management information supplied to improve the efficiency of Board meetings and enable greater focus on strategic issues.

## Compliance with 'Corporate Governance Code'

As the Accounting Officer of a Non-Departmental Public Body of a Northern Ireland department, DAO (DFP) 06/13 requires that I am required to report compliance with the HM Treasury's "Corporate governance in central government departments: Code of good practice" published in 2005 (the 2005 Corporate Governance Code). I confirm that this Governance Statement is compliant with the 2005 Corporate Governance Code. I have however decided to adopt early a number of the disclosure requirements that will be required under the "Corporate governance in central government departments: Code of good practice NI" published by DFP in 2013 such as Board member attendance records.

## Conflicts of Interest

On appointment, Board Members are required to provide a list of all interests which might give rise to a conflict of interest. At every Board and sub-committee meeting a standing agenda item on declarations of interest is included and brought to the attention of the members by the Chair. Board papers are not circulated to members who have declared or are deemed to have a specific conflict of interest. Where a conflict of interest is declared, it is recorded and the relevant member(s) leave the Board meetings for the specific agenda item.

There is one ongoing conflict of interest which was managed in line with this agreed procedure and relates to a legal claim of which I am a potential beneficiary. One of the Board Members is also conflicted in this matter.

## 3. Risk Management

### Risk Management Framework & Structure

AFBI has a well embedded and robust risk management and internal control framework in place with direct involvement of SMT. AFBI's Risk Management Strategy was comprehensively reviewed and revised during 2011/12 with support from AFBI's Internal Auditors and an updated strategy produced in February 2012. AFBI's Risk Management Strategy sets out the roles, responsibilities, procedures and risk appetite for Risk Management within AFBI and these are set out in Appendix A.

Risk Management is a standing agenda item for Board and Audit Committee meetings and AFBI's Risk Register is reviewed by both meetings on approximately a quarterly basis. The Board also reviews one of the risks in detail on a cyclical basis. DARD and AFBI's internal and external auditors attend Audit Committee meetings and therefore provide a further layer of external scrutiny and challenge.

### Information Risk

AFBI's approach to the management of information security risks is proportionate to the nature of the risks and the comparatively limited amount of personal or sensitive information handled by AFBI and its delivery network. As AFBI's Senior Information Risk Owner I have received assurances from the Senior Responsible Owner (SRO) (AFBI Head of IT) that the information governance policy framework is effective and that adequate controls and measures are in place to enable AFBI's information systems to withstand threats to their confidentiality, integrity and availability. There have been no reported significant data losses in the course of the year. The SRO has based his statement on the assurances received by him from AFBI's IT Security Officer (Head of IT Infrastructure and Support) in relation to IT security accreditation and where IT legislative compliance is concerned, he has depended on AFBI's Data Protection Officer & Freedom of Information Co-ordinator.

### Sponsor Branch Risk Assessment

During the year DARD completed a risk assessment of AFBI's activities which is designed to improve DARD's oversight of AFBI. A total of 18 improvement actions have been identified for DARD and AFBI as a result of the risk assessment and AFBI will continue to work with DARD to implement these.

## 4. Internal Controls

An important element of the risk management framework is the system of internal control. This is designed to manage AFBI's risks to a reasonable level, rather than to eliminate all risk of failure to achieve aims and objectives. It can therefore only provide reasonable and not absolute assurance of effectiveness. A system of internal control was in place throughout the year and is in accordance with guidance defined in *Managing Public Money Northern Ireland*.

I obtained additional assurance through stewardship reports provided to me by AFBI's DCEOs and the Acting Head of Corporate Services. The stewardship reports confirmed that the necessary internal controls were in place in each of their divisions.



## Financial Management

AFBI's system of internal financial control is based on a framework of financial information, financial procedures, segregation of duties and a system of delegation and accountability. These include annual budgeting, in year forecasting, corporate budget monitor reports and divisional and branch reports.

In August 2012 an Internal Audit review provided a 'limited assurance' opinion on 'Budgetary Control and Management Information' making recommendations relating to the quality of management information, a perceived 'disconnect' between Divisions and Finance Branch and the process for developing and issuing budgets.

Management had already commenced measures to enhance the financial management capacity and capability through the appointment of an Interim Head of Finance (pending the recruitment of a substantive position) and two additional Accountants. In addition, the need for the appointment of a Director of Finance and Corporate Affairs had been identified (later appointed in January 2013). As part of a broader 'Finance Improvement Plan', finance training was provided for budget holders, Finance Business Partners were appointed to work alongside Divisions, the quality of financial information was significantly improved and a range of additional measures were put in place. The enhancements in financial management were formally acknowledged through a follow up Internal Audit review of budgetary control and management information in April 2013 which provided 'satisfactory' assurance and highlighted a number of significant improvements.

During the year AFBI also conducted an organisational wide assessment of its vulnerability to fraud and a Fraud Action Plan has been developed to address the resulting improvement recommendations. All cases of factual or suspected fraud and whistle-blowing incidents that came to my attention during the year were reported to DARD's Principal Accounting Officer, the Comptroller and Auditor General of the Northern Ireland Audit Office, AFBI's Chair and the Chair of AFBI's Audit Committee.

Following AFBI's registration with HMRC for Corporation Tax in May 2012, HMRC has confirmed that AFBI falls within the scope of Corporation Tax and must submit retrospective returns to AFBI's establishment in 2006. In November 2012, AFBI secured Ministerial approval to appoint advisors with previous experience of acting as tax advisors to NDPBs, to establish the principles upon which AFBI's tax return should be completed and to quantify the amount and payment profile of any liability. In March 2013, HMRC requested that AFBI make a "payment on account". Confirmation has been received from HMRC that AFBI's royalty stream will be subject to Corporation Tax so the HMRC demand was based upon the application of tax to that income stream retrospectively. The Corporation Tax charge has been estimated at £4.994m and associated penalties and interest at £739k. Both amounts have been recognised as liabilities in these accounts. AFBI is actively engaged with the HMRC in negotiations to reduce the amount of penalties and interest chargeable.

# Internal Audit

## AFBI Internal Audit

AFBI's Internal Audit function is carried out by a professional accounting firm which was appointed in accordance with the Government Internal Audit Standards. Under the terms of the appointment, a Director in the firm acts as AFBI's Head of Internal Audit, who provides me with an independent opinion on AFBI's systems of risk management, control and governance and I received an overall satisfactory level of assurance in respect of 2012/13.

The Government Internal Audit Standards requires AFBI's internal auditors to bring to my attention those significant control issues which may be relevant to the preparation of my Governance Statement. In this regard, Internal Audit highlighted three key issues, namely:

- Continued implementation of the performance management framework
- Development of plans to implement the proposed organisational restructure
- Continued development of AFBI's risk management processes

Internal Audit conducted six audits during the year along with a follow up review to assess the status of previous recommendations. Four of the six audits achieved a satisfactory assurance rating, with one rating of 'substantial' and one of 'limited' assurance. These are summarised in the following table.

System	Assurance Rating
Review of Divisions	Satisfactory
Risk management and corporate governance	Satisfactory
Human resource management	Limited
Fixed Assets	Substantial
Budgetary control and management information	Satisfactory
Purchasing and procurement	Satisfactory
Follow up review of previous recommendations	n/a

In respect of the follow up review of previous recommendations, Internal Audit found that 20 had been fully implemented, 9 were partially implemented and 2 were not yet implemented.

A limited assurance rating was received in respect of Human Resources Management (report issued 11 January 2013) due to the extended engagement of a number of agency staff and the extended periods for which staff had been temporarily promoted. AFBI took immediate action to rectify the situation and significant improvement has already been made. Additional recommendations arose from reports where the Internal Audit opinion on the control environment was 'satisfactory' or 'substantial' and many have already been implemented.

## DARD Internal Audit

DARD Internal Audit provides further assurance on the adequacy of AFBI's governance, risk management, and internal control. In view of the fact that AFBI has its own Internal Audit function I requested that the DARD Internal Audit plan for 2012/13 include only a follow-up of previous recommendations. On the basis of its review of the implementation of previous recommendations DARD Internal Audit provided me with a satisfactory opinion for 2012/13.

