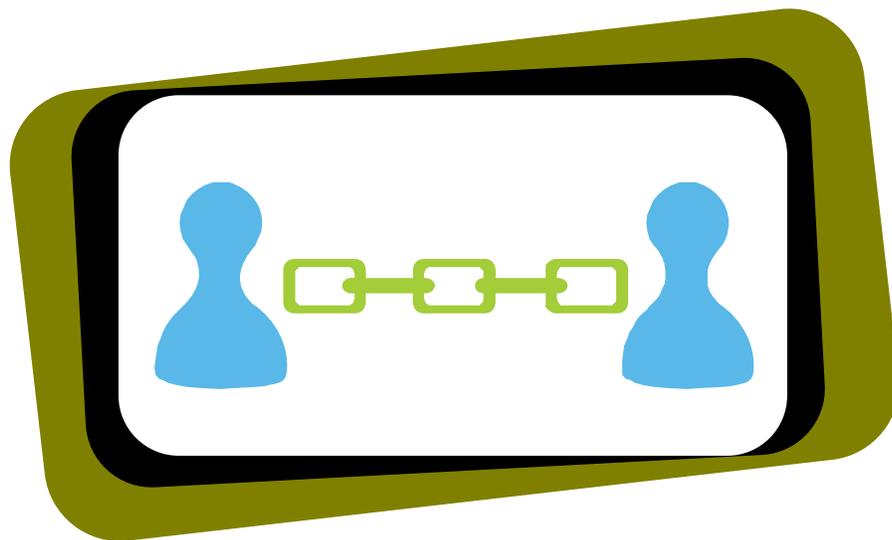


Promotion of Linkages between Research Providers and the Irish Meat Industry



Ashtown Food Research Centre

Teagasc

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Introduction

The improvement of a company's innovative and competitive performance is strongly influenced by institutions working in scientific research and technology development. For meat sector companies, fostering relations with public research providers can provide specific advantages including access to research results, scientific and technological knowledge, emerging business ideas and product prototypes. In addition to providing valuable information and a source of commercialisable ideas, public researchers can lend support to companies in solving problems and developing new products/processes. On the other hand, cooperation with the meat industry can provide researchers with additional resources (financial and otherwise); access to industrial information and applied knowledge; and satisfaction through the transfer of the scientific knowledge they have generated to industry.

Challenge

Whilst the advantages of industry-research relationships are widely recognised and acknowledged, the EU Scientific and Technical Research Committee (CREST Expert Group) reported that links between the public and private sectors could be expanded and improved. The group observed that only a small proportion of private sector firms have contact with public research establishments and universities within Europe. This echoes a criticism by an OECD panel on the inadequacies of the European research system, namely insufficient links between the public and private research realms. Most of the prevailing arrangements between academia and the meat industry in Ireland are characterised by contract-based sporadic initiatives which do not favour the establishment of strong and long-lasting linkages. Therefore, the challenge facing the research and industrial community is to strengthen existing associations and develop new and ongoing technology transfer relationships. Such affiliations will encourage the commercial exploitation of research results, whilst enhancing the innovative capabilities of the meat industry.

Solution

This objective of this report is to outline a strategy which will assist in the promotion of linkages between public research providers and the meat industry, leading to effective partnership in the technology transfer process. The strategy is two-fold and will initially identify existing opportunities available to Irish industry and research organisations to support this process. It will then explore effective initiatives operating in other countries and sectors and suggest how they could be applicable to the meat sector in Ireland. However before these possibilities can be examined, it is important to understand the challenges that companies and researchers encounter in creating and maintaining productive interactions.

From a research perspective the management of research and the evaluation of outputs are dependent on peer opinions and recognition. The balance and prioritisation of research versus commercialisation and the 'publish or perish' culture that can exist does not favour the development of closer relationships with industry. The lack of a commercial, market-oriented culture in the research community often means that academics do not have a clear understanding of industry requirements and the demands faced by the meat sector, thus widening the gap between public and private organisations. It can also be difficult for academics to convey to industry the relevance of their research and how it can be of use to the meat industry. Finally a lack of support mechanisms within research organisations to disseminate and transfer scientific and technological outputs can be detrimental to industry partnerships.

From an industry point of view, it can be difficult for meat companies to perceive research and public sector links as a factor of competitive advantage. Resources are more commonly committed to activities and investments with clear tangible outputs. Meat industry operations and management tend to be oriented towards the market, focused on responding to new opportunities and consumer demands. Meat companies often require rapid solutions to immediate problems and are not interested in waiting for the results of R&D investments or collaborative work with public research bodies. There is also a misconception that research activities and the technologies developed by academics are too 'advanced' and specialised to solve practical problems within the industry.

