Directory of **Research, Development and Innovation Supports for Enterprise 2021**

Produced by Knowledge Transfer Ireland,
an initiative of the Government of Ireland

Introduction

By working with the public research system, enterprise can gain access to some of Ireland's brightest minds and utilise state-of-the-art research facilities. With access to funding supports to help drive research and development there has never been a better time for companies to innovate and gain a competitive edge. Supports are available to those engaging with the research base or carrying out in-company RD&I.

This Directory makes it easy for enterprise to navigate the R&D system and the supports that are designed to drive innovation. It provides an overview of the research system in Ireland, including key national programmes which can be leveraged, and the research, development and innovation (RD&I) financial supports available to companies. It is designed to help companies of all sizes, from local SMEs to multi-nationals, to get the best from the first class-research and talent available in Ireland. Whether a company is seeking a short solution-driven project, a longer investigative study or simply looking for technical advice there are resources available to assist.

There is a wealth of research and expertise within the Irish Higher Education Institutions (HEIs), and researchers eager to engage. Many researchers from across the HEIs are involved in advanced world-class Research Centres and Technology Centres which carry out research at scale, with a national focus. Technology Gateways offer specific RD&I solutions for companies and are connected across a national network. These are all described in more detail in this Directory along with contact details for the key people across the system available to help companies explore their collaboration needs.

The State provides financial supports, specifically to enterprise, that can help to fund projects across the research continuum. Whether a company is just starting to develop new products and services or is at an advanced stage in its research agenda, there is likely to be a State support that is suitable. These range from those which can help with short-term, smaller individual research projects, right through to building deeper engagement through collaborative projects. The objective is to help companies in Ireland to increase significant economic impacts and grow their business.

The production of this Directory was led by Knowledge Transfer Ireland (KTI) in conjunction with the Department of Enterprise, Trade and Employment (DETE) and the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) to support national ambition to boost enterprise competitiveness through innovation. KTI acknowledges with thanks the input across agencies - Enterprise Ireland, Higher Education Authority, IDA Ireland, Irish Research Council and Science Foundation Ireland - to the development of this publication.

The Directory is a point-in-time overview of the research, development and innovation supports available to companies provided by State bodies, and an overview of the Higher Education Institutions, industry-focussed Centres, Gateways and other research centres of scale that are supported by DETE and DFHERIS. It is not meant to be an exhaustive inventory of the excellent research, innovation and technology transfer being carried out right across the research base nationally.

Contents

Using the Directory

The aim of the Directory is to help companies, at all stages of their RD&I journey, to identify, connect and collaborate. It is designed to provide an overview of the research system, major State investments that support RD&I and the funding supports that are available to companies. Companies will have different requirements. These may be near to market or further upstream in the research and development pathway. For example, a company might seek a solution to a problem statement, testing or validation or alternatively may wish to explore development of a concept or more fundamental research. Throughout this Directory, the information presented helps to understand where the resource or support fits on the scale from idea through to application.

The Directory is in four parts:

- A concise overview of the key financial supports available
- A description of the research resources available, including national centres of scale and programmes of support
- How to access research talent and skills and the funding available
- Agencies supporting RD&I

The research base offers a range of opportunities beyond those that can be included in this Directory. Potential collaborators are encouraged to engage directly to identify further opportunities. The entry points, and who to contact, across the system are described at the relevant section in this Directory.

The online version of this Directory is hosted on the Knowledge Transfer Ireland (KTI) website. It will be updated frequently and should be consulted as the most up-to-date version available.

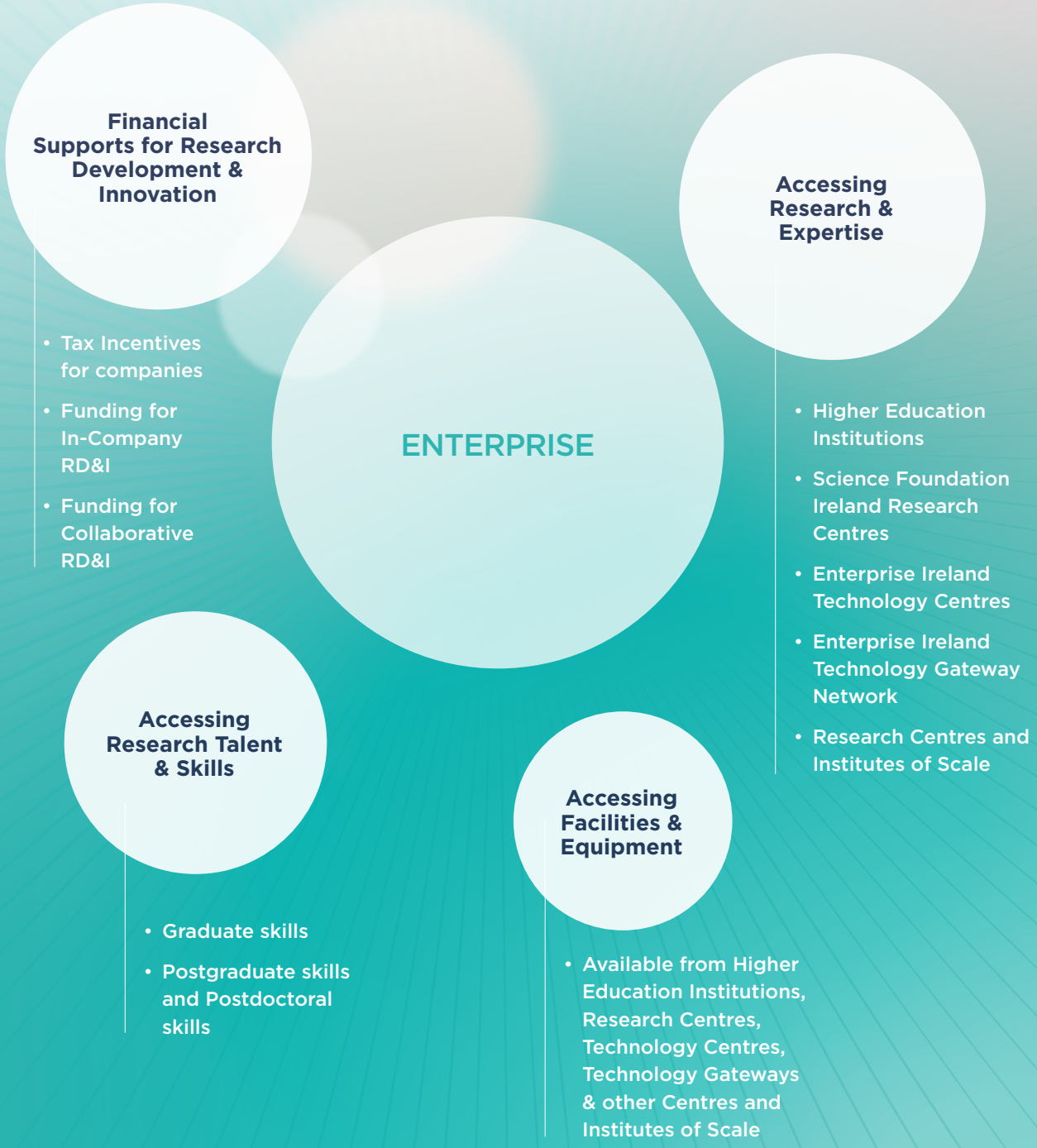
Knowledge Transfer Ireland (KTI) was established by the Department of Enterprise, Trade and Employment (DETE) as the national office that helps business engagement with State-funded research.