## Northern Ireland Audit Office

AFBI's Annual Accounts are audited by the Northern Ireland Audit Office (NIAO). In their 'Report to Those Charged with Governance', the NIAO noted 'good quality financial statements' and was able to issue an unqualified audit opinion.

Over the last two years the NIAO has been conducting a Value for Money audit for DARD in respect of the period since AFBI's establishment on 1 April 2006 until 31 March 2011. The report was published on 12th September 2013 and contained recommendations relating to financial management, performance reporting, the management of research and development activities and governance and oversight arrangements within AFBI. AFBI is considering the recommendations made in the report, some of which we have already addressed. The report is due to be examined by the Public Accounts Committee in November 2013.

## Enterprise Shared Services audited by DFP Internal Audit

To enable me to complete this Governance Statement, I have also drawn on assurances received from the Head of Internal Audit in the Department of Finance and Personnel (DFP) in respect of the Enterprise Shared Services that AFBI avails of. During 2012/13 DFP conducted a number of audits which are summarised in the table below along with the assurance rating received.

Shared Service Utilised	No of Audits Conducted	Assurance Rating
Account NI (payment of wages & salaries)	1	substantial
HR Connect (Human Resource management)	6	3 x substantial 3 x satisfactory
IT Assist (centralised IT services)	1	Satisfactory
Central Procurement Directorate	6	5 x satisfactory 1 x ongoing

## 5. Conclusion

As Accounting Officer, based on assurance provided to me by AFBI's Internal Auditors, DARD Internal Audit, the NIAO in their Report to Those Charged with Governance, DFP's Internal Audit opinion on business areas within Enterprise Shared Service, stewardship reports provided to me by AFBI's DCEOs and the Acting Head of Corporate Services, and, other than the specific control issues referred to above, I consider that the overall system of risk management, internal control and governance provides satisfactory assurance to me in relation to the ability of AFBI to effectively discharge its governance responsibilities.

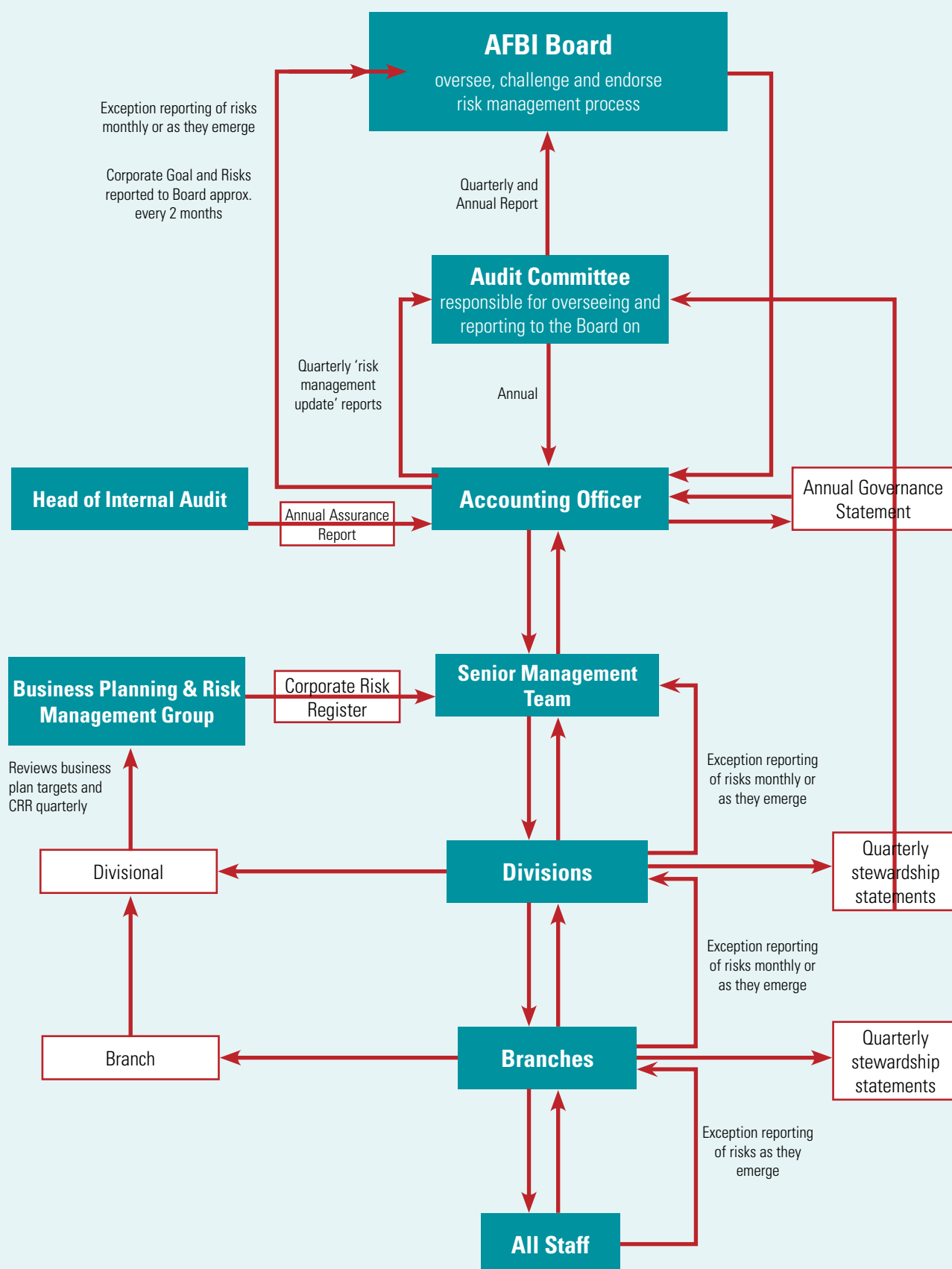


Professor Seamus Kennedy  
**MVB PhD MRCVS FRCPPath**

Accounting Officer, Agri-Food and Biosciences Institute



## Appendix A: Governance Framework and Structure



## Statement of Accounting Officer's Responsibilities

Under the Agriculture (Northern Ireland) Order 2004, the Institute is required to prepare for each financial year, a statement of accounts in the form and on the basis set out in the Accounts Direction.

The accounts are prepared on an accruals basis and must give a true and fair view of the state of affairs of the Institute, its income and expenditure, changes in taxpayers' equity and cash flows for the financial year.

DARD has appointed the Chief Executive Officer of the Institute as Accounting Officer of the Institute, with responsibility for preparing the Institute's accounts and for transmitting them to the Comptroller and Auditor General.

In preparing the accounts, the Accounting Officer is required to comply with the Government Financial Reporting Manual and in particular to:

- a) observe the Accounts Direction issued by DARD, including the relevant accounting and disclosure requirements, and apply suitable accounting policies on a consistent basis;
- b) make judgments and estimates on a suitable basis;
- c) state whether applicable accounting standards, as set out in the Government Financial Reporting Manual have been followed, and disclose and explain any material departures in the accounts; and
- d) prepare the accounts on a going concern basis.

Note 23 to the financial statements indicates that the Accounting Officer has an ongoing legal claim against the Institute which has been provided for within the financial statements. The details of this provision have not been disclosed to the Accounting Officer during the preparation of the financial statements as this may prejudice any potential settlement. Consequently the Accounting Officer has been unable to fulfill all the duties required and the Principal Accounting Officer in DARD has overseen this aspect of the preparation of their financial statements.

The responsibilities of an Accounting Officer, including responsibility for the propriety and regularity of the public finances for which he is answerable, for keeping proper records and for guarding the Institute's assets, are set out in the Accounting Officer's memorandum issued by DFP and published in *Managing Public Money Northern Ireland*.

# Audit Certificate

## The Certificate and Report of The Comptroller and Auditor General to The Northern Ireland Assembly

I certify that I have audited the financial statements of the Agri-Food and Biosciences Institute for the year ended 31 March 2013 under the Agriculture (Northern Ireland) Order 2004. These comprise the Statement of Comprehensive Net Expenditure, the Statement of Financial Position, the Statement of Cash Flows, the Statement of Changes in Taxpayers' Equity and the related notes. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the Remuneration Report that is described in that report as having been audited.

