

The Horticulture Innovation Partnership Annual Report 2014 - 2015



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Executive Summary

The Horticulture Innovation Partnership (HIP) was established to create a network of representatives from across the industry, academia and funding agencies to shape a sector strategy for innovation and to re-focus R&D funding to ensure its relevance to the fresh produce, potato and horticultural industries and their associated supply chains. The industry continues to work within the Partnership to ensure that targeted research helps to develop a sustainable, profitable sector and to maximise the contribution the Horticultural industry can make to the supply of product to UK consumers and for export. This Annual Report provides an update on the HIP's activities from 2014 – 2015.

1. The HIP continued fostering innovation through encouraging appropriate research funding for industry priorities.
2. The HIP Research Funders Group identified the need to begin to look forwards to identify the research-funding pipeline in 3 to 5 years time.
3. The HIP identified the research and innovation needs of the fresh and prepared produce supply chain and articulated these to all research funders through a number of different channels.
4. The HIP has established formal and informal relationships with a wide range of stakeholders including government, research funders, trade associations and other organisations to increase the voice of the industry to add value and avoid duplication.
5. The HIP has analysed the many and diverse trade associations which represent the industry supply chain and identified the possible membership of a Supply Chain Group, which is representative of the value added through the supply chain for the different commodities. The representative associations have expressed an interest in being involved.
6. The HIP has been a member of the Ornamental Horticulture Roundtable, which has developed the Ornamental Horticulture Roundtable Action Plan 2015-2020, which was launched at the Chelsea Flower Show. The HIP Ornamentals group has been developing an R&D strategy which will support and align with the Roundtable Action Plan. This will be available later in the summer.
7. The HIP led a partnership to develop and submit a bid to the Agri-Tech Strategy for a Fresh and Prepared Produce Innovation Centre. Although unsuccessful, the HIP remains committed to ensuring the horticulture sectors are positioned to take best advantage of whatever landscape of innovation centres is eventually funded.
8. The HIP is now evaluating the impact of what the Partnership has delivered so far. The publication of this Annual Report is the first stage of this review. During this period of evaluation the HIP will continue to focus on our remit to drive innovation in the sector and in parallel, we will be reviewing what the industry needs from the HIP going forward.

Introduction

The horticulture sector (fresh produce and ornamental) is an important component of UK food security and for delivering ornamental landscapes, their associated environmental services and health benefits. The farm gate value of UK grown fruit, vegetables, potatoes, flowers and ornamental plants at around £5.4 billion, underplays its importance when the three-fold added-value multiplier in downstream processing and supply chains is applied. This creates a combined (and rising), value of about £15.5 billion in retail markets, food service outlets and the landscaping industry together with its significant employment opportunities.

Despite the importance of the sector, a series of round-table discussions on the future of UK Horticulture in 2012, led by Professor Sir John Beddington (Government Chief Scientific Adviser at that time), concluded that successive cutbacks in applied R&D funding over 30 years had reduced the 'pull-through' of fundamental research into commercial practice. Furthermore, commercial pressures had eroded margins and undermined industry confidence to invest in new production facilities and systems.

The Horticulture Innovation Partnership (HIP) was established to create a network of representatives from across the industry, academia and funding agencies to shape a sector strategy for innovation and to re-focus R&D funding to ensure its relevance to the fresh produce, potato and ornamental horticultural industries and their associated supply chains. See www.hip.org.uk/about-us/faqs for more information.

Over the last three years the HIP has been supported both financially and through the in-kind contribution of the representatives in the Partnership, who provide their time to engage in the HIP's Working Groups, to address key tasks or priorities.

The industry continues to work within the Partnership to ensure that targeted research helps to develop a sustainable, profitable sector and to maximise the contribution the Horticultural industry can make to the supply of product to UK consumers and for export. This Annual Report provides an update on the HIP's activities from 2014 – 2015.

1.0 The HIP: Continuing to foster innovation through encouraging appropriate research funding for industry priorities.

The HIP has identified the research and innovation needs of the fresh and prepared produce supply chain and articulated these to all research funders through a number of different channels.