Through the KTI website companies can find in one place:

- searchable information on research expertise and technology licensing opportunities
- an interactive map of all the Higher Education Institutions and other Research Performing Organisations, Research and Technology Centres, including up-to-date contact details for the right people to talk to
- an RD&I Funding Tool that is a searchable resource detailing the current funding offers available.
- model agreements which simplify contracting between enterprise and State research organisations (e.g. licensing agreements, collaboration agreements, confidentiality agreements)
- practical guides that explain intellectual property, considerations in legal contracts and State aid issues in RD&I
- information on upcoming events to source new contacts and opportunities to innovate

KTI is also responsible for the National IP Protocol, which describes the practical framework that underpins how industry can benefit from State-funded research and development and related government policy.

Support available to companies for RD&I in Ireland



SECTION 1

Financial Supports for Research, Development and Innovation

Ireland has a well-established innovation eco-system with many financial mechanisms available designed to reward the time and effort invested in Research, Development and Innovation (RD&I). Available both nationally and at an EU funding level, these supports can assist Irish enterprises to engage in RD&I activities. In this section, the key features of each of these financial mechanisms are highlighted, with key contact information for further details. In addition, you will find a summary of some of the current sector-specific supports available.

SECTION 1.1

Tax Incentives for Innovative Companies

Research and Development Tax Credit

WHAT IS IT?

Money spent by a company on research and development activities may qualify for the Research and Development (R&D) Tax Credit. The credit is calculated at 25% of qualifying expenditure and is used to reduce a company's corporation tax.

KEY FOCUS OF RESEARCH

Qualifying Research, Development & Innovation activity is systematic activity, which:

- seeks to achieve a scientific or technological advancement;
- involves the resolution of scientific or technological uncertainty; and
- applies to basic, applied or experimental research.

WHO IS IT FOR?

All companies liable for Irish corporation tax.

HOW MUCH IS AVAILABLE?

25% tax credit set against Corporation Tax liability.

APPLICATION PROCESS

Claim to be made within 12 months of accruing expenditure.

Click here for further information

Knowledge Development Box

WHAT IS IT?

Knowledge Development Box (KDB) is a tax incentive policy tool to encourage innovation by applying a lower rate of corporation tax on profits on Intellectual Property (IP) assets resulting from qualifying Research and Development activities.

KEY FOCUS OF RESEARCH

KDB defines qualifying IP assets as:

- An invention protected by a qualifying patent
- A computer program/copyrighted software; and
- Inventions of small companies which are patentable but have not been patented and have been kept secret

WHO IS IT FOR?

Any Irish tax resident company with an accounting period beginning on or after 1st January 2016, which earns income from a usable qualifying IP asset and developed that qualifying IP asset through Research & Development (R&D) activities.

HOW MUCH IS AVAILABLE?

The relief itself entitles companies to a 50% reduction in their qualifying profits i.e. the qualifying profits will be taxed at the 6.25% rate.

APPLICATION PROCESS

A company should use the Revenue Online Service (ROS) to apply for KDB on their corporation tax return.

Click here for further information

SECTION 1.2

Funding for In-Company Research, Development & Innovation

IDA Ireland Research, Development & Innovation Programme

WHAT IS IT?

The IDA Ireland Research, Development & Innovation (RD&I) grant is a financial support that aims to increase the number of companies performing high quality RD&I activity in Ireland. Prior to applying for an RD&I grant, a company may assess the feasibility of a full RD&I project with feasibility grant support.

KEY FOCUS OF RESEARCH

The RD&I programme supports companies aiming to develop innovative products, processes and services.

WHO IS IT FOR?

RD&I grants are available to IDA clients with existing operations in Ireland.

HOW MUCH IS AVAILABLE?

All funding is negotiated on a case-by-case basis in compliance with EU and Irish legislation. Grant applications are subject to an independent technical assessment and approval by the IDA board.

DURATION

RD&I grants are typically up to three years in duration. Feasibility grants are typically less than one year in duration.

APPLICATION PROCESS

This is an open call with applications accepted throughout the year.

Click here for further information

IDA Ireland Feasibility Study Grant

WHAT IS IT?

The IDA Feasibility Study Grant is a support mechanism that allows companies carry out exploratory work to assess the feasibility of longer-term RD&I programmes.

KEY FOCUS OF RESEARCH

The grant covers the cost of a standalone study that allows the company to determine if, how and why it should undertake an RD&I project.

WHO IS IT FOR?

The grant is available to clients of IDA Ireland with existing operations in Ireland.

HOW MUCH IS AVAILABLE?

The maximum funding available for a Feasibility Study Grant is 50% of eligible project expenditure up to a maximum of €250,000.

APPLICATION PROCESS

This is an open call with applications accepted throughout the year.

Click here for further information

Enterprise Ireland Exploring Innovation Grant

WHAT IS IT?

The aim of the Exploring Innovation grant is to support better planning of Research, Development and Innovation or International Collaboration projects by encouraging companies to think strategically around disruptive technologies and to take time to look outside of their own organisations for inspiration and for guidance.

KEY FOCUS OF RESEARCH

The Exploring Innovation Grant can be used to investigate the feasibility of developing a new product, process, or service offering.

WHO IS IT FOR?