### Respective responsibilities of Accounting Officer and auditor

As explained more fully in the Statement of Accounting Officer's Responsibilities, the Accounting Officer is responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. My responsibility is to examine, certify and report on the financial statements in accordance with the Agriculture (Northern Ireland) Order 2004. I conducted my audit in accordance with International Standards on Auditing (UK and Ireland). Those standards require me and my staff to comply with the Financial Reporting Council'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 Agri-Food and Biosciences Institute's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Agri-Food and Biosciences Institute; and the overall presentation of the financial statements. In addition I read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements. If I become aware of any apparent material misstatements or inconsistencies I consider the implications for my certificate.

In addition, I am required to obtain evidence sufficient to give reasonable assurance that the expenditure and income recorded in the financial statements have been applied to the purposes intended by the Assembly and the financial transactions recorded in the financial statements conform to the authorities which govern them.

### Opinion on Regularity

In my opinion, in all material respects the expenditure and income recorded in the financial statements have been applied to the purposes intended by the Assembly and the financial transactions recorded in the financial statements conform to the authorities which govern them.

# Audit Certificate

## Opinion on financial statements

In my opinion:

- the financial statements give a true and fair view of the state of Agri-Food and Biosciences Institute's affairs as at 31 March 2013 and of the net expenditure, cash flows and changes in taxpayers' equity for the year then ended; and
- the financial statements have been properly prepared in accordance with the Agriculture (Northern Ireland) Order 2004 and the Department of Agriculture and Rural Development's directions issued thereunder.

## Opinion on other matters

In my opinion:

- the part of the Remuneration Report to be audited has been properly prepared in accordance with Department of Agriculture and Rural Development's directions made under the Agriculture (Northern Ireland) Order 2004; and
- the information given in Management Commentary within the Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

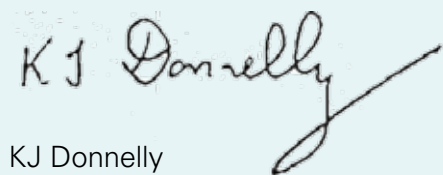
## Matters on which I report by exception

I have nothing to report in respect of the following matters which I report to you if, in my opinion:

- adequate accounting records have not been kept; or
- the financial statements and the part of the Remuneration Report to be audited are not in agreement with the accounting records; or
- I have not received all of the information and explanations I require for my audit; or
- the Governance Statement does not reflect compliance with Department of Finance and Personnel's guidance.

## Report

I have no observations to make on these financial statements.



KJ Donnelly  
Comptroller and Auditor General  
Northern Ireland Audit Office  
106 University Street  
Belfast  
BT7 1EU

Date: 20th December 2013



# Statement of Comprehensive Net Expenditure

For the year ended 31 March 2013

	Note	2012-13 £000	2011-12 £000
<b>Expenditure</b>			
Staff costs	3	28,143	27,587
Depreciation	4	3,053	2,902
Other Expenditures	4	26,269	24,972
		<u>57,465</u>	<u>55,461</u>
<b>Income</b>			
Income from Activities	5	<u>(18,847)</u>	<u>(16,821)</u>
Net Expenditure		<u>38,618</u>	<u>38,640</u>
Taxation Charge	4	4,994	-
Notional Charges	4	1,343	1,279
Net Expenditure after notional charges		<u>44,955</u>	<u>39,919</u>
<b>Other Comprehensive Net Expenditure</b>			
	Note	2012-13 £000	2011-12 £000
Net gain on revaluation of Property, Plant and Equipment	6/10	(460)	(792)
Net gain on revaluation of Intangibles	7	(11)	(19)
Total Comprehensive Net Expenditure for the year ended 31 March 2013		<u>44,484</u>	<u>39,108</u>


The notes on pages 98 to 118 form part of these accounts.

# Statement of Financial Position

as at 31 March 2013

	Note	2012-13		2011-12	
		£000	£000	£000	£000
<b>Non-current assets:</b>					
Property, plant and equipment	6	12,180		12,728	
Intangible assets	7	262		354	
Biological assets	8	1,389		1,269	
Total non-current assets			13,831		14,351
<b>Current assets:</b>					
Inventories	11	369		398	
Trade and other receivables	12	13,900		7,460	
Cash and cash equivalents	13	247		2,403	
Total current assets			14,516		10,261
<b>Total assets</b>			<u>28,347</u>		<u>24,612</u>
<b>Current liabilities</b>					
Trade and other payables	14	(12,093)		(5,954)	
Provisions	15	(1,402)		-	
<b>Total current liabilities</b>			(13,495)		(5,954)
<b>Non-current assets plus net current assets</b>			<u>14,852</u>		<u>18,658</u>
<b>Non-current liabilities</b>					
Provisions	15		(321)		(2,363)
<b>Total non-current liabilities</b>			(321)		(2,363)
<b>Total assets less liabilities</b>			<u>14,531</u>		<u>16,295</u>
<b>Taxpayers' equity</b>					
SoCNE Reserve	16		9,699		12,813
Revaluation Reserve			4,832		3,482
(See Statement of Changes in Taxpayers' Equity)			<u>14,531</u>		<u>16,295</u>

The financial statements on pages 89 to 118 were approved by the Board on 27<sup>th</sup> November 2013 and were signed on its behalf by:



**Professor Seamus Kennedy MVB PhD MRCVS FRCPATH** (Chief Executive and Accounting Officer)

Date: 18 December 2013

The notes on pages 98 to 118 form part of these accounts.

# Statement of Cash Flows

for the year ended 31 March 2013

	Note	2012-13 £000	2011-12 £000
<b>Cash flows from operating activities</b>			
Net expenditure after notional charges		(44,955)	(39,919)
<i>Adjustments for non-cash transactions</i>			
Notional charges	4	1,343	1,279
Increase in provision for bad debts		1	28
Use of bad debt provision		(13)	(52)
Bad debts written off		1	2
Increase in provisions	15	(124)	644
Impairments/Indexation of fixed assets	10	(8)	10
Increase in value of livestock due to births	8	(129)	(111)
Decrease in value of livestock due to deaths	8	50	71
Loss/(profit) on disposal of non current assets		146	(21)
Loss/(profit) on disposal of biological assets		27	(339)
Loss on disposal of intangible assets		22	-
Release of SoCNE reserve		(5)	(57)
Depreciation and amortisation charges	6, 7	3,053	2,902
Increase in market value of livestock	8	(331)	(341)
(Increase)/Decrease in trade receivables	12	(6,428)	117
Decrease/(Increase) in Inventories	11	29	(68)
Increase in trade payables	14	6,733	378
Use of provisions	15	(515)	(337)
		<u>3,852</u>	<u>4,105</u>
<b>Net cash outflow from operating activities</b>		(41,103)	(35,814)
<b>Cash flows from investing activities</b>			
Purchase of property, plant and equipment	6	(1,335)	(1,881)
Purchase of intangible assets	7	(16)	(130)
Purchase of biological assets	8	(31)	(20)
Proceeds of disposal of property, plant and equipment		6	21
Proceeds of disposal of biological assets		<u>293</u>	<u>579</u>
<b>Net cash outflow from investing activities</b>		(1,083)	(1,431)
<b>Cash flows from financing activities</b>			
Grant from sponsoring department		<u>40,030</u>	<u>40,062</u>
<b>Net financing</b>		<u>40,030</u>	<u>40,062</u>
<b>Net (decrease)/increase in cash and cash equivalents in the period</b>		(2,156)	2,817
<b>Cash and cash equivalents at the beginning of the period (as owed to DARD from 11/12)</b>	13	2,403	(414)
<b>Cash and cash equivalents at the end of the period</b>	13	<u>247</u>	<u>2,403</u>

The notes on pages 98 to 118 form part of these accounts.