In summary the main barriers obstructing the development of lasting partnerships in the meat sector are the differences in attitudes and operational timeframes and the resulting lack of communication and socialisation between meat industry and research counterparts. The ACiD IF tool, developed by Teagasc in association with DIT, can be used by research organisations who want to improve the way in which they think about and approach communication with industry (Appendix 1). If used effectively, this tool may offer suggestions and guidelines for researchers and help them to understand how their communication decisions will impact upon industry.

There are also a number of programmes and initiatives available to the meat sector in Ireland that can encourage communication between industry and academics, assist in identifying potential partners and support the technology transfer process.

AFRC Food Industry Advisory Group

Ashtown Food Research Centre has recently formed a number of Food Industry Advisory Groups, including one concerned primarily with meat and meat products. The group is comprised of industry personnel from the meat sector community and representatives from the relevant trade associations. The group was formed in an attempt to strengthen the lines

of communication between the research centre and meat sector counterparts and thus identify key research, innovation and support priorities. The group will also examine opportunities to increase meat industry involvement in the centre's research programme through participation in specific research and technology transfer activities. Website: www.teagasc.ie/ashtown

Enterprise Europe Network (EEN)

The Enterprise Europe Network is made up of 500 organisations across 40 countries and is the premier technology transfer network in Europe. It offers all the innovation and technological cooperation services provided by the former Innovation Relay Centres (IRC) Network. In addition EEN provides information on EU legislation standards and policies and assists in accessing EU projects and funding opportunities. The Network offers a range of free services which may be of benefit to the meat sector including support in finding suitable technology partners using its business and technology cooperation database and providing advice on the basic aspects of the technology transfer process. The network also organises training and information seminars as well as hosting a number of Network and Getwork Matchmaking Events annually. These services are specifically designed for small and medium enterprises (SMEs), business start-ups, entrepreneurs, Institutes of Technology, Universities and research centres. There are six partner organisations in Ireland comprising Enterprise Ireland and the Chambers of Commerce in Cork, Dublin, Galway, Sligo and Waterford. Website: www.enterprise-europe-network.ec.europa.eu

CORDIS

The EU Community Research and Development Information Service (CORDIS) is the European Union's chief instrument for funding research. It aims to promote the sharing of knowledge and communication between industry and academia and offers access to a wide range of information through approximately 230,000 web pages, organised into more than 180 web services. Cordis Partner Search is a free on-line tool designed to help organisations locate suitable partners for both EU funded and/or private collaboration. The service includes details on active partnership requests from meat companies and research institutions engaged in meat research across Europe and worldwide. There are dedicated National Contact Points in all EU member states who can assist organisations within the meat sector in finding collaborative partners, and in assisting in any procedural or administrative matters. Enterprise Ireland offers various financial supports including Proposal Application Support for academics and companies which to participate in the Framework programme and Travel Support to facilitate meeting potential project partners. Website: www.cordis.lu

Technology Transfer Service

This service provided by Enterprise Ireland (EI) can help meat companies to identify opportunities for technology transfer and negotiate agreements with suitable partners. The process involves a company visit by a technology transfer consultant who will develop a profile of the technology requirements. This forms the basis of a subsequent search for a technology transfer partner, carried out by information specialists, using international databases and networks. Where possible partners are found, the EI consultant will prepare a shortlist for discussion with the meat company. The best opportunities are selected and the consultant will arrange an introduction to the potential partner(s). The consultant will also provide assistance in the negotiation process and provide directions to further support and advice relating to intellectual property rights and innovation financing. Website: www.enterprise-ireland.com/Grow/Technology/technology_transfer.htm

Tecnet

TecNet is a commercially run agency that builds up and manages networks and cooperations between public research institutes and private companies within Ireland. It is an intermediary organisation linking the 13 Irish Institutes of Technology and is jointly funded by the institutes and Enterprise Ireland. Tecnet provides network opportunities can facilitate collaboration between the Institutes and the meat industry, utilising the innovation support programmes of Enterprise Ireland. It identifies and contacts potential collaborators and promotes technology transfer linkages between public and private partners. Other activities include the provision of information on public and private funding opportunities and assistance with grant proposals and funding applications. Website: www.tecnet.ie

Technology Transfer Strengthening Initiative (TTSI)

The objective of this programme is to strengthen linkages between Higher Education Institutions and Irish industry through effective technology transfer. The initiative aims to increase the level of intellectual property (IP) transferred to industry from research and facilitate the development of systems and policies to ensure that the IP is identified, protected and transferred, where possible into companies in Ireland. Enterprise Ireland's Technology Transfer Support Unit manages the TTSI which has a budget of €30 million over 5 years. To date, 10 institutes (NUIG, UCD, DCU, UCC, NUIM, TCD, RCSI, DIT, UL, WIT) have been approved for funding. A customised initiative for the Institutes of Technology to support their linkages and transfer of research to Irish industry has also begun. Website: www.enterprise-ireland.com/ResearchInnovate/Research+Commercialisation/Technology+Transfer+Strengthening+Initiative.htm