Projects are open to existing and potential Enterprise Ireland clients which are manufacturing and/or internationally traded service companies.

HOW MUCH IS AVAILABLE?

The maximum funding available for an Exploring Innovation Grant is 50% of eligible expenditures up to a maximum of €35,000.

APPLICATION PROCESS

Applications are submitted on-line via the Enterprise Ireland Grant Applications System.

Click here for further information

Enterprise Ireland Agile Innovation Fund

WHAT IS IT?

The Agile Innovation Fund supports the development of new or substantially improved products, services or processes where the total project cost is up to a maximum of €300,000. It features a streamlined online application form with fast track approval.

KEY FOCUS OF RESEARCH

Agile Innovation funding supports companies in sectors with rapid design cycles to maintain their technology position. These projects involve the resolution of some technical challenges in order to develop new products, processes, or services.

WHO IS IT FOR?

Projects are open to existing and potential Enterprise Ireland clients, Udaras na Gaeltachta and Local Enterprise Office clients which are manufacturing and/or international traded service companies.

HOW MUCH IS AVAILABLE?

The new Agile Innovation Fund allows companies to access up to 50% in support of innovation projects with a total project cost of €300,000.

APPLICATION PROCESS

Applications are submitted on-line via the Enterprise Ireland Grant Applications System. All applications will be subject to a technical and commercial assessment.

Click here for further information

Enterprise Ireland Research, Development & Innovation Fund

WHAT IS IT?

The Enterprise Ireland Research, Development & Innovation Fund supports the development of new or substantially improved products, services or processes which will have a competitive advantage in a company's target market.

KEY FOCUS OF RESEARCH

The product, service or process development must involve;

- the resolution of some technical challenges,
- be non-routine and;
- represent a 'step-up' for the company in terms of the level of RD&I capability.

WHO IS IT FOR?

All funding is negotiated on a case-by-case basis in compliance with EU and Irish legislation.

HOW MUCH IS AVAILABLE?

Grant rates of 25% to 50% are dependent on company size and inclusion of collaboration.

APPLICATION PROCESS

There are 12 monthly calls each year. All applications are submitted on-line via the Enterprise Ireland Grant Applications System and will be subject to a technical and commercial assessment.

Click here for further information

Enterprise Ireland Business Innovation Offer

WHAT IS IT?

The aim of the Business Innovation Offer is to incentivise and support companies to invest in the implementation of new or significantly improved production methods, service delivery or organisational methods in order to increase their competitiveness on global markets.

KEY FOCUS OF RESEARCH

An eligible Business Innovation project will involve;

- the implementation of a new way of working for the company, and,
- a visible step up in terms of new production or delivery capability or business practices.

The project must involve some level of innovation and risk and should not be focused on routine operational changes or responding to changes in regulation.

WHO IS IT FOR?

The Offer is available to any Irish-based manufacturing or internationally traded services company, which can show adequate cash resources to implement the proposed project.

HOW MUCH IS AVAILABLE?

The maximum grant rate for the Business Innovation Offer is 50% of the eligible costs, up to a maximum grant of €150,000. The limits apply to both SMEs and large companies.

APPLICATION PROCESS

A Business Innovation Grant may be applied for through one of three different routes: as an Agile Innovation project, as a Research Development & Innovation (RD&I) project, or as part of the Operational Excellence Offer (in which case the Business Innovation project may be combined with training support and/or capital investment support.)

Click here for further information

Enterprise Ireland IP Strategy Offer

WHAT IS IT?

The IP Strategy Offer supports companies to develop an Intellectual Property (IP) strategy focused on securing the maximum value from their Research, Development and Innovation (RD&I) activities. It will provide financial assistance to access the external IP expertise and to develop the in-house IP capability necessary to develop and embed the IP Strategy.

KEY FOCUS OF RESEARCH

The support targets companies that are active in Research, Development and Innovation and have a requirement to manage the related IP but lack the necessary in-house IP awareness and capability and the resources to access external expertise.

WHO IS IT FOR?

IP Strategy Offer is open to existing and potential clients of Enterprise Ireland, Údarás na Gaeltachta and Local Enterprise Office clients which are manufacturing and/or internationally traded service companies.

HOW MUCH IS AVAILABLE?

IP Start: 80% grant towards the cost of engaging an external IP advisor. Up to 3 days, maximum €900 per day for up to 4 months. (Max grant €2,160)

IP Plus: 50% of a maximum spend of €35k on engaging external IP advisor(s) and expenditure of up to €35k on assigning an internal IP champion (salary cap €80k) for a maximum of 18 months. (Max grant of €35k).

Eligible companies can apply for each scheme a maximum of 3 times non-concurrently.

APPLICATION PROCESS

Potential applicants should make contact with their relevant agency advisor prior to applying. Applications are made via the Enterprise Ireland Online Application System

Click here for further information

Sustainable Energy Authority of Ireland National Energy Research, Development and Demonstration Funding Programme

WHAT IS IT?

The SEAI National Energy Research, Development and Demonstration (RD&D) Funding Programme supports innovative energy RD&D projects that contribute to Ireland's transition to a clean and secure energy future.

KEY FOCUS OF RESEARCH

The overarching objectives of the programme are as follows:

- Accelerate the development and deployment in the Irish marketplace of competitive energy-related products, processes and systems
- Support solutions that enable technical and other barriers to market uptake to be overcome
- Grow Ireland's national capacity to access, develop and apply international class RD&D
- Provide guidance and support to policy makers and public bodies through results, outcomes and learning from supported energy projects.

WHO IS IT FOR?

The SEAI National Energy RD&D Funding Programme is open to public and private sector organisations based in the Republic of Ireland who wish to carry out projects in Ireland. Applications will be accepted from companies, HEIs, public sector bodies and semi-state bodies, who are based in the Republic of Ireland. The aforementioned organisations may apply to the Programme individually or as part of a consortium.

HOW MUCH IS AVAILABLE?

EU state aid rules stipulate what types of research activities are eligible for support, which costs relating to these activities may be covered in part or in full (ranging from 25% up to 100%), and the maximum aid intensity that may be granted for the various activities. Applicants should refer to the SEAI RD&D website for further details on the funding available following launch of the annual call.

APPLICATION PROCESS

There is an annual call for applications, usually in Q1. Applications should be made through SEAI's online application platform. Further details on the application process will be available on the SEAI R&D website following the launch of each annual call.