# Statement of Changes in Taxpayers' Equity

for the year ended 31 March 2013

	Note	SoCNE Reserve £000	Revaluation Reserve £000	Total Reserves £000
<b>Balance as at 1 April 2011</b>		11,156	1,023	12,179
<b>Changes in Taxpayers Equity 2011-12</b>				
Grant from sponsoring entity		40,062	-	40,062
Net gain on revaluation of property, plant and equipment	6	-	801	801
Net gain on revaluation of intangible assets	7	-	19	19
Relifing adjustment	6	-	1,931	1,931
Release of reserves to the SoCNE		(57)	-	(57)
Notional charges - IT Assist	4	1,279	-	1,279
Transfers between reserves		292	(292)	-
Comprehensive Expenditure for the year		(39,919)	-	(39,919)
		1,657	2,459	4,116
<b>Balance at 31 March 2012</b>		12,813	3,482	16,295
<b>Changes in Taxpayers Equity 2012-13</b>				
Grant from sponsoring entity		40,030	-	40,030
Net gain on revaluation of property, plant and equipment	6	-	457	457
Net gain on revaluation of intangible assets	7	-	11	11
Relifing adjustment	6,7	-	1,355	1,355
Release of reserves to the SoCNE		(5)	-	(5)
Notional charges - IT Assist	4	1,343	-	1,343
Transfers between reserves		473	(473)	-
Comprehensive Expenditure for the year		(44,955)	-	(44,955)
		(3,114)	1,350	(1,764)
<b>Balance at 31 March 2013</b>		9,699	4,832	14,531

The notes on pages 98 to 118 form part of these accounts.



# Notes to The Accounts

## for the year ended 31 March 2013

### 1. Statement of accounting policies

These financial statements have been prepared in accordance with the 2012-13 Government Financial Reporting Manual (FReM) issued by DFP and the Accounts Direction issued by DARD on 19 April 2006. The accounting policies contained in the FReM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector context. Where the FReM permits a choice of accounting policy, the accounting policy which is judged to be most appropriate to the particular circumstances of the Agri-Food and Biosciences Institute for the purpose of giving a true and fair view has been selected. The particular policies adopted by the Agri-Food and Biosciences Institute are described below. They have been applied consistently in dealing with items that are considered material to the accounts. These financial statements have been prepared in sterling and are rounded to the nearest £'000.

### Accounting convention

These accounts have been prepared under the historical cost convention modified to account for the revaluation of plant and equipment, intangible assets, biological assets and inventories.

### Property, plant and equipment

The Institute owns the roof on the building at Hillsborough, and are in discussions with DARD about transferring this asset to DARD. The Institute does not own any other land or buildings but leases them from DARD.

Other non-property assets are stated at current cost using appropriate indices to account for the effects of inflation. No independent valuer is involved in valuation of assets. The date of the revaluation is the reporting date of 31 March each year.

The threshold for capitalisation is £5,000 excluding VAT.

The Institute does not capitalise fixtures, fittings or office furniture.

Assets under construction are carried at cost. Items classified as "under construction" are recognised in the Statement of Financial Position to the extent that money has been paid or a liability incurred.

### Donated fixed assets

Donated fixed assets are capitalised at their fair value on receipt and this value is credited to the Statement of Net Comprehensive Expenditure (SoCNE) reserve. Donated fixed assets are valued and depreciated as described below for purchased assets. Gains and losses on revaluations are also taken to the SoCNE reserve and, each year, an amount equal to the depreciation charge on the asset is released from the donated asset charged to the Statement of Comprehensive Net Expenditure. Any impairment on donated assets charged to the Statement of Comprehensive Net Expenditure is matched by a transfer from the SoCNE reserve.

### Depreciation

Depreciation is charged on a straight line basis in order to write off the valuation of assets, less estimated residual value, of each asset over the expected useful life.

Assets are generally depreciated from the period of acquisition and not depreciated in the period of disposal. However, an exception to this practice occurs when AFBI makes a late addition in the financial year. Where the cost of the asset remains unpaid at the date the financial statements are prepared, the depreciation charge for the asset is included in the following year's financial statements.

The useful lives of tangible assets, which are reviewed regularly, are:

Plant	3 to 15 years
Equipment	5 to 20 years
Transport equipment: boats	5 to 15 years
Transport equipment: vehicles	5 to 10 years
Information technology: computers	3 to 6 years

The useful lives of intangible assets, which are reviewed regularly, are:

Software licences	2 to 10 years
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The Hillsborough roof has not been depreciated as there are ongoing discussions with DARD about transferring this asset to them.

## Intangible assets

Software licences are stated at current cost using appropriate indices to account for the effects of inflation. Software assets are depreciated from the period of acquisition and not depreciated in the period of disposal.

## Biological assets

Biological assets comprise cattle, sheep, pigs and goats which are used for research purposes. They are categorised according to the attributes used in the market to facilitate their valuation at the reporting date. Cattle were further grouped as follows:

- Beef cattle are grouped by gender, breed and age.
- Dairy cattle are grouped by lactation and breed.

Biological assets are valued at fair value less estimated costs at the point of sale at the end of the reporting period. This is further disclosed in accordance with IAS 41 Agriculture, by showing the aggregate value of purchases, sales, changes in value due to changes in physical conditions of the herd and changes in the value of the herd due to changes in market price.

Changes in value due to changes in physical conditions of the herd represent births which took place during the current financial year. The economic value of these transactions is debited or credited to the Statement of Comprehensive Net Expenditure when they occur.

Changes in value of the herd due to changes in market price represent the difference between the purchase cost or the value brought forward of each animal and the market value at the end of the reporting period. The difference is recognised in the Statement of Comprehensive Net Expenditure.

## Inventories

Inventories are valued at the lower of cost and net realisable value.

## Research and Development Expenditure

Research and development expenditures include all costs relating to the scientific and technical patent work, education and training necessary to ensure the development, start-up and commercialisation of new or improved products or processes.

Research expenditure is recognised as an expense when incurred.

Development expenditure on new or substantially improved products is capitalised as an intangible asset and amortised through cost of sales over the expected useful life of the product concerned. Capitalisation commences from the point at which the technical feasibility and commercial viability of the product can be demonstrated and AFBI Management is satisfied that it is probable that future economic benefit will result from the product once completed. This is usually at the point of regulatory filing in a major market and approval is highly probable. Capitalisation ceases when the product is ready for launch.

## Cash and cash equivalents

Cash and cash equivalents comprise of cash and deposits with commercial banks. At each year end, the carrying value of cash at bank and in hand approximates their fair value due to their short-term nature.

## Operating Income

Revenue is recognised when it is probable that the economic benefits will flow to the Institute and the revenue can be reliably measured. Revenue is recognised as follows:

For sales of services, revenue is recognised in the accounting period in which the services are rendered by reference to stage of completion of the specific transaction assessed on the basis of the actual service provided as a proportion of the total services to be provided.

For sales of goods, revenue is recognised when the significant risks and rewards of ownership of the goods have passed to the buyer and the amount of revenue can be measured reliably.

Royalties, Charter of Ship and Rents receivable: Revenue is recognised on an accruals basis in accordance with the substance of the relevant agreement.

## Employee benefits

Under the requirements of IAS 19 Employee Benefits, staff costs must be recorded as an expense as soon as the organisation is obligated to pay them. This includes the cost of any untaken leave that has been earned at the year end. The figure has been based on a specific report run from the Personnel system which calculates the year end balance using leave balances on the system. It is not anticipated that the level of untaken annual and flexi leave will vary significantly from year to year.

## Leases

Operating lease rentals are charged directly to the Statement of Comprehensive Net Expenditure over the period of the lease. There are no finance leases.

## Financial instruments

The Institute is not allowed to borrow or invest surplus funds as per the Management Statement and Financial Memorandum. Financial assets and liabilities are generated by operational activities and are not held to handle the risk profile facing the Institute in undertaking its operations.

### *Liquidity risk*

The Institute's net revenue resource requirements are financed by the Grant in Aid agreed with the Department of Agriculture and Rural Development, as is its capital expenditure. It is not, therefore, exposed to significant liquidity risks.

### *Interest rate risk*

All the Institute's financial assets and liabilities carry nil rate of interest and it is not therefore exposed to significant interest rate risk.