InterTradeIreland

This body builds networks between various organisations, individuals, trade associations, universities, and players in areas of excellence including those involved in the meat sector. Through these networks, knowledge is exchanged and transformed into commercial technologies. FUSION, is a knowledge transfer initiative established by IntertradeIreland and is the first all-island network between industry and academia. The network enables knowledge and technology transfer across northern and southern Ireland through the development and support of three-way partnerships and projects between private sector companies; third level institutes and research centres; and knowledge carriers (high calibre graduates). Expertiseireland.com is another key initiative in the support and development of industry and research community networks. This advanced online database combines up-to-date details of academic expertise, funding information, technology transfer and collaborative opportunities for the entire island of Ireland. Website: www.intertradeireland.com

Innovation Voucher Initiative

This Enterprise Ireland voucher scheme is designed to assist small Irish firms become more innovative by promoting and encouraging the transfer of knowledge between Ireland's research organisations and the small business community. Based on approved applications, vouchers may be awarded to meat companies and can then be exchanged for knowledge of a scientific, technological or innovative nature. The company may then use the new knowledge to innovate a meat product, process or service. Whilst only one voucher can be received by a company, up to ten businesses can join together to use their combined vouchers to work with a knowledge provider in solving an issue of common concern. Website: www.innovationvouchers.ie

In Ireland, there are numerous funding programmes across a wide range of initiatives that can be availed of to support public-private research collaboration and technology transfer from research providers to industry. These programs include local initiatives, such as local enterprise boards; national initiatives, such as Science Foundation Ireland (SFI) and Enterprise Ireland; cross-border initiatives, such as Intertrade Ireland and EU Transnational initiatives such as Co-operative Research (CRAFT). Details of these programs are available in Appendix 2 and should be explored by meat sector counterparts to further strengthen industry-academic partnerships.

The second part of this strategy examines a range of initiatives operating internationally that have successfully improved communications and strengthened associations between the industry and research communities. Those outlined below could, with the necessary resources, be adopted and applied within the Irish meat sector, leading to stronger linkages and ultimately effective technology transfer from research to industry.

NETWORKS

▪ Knowledge Transfer Networks

Knowledge Transfer Networks (KTNs) have been set up in the United Kingdom to drive the flow of knowledge within, in and out of specific communities. There are currently 23 KTNs with a membership of around 30,000, including a food processing KTN. The objective of these networks is to increase the level of knowledge and technology transfer into UK-based businesses and to accelerate the rate at which this process occurs. KTNs also provide UK companies with the opportunity to meet and network with other individuals and organisations within the business and research communities offering opportunities to collaborate. In the context of the Irish meat sector a KTN could act as a single over-arching national network in the field of meat and meat products, bringing people together from businesses, universities, research institutes, trade associations and technology organisations. The primary objective of a meat sector KTN would be to increase the level and rate of knowledge and technology transfer into Irish meat sector companies. Once established the KTN could be used to develop other beneficial opportunities and services for members.

- The KTN could provide opportunities to communicate with other meat sector businesses, suppliers and academics through the organisation of targeted events, meetings and Special Interest Groups.
- The establishment of a free access website for KTN members could provide on-line information and news relating specifically to the meat sector, as well as useful services such as webinars/e-training, events diaries, e-conferencing and collaboration tools.
- The development of a KTN online platform, with access provided to registered meat sector participants, could provide an opportunity for individuals and companies to identify potential technology transfer partners and move a technology from discovery and invention to application and exploitation.
- The KTN could be used circulate information on relevant funding opportunities and collaborative R&D calls, providing assistance in the development of partnerships and submission of proposals.
- The network could act as a communications route between the meat sector, Government and EU, giving members of the KTN the opportunity to influence policies and regulation in Ireland and abroad.

▪ University and industry networks

The University-Industry Demonstration Partnership (UIDP) was established to promote communication and expand collaborative partnerships between university and industry in the United States. The concept was the product of 2 ½ years of discussion by an interim group, “The University-Industry Partnership” assembled by the Industrial Research Institute (IRI) and the National Council of University Research Administrators (NCURA) to represent the entire

“food web” of university-industry relations. The University-Industry Demonstration Partnership fosters dialogue across the university-industry divide on issues such as technology transfer, licensing, sponsored research, and the broader aspects of university-industry partnering. It also facilitates extensive personal networks through side-by-side collaboration on specific projects and more casual interaction at meetings. The governance of the UIDP is structured to always have both a university and industry representative in its leadership team.