Click here for further information

Other Programmes Available for In-Company Research, Development & Innovation (RD&I)

Disruptive Technologies Innovation Fund

see section 1.3 Collaborative Research, Development and Innovation supports.

SECTION 1.3

Funding for Collaborative Research, Development & Innovation (RD&I)

Enterprise Ireland Innovation Voucher

WHAT IS IT?

The Innovation Voucher initiative was developed to build links between Ireland's public research performing organisations (i.e. Higher Education Institutions, public research bodies) and small businesses. Innovation Vouchers worth €5,000 are available to assist a company or companies to explore a business opportunity or problem with a registered knowledge provider.

KEY FOCUS OF RESEARCH

Innovation Vouchers can be used for any kind of innovation such as:

- new product/process development;
- new business model development;
- new service delivery and customer interface;
- new service development;
- tailored training in innovation management;
- innovation/technology audit.

WHO IS IT FOR?

The Innovation Vouchers initiative is open to all small and medium-sized limited companies registered in Ireland.

HOW MUCH IS AVAILABLE?

There are two types of vouchers available under the programme, the fully funded €5,000 standard voucher and the co-funded €5,000 fast track voucher. Companies may make use of a maximum of three vouchers.

APPLICATION PROCESS

The programme is open continuously for applications. All voucher applications must be made via the Enterprise Ireland Online Application System.

Click here for further information

Enterprise Ireland Innovation Partnership Programme

WHAT IS IT?

The Innovation Partnership Programme supports Irish-based companies to work with Irish Research Performing Organisations resulting in mutually beneficial co-operation and interaction. Companies can access expertise and resources to undertake research towards the development of new and improved products, processes, services, and generate new knowledge and know-how.

KEY FOCUS OF RESEARCH

The research should focus on accelerating the evolution of the company's strategic research and the creation of new knowledge to generate commercial advantage for the partnering company(ies), while the research institute is benefiting from developing its skill sets, intellectual property and publications. Innovation Partnership Programme supports either Industrial Research or Experimental Development projects.

WHO IS IT FOR?

The Innovation Partnership Programme is open to existing and potential clients of Enterprise Ireland, IDA Ireland, Local Enterprise Office and Údarás na Gaeltachta clients which are manufacturing and/or internationally traded service companies.

HOW MUCH IS AVAILABLE?

The Innovation Partnership Programme can provide between 40% to 80% of the research cost for eligible projects, depending on the size of the company and the type of research. Funding from Enterprise Ireland will normally not exceed €200,000.

An Innovation Partnership Feasibility Study provides a grant of 100% to a limit of €9,000 to enable the Principal Investigator to develop a proposal for a full Innovation Partnership Application.

APPLICATION PROCESS

Innovation Partnership Feasibility and full proposals may be submitted to Enterprise Ireland by the research institute partner at any time. The company should first discuss with the institute's Technology Transfer Office. The grant is paid directly to the research institute upon approval.

Click here for further information

Disruptive Technologies Innovation Fund

WHAT IS IT?

The Disruptive Technologies Innovation Fund (DTIF) is a €500 million fund established under the National Development Plan under Project Ireland 2040 and is run by the Department of Enterprise, Trade and Employment with administrative support from Enterprise Ireland. DTIF drives collaboration between Ireland's research base and industry in support of the development and adoption of new technologies and applications which will in turn help build new markets and strengthen the competitiveness of the enterprise sector.

KEY FOCUS OF RESEARCH

DTIF funds industrial research projects focused on the Research Priority Areas 2018-2023. The projects must be from collaborative enterprise-driven partnerships that will develop, deploy and commercialise disruptive technologies to transform business and deliver new solutions for the Irish economy.

WHO IS IT FOR?

The DTIF supports projects involving consortia of a minimum of 3 partners with at least one SME and one other enterprise partner. To be eligible for funding, applicants must be a client of Enterprise Ireland, IDA Ireland or Údarás na Gaeltachta or an eligible Research Performing Organisation (RPO).

HOW MUCH IS AVAILABLE?

For enterprises, funding may be granted for up to 100% of eligible costs. A minimum funding request from DTIF of at least €1.5m for projects up to 3 years' duration is required.

APPLICATION PROCESS

DTIF calls for submissions are announced on the Department of Enterprise Trade & Employment's website and Twitter account (@DeptEnterprise).

Click here for further information

Science Foundation Ireland Spokes Programme

WHAT IS IT?

The SFI Spokes Programme is a funding mechanism to enable the addition of new industrial and academic partners and projects, to an existing SFI Research Centre, to allow the Centre to expand and develop in line with new priorities and opportunities. The Spokes programme also provides a vehicle to link different SFI Research Centres, in a meaningful and relevant way.

KEY FOCUS OF RESEARCH

This Programme can fund areas of science, technology, engineering & mathematics (STEM) that are aligned with the research areas of one or more SFI Research Centres (detailed in Section 2.3): gut microbiome, pharmaceuticals, software, digital media technology, data analytics, future networks and communications, photonics, medical devices, energy, climate and marine research, applied geosciences, agri-food, advanced and smart manufacturing, neurological diseases, bioeconomy, and advanced materials and bioengineering.

WHO IS IT FOR?

Any research-active company or group of companies, regardless of their size, scale or location, is eligible to collaborate with an SFI Research Centre on an application to the Spokes Programme.

HOW MUCH IS AVAILABLE?

The proposed research programme is funded 50/50 by the company and SFI. The funding programme is continuously open.

APPLICATION PROCESS

Applications can be submitted at any time throughout the year. Proposals are first evaluated as a simple expression of interest, reviewed by SFI staff, and if successful, the applicants are invited to submit a full proposal which undergoes international peer review.

Click here for further information

Science Foundation Ireland Strategic Partnership Programme

WHAT IS IT?

The SFI Strategic Partnership Programme is specifically aimed at funding compelling research opportunities, on a flexible basis, that are not otherwise served by national funding programmes. The scheme aims to support standalone initiatives of scale with strong potential for delivering economic and societal impact to Ireland, where significant co-funding is available.

KEY FOCUS OF RESEARCH

This Programme can fund most areas of science, technology, engineering and mathematics (STEM) of relevance to companies. It is particularly suitable for, but not limited to, higher risk research. It is aimed at supporting stand-alone initiatives of scale with strong potential for economic and societal impact for Ireland.

WHO IS IT FOR?

Any research-active company in collaboration with an Irish academic partner.