### *Foreign currency risk*

The majority of the Institute's operations, assets and liabilities are denominated in Sterling. Therefore its exposure to foreign currency risk is not significant.

## Grants receivable

Grant in aid represents net funding received from DARD and is credited to SoCNE reserve.

## Provisions

The Institute makes provisions for liabilities and charges where, at the Statement of Financial Position date, a legal or constructive liability exists (i.e. a present obligation for past events exists), where the transfer of economic benefits is probable and a reasonable estimate can be made. Where the time value of money is material, the Institute discounts the provision to its present value using a standard government discount rate, which currently stands at -1.59%.

## Estimation techniques used and changes in accounting estimates

Provision is made for all debts greater than 90 days old which are considered doubtful.

The effect of a change on accounting estimate is recognised by including it in the Statement of Comprehensive Net Expenditure in:

- the period of the change, if the change affects that period only;
- the period of the change and future periods, if that change affects both.

## Value Added Tax

Value Added Tax (VAT) is accounted for in accordance with the Statement of Standard Accounting Practice 5, in the absence of an International Financial Reporting Standard (IFRS). Amounts are shown net of VAT, and irrecoverable VAT is charged to the Statement of Comprehensive Net Expenditure.



## Third party assets

The Institute does not hold any third party assets.

## Operating segments

IFRS 8 Operating Segments requires the identification of operating segments on the basis of internal reports reviewed by the Institute's Chief Decision Maker in order to allocate resources to each specific segment and assess its performance.

The Institute has completed a review against the criteria set out in IFRS 8 and considers that the disclosure format within the accounts meets IFRS 8 criteria.

## Contingent liabilities

In addition to contingent liabilities disclosed in accordance with IAS 37, the Institute discloses for parliamentary reporting and accountability purposes certain statutory and non-statutory contingent liabilities where the likelihood of a transfer of economic benefit is remote, but which have been reported to the Assembly in accordance with the requirements of *Managing Public Money Northern Ireland*.

Where the time value of money is material, contingent liabilities which are required to be disclosed under IAS 37 are stated at discounted amounts and the amount reported to the Assembly separately noted.

Contingent liabilities that are not required to be disclosed by IAS 37 are stated at the amounts reported to the Assembly.

## Reserves

### Revaluation reserve

The Revaluation Reserve reflects the unrealized balance of the cumulative indexation and revaluation adjustments to assets other than donated assets and those funded by grants.

### SoCNE Reserve

The SoCNE Reserve represents the Institute's total assets less total liabilities which is not represented by other reserves and financing items.

## Pensions

Present and past employees are covered by the Principal Civil Service Pension Scheme (Northern Ireland) (PCSPS (NI)), which is a defined benefit scheme and is unfunded. The Institute recognises the expected cost of providing pensions on a systematic and rational basis over the period during which it benefits from employees' services by payment to the PCSPS (NI) of amounts calculated on an accruals basis.

All pension contributions are charged to the Statement of Comprehensive Net Expenditure when incurred.

## Impending Application of Newly Issued Accounting Standards Not Yet Effective

The Institute has considered all newly issued accounting standards not yet effective and considers that there will be no material impact on the Institute's financial statements.

## 2. Statement of Operating Costs by Operating Segment

Segmental selection is based on the organisational structure that AFBI uses to make decisions on resource allocation as well as the availability of financial information based on that structure. AFBI has four operational divisions supported by the Corporate Services Division (CSD). The operational divisions are:

**Applied Plant Science and Biometrics Division (APSBD)** provides statutory services including certification of monitoring for the Department of Agriculture and Rural Development (DARD) of pasture, seeds and plant health, and provides specialist advice on weeds, crop plants, varieties and disease problems. APSBD's research takes account of environmental needs and sustainable economic growth in Northern Ireland's countryside.

**Agriculture, Food & Environmental Sciences Division (AFESD)** provides scientific support for the growth, sustainability and competitiveness of Northern Ireland's farming, fishing and agri-food industries, and assists the industry to maintain high standards of environmental protection and animal welfare.

**Veterinary Sciences Division (VSD)** delivers world class veterinary science to the animal, food and fish based sectors of the agri-food industry.

**Agricultural and Food Economics Branch (AFEB)** carries out economic modelling exercises.

From the 1<sup>st</sup> April 2013, a re-structuring exercise resulted in the formation of SAFSD by combining APSBD and AFESD. CSD combined with Biometrics and Information Systems Branch to form FCAD. There were no changes to the organisational structure of VSD.

### Analysis of net expenditure by segment 2012/13

	AFEB	AFESD	APSBD	VSD	CSD	Total
Gross expenditure	656	16,165	8,041	13,287	19,316	57,465
Taxation charges	-	-	-	-	4,994	4,994
Notional charges	-	-	-	-	1,343	1,343
	656	16,165	8,041	13,287	25,653	63,802
Income	(181)	(7,705)	(1,858)	(2,639)	(6,464)	(18,847)
Net expenditure	475	8,460	6,183	10,648	19,189	44,955
Assets	11	6,835	2,634	6,256	12,611	28,347
Liabilities	(98)	(1,493)	(788)	(1,685)	(9,752)	(13,816)

## Analysis of net expenditure by segment 2011/12

	AFEB	AFESD	APSD	VSD	CSD	Total
Gross expenditure	737	15,336	7,990	12,492	18,906	55,461
Notional charges	-	-	-	-	1,279	1,279
	737	15,336	7,990	12,492	20,185	56,740
Income	(292)	(6,477)	(1,816)	(7,818)	(418)	(16,821)
Net expenditure	445	8,859	6,174	4,674	19,767	39,919
Assets	44	7,930	2,931	7,505	6,203	24,612
Liabilities	(151)	(1,549)	(2,458)	(1,979)	(2,180)	(8,317)

### 3. Staff Numbers and Related Costs

Staff costs comprise:

	Permanently employed staff	Others	Total	Total
	2012-13	2012-13	2012-13	2011-12
	£000	£000	£000	£000
Wages and salaries	21,299	1,211	22,510	21,891
Social security costs	1,628	-	1,628	1,622
Other pension costs	4,005	-	4,005	4,074
<b>Sub Total</b>	<b>26,932</b>	<b>1,211</b>	<b>28,143</b>	<b>27,587</b>
Less recoveries in respect of outward secondments	(85)	-	(85)	(92)
<b>Total net costs</b>	<b>26,847</b>	<b>1,211</b>	<b>28,058</b>	<b>27,495</b>

#### *Pension scheme details*

##### PCSPS (NI)

The Principal Civil Service Pension Scheme (Northern Ireland) (PCSPS(NI)) is an unfunded multi-employer defined benefit scheme but the Agri-Food and Biosciences Institute is unable to identify its share of the underlying assets and liabilities. The most up to date actuarial valuation was carried out as at 31 March 2010 and details of this valuation are available in the PCSPS(NI) resource accounts.

For 2012-13, employers' contributions of £3,978,111 were payable to the PCSPS(NI) (2011-12 £4,071,785) at one of four rates in the range 18% to 25% of pensionable pay, based on salary bands. The scheme's Actuary reviews employers' contributions every four years following a full scheme valuation. However HM Treasury has instructed the scheme to cease further work on the March 2010 valuation. A new valuation scheme based on data at 31 March 2012 is currently being undertaken by the Actuary to review employer contribution rates for the introduction of a new career average earning scheme from April 2015. From 2013-14, the rates will remain in the range 18% to 25%. The contribution rates are set to meet the cost of the benefits accruing during 2012-13 to be paid when the member retires, and not the benefits paid during this period to existing pensioners.



Employees can opt to open a partnership pension account, a stakeholder pension with an employer contribution. Employers' contributions of £25,548 (2011-12: £1,171) were paid to one or more of the panel of three appointed stakeholder pension providers. Employer contributions are age-related and range from 3% to 12.5% of pensionable pay. Employers also match employee contributions up to 3 per cent of pensionable pay. In addition, employer contributions of £1,613, 0.8% (2011-12: £1,323, 0.8%) of pensionable pay, were payable to the PCSPS(NI) to cover the cost of the future provision of lump sum benefits on death in service and ill health retirement of these employees.