Another successful platform for industry-academia to meet was launched in Brussels University in 2003. The CROSSTALKS network is multidisciplinary and its’ format encourages constructive dialogue on policy probing issues between all stakeholders: researchers, industry, policy makers and the non-profit sector. Themes start off with a wide kick-off seminar where renowned speakers explore and set the scene for further investigation. Subsequently, workshops and science & industry lunches or dinners are set up, for concentrating on core issues. Results are then summarised in a publication prompting a release event including the presentation of new perspectives. The establishment of an industry-academia network such as these in Ireland would not only provide a platform for meat sector stakeholders to express and explore their views but could provide an impetus for future R&D collaborations. Whilst the events organised would facilitate improved communication between researchers and industry and help foster relationships, the production of a tangible publication would be another valuable output.

▪ **Professional on-line networks**

Whilst the traditional way to interact and communicate is face-to-face, interactive technology makes it possible for individuals to network with their peers from anywhere, at anytime in an online environment. The use of social or professional network services is becoming increasingly popular with sites functioning as online meeting places for industry professionals and academics alike. These sites connect individuals with common professional or business interests and provide an effective communication link at a low cost. One example is LinkedIn.com, which aims to assemble large audiences by creating an informative and interactive meeting place. It claims to have more than 20 million registered users from 150 different industries. The site provides groups with the opportunity to network online and hosts a meat innovation group (MIG) composed of international researchers and incubators in meat science.

MOBILITY OPPORTUNITIES

Staff mobility opportunities provide both public research organisations and private commercial enterprises with a strategic advantage in terms of knowledge and technology transfer, expertise, access to facilities and an increased understanding of scientific issues of common

concern. In the USA there is an established system of leaves of absence and sabbaticals, aimed at stimulating mobility across industry and academia. In Norway, professor II positions are academics that spend 20% of their time in industry and receive an additional salary from the company corresponding to their services. Extraordinary professors (*bijzondere hoogleraren*) in the Netherlands are doctorates coming from industry who are employed to work for a university thus promoting mobility between industry/interest groups and academia. It is important for the meat sector in Ireland to seek out and avail of public-private sector mobility opportunities via staff exchanges, part-time positions, sabbaticals, honorary positions, or financial or statutory incentives, offered to both early stage and established researchers.

There are funding programmes that can help support industry-academia mobility and exchanges including the Torres Quevedo Programme in Spain. It facilitates the placement of scientific researchers/technologists in industry, primarily SMEs, and finances up to 75% of the researchers salary over a three year period. The National Institute of Health and Medical Research (INSERM) in France introduced an Interface Programme which offers mobility opportunities to researchers for 3 to 5 years with different partners in hospitals, universities or industry. The BBSRC (Biotechnology and Biological Sciences Research Council) in the UK operates a number of mobility and exchange programmes supporting the flow of researchers between the science base and industry. Its Industry Interchange Programme focuses on short-term exchanges in either direction on a full- or part-time basis or alternatively taken in tranches. The BBSRC's Industry Fellowships Scheme provides opportunities for academic scientists to work on a collaborative project with industry or vice versa establishing personal and corporate links between the two sectors. Industrial impact fellowships enable industrial research and technology leaders to transfer their skills and experience to research institutes or universities.

Whilst there are no specific Irish mobility programmes currently in place, the EU 7th Framework (FP7) 'People' Programme offers opportunities to Irish meat researchers and industry personnel (http://cordis.europa.eu/fp7/people/home_en.html). The Marie Curie Industry-Academia Partnerships and Pathways (IAPP) in particular seek to open and foster pathways between public research organisations and private commercial enterprises. The programme facilitates the transfer of knowledge and experience across EU Member States and Associated countries through staff exchange. The programme will also fund networking activities and the organisation of workshops/conferences to facilitate knowledge-sharing between industry and researchers.

COMPETENCE CENTRES

Competence Centres are collaborative entities established and led by industry and resourced by highly-qualified researchers associated with research institutions who undertake market

focused strategic research for the benefit of industry. The primary objective of a Competence Centre initiative is to achieve competitive advantage for the relevant industry sector by accessing the innovative capacity of the research community. However they also provide a valuable communication arena for industry and research counterparts. As well as research capacity, such centres should integrate other aspects of expertise including technical skill, dissemination capability and demonstrable practical experience. In 2003, a processed meat products competence centre (CECOC-PTC) was established in Spain through an agreement made between the National Research Centre in Agriculture and Food Research (INIA), the Institute for Food and Agriculture Research and Technology (IRTA) and the Spanish Federation of Food and Drink Industries (FIAB). The centre is virtual, with an underlying "network" model and activities include the identification of key meat industry requirements, the implementation of R&D projects, technology transfer and technical training activities. The centre also acts in an advisory capacity to the industry.