HOW MUCH IS AVAILABLE?

The enterprise partner is expected to commit significant co-funding to the partnership, with 50/50 co-funding by the partner(s) and SFI. Flexible models for cost-sharing will, however, be considered.

APPLICATION PROCESS

Applications may be submitted at any time via the academic partner. Proposals are first evaluated as a simple Expression of Interest, reviewed by SFI staff, and if successful, the applicants are invited to submit a full proposal which undergoes international peer review.

Click here for further information

SECTION 1.4

Leveraging State Investments for Collaborative Research, Development & Innovation (RD&I)

Enterprise Ireland/ IDA Ireland Technology Centre Programme

WHAT IS IT?

The programme helps companies to collaborate with research institutions on market focused strategic R&D projects. Eight Technology Centres are currently funded under the programme. These Centres have been formed around a significant group of companies to leverage cutting edge R&D in their field of interest to drive innovation.

KEY FOCUS OF RESEARCH

Each Centre has a common research programme agreed with its enterprise partners. The specific technology areas for each Centre are: Data Analytics & Machine Intelligence; Dairy Processing; Functional and Health Food Innovation; Manufacturing Research; Educational and Learning; Microelectronic Circuits; Meat Technology and; Pharmaceutical Manufacturing.

WHO IS IT FOR?

The programme is open to all companies, from SME to large companies, Irish and multinational. The depth of engagement depends on the company's needs with Centre Membership, Associate Membership and Network Participation options available.

HOW MUCH IS AVAILABLE?

The Centres operate in 5-year phases and individual Centres vary in scale from approximately €1 million to almost €5 million per year. Centres aim to leverage Enterprise Ireland's funding with a combination of funding from industrial sources (1/3) and competitive sources (1/3). This helps to ensure that Centres achieve critical mass and continue to be sufficiently leading edge to win competitive research funding while industrially relevant enough to achieve funding from industry.

APPLICATION PROCESS

Technology Centres typically start by establishing a Detailed Description of the RD&I needs of companies in that sector and identifying a consortium of research providers to deliver on these needs. The Centre Director is the point of contact for companies interested in joining a particular Centre.

Click here for further information

See Section 2 for more details on individual EI/IDA Ireland Technology Centres

Enterprise Ireland Technology Gateway Programme

WHAT IS IT?

A mechanism for enterprise to benefit from technological expertise within the seven Institutes of Technology and two Technological Universities across Ireland. Technology Gateway staff manage the interaction between the companies and the institutions, help the companies to source funding where necessary, and ensure that projects are delivered successfully.

KEY FOCUS OF RESEARCH

Across the Technology Gateway Network there are three industry focused R&D clusters:

- Internet of Things (Applied IoT)
- Engineering, Materials & Design (EMD)
- Food & Beverage (Irish Food Tech)

Research areas covered include: pharma and healthcare; medical technologies and diagnostics; engineering; manufacturing; applied biotechnology; polymer technologies; coatings; mobile services; wireless systems; embedded systems; light technologies; connected media; and applied design.

WHO IS IT FOR?

Companies of all sizes and sectors.

HOW MUCH IS AVAILABLE?

Research projects may be funded through supports such as the Enterprise Ireland Innovation Voucher (€5,000), Agile R&D Fund (up to 50% of eligible costs) or Innovation Partnership (40-80% of eligible costs), or directly with cash from the company.

APPLICATION PROCESS

Application is to the individual financial supports (EI Innovation Voucher, EI Innovation Partnership, EI Agile R&D Fund) that are detailed earlier in section 1.3.

Click here for further information

See Section 2 for more details on the individual EI Technology Gateways

Science Foundation Ireland Research Centres Programme

WHAT IS IT?

The SFI Research Centres Programme is a mechanism to help link scientists and engineers in partnerships across academia and industry. Projects can be formed with a single research centre or across a number of relevant centres. Companies can engage directly in applications for new SFI Research Centres or can join an existing SFI Research Centre by engaging directly with the Centre, or through the Spokes Programme. (See Section 1.3)

KEY FOCUS OF RESEARCH

This Programme can fund most areas of science, technology, engineering and mathematics (STEM) of relevance to companies. The SFI Research Centres support both basic and applied research, forging partnerships across academia and industry to address crucial research questions. The Research Centres are focused on gut microbiome, pharmaceuticals, software, digital media technology, data analytics, future networks and communications, photonics, medical devices, energy, climate and marine research, applied geosciences, agri-food, advanced and smart manufacturing, neurological diseases, bioeconomy, and advanced materials and bioengineering.

WHO IS IT FOR?

Any research-active company in collaboration with an Irish academic partner.

HOW MUCH IS AVAILABLE?

SFI Research Centres are co-funded by Science Foundation Ireland, the Higher Education Institutions and industry. The cost contribution required for each collaborative research project with a company will depend on the nature of the project and should be agreed with the Centre. Funding from Science Foundation Ireland may range from €1m to €5m per annum in direct costs.

APPLICATION PROCESS

For new SFI Research Centres, a two-stage application and review process, is required for evaluation. Company collaboration with an existing SFI Research Centre does not typically require an application for funding to SFI (unless engaging through the Spokes Programme) (See Section 1.3)

Click here for further information

See Section 2 for more details on the individual SFI Research Centres

Accessing Facilities & Equipment

There has been significant State investment in research infrastructure throughout the higher education and research performing sector over the last decade. This includes research facilities, specialised items of research equipment etc. These resources are available for use in collaborative and contract research projects with companies, enabling cost-effective access to infrastructure that is not available in house. It some cases companies may contract with the research organisation to access these resources for in-company projects.

Further details of expertise, facilities and contacts are available in the sections of this Directory that follow.

Other Programmes Available for Collaborative Research Development and Innovation

Sustainable Energy Authority of Ireland - National Energy Research, Development and Demonstration Funding Programme

see section 1.2

SECTION 2

Accessing Research & Expertise

Ireland has built a strong research capacity and research excellence which can benefit enterprise. State investment in research and innovation has been instrumental in securing, diversifying and growing the enterprise base, licensing new technologies, creating new companies, and providing the highly educated workforce needed to grow the economy and contribute to society.

This section summarises the breadth and depth of the public research base in Ireland, of relevance to companies in RD&I. It offers insights into areas of expertise that may be of interest to companies wishing to build their R&D capability or simply wanting to find short solutions to current business challenges.