1.1 The HIP Research Funders Working Group (FWG)

Through direct engagement with funders the HIP has been able to encourage more of a focus on the priorities for the horticulture and potato sectors. The HIP Research Funders Group has representation from Defra, AHDB (Horticulture and Potatoes), BBSRC, NERC, Innovate UK, Scottish Government, East Malling Trust (EMT), and the AgriFood Charities Partnership. At their meeting in March 2015, the HIP FWG discussed the potential outputs of the R&D pipeline (3-5 years) and how a better understanding of these might speed technologies to implementation.

It was agreed we need a clearer picture of what funding mechanisms are likely to be in existence and how these link up. Additionally there needs to be an understanding and knowledge of key dates in the development of the funding landscape so funders, academics and industry could respond in a timely way. To achieve this the HIP is collating information on the timeframes of current funding initiatives and breaking down the funding opportunities by sector-specific issues and industry challenges, so appropriate funding streams can be identified more easily. The HIP also seeks to clarify the timetable for decision-making by different funders.

To achieve any of this will require considerable liaison and understanding between funders and the HIP will continue to facilitate discussions with funders as they develop subsequent initiatives.

1.2 The HIP has assessed and communicated industry needs and funding opportunities.

The industry needs have been articulated to funders by a number of routes throughout the year. Similarly, the funding opportunities and their specific requirements have been relayed to industry and research providers through similar routes. These include:

- To Defra specifically at a project review meeting
- Through the HIP Steering Group meetings
- Directly to BBSRC and NERC during regular meetings with them
- Through the HIP Research Funders Group
- Shared with research and knowledge providers during the development of the Centre for Agricultural Innovation bid
- Through networking with key organisations
- At the BBSRC event “Unlocking Innovation through Science and Collaboration” linked to the Horticulture and Potato Initiative on 26 February 2015
- Via regular contact with UKTI, to improve the understanding of the export potential of the industry

Additionally the HIP is very aware of the effective communication routes Innovate UK have developed and the HIP is ensuring it does not duplicate this activity but is adding value where appropriate. The HIP has promoted KTN events via the HIP website and ensured that Innovate UK were a part of the programme for the “Unlocking Innovation through Science and Collaboration” event in February, 2015 (see 1.3).

The HIP continues to work in partnership with the funders to influence future opportunities and also to inform industry about what funding is available.

1.3 The work of the HIP as Horticulture Co-ordinators for the BBSRC

The HIP won the competitive tender to become coordinator for the Horticulture and Potato Initiative (HAPI). The HIP is supporting the HAPI Steering Group to ensure funding addresses industry-relevant challenges.

As coordinators for HAPI the HIP organised a one-day workshop (26 February 2015) with BBSRC entitled “Unlocking Innovation through Science and Collaboration”. The event was focussed around research funded under the HAPI and attracted 113 attendees from the wider community of academics, industry and funders. The workshop delivered on several key aims:

- Enabled key stakeholders in the edible horticulture and potato sector to meet and showcase horticulture and potato research through presentations and posters
- Highlighted challenges faced in key areas of the horticulture and potato supply chain and raised awareness of how research can help to overcome them
- Provided hints and tips in building collaborations, securing public-private funding and delivering exploitable outputs
- Explained in industry terms the requirements of research funders
- Built relationships between industry and researchers

All delegates were provided with a “Directory of UK Horticulture and Potato Research” which identified and provided contact information for 111 current projects funded jointly by BBSRC and industry www.hip.org.uk/assets/uploads/publication/directory_complete.pdf . The plan is to extend this directory to include projects funded by other government organisations with industry and to make it available through the HIP website. This directory provides the basis for individual businesses and research groups to learn from other’s success and to identify potential new collaborators.

1.4 A partnership between the HIP, NERC and BBSRC funds new KE Fellowship for Horticulture.

The Natural Environment Research Council (NERC) and the Biotechnology and Biological Sciences Research Council (BBSRC) have established Knowledge Exchange (KE) Fellowships across a range of sectors and subjects to increase exposure of industry to the research community and accelerate the uptake of research outputs. This is strategically important to businesses, and will help them to address challenges that may affect long-term sustainability and ambition.

This year a co-funding partnership was established between the HIP, NERC and BBSRC (enabled through the HIP’s co-ordination role for BBSRC) to create a new KE Fellowship for horticulture. HIP funders, the AHDB, East Malling Trust, the Horticultural Trades Association (HTA) and Royal Horticultural Society (RHS) are all contributing.