In Ireland in recent years, Enterprise Ireland (EI) and the Industrial Development Authority (IDA) have invited groups of companies, active in R&D or planning to engage in R&D, to consider the establishment of sectoral Competence Centres. State funding of the order of €2M per year over a 5 year period can be sought to establish a physical entity, with critical mass of researchers and infrastructure. If initial expressions of interest are viewed positively by EI and the IDA, these agencies will invite participation from appropriate non-profit research organisations and third level institutions leading ultimately to the creation of a Competence Centre. The development of a Meat Sector Competence Centre would boost the commercialisation of products and processes, facilitate greater industry involvement in R&D, and increase meat sector exports, spin offs, patents and licenses. Additional less tangible impacts would be guaranteed through the two-way transfer of knowledge between industry and academia.

COMPETITIVENESS CLUSTERS

A competitive cluster is a geographical concentration of companies, research centres and educational institutions working in partnership on innovative projects. In 2005, the French government established 67 competitive clusters ("pôles de compétitivité") in an attempt to promote a closer integration of the business and research communities in specific sectors and to attract foreign investors to the country. The InnoViandes Competitive Cluster groups resources from public research laboratories, technical centres and institutes, teaching establishments and companies in the meat and meat products sector in France. Its goal is to provide research and development, innovation and training solutions for meat companies. The InnoViandes Cluster has taken the initiative to build a MEATEAM network. The network is composed of seven core European technical centres identified as having significant activity in terms of technology transfer towards the meat industry: ADIV (France); DMRI (Denmark);

HMRI (Hungary); Matforsk (Norway); SSCIA (Italy); Teagasc (Ireland). The network will also incorporate non- European organisations such as MIRINZ (New Zealand), INTA (Argentina) and CRDA (Canada) and EU organisations which target meat sector research rather than technology transfer including a number of universities in Greece, Portugal, Belgium and Poland. The primary purpose of the network is to promote dialogue between the technical centres, improve joint participation in community framework programmes and address the needs of the meat sector within the represented countries. It has been suggested that the networks' core organisation should include meat sector companies (industrial groups or SME's) as well as technical centres. This would be an important opportunity for Irish meat companies to engage and communicate with other public and private sector participants and progress knowledge and technology transfer between the academic and industrial communities.

MEAT SECTOR EVENTS

▪ Training courses, workshops and conferences

Training courses, workshops and conferences targeting the meat industry and researchers in related fields can provide an important opportunity for public and private sector staff to liaise and socialise on an informal basis. Recent findings from quantitative investigations within a Commercialisation Toolbox¹ project showed that both industry and researchers identify informal contacts and training courses as being the most effective form of communications and knowledge transfer. The opportunities offered at these events can lead to the establishment of new relationships or help strengthen existing ones through personal contact in a relaxed environment. A list of the regular opportunities and events is available in Appendix 3.

¹ *Development of a technology commercialisation toolbox for publicly funded food research (2005-2008). Funded by Department of Agriculture, Food and Fisheries under the Food Institutional Research Measure. Contact: Dr. Maeve Henchion, Ashtown Food Research centre, Teagasc.*

▪ Meat Profit Days (MDAs)

Developed and run by Meat Livestock Australia, they provide meat producers, industry staff and researchers with an opportunity to exchange information and ideas in an informal environment. MDAs are a combination of a field day, conference and trade show for the entire meat sector. In Australia MPD's are held 2-3 times a year in various states and can attract up to 500 meat sector attendees. The size and population of the meat sector in Ireland would not warrant the same level of delivery but an annual event such as this could provide a valuable social and business networking opportunity, allowing for personal discussion and

interaction between knowledge providers and the meat industry. It could also provide a platform for accessing relevant research results, technical information and industry developments.

- **Breakfast Series**

Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) organise a regular 'breakfast series' providing participants with an opportunity to hear about the most up-to-date issues affecting the research and science community, as well providing a networking opportunity for relevant local industry and Government. Informal meetings such as this could form a valuable communication point for meat sector companies and public researchers.

APPENDIX 1

ACiD IF TOOL

The ACiD IF Tool is a communications tool that can be used to address the ways of approaching communication with industry. It acts as a framing guide to researchers in terms of what their communication objectives should be and also encourages public research organisations to think about elements that need to be considered to allow research staff to achieve these objectives.

This tool was developed within the context of a publicly funded research project entitled 'The Development of a Technology Commercialisation Toolbox for Publicly Funded Food Research'. The project was coordinated by Ashtown Food Research Centre, Teagasc in partnership with Dublin Institute of Technology and funded by Department of Agriculture, Food and Fisheries under the Food Institutional Research Measure.