Here you will find information on the Higher Education Institutions; Research Centres; Technology Centres; Technology Gateways; Regional Technology Clusters and other Institutes of Scale, that are grounded predominantly in the Irish Higher Education Institutions. Together they provide an unparalleled resource for companies. Working with the research base can boost your innovation journey and also unlock funding that would otherwise be unavailable to you.

2.1 Higher Education Institutions

There are eight universities, two Technological Universities and nine Institutes of Technology as of March 2021. Their international reputation for research expertise is reflected in their performance in Horizon Europe and other international funding programmes. And the relevance of this expertise to business is manifested in the institutions' internationally comparable levels of collaboration with industry and research commercialisation.

UNIVERSITY	INSTITUTE OF TECHNOLOGY
Dublin City University	Athlone Institute of Technology
Maynooth University	Institute of Technology Carlow
NUI Galway	Dundalk Institute of Technology
RCSI, University of Medicine & Health Sciences	Institute of Art, Design and Technology (IADT)
Trinity College Dublin	Galway Mayo Institute of Technology
University College Cork	Letterkenny Institute of Technology
University College Dublin	Limerick Institute of Technology
University of Limerick	Institute of Technology Sligo
Technological University Dublin	Waterford Institute of Technology
Munster Technological University	

These institutions form the base of public research capability in Ireland. The Centres, Gateways and clusters detailed in the subsequent sections are predominantly led and managed by the Higher Education Institutions. All are therefore underpinned by the platform core investment provided to the institutions by the Higher Education Authority (HEA) with its central role in the development of the Irish higher education system as an agency of the Department of Further and Higher Education, Research, Innovation and Science.

Each HEI has an Innovation Office, which leads on commercialisation and can act as an entry point for companies interested in learning more about what the HEI can offer. Staff have worked in companies, from multinationals to start-ups, and investment environments and understand the issues that businesses face when seeking to innovate. Their scientifically trained business managers act as sector experts, able to translate the needs of business and to identify exciting new commercial propositions.

Map of Higher Education Institutions

Universities

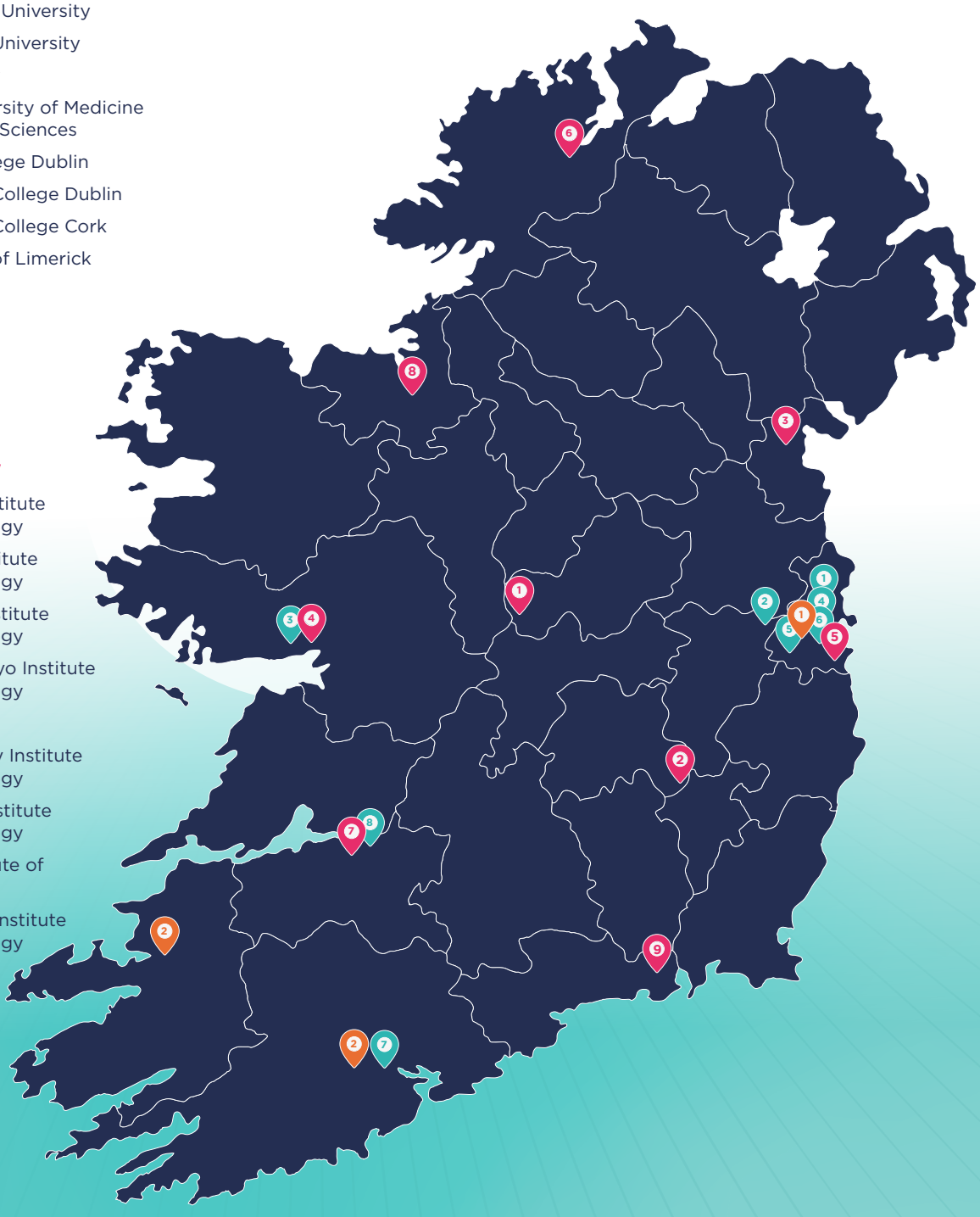
1 Dublin City University
2 Maynooth University
3 NUI Galway
4 RCSI University of Medicine and Health Sciences
5 Trinity College Dublin
6 University College Dublin
7 University College Cork
8 University of Limerick

Technological Universities

1 TU Dublin
2 Munster TU

Institutes of Technology

1 Athlone Institute of Technology
2 Carlow Institute of Technology
3 Dundalk Institute of Technology
4 Galway-Mayo Institute of Technology
5 IADT
6 Letterkenny Institute of Technology
7 Limerick Institute of Technology
8 Sligo Institute of Technology
9 Waterford Institute of Technology