Contributions due to the partnership pension providers at the reporting period date were £0 (2011-12: £0). Contributions prepaid at that date were £0 (2011-12: £0).

3 individuals (2011-12: 1) retired early on ill-health grounds; the total additional accrued pension liabilities in the year amounted to £4,119 (2011-12: £1,830).

### Average number of persons employed

The average number of whole-time equivalent persons employed during the year was as follows.

	Permanent staff	Other	2012-13 Total	2011-12 Total
Directly Employed	767	17	784	809
Other	0	60	60	36
Total	767	77	844	845

Other staff are defined as agency staff employed on a temporary contract.

### 3.1 Reporting of Civil Service and other compensation schemes – exit packages

	Number of Compulsory Redundancies 2012-13	Number of Other Departures Agreed 2012-13	Total Number of Exit Packages by cost band 2012-13	Total Number of Exit Packages by cost band 2011-12
<10,000	-	-	-	-
10,000 - 25,000	-	-	-	3
25,000 - 50,000	-	-	-	1
50,000 - 100,000	-	-	-	2
100,000 - 150,000	-	-	-	-
150,000 - 200,000	-	-	-	-
Total number of exit packages	-	-	-	6
Total resource cost	-	-	-	201,980

Redundancy and other departure costs have been paid in accordance with the provisions of the Civil Service Compensation Scheme (Northern Ireland), a statutory scheme made under the Superannuation (Northern Ireland) Order 1972. Exit costs are accounted for in full in the year of departure. Where the Institute has agreed early retirements, the additional costs are met by the Institute and not by the Civil Service pension scheme. Ill-health retirement costs are met by the pension scheme and are not included in the table.

## 4. Other Expenditure

	Note	2012-13 £000		2011-12 £000	
<i>Depreciation</i>					
Depreciation	6	2,935		2,799	
Amortisation	7	118	3,053	103	2,902
<i>Other Expenditure</i>					
Lease of land and buildings		6,652		6,653	
Laboratory consumables		2,144		2,288	
Ship operating costs		1,777		2,012	
Rates and water <sup>1</sup>		1,740		1,824	
Lab equipment maintenance and other expenses		1,450		876	
Electricity		1,385		1,127	
Irrecoverable VAT <sup>2</sup>		1,372		1,346	
Other expenses		1,238		1,226	
Contracted out services		1,130		1,238	
Animal feed and veterinary expenses		837		669	
Gas		797		697	
Taxation fines and penalties		739		-	
Royalty administration fees		733		497	
Apparatus, glassware and minor equipment		728		560	
Training, conferences and library expenses		593		651	
Repairs and maintenance		511		442	
Clinical and other waste disposal costs		348		439	
Oil		346		265	
Travel and subsistence		345		285	
Telephone		271		232	
Motor and tractor expenses		264		199	
Postage, printing and stationery		226		173	
Loss/(profit) on disposal of non current assets		171		(21)	
Computer support		151		170	
Carbon Reduction		124		137	
Legal costs and compensation		120		133	
Hire of plant and vehicles		114		67	
Plants, shrubs, fertiliser		107		155	
Marketing and advertisements		96		76	

## 4. Other Expenditure (continued)

	Note	2012-13 £000	2011-12 £000	
Rent of land and buildings		81	41	
Livestock expenses		70	65	
Protective clothing		70	72	
Decrease in value of livestock due to deaths	8	50	71	
Internal Audit fees		31	44	
External Audit fees		31	72	
Consultancy costs		14	11	
Hospitality		8	5	
Bad debts written off		1	2	
Increase / (decrease) in Debt provision		1	28	
Release from SoCNE reserve		(5)	(57)	
Impairment/Indexation of fixed assets	10	(8)	10	
Provisions provided for in year	15	(124)	644	
Change in value of livestock due to changes in physical conditions of the herd	8	(129)	(111)	
Change in market value of livestock	8	(331)	(341)	24,972
<i>Taxation charges</i>				
Taxation charges <sup>3</sup>			4,994	
<i>Notional charges</i>				
Notional charges			1,343	1,279
			35,659	29,153

<sup>1</sup>Within the rates cost for 2012/13 is a rates revaluation for the Hillsborough site of £419k, which relates to the years 09/10 to 12/13. Within the rates cost for 2011/12 is a rates revaluation of the Stoney Road site of £625k, which relates to the years 06/07 to 11/12.

<sup>2</sup>In Northern Ireland, VAT cannot be reclaimed on research performed for Government Departments or on work which is grant funded. As a proportion of AFBI's work is research for Government Departments and/or is grant funded, it cannot claim back all VAT. The "Irrecoverable VAT" line is the amount of VAT which AFBI cannot claim from HMRC. This VAT expense should ideally be expensed to the various Government / grant funded projects. However, the agreed process with HMRC is complex and AFBI are currently investigating means by which it can accurately allocate the expense to individual projects.

<sup>3</sup>The taxation charge of £4,994k relates to the Corporation Tax charge for the years 2006/07 through to 2012/13. Associated penalties and interest charges of £739k are included above (see also note 22).

During the year AFBI purchased no non-audit services from its auditor (NIAO).



## 5. Income

	2012-13	2011-12
	£000	£000
Income from analytical, diagnostic work and research contracts	11,267	10,171
Royalties	6,300	5,248
Sale of general produce and livestock	978	1,066
Charter of the ship	101	128
Refunds	102	100
Recoveries in respect of outward secondments	85	92
Rents receivable	14	16
Total	18,847	16,821

Royalty income is received gross of a 10% administration fee. The administration fee is then paid over on receipt of a VAT invoice.

### Fees and charges

A detailed analysis of fees and charges information is not provided as the full cost of each service provided does not exceed £1m.

## 6. Property, Plant and Equipment 2012-13

	Information Technology	Plant & Machinery*	Boats & Motor Vehicles	Assets Under Construction	Land & Buildings	Total
	£000	£000	£000	£000	£000	£000
<b>Cost or valuation</b>						
At 1 April 2012	2,256	28,138	4,518	127	-	35,039
Additions	-	564	84	93	-	741
Disposals	(1,019)	(1,800)	(121)	-	-	(2,940)
Impairments	-	-	-	-	-	-
Reclassification	-	-	-	(220)	220	-
Revaluations	124	774	319	-	-	1,217
<b>At 31 March 2013</b>	<b>1,361</b>	<b>27,676</b>	<b>4,800</b>	<b>-</b>	<b>220</b>	<b>34,057</b>
	Information Technology	Plant & machinery	Boats & Motor Vehicles	Assets Under Construction	Land & Buildings	Total
	£000	£000	£000	£000	£000	£000
<b>Depreciation</b>						
At 1 April 2012	(1,868)	(17,989)	(2,454)	-	-	(22,311)
Charge for the year	(174)	(2,353)	(408)	-	-	(2,935)
Relifing adj	84	1,185	63	-	-	1,332
Disposals	1,019	1,651	116	-	-	2,786
Impairments	-	-	-	-	-	-
Revaluations	(87)	(479)	(183)	-	-	(749)
<b>At 31 March 2013</b>	<b>(1,026)</b>	<b>(17,985)</b>	<b>(2,866)</b>	<b>-</b>	<b>-</b>	<b>(21,877)</b>
<b>Carrying Amount</b>						
At 31 March 2013	335	9,691	1,934	-	220	12,180
<b>Carrying Amount</b>						
At 31 March 2012	388	10,149	2,064	127	-	12,728
<b>Asset financing:</b>						
Owned	335	9,691	1,934	-	220	12,180
Finance Leased						-
On-balance sheet						-
PFI Contracts						-
<b>Carrying Amount 31 March 2013</b>	<b>335</b>	<b>9,691</b>	<b>1,934</b>	<b>-</b>	<b>220</b>	<b>12,180</b>

\* Plant & Machinery includes a donated asset of scientific equipment with a carrying value of £49,172 at 31 March 2013.  
The increase in value is due to relifing during 2012/13.