From a public research organisation perspective, consideration should be given to the following:

- Does organisational culture place emphasis on active and direct communication with industry counterparts and relevant stakeholders?
- What systems are in place to support and encourage researchers to communicate with stakeholders?
- What structures are in place to support and encourage researchers to communicate with stakeholders?
- Does the organisation have adequate ICT infrastructure to allow interactive communication with external stakeholders?

At the researcher level, consideration should be given to the following:

- Who are your key stakeholders and what is the best way to interact with them?
- What is the nature of your research and the nature of your research output?
- What are your communication objectives?
- What impact do you want your communication to have on industry?
- Are you participating in communication activities that adequately fulfil your academic responsibilities and your responsibility to disseminate to industry?
- Are you going beyond threshold communication activities?
- Is your communication with industry two-way and interactive?

The table on the next page suggests a number of communication approaches that will change and alter with time as new approaches emerge or prove successful. However two general

observations are useful. Firstly, as one moves from left to right, more targeted communication approaches will be required. Secondly as one moves from top to bottom, the nature of companies with whom a researcher interacts may change. Companies with higher absorption capacities may be involved at the top (basic research) than at the bottom (experimental).

For more information on the ACiD IF Tool and how it can be applied may effectively be used to improve communications with meat sector stakeholders contact:

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STAKEHOLDER IDENTIFICATION	BASIC RESEARCH	<ul style="list-style-type: none"> Initial invitee information meeting with potential lead users Website research notice board Organisational newsletter Industry publications Develop plan with disseminator Engage with IP expert / TTO Blue-sky / pre commercial blogs 	<ul style="list-style-type: none"> Follow-up interactive meeting with potential lead users Updated reports in industry publications Website news bulletins Expert disseminator alerts Progress & updates on blog End of project workshop 	<ul style="list-style-type: none"> One-to-one follow-up meetings with interested parties Engage with IP expert / TTO Multi-lateral meetings Research conclusions on blog; 		<ul style="list-style-type: none"> End of project workshop One-to-one follow-ups Industry consultation re: follow up research Brainstorming with key stakeholders
	APPLIED RESEARCH	<ul style="list-style-type: none"> General information seminars with potential users Website research notice board Organisational newsletter Industry publications Targeted expert disseminator alerts Engage with IP expert / TTO Applied sector /issue specific blog 	<ul style="list-style-type: none"> Updated reports in industry publications Website news bulletins Stakeholder workshop Targeted expert disseminator alerts Informal/ad hoc communication with potential users Engage with IP expert / TTO Progress & updates on blog □ 	<ul style="list-style-type: none"> One-to-One contact Collaboration with TTO Pilot testing Scale up tests Training 	<ul style="list-style-type: none"> On site training; Industry collaboration Researcher availability for informal & ad hoc communication 	<ul style="list-style-type: none"> Maintain ongoing relationships; Retrieve company testimonials One-to-one meeting for feedback & future planning Brainstorming with key stakeholders
	EXPERIMENTAL RESEARCH	<ul style="list-style-type: none"> Website research notice board Organisational newsletter Industry seminar Targeted expert disseminator alerts One-to-one meetings with industry Engage with IP expert / TTO Participation in sector /issue specific blog 		<ul style="list-style-type: none"> Continuous communication with end users Pilot testing Scale up tests Engage with IP expert / TTO Training □ 	<ul style="list-style-type: none"> On site training; Industry collaboration Researcher availability for informal & ad hoc communication 	<ul style="list-style-type: none"> Follow up calls & visits; Retrieve company testimonials One-to-one meeting for feedback & future planning Brainstorming with key stakeholders

APPENDIX 2

COLLABORATIVE FUNDING PROGRAMMES

ENTERPRISE IRELAND (EI)

Enterprise Ireland is the government agency responsible for the development and promotion of the indigenous business sector. The organisation has developed a clearly focused strategy of support and assistance for collaborative projects between businesses and the research community including the initiatives outlined briefly below. More detailed information is available at <http://www.enterprise-ireland.com>.