2.2 Research Centres, Technology Centres & Technology Gateways

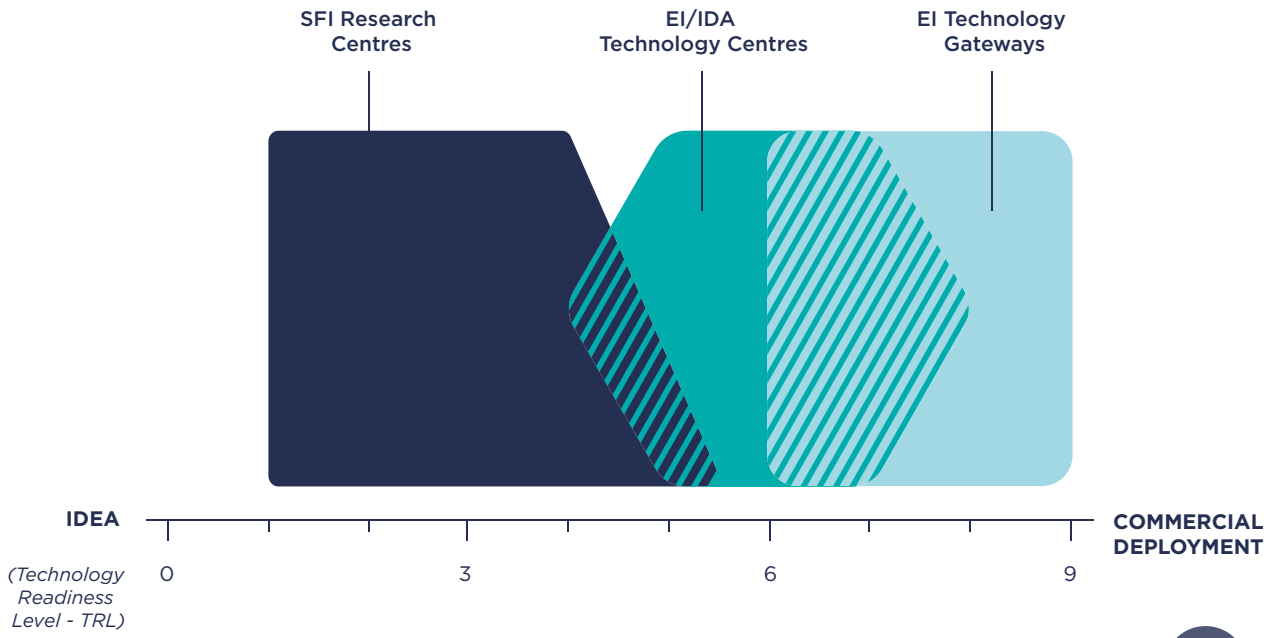
Situated around the country, Centres and Gateways have been created in specific areas of Science, Technology, Engineering and Mathematics (STEM) research and can provide research and development expertise for companies. The information that follows in this section provides details about the sectors in which they operate, the kinds of research and engagement options available to companies looking to collaborate and the types of funding available. It includes details on where they are located and who to contact.

Under the SFI research Centre Programme there are 16 Research Centres which each draw in research groups from across the Higher Education Institutions, creating large-scale, cutting edge research capacity in thematic areas considered to be of economic impact in Ireland. They are open to collaboration with both Irish and international research performing companies (from SMEs to MNCs).

The eight Enterprise Ireland/IDA Technology Centres enable Irish companies (of all sizes) and multinationals to work together on market focused strategic R&D projects in collaboration with Higher Education Institutions and other State funded research institutions.

The Enterprise Ireland Technology Gateway Network comprises 15 Gateways within the Institutes of Technology and Technological Universities providing Research & Development expertise to industry, of all sizes and sectors with dedicated staff supporting the company to manage the interaction and source appropriate funding.

Centres and Gateways operate at different stages in the research, development and deployment lifecycle. All are actively open for collaboration with companies.



Science Foundation Ireland Research Centre Programme

WHAT IS IT?

The SFI Research Centre programme provides funding for sixteen world-leading, largescale Research Centres that draw in research groups from across Ireland's universities and Institutes of Technology. The Centres are focused on thematic areas of research that are considered to be of major economic impact for Ireland, including pharmaceuticals, software, digital content, big data, telecommunications, photonics, medical devices, nanotechnology, marine and renewable energy, functional foods, perinatal research and applied geosciences.

The SFI Research Centres not only act as magnets to attract and retain investment, they also encourage companies, both Irish and foreign-owned, to develop their R&D activities here. They can provide an access point for companies to RD&I expertise within Higher Education Institutions around the country.

RESEARCH

Science Foundation Ireland (SFI) Research Centres are focused on areas of science, technology, engineering & mathematics (STEM) that are of major economic importance to Ireland. Details of each Research Centre and their main areas of research expertise are included in the following section.

COLLABORATION

SFI Research Centres can form collaborations with both Irish and international research-performing companies (SMEs and MNCs). There is no requirement for the company to have an operating base in Ireland.

Click here for further information

Enterprise Ireland/ IDA Technology Centres

WHAT IS IT?

The Enterprise Ireland/IDA Technology Centre programme is a joint initiative between Enterprise Ireland and IDA Ireland. It allows Irish companies and multinationals to work together on market focused strategic R&D projects in collaboration with research institutions.

Eight Technology Centres are funded under the programme, involving a mix of large companies and SMEs leveraging cutting edge R&D to drive innovation.

RESEARCH

Each Centre has a common research programme agreed with its enterprise partners. The specific areas of research for each Technology Centre are detailed below.

COLLABORATION

The programme is open to all companies. The key criterion is that a Technology Centre is formed around a significant group of companies, which can agree on a common research programme for their sector or area of interest, and which can express the impact that successful research activities would have on the companies involved.

Click here for further information

Enterprise Ireland Technology Gateway Network

WHAT IS IT?

The aim of the Enterprise Ireland (EI) Technology Gateway Network is to increase the levels of interaction between Industry and the Institutes of Technology and Technological Universities. The Network works in partnership with seven Institutes of Technology and two Technological Universities across Ireland to facilitate an open mechanism for industry to harness technological expertise. The role of the Gateway staff is to manage the interaction between the companies and the institutions, to help the companies to source funding where necessary, and to ensure that projects are delivered successfully. Research projects may be funded through supports such as the Enterprise Ireland Innovation Voucher, Agile R&D Fund or Innovation Partnership or directly with cash from the company.