## 6. Property, Plant And Equipment 2011-12

	Information Technology	Plant & Machinery	Boats & Motor Vehicles	Assets Under Construction	Total
	£000	£000	£000	£000	£000
<b>Cost or valuation</b>					
At 1 April 2011	2,169	25,595	4,306	-	32,070
Additions	155	674	218	127	1,174
Disposals	-	-	(46)	-	(46)
Impairments	(68)	-	-	-	(68)
Revaluations	-	1,869	40	-	1,909
<b>At 31 March 2012</b>	<b>2,256</b>	<b>28,138</b>	<b>4,518</b>	<b>127</b>	<b>35,039</b>
	Information Technology	Plant & Machinery	Boats & Motor Vehicles	Assets Under Construction	Total
	£000	£000	£000	£000	£000
<b>Depreciation</b>					
At 1 April 2011	(1,712)	(16,368)	(2,244)	-	(20,324)
Charge for the year	(190)	(2,222)	(392)	-	(2,804)
Relifing adj	-	1,665	155	-	1,820
Disposals	-	-	46	-	46
Impairments	34	-	-	-	34
Revaluations	-	(1,064)	(19)	-	(1,083)
<b>At 31 March 2012</b>	<b>(1,868)</b>	<b>(17,989)</b>	<b>(2,454)</b>	<b>-</b>	<b>(22,311)</b>
<b>Carrying Amount</b>					
At 31 March 2012	388	10,149	2,064	127	12,728
<b>Carrying Amount</b>					
At 31 March 2011	457	9,227	2,062	-	11,746
<b>Asset financing:</b>					
Owned	388	10,149	2,064	127	12,728
Finance Leased					-
On-balance sheet PFI contracts					-
<b>Carrying Amount 31 March 2012</b>	<b>388</b>	<b>10,149</b>	<b>2,064</b>	<b>127</b>	<b>12,728</b>

\* Plant & Machinery includes a donated asset of scientific equipment with a carrying value of £4,000 at 31 March 2012.

## 7. Intangible Assets

Intangible assets comprise of software licences.

	£000
<b>Cost or valuation</b>	
At 1 April 2012	758
Additions	16
Disposals	(174)
Impairments	-
Revaluation	23
<b>At 31 March 2013</b>	<b>623</b>
	£000
<b>Amortisation</b>	
At 1 April 2012	(404)
Charge for the year	(118)
Relifing adj	21
Disposals	152
Impairments	-
Revaluations	(12)
<b>At 31 March 2013</b>	<b>(361)</b>
<b>Carrying Amount</b>	
At 31 March 2013	262
<b>Carrying Amount</b>	
At 31 March 2012	354
	£000
<b>Cost or valuation</b>	
At 1 April 2011	593
Additions	130
Disposals	-
Impairments	-
Revaluation	35
<b>At 31 March 2012</b>	<b>758</b>
	£000
<b>Amortisation</b>	
At 1 April 2011	(402)
Charge for the year	(98)
Relifing adj	112
Disposals	-
Impairments	-
Revaluations	(16)
<b>At 31 March 2012</b>	<b>(404)</b>
<b>Carrying Amount</b>	
At 31 March 2012	354
<b>Carrying Amount</b>	
At 31 March 2011	191

## 8. Biological Assets

	2012-13	2011-12
	£000	£000
<b>Livestock at Fair Value</b>		
Valuation as at 01 April	1,269	1,108
Purchases	31	20
Decreases due to sales	(321)	(240)
Decreases in value due to deaths	(50)	(71)
Changes in value due to changes in physical conditions of the herd (births)	129	111
Changes in value due to changes in market price	331	341
Valuation as at 31 March	<u>1,389</u>	<u>1,269</u>

## 9. Financial Instruments

As the cash requirements of Agri-Food and Biosciences Institute (AFBI) are met through Grant in Aid provided by DARD, financial instruments play a more limited role in creating and managing risk than would apply to a non-public sector body. The majority of financial instruments relate to contracts to buy non-financial items in line with AFBI's expected purchase and usage requirements and AFBI is therefore exposed to little credit, liquidity or market risk.



## 10. Impairments/Indexation

In 2012-13 there were no impairments of non-current assets. Indexation of non-current assets took place during 2012-13 which resulted in £460k being credited to the Revaluation Reserve and a reversal of previous impairments of £8k being credited to the Statement of Comprehensive Net Expenditure. In 2011-12 computer hardware decreased in value by £34k during the year. £10k was debited to the Statement of Comprehensive Net Expenditure and the remaining £24k was debited to the Revaluation Reserves to reverse an existing revaluation surplus in respect of the revalued assets.

### Breakdown of impairments by category

	2012-13 £000	2011-12 £000
Computer hardware	(8)	10
	<u>(8)</u>	<u>10</u>

## 11. Inventories

	2012-13 £000	2011-12 £000
Feedstuffs and sundry stocks at Hillsborough and Stoney Road	241	285
Consumables at Newforge and Stoney Road	128	113
	<u>369</u>	<u>398</u>

## 12. Trade Receivables and Other Current Assets

	2012-13 £000	2011-12 £000
<b>Amounts falling due within one year</b>		
Trade receivables	4,693	2,676
Other receivables	91	626
Prepayments and accrued Income	9,116	4,158
	<hr/> 13,900	<hr/> 7,460

### 12.1. Intra-Government Balances

	<b>Amounts falling due within one year</b>	
	2012-13 £000	2011-12 £000
Balances with other central government bodies	8,050	2,339
Balances with local authorities	10	5
Balances with NHS bodies	-	1
<i>Subtotal: intra-government balances</i>	<hr/> 8,060	<hr/> 2,345
Balances with bodies external to government	5,840	5,115
Total receivables at 31 March	<hr/> 13,900	<hr/> 7,460

Within accrued income is £5.72m of grant in aid due from DARD for payment of corporation tax charges and penalties.

## 13. Cash and Cash Equivalents

	2012-13	2011-12
	£000	£000
Balance at 1 April	2,403	(414)
Net change in cash and cash equivalent balances	(2,156)	2,817
Balance at 31 March	247	2,403
The following balances at 31 March were held at:		
Cash in hand	3	3
Cash at bank	244	2,400
Balance at 31 March	247	2,403

## 14. Trade Payables and Other Current Liabilities

	2012-13	2011-12
	£000	£000
<b>Amounts falling due within one year</b>		
VAT	128	374
Other taxation and social security	5,729	9
Trade payables	807	35
Other payables	2	10
Capital creditors	243	837
Accruals and deferred Income	5,184	4,689
	12,093	5,954

### 14.1. Intra-Government Balances

	Amounts falling due within one year	
	2012-13	2011-12
	£000	£000
Balances with other central government bodies	8,001	1,652
Balances with local authorities	3	2
Balances with public corporations and trading funds	27	39
Subtotal: intra-government balances	8,031	1,693
Balances with bodies external to government	4,062	4,261
Total payables at 31 March	12,093	5,954

The amount of £5.73m in 'Other taxation and social security' relates to corporation tax charges and penalties due at the year end.

## 15. Provisions for Liabilities and Charges 2012-13

	Legal £'000	Decommissioning Costs £'000	Equal Pay £'000	Early Departure £'000	Injury Benefit £'000	Total £'000
Balance at 1 April 2012	1,552	80	360	148	223	2,363
Provided in the year	198	-	-	11	-	209
Provisions not required	(326)	-	(7)	-	-	(333)
Provisions utilised in year	(79)	-	(353)	(70)	(14)	(516)
Balance at 31 March 2013	1,345	80	-	89	209	1,723

### *Analysis of expected timing of discounted flows*

	Legal £'000	Decommissioning Costs £'000	Equal Pay £'000	Early Departure £'000	Injury Benefit £'000	Total £'000
Not later than one year	1,345	-	-	43	14	1,402
Later than one year and not later than five years	-	-	-	46	56	102
Later than five years	-	80	-	-	139	219
Balance at 31 March 2013	1,345	80	-	89	209	1,723

### **2011-12**

	Legal £'000	Decommissioning Costs £'000	Equal Pay £'000	Early Departure £'000	Injury Benefit £'000	Total £'000
Balance at 1 April 2011	1,606	90	360	-	-	2,056
Provided in the year	426	-	-	148	223	797
Provisions not required	(143)	(10)	-	-	-	(153)
Provisions utilised in year	(337)	-	-	-	-	(337)
Balance at 31 March 2012	1,552	80	360	148	223	2,363

Provisions have not been discounted as these relate to payments due to be paid in the near future.