- **Innovation Voucher Scheme:** The objective of this initiative is to build links between Ireland's public knowledge providers and small businesses and to create a cultural shift in the small business community's approach to innovation. The vouchers, each worth €5,000, can be used by small enterprises for any kind of business innovation such as developing a new product or service, improving service delivery or conducting a technology audit. Contact e-mail: innovationvouchers@enterprise-ireland.com
- **Innovation Partnerships:** The Innovation Partnership Initiative brings together companies and researcher providers to work on specific R&D projects. Grants of up to 80% are available towards eligible costs of R&D projects conducted by a research institution to solve the technical needs of the participating company. Partnerships supported under this initiative help companies to improve products, services and processes and to develop new innovations. Contact e-mail: monica.flanagan@enterprise-ireland.com
- **Applied Research Enhancement (ARE):** The ARE programme provides an opportunity for Irish Institutes of Technology to develop research centres in areas of strategic importance to the individual colleges and of relevance to industry both regionally and nationally. There are currently sixteen ARE Centres across Ireland linking industry and academia and contributing directly to regional development by the commercialisation of their applied research outputs. Contact e-mail: deirdre.brougham@enterprise-ireland.com
- **Competence Centres:** Enterprise Ireland and IDA Ireland introduced the Competence Centre initiative in 2007, which supports collaboration between groups of companies and senior, highly qualified academic researchers. Competence centres are industry-led and governed, and operate with funding of up to €2 million per centre per year over a five-year period. This initiative provides companies in Ireland with the opportunity to engage in higher risk, longer-term research that will give them a competitive edge in international markets. Contact e-mail: martin.hussey@enterprise-ireland.com or jim.whelan@ida.ie
- **Technology Transfer/Business Partnership Programme:** The objective of this programme is to increase the profitability of Irish companies through facilitating

technology transfer and partnership arrangements. Irish companies are helped to prepare a brief that describes their technology transfer and business partnership needs, to identify opportunities that meet those needs and to arrange contact with potential business partners. Contact e-mail: partner@enterprise-ireland.com

- **R&D Management Programme:** This programme seeks to improve the ability of industry to manage the process of R&D, to enhance the interaction between the Irish third-level sector and industry and to support high-level researchers. The programme includes workshops on innovation management and consultancy on management and exploitation of R&D. Contact e-mail: jim.cuddy@enterprise-ireland.com
- **Technology Centres Programme:** This programme supports the development of campus based centres, focused on specific technology areas, to provide a range of technology services to industry, and, if appropriate, to promote spin-off companies. The services provided by the Centres include Research and Development, Technical Consultancy, Testing, Industrial Training and Demonstration. Contact e-mail: grainne.niuid@enterprise-ireland.com
- **Industry-led research programme (ILRP):** This is a programme used to engage a wide spectrum of companies with a common interest to work together to identify and agree the technological issues and concerns common to their sector. The companies can set a research agenda which high calibre third level researchers will help deliver on. Contact e-mail: martin.hussey@enterprise-ireland.com
- **International Research Fund:** The aim of this fund is to encourage and facilitate Irish 3rd level Research Performing Organisations (RPOs) to participate meaningfully in international collaborative consortia that are addressing industry relevant R&D and innovation issues. Examples of such international consortia include EUREKA, Eureka Clusters, Eurostars and ERANET. The success of applications depends on a number of factors including the level of Irish industry engagement in the project. Contact e-mail: eileen.mitchell@enterprise-ireland.com

SCIENCE FOUNDATION IRELAND (SFI)

SFI invests in academic researchers and research teams who are most likely to generate new knowledge, leading edge technologies and competitive enterprises in the fields of science and engineering. It provides grants researchers, conferences and symposia and for collaboration with industry. Several times a year calls are issued for proposals from scientists and engineers and the collaborative funding opportunities arising are listed below. Further information is available at <http://www.sfi.ie>.

- **Industrial Partnership Research Supplements:** The Industry research supplement award facilitates collaborations between SFI funded researchers and industry. Supplements must be directly related to and enhance the existing SFI peer reviewed programmes and can be up to €50K per year.

- **SFI Centres for Science, Engineering, and Technology Campus-Industry Partnerships (CSET):** CSETs develop and support research partnerships between scientists and engineers across academia and industry and foster the development of new and existing Irish-based technology companies. Grants normally range from €1 to €5 million per year for five years.
- **US-Ireland R&D Partnership Programme:** This programme helps to link scientists and engineers across academia and industry and address crucial research questions. It can foster new and existing industrial research activity that could make an important contribution to the respective economies and expand educational and research career opportunities in science & engineering.
- **Strategic Research Clusters (SRC):** This programme facilitates the clustering of outstanding researchers to carry out joint research activities in areas of strategic importance to Ireland, while also giving the time and resources to attract and cultivate strong industry partnerships that can inform and enhance their research programmes.

