

Annual Review **2015/16**



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Vital Statistics



OUR WORK IS
INSPIRED BY
JAMES HUTTON:
**SCOTTISH
INNOVATOR
AND POLYMATH**



EMPLOYEES
FROM OVER
29
COUNTRIES

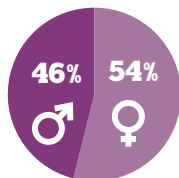
558
EMPLOYEES



5
SITES

4382

YEARS OF
SCIENTIFIC
EXPERIENCE



165 PHD STUDENTS



244 PHD QUALIFIED EMPLOYEES



27 PROFESSORS



40
EMPLOYEES

30+
YEARS

SCIENTIFIC
EXPERIENCE

54

TV/RADIO
BROADCAST
FEATURES
IN THE LAST YEAR



382

PEER REVIEWED PAPERS
IN THE LAST YEAR



665
PRESS
ARTICLES
IN THE LAST YEAR

Timeline of our Year

2015 - International Year of the Soil

<p>April</p> <p>James Hutton Limited opens for business</p>	<p>May</p> <p>Togolese Ambassador visits to open collaboration talks</p>	<p>June</p> <p>LEAF Open Farm Sunday at Invergowrie attracts 1500 visitors</p>	<p>July</p> <p>Major European award for plant genetics research </p>
<p>August</p> <p>European Society for Rural Sociology 2015 Congress hosted in Aberdeen</p>	<p>September</p> <p>James Hutton Institute and National Library offer access to Scotland's one-inch soil maps</p>	<p>October</p> <p>Analysis from applied drones to speed up potato breeding </p>	<p>November</p> <p>Horizon 2020 grant wins reach €8m mark</p>
2016			
<p>December</p> <p>Hydro Nation International Fellow Programme launched (Delhi)</p>	<p>January</p> <p>Flood prevention expertise provided to UK and Scottish governments</p>	<p>February</p> <p>Colin Campbell appointed Chief Executive of James Hutton Institute</p>	<p>March</p> <p>Westminster Barley Hub event and meeting at 10 Downing Street </p>

Some Research Highlights

Computational scientists at Hutton have developed a new visualisation tool that enables researchers to **find the specific epigenetic features of genes that are known to affect barley**. This tool will facilitate future discovery and gene editing.

A busy year for **flood management** scientists culminates in ministerial discussions to bring Hutton's catchment-based approaches into flood mitigation options.

Within the **Nature Index** the Institute is one of only 2 UK research institutes - and the only Scottish one - to feature in both Life Sciences and Earth/Environmental Sciences rankings for 2015/16, continuing our impressive record against this benchmark.

The Institute played a major role in the **XV World Water Congress** in Edinburgh in May, running 5 special sessions and many talks.

£1.3 million from Agri-Tech Catalyst was awarded to Hutton-led projects to help Scottish producers meet the growing demand for home grown berries. The work applies the most recent discoveries in plant genetics to identify traits in raspberries that make them more resilient to pests and diseases, and in blueberries, traits that are better adapted to Scotland's cooler climate.

Hutton researchers provided evidence in support of **engaging communities in decisions relating to land**. They identified and classified types of barriers to community land-based activities and identified ways the barriers can be resolved through better landowner-community engagement, so informing guidance on the Land Reform (Scotland) Act 2016.

Hutton researchers identified the **factors impeding older people from accessing and using outdoor recreation opportunities**. The research also examined how to facilitate greater use of the outdoors by older people. The findings are being used to inform policies to achieve the Scottish Government's strategic objectives.

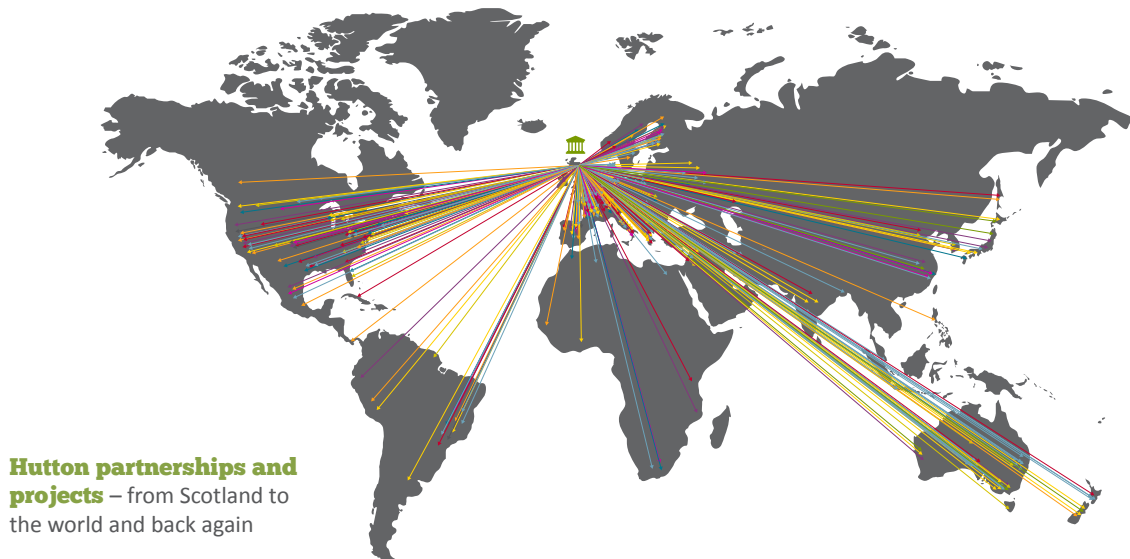
Hutton modelling for nitrate pollution risks contribute to a multi-agency approach that improves Nitrate Vulnerable Zones and better targets farming regulation.