The aim of the Fellowship (which is being delivered as a job-share between East Malling researcher Dr Chantelle Jay and Cranfield University soil scientist Dr Lynda Deeks) is to enable industry to engage in greater depth with the research community, allowing their businesses and supply chains to access NERC and BBSRC research investments and capability to address their innovation needs and business challenges.

The Fellows will work with the HIP to develop and implement strategies to:

- Develop a thriving interdisciplinary scientific community that works with business and understands what industry needs, and delivers meaningful research outcomes that can be implemented within the supply chain
- Drive innovation to realise the full potential of bioscience and environmental science research outputs to deliver economic, social and environmental benefits

The role of the KE Fellows falls into 3 main themes:

- Facilitation of network building between industry and academic research groups
- Dissemination, research translation and embedding of outputs from HAPI and other collaborative research council funded projects
- Translate industry challenges and knowledge gaps into clear and prioritised research opportunities

Harper Adams University Lecturer Dr Laura Vickers has been awarded a similar fellowship by NERC. Dr Vickers will focus on research funded on ornamental production, the use of ornamentals and their impact on the environment. Dr Vickers is also part of the HIP's Ornamental Working Group. All three fellows have joined the HIP's Communications Working Group and will be publishing their work on the HIP website.

2.0 The HIP has continued to build networks with relevant organisations and initiatives so the HIP becomes a more respected and powerful voice for the fresh produce and ornamentals sectors.

The HIP has been working to establish both formal and informal relationships with other organisations so the HIP is increasing its power as a voice for the industry to add value and avoid duplication. The HIP's Executive Director, is also part of several industry research clubs, which have provided improved access to research funding for the ornamentals sector.

a. Organisations with which the HIP has established formal and informal relationships

Government bodies

Defra, Scottish Government, Innovate UK, KTN, SAF-IP, Agri-Tech Leadership Council, UKTI, Local Enterprise Partnerships (LEP)

Research funders

Research Councils (BBSRC, NERC), AHDB, East Malling Trust, AgriFood Charities Partnership

Trade Associations

British Growers Association, National Farmers Union, Horticulture Trades Association, Potato Processors' Association, Campden BRI, Chilled Foods Association

Other organisations

The UK Water Partnership, Royal Horticultural Society

b. Development of the HIP Supply Chain Group

During 2013-2014 the HIP developed a supply chain analysis, which identified the major supply chain segments and the value added through the supply chain. This provides an objective basis for the broad representation to be sought within a supply chain group. Download the publication at: www.hip.org.uk/assets/uploads/publication/supplychain.pdf .

The aim this year was to identify a group of forward thinking individuals who were able to project their thoughts beyond the immediate needs of their business. All the associations relevant to the different segments of the supply chain and to the different commodity sectors were identified. Sixty-three associations were identified. This list was then reduced to twelve, to include only those with a serious R&D interest, and these were mapped on to the different supply chain segments including suppliers of agricultural inputs, primary production, import, export, packers, processors, wholesalers, retail and food service. Each representative organisation has been approached, the concept of the HIP Supply Chain Group explained and support requested. The majority of organisations have expressed their support.

As the next phase of the HIP develops, this Supply Chain Group will become the key group for industry engagement to help understand the industry requirements of the HIP into the future.

3.0 The HIP has developed an R&D strategy for ornamentals.

The HIP Ornamentals Working Group (OWG) was expanded to encompass the wide range of interests across the whole supply chain from plant production to landscape architecture to enable the development of a fully representative strategy. The membership of the group includes the following organisations:

- AHDB – Horticulture
- British Protected Ornamentals Association (NFU)
- Association of Professional Landscapers
- Dove Associates
- Horticulture Innovation Partnership
- Horticultural Trades Association
- Lowaters Nursery
- Royal Horticultural Society
- The Landscape Institute
- University of Sheffield
- Harper Adams University

The group met formally on seven occasions during the year.