IRISH RESEARCH COUNCIL FOR SCIENCE, ENGINEERING & TECHNOLOGY (IRSCET)

The Enterprise Partnership Scheme is an initiative where IRSCET links with private enterprise and eligible public bodies to co-fund postgraduate scholarships and postdoctoral fellowships among the most promising researchers in Ireland. It provides industry with easy access to a pool of high calibre researchers and the opportunity to build links with relevant academic research groups. The Scheme facilitates the establishment of new relationships and the strengthening of existing relationships between industry and academia while offering financial support to researchers at an early stage of their career development. Further details available at <http://www.ircset.ie> or email eps@ircset.ie

INTER TRADE IRELAND

InterTradeIreland is the only organisation which has been given responsibility by both Governments to boost North/South economic co-operation to the mutual benefit of the island. This body builds networks and partnerships between organisations, individuals, trade associations, universities, and players in areas of excellence across Ireland. The FUSION programme develops and facilitates three-way cross-border partnerships and projects between private sector companies, research institutes and graduates. The programme encourages knowledge and technology transfer from academia to industry and provides companies with the opportunity to develop new and innovative products, processes and services. Further information on the FUSION and other InterTradeIreland initiatives are available at <http://www.intertradeireland.com>.

EUROPEAN FRAMEWORK PROGRAMMES

The EU framework programmes offer an opportunity for Irish SMEs, multi-national corporations, colleges and academic researchers to collaborate with leading European companies and research organisations. The Seventh Framework Programme for research and technological development (FP7) is the chief instrument for funding research over the period 2007 to 2013. A specific programme on 'Cooperation' supports collaborative research between universities, industry, research centres and public authorities throughout the EU and beyond. Funding is available under ten distinct themes including Food, Agriculture and Fisheries and projects are competitive and should be transnational in nature. Details of funding opportunities are available at http://cordis.europa.eu/fp7/home_en.html or the Irish National Contact can be emailed at john.dardis@agriculture.gov.ie.

INTERREGIONAL COOPERATION PROGRAMMES

INTERREG is a Community initiative which aims to stimulate interregional cooperation in the European Union. It started in 1989, and is financed under the European Regional Development Fund (ERDF). The current programme Interreg IV, covering the period 2006-2012, provides opportunities for public, private, community and voluntary sectors and business representative groupings to share their knowledge and experience. Funding is available to support collaborative R&D projects across various regions of Europe under a number of programmes:

- **INTERREG IVA** is a Cross-Border Territorial Cooperation Programme for Northern Ireland, the Border Region and Western Scotland. The overall aim of the programme is to support strategic cross-border co-operation for a more prosperous and sustainable region. Email: info@seupb.eu
- **INTERREG IVB** focuses on encouraging and supporting transnational cooperation in the North Sea Region. The key funding priorities are building innovation capacity, promoting the sustainable management of the environment, improving accessibility and promoting sustainable and competitive communities. Email: info@northsearegion.eu
- **INTERREG IVC** is targeted at regions of the 27 EU Member States, plus Norway and Switzerland and the two main priorities of the programme are Innovation & Knowledge Economy and Environment & Risk Prevention. Contact email: IP-North@interreg4c.net

COOPERATIVE RESEARCH PROJECTS (CRAFT)

CRAFT projects are undertaken by research performers for the benefit of a number of SMEs from different countries on common specific problems or needs. While the research is outsourced from the SMEs, they retain ownership of the results. The objective of the programme is to help companies to respond to the pressures for continuous innovation, and to support networking between industry and academia. A typical CRAFT R&D project will be funded at between €0.5 and €2 million and will last between one and two years. There must

be at least three independent SME participants and two RTD performers in a project from two different EU Member or Associated states. In addition, other enterprises and end-users may participate in the project. For further information see CORDIS website <http://cordis.europa.eu>

A range of regional support programmes for collaborative R&D are provided by local enterprise boards, Údarás na Gaeltachta and Shannon Development Authority. The relevant websites should be consulted for up-to-date information and funding initiatives:

<http://www.udaras.ie/>

<http://www.shannon-dev.ie/>

<http://www.enterpriseboards.ie/>

APPENDIX 3

MEAT SECTOR EVENTS

- International Meat Week
Website: www.foodnetcenter.uni-bonn.de

- International Congress of Meat Science and Technology (ICOMST)
Website: www.meatscience.org/icomst.htm

- World Meat Congress
Website: www.meat-ims.org/en/world_meat_congress-ims.html

- AMSA Reciprocal Meat Conference
Website: www.meatscience.org/RMC

- AMI International Meat, Poultry & Seafood Industry Convention and Exposition
Website: www.worldwidefoodexpo.com/meat/show-overview.html

- Annual Meat Conference
Website: www.meatconference.com

- MEAT'IN European innovation conference
Website: www.prosafebeef.eu

- EUROCARNE International Exhibition for the Meat Industry
Website: www.eurocarne.it/home_en.asp

- World Pork Expo
Website: www.worldpork.org

- AVIANA AFRICA, International Exhibition of Poultry and Livestock Industry
Website: www.avianaafrica.com

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