For the second successive year, Ecological Sciences' Professor Philip J. White features in **Thomson Reuters' prestigious list of Highly Cited Researchers in Plant and Animal Sciences**: one of only fifteen individuals from the UK, and the only representative from Scotland given this appellation in 2015. This accolade indicates the exceptional impact of Philip's scientific publications over the last ten years.

Lucozade Ribena Suntory committed £600k to a new 5-year blackcurrant breeding programme with Hutton, continuing Ribena's longstanding relationship with blackcurrant work at Invergowrie.

The outcomes from Hutton researchers' rapid assessment of the wider ecological impacts of **ash dieback** were used by JNCC, national environment agencies and DEFRA to develop guidance on Ash dieback management prompting a review and revision of existing policy on suitable replacement tree species.

Researchers at the Institute had **2 prestigious European Research Council grant wins** in 2015/16, worth £3.2 m: a barley genetics grant (H2020 'SHUFFLE' project) and a soil nitrogen grant (H2020 'PROVIDE' project).



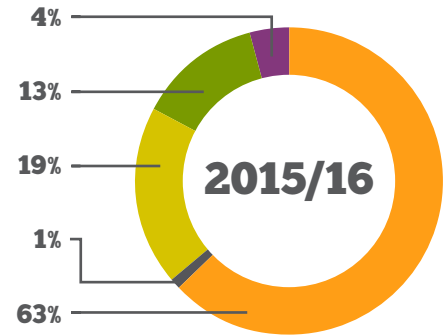
Hutton partnerships and projects – from Scotland to the world and back again

Accounts

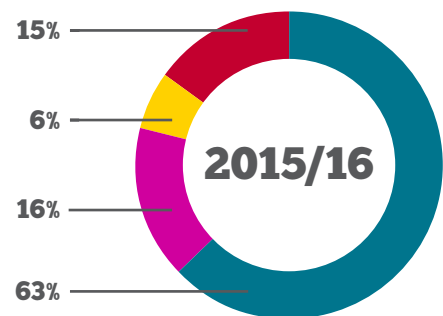


Group annual report figures (£000)

Income	2015/16	2014/15
Scottish Government Strategic Research Programme	24,482	24,121
Capital	499	789
	24,981	24,910
Research grants & contracts	7,410	6,615
Trading income from subsidiaries	4,920	5,884
Other income	1,734	2,182
Total income	39,045	39,591



Expenditure	2015/16	2014/15
Staff costs	24,712	25,636
Scientific consumables	6,467	6,194
Depreciation	2,495	2,677
Support costs	5,959	7,228
Exceptional costs	0	2,979
Total expenditure	39,633	44,714
Surplus/(deficit) for the year	(588)	(5,123)



In 2015/16 the James Hutton Institute generated £308 million in economic impact for the UK economy, supporting 3,180 jobs.

A Summary from the Chief Executive

“We are proud to be one of the Scottish Government’s main providers of this research for Scotland.”

I am delighted to have been appointed to lead the James Hutton Institute. I believe completely in the unique and valuable role of research institutes conducting high-quality science that makes a real difference to the agri-environment sector through long-term directed research programmes formed in partnership with end users. Last year saw the end of the 2011-16 Strategic Research Programme funded by RESAS and preparations for the new programme for 2016-2021. A great deal was achieved in the last programme in terms of advancement of science and understanding of our agricultural and managed land resource. We are proud to be one of the Scottish Government’s main providers of this research for Scotland.

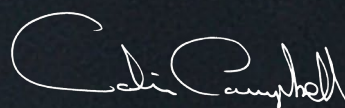
Our competitively won income grew again last year to £7.4m with continued success especially in winning European funding. We exceeded the €3m mark in Horizon 2020 programme and we have done particularly well in winning two prestigious European Research Council awards. Success with Innovate UK and from a wide variety of other funders has also contributed to this continued growth of 15% a year for the last three years.

Last year also saw the launch of James Hutton Limited, our new commercial subsidiary which turned over £4.92m in the period. There are exciting new ideas around business discovery and a new approach in working with the Institute as one Group. We are working more closely with industry than ever, taking a whole-sectoral approach as exemplified in the International Barley Hub project that brings together the whole value chain.

The Institute put its heart and soul into the International Year of Soils showcasing our considerable expertise in soil science. There were many scientific and public events and great partnership working in Scotland which was recognised with EU Commissioner Phil Hogan presenting the Best Soil In Show prizes at the Highland Show.

The economic situation is still challenging but we have an excellent offering and the demand for what we do is still very high. We continue to operate internationally, and several projects are getting high recognition. New partnerships, especially in China and India, are bringing new opportunities.

I am very grateful to our board, funders, partners and stakeholders and especially all our staff and students who have worked so hard in the year past. We look forward to the year ahead with renewed optimism and belief in that what we do is needed more than ever before.



Professor Colin Campbell
Chief Executive





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