At an early stage the group agreed ornamental horticulture could contribute to a wide range of government policies beyond those 'owned' by Defra. A policy analysis was done, in conjunction with the HTA, which identified ornamental horticulture could contribute to the delivery of 76 out of 223 Government policies. The policies were grouped into the following 'opportunity topics':

- Climate change adaptation and energy
- Water quality and resources
- Other ecosystem services
- Economic growth, employment, education and skills
- Built environment
- Social, health and wellbeing

A brief report of the this policy analysis was submitted to Defra in August 2014 to contribute to the newly formed "Ornamental Industry Roundtable".

The HIP was invited to join the Ornamental Industry Roundtable and participated in the roundtable discussions and as a member of the Supply Chain working group. This resulted in the development of the Ornamental Horticulture Roundtable Action Plan 2015-2020 which was launched at the Chelsea Flower Show in May 2015.

During this process it was agreed with Defra the HIP Ornamentals strategy would focus on the R&D requirement and opportunity. The HIP OWG has now produced a draft R&D strategy for Ornamental and Landscape Horticulture which was circulated to 91 organisations representing the whole supply chain for ornamental horticulture for their input.

The "HIP Ornamental and Landscape Horticulture R&D strategy 2015-2020" will be launched later in the summer. This ornamental and landscape horticulture R&D strategy is aimed at government, research funders, research providers and key stakeholder organisations and supports and aligns closely with the Ornamental Horticulture Roundtable Action Plan 2015-2020. It will set out a research agenda for the ornamental and landscape horticulture industry, linked to delivering key government policy areas and highlighting how R&D will help drive innovation and growth in this economically and environmentally important sector. It will ask for the support of government to embed the benefits of ornamental horticulture as part of policy delivery across government

departments and for the research councils to use existing and new funding schemes imaginatively to deliver this agenda.

4.0 The HIP has positioned the fresh and prepared produce sectors (including ornamentals) to participate and benefit from the Agri-Tech Innovation Centres.

The HIP took the lead to develop an application for a Centre for Agricultural Innovation (CAI) entitled the Fresh and Prepared Produce Innovation Centre (FPPIC) following consultation with a range of industry and research provider stakeholders. The initiative was led by a Steering Group of the partners, which were the HIP, British Growers Association, Campden BRI, AHDB (Horticulture and Potatoes), University of Warwick, East Malling Research and the James Hutton Institute. Although the bid was unsuccessful, there were a number of successful outcomes:

- 1) The industry challenges to be addressed within the centre were identified by a meeting of industry representatives from across the whole supply chain (producers, processors, retailers, consultants) in January 2014. Industry priorities for research and innovation were refined in a post meeting questionnaire sent to both attendees and those unable to attend the initial meeting.
- 2) An Industry Steering Group was established which comprised volunteers from across the supply chain from those who contributed to the development of industry priorities. This Industry Steering Group met to further refine and test the research challenges which were then tested on the research provider community.
- 3) The HIP was invited to participate in consortia building events with outline proposals, which were successful at the first outline stage. The HIP took part in online and face-to-face consortia building events in January 2015 and has been involved in several discussions with a number of successful outline consortia to determine whether there were opportunities for the horticulture and potato industry challenges identified during the development of the HIP-led bid to be accommodated in any form.

The HIP's priority remains to make sure that the horticulture sectors are positioned to take best advantage of whatever landscape of innovation centres are eventually funded, while taking account of the industry's identified needs. Furthermore, there remains a view amongst industry partners that there is a requirement for some form of structure, which enables better co-ordination of research and innovation funding of the horticulture sectors and the delivery of knowledge to all elements of the supply chain. Armed with a new Vision document and the articulation of the industry's needs the HIP is ideally placed to continue discussions to ensure the horticulture sectors are positioned to take best advantage of the emerging landscape of innovation centres.

Thank you for your Continuing Support

The work of the HIP is only possible through the on-going support of its diverse stakeholders. The HIP Executive, Mary Bosley and Mark Tatchell, are very grateful to our major supporters (AHDB (Horticulture and Potatoes), EMT, HTA, RHS, NFU, Society of Chemical Industries) and the 20 or so research providers for their on-going financial support. Many involved with the HIP have given considerable time and effort to the HIP to make things happen, in particular the HDC, PCL, British Growers Association and Warwick Crop Centre. The additional work contracted with Defra and BBSRC has complemented the core HIP activities and has made it possible for the HIP to make significant progress this year.

June 2015