## Legal

This relates to personal injury legal cases and intellectual property claims. Legal claims are assessed by independent solicitors and a provision of 100% of the likely maximum claim value is made. This percentage is to be reviewed on an ongoing basis to ensure it continues to represent a reasonable estimate of the expenditure on such claims.

## Decommissioning costs

This relates to a piece of equipment which holds radioactive material and as such falls under the High Activity Sealed Radioactive Sources (HASS) Regulations 2003. The material is used by AFBI in the course of its business. The provision is required to cover the cost of compliance with HASS Regulations when the equipment is disposed of.

## Equal pay

This relates to the NICS Equal Pay Settlement and revised pay scales for Administrative Assistants, Administrative Officers, Executive Officers IIs and all analogous grades. The provision was calculated by Northern Ireland Statistical Research Agency (NISRA) based on liability from 1 April 2006 when the Agri-Food and Biosciences Institute was created. The Equal Pay settlement took place in March 2013.

## Early Departure

This relates to pension payments to staff members who took early retirement. AFBI are required to make the payments until the individuals reach 60 years of age.

## Injury Benefit

This relates to payments to staff members who have suffered an impairment to earnings as a result of an injury that has been sustained within the context of one of the qualifying conditions outlined within the legislation governing the scheme, which is known as the Civil Service Injury Benefit Scheme (NI) (CSIBS(NI)). Injury benefit is paid when a qualifying injury impairs the individual's earning capacity.

# 16. SoCNE Reserve

The Statement of Comprehensive Net Expenditure Reserve is a notional reserve for financial reporting purposes only. AFBI are not permitted to carry forward any cash or reserves. Any surplus cash must be returned to DARD at the end of the financial year.

# 17. Capital Commitments

	2012-13 £000	2011-12 £000
<b>Contracted Capital Commitments at 31 March not otherwise included in these financial statements</b>		
Assets under construction	<u>0</u>	<u>88</u>



## 18. Commitments Under Leases

### 18.1 Operating leases

The Institute has an operating lease with DARD for the land and buildings it occupies. Total future minimum lease payments under operating leases are given in the table below for each of the following periods:

	2012-13 £000	2011-12 £000
<b>Obligations under operating leases comprise:</b>		
<i><b>Land and buildings</b></i>		
Not later than one year	6,462	6,652
Later than one year and not later than five years	25,848	26,608
	<u>32,310</u>	<u>33,260</u>
<i><b>Photocopiers</b></i>		
Not later than one year	13	16
Later than one year and not later than five years	8	12
	<u>21</u>	<u>28</u>

### 18.2 Finance leases

The Institute has no finance lease commitments at the year end.

## 19. Commitments under PFI Contracts

The Institute had no PFI contracts during 2012/2013.

## 20. Other Financial Commitments

The Institute had no other financial commitments at the year end.

## 21. Contingent Liabilities Disclosed Under IAS 37

The Institute had no contingent liabilities at the year end.

## 22. Losses and Special Payments

The Institute had eight instances of losses which amounted to £772k. There were eight losses in 2011-12 which amounted to £135k.

	2012-13 £000	2011-12 £000
<b>Total</b>		
8 cases amounting to £772k in 2012-13	772	
8 cases amounting to £135k in 2011-12		135
<b>Details of cases over £250k</b>		
<b>Cash Loss</b>		
AFBI have a liability to HMRC for corporation tax penalty and interest on royalty income	739	-

Following registration for corporation tax in May 2012, HM Revenue and Customs (HMRC) have advised that the Institute will have a tax liability based upon the application of tax to the royalty income stream from its establishment on 1 April 2006. The demand includes £739k for penalty and interest charges (of which £4k had already been paid at year-end), which falls to be disclosed as a loss. The Institute is actively engaged with HMRC in an effort to reduce the amount of penalties and interest chargeable.

## 23. Related-Party Transactions

The Department of Agriculture and Rural Development is the sponsor department of the Institute with which it had various material transactions during the year and is regarded as a related party. DARD's executive agencies also had transactions with the Institute.

In addition the Institute had some transactions with other government departments and central government bodies. Most of these transactions have been with Northern Ireland departments and their executive agencies such as DFP (including CPD and Pensions Branch), DCAL, DOE, FSA (NI), HMRC, DEFRA & Northern Ireland Water.

Within the provisions (Note 15) there is an amount in respect of an ongoing legal claim for which the Chief Executive is a potential beneficiary.

A member of the AFBI Board is employed by an organisation to whom AFBI provides scientific research services, Dunbia. In 2011/12 a member of the Board was employed by University College Dublin. This person was not a board member during 2012/13. In accordance with IAS 24 (2010) the transactions that occurred within the financial year and any balances at year end are shown below:

	Dunbia		University College Dublin (UCD)	
	2012-13 £000	2011-12 £000	2012-13 £000	2011-12 £000
Revenues generated during the year	110	215	-	80
Expenditure incurred during the year	-	-	-	-
Net value of transactions at year end	110	215	-	80
	2013 £000	2012 £000	2013 £000	2012 £000
Amount owed to AFBI	33	112	-	-
Amount owed by AFBI	-	-	-	-
Net balance at year end	33	112	-	-

Other than the above, no Board member, key manager or other related party has undertaken any material transactions with the Institute during the year.

Any other compensation payments issued to the AFBI Board in relation to IAS 19 Employee Benefits are disclosed within the Remuneration Report.

## 24. Third-Party Assets

The Institute does not hold any third party assets.

## 25. Events after the Reporting Period

The Institute does not have any events after the reporting period to disclose.

### Date of authorisation for issue

The Accounting Officer authorised the issue of these financial statements on 20 December 2013.





# Scientific excellence in Northern Ireland... ...serving the world



**AFBI's mission is to maintain and enhance its reputation as a world-class scientific institute, delivering proven value to government and other customers.**

AFBI provides research and development, analytical and diagnostic services, and scientific advice in agriculture, food, animal and plant health, marine and fresh water ecosystem management and the agri-environment.

Our customers include a range of local, national and international commercial companies, Northern Ireland and United Kingdom Departments, Agencies, and associated bodies and the European Union.

We pride ourselves on the quality and breadth of our scientific expertise and maintain appropriate quality assured accreditation standards.

AFBI has various national and international reference laboratories.

AFBI maintains a cutting edge skills and technology base to fulfil its statutory obligations including provision of rapid, scientific response capabilities for DARD and other Departments during emergencies.

AFBI scientists have long standing experience and internationally recognised standards of providing evidence-based scientific advice to Government policy makers and commercial decision makers.

We are the partner / contractor of choice for many local, national and international bodies.

A major aim is to support industry by providing a "one-stop shop" for diverse specialist expertise and facilities.

AFBI's expertise includes:  
Veterinary diagnostics; animal health and welfare; food science; crop and livestock systems; biometric traceability; plant breeding; biometrics and statistics; agricultural economics; renewable energy and non-food crop agronomy; oceanography; fish stock management, aquatic and land based ecosystem management of natural resources.

AFBI has facilities sited across Northern Ireland which include modern laboratories and secure animal accommodation and has a purpose built marine research vessel. The facilities have "state of the art" equipment required to resolve scientific problems and produce sophisticated and reliable results.

Technological capabilities include:  
molecular technologies; light and electron microscopy; mass spectrometry; pathogenesis studies; biosensor technology; seabed mapping and minimal processing technologies.

Agri-Food and Biosciences Institute  
18a Newforge Lane  
Malone Upper  
Belfast BT9 5PX  
Northern Ireland, UK

Tel: +44 (0) 2890 255 636  
Fax: +44 (0) 2890 255 035  
Email: [info@afbini.gov.uk](mailto:info@afbini.gov.uk)  
[www.afbini.gov.uk](http://www.afbini.gov.uk)