RESEARCH

The Technology Gateways provide Research & Development expertise to industry, of all sizes and sectors. To further boost the level of collaboration, there are three industry focused R&D clusters specialising in the areas of:

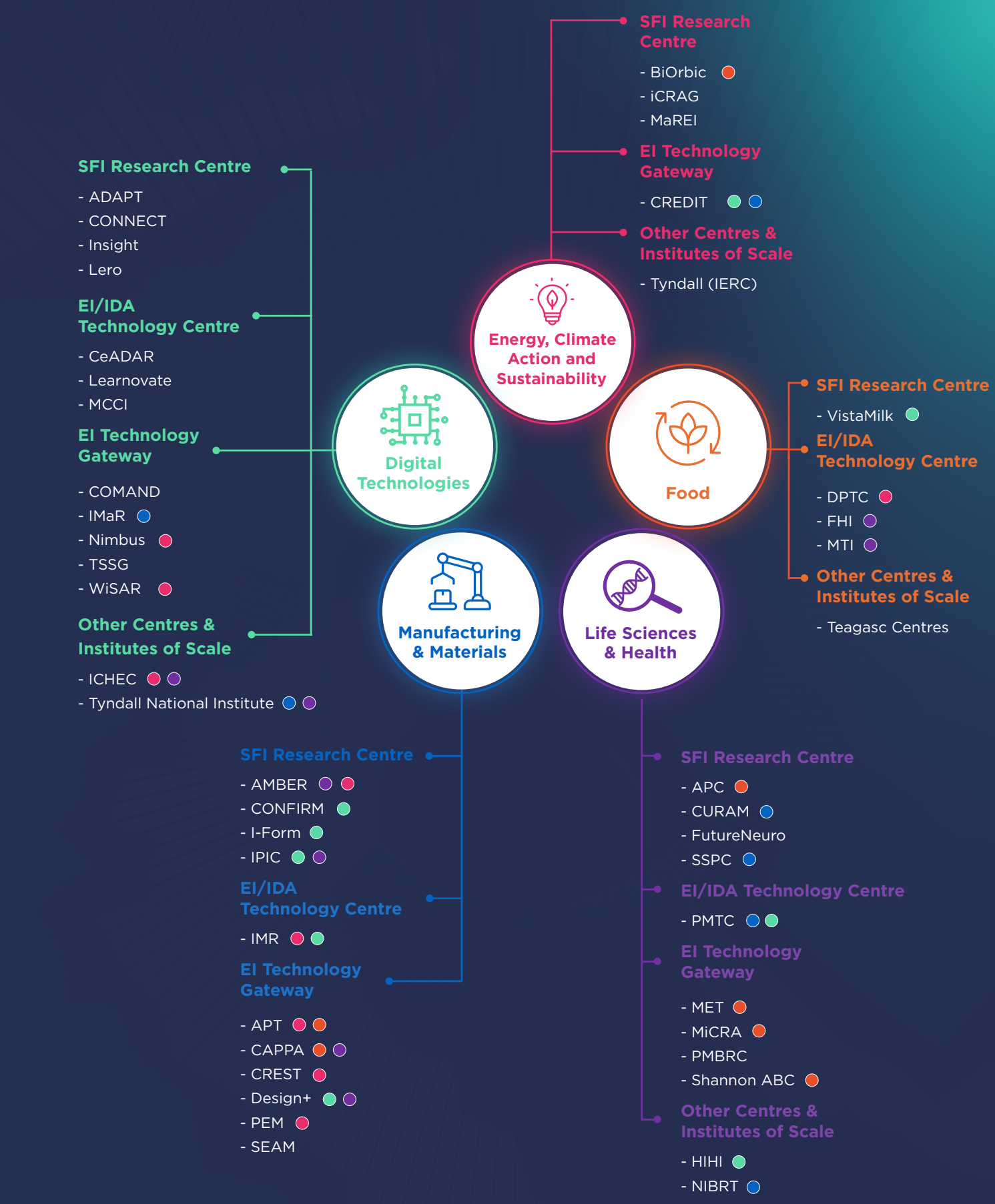
- Internet of Things (Applied IoT)
- Engineering, Materials & Design (EMD)
- Food & Beverage (Irish Food Tech)

Research areas covered by the Technology Gateway Network include: pharma and healthcare; medical technologies and diagnostics; engineering; manufacturing; applied biotechnology; polymer technologies; coatings; mobile services; wireless systems; embedded systems; light technologies; connected media; and applied design.

ENGAGEMENT

EI Technology Gateway Network services are available to all companies.

Click here for further information


Energy, Climate Action and Sustainability
SFI Research Centre
- BiOrbic
- iCRAG
- MaREI
EI Technology Gateway
- CREDIT
Other Centres & Institutes of Scale
- Tyndall (IERC)
Digital Technologies
SFI Research Centre
- ADAPT
- CONNECT
- Insight
- Lero
EI/IDA Technology Centre
- CeADAR
- Learnovate
- MCCI
EI Technology Gateway
- COMAND
- IMaR
- Nimbus
- TSSG
- WiSAR
Other Centres & Institutes of Scale
- ICHEC
- Tyndall National Institute
Food
SFI Research Centre
- VistaMilk
EI/IDA Technology Centre
- DPTC
- FHI
- MTI
Other Centres & Institutes of Scale
- Teagasc Centres
Manufacturing & Materials
SFI Research Centre
- AMBER
- CONFIRM
- I-Form
- IPIC
EI/IDA Technology Centre
- IMR
EI Technology Gateway
- APT
- CAPPA
- CREST
- Design+
- PEM
- SEAM
Life Sciences & Health
SFI Research Centre
- APC
- CURAM
- FutureNeuro
- SSPC
EI/IDA Technology Centre
- PMTC
EI Technology Gateway
- MET
- MiCRA
- PMBRC
- Shannon ABC
Other Centres & Institutes of Scale
- HIHI
- NIBRT
Energy, Climate Action and Sustainability
Food
Life Sciences & health
Manufacturing & Materials
Digital Technologies

Support Type	Name	Energy, Climate Action and Sustainability	Food	Life Sciences & Health	Manufacturing & Materials	Digital Technologies
SFI Research Centre	ADAPT					1
	AMBER	3		2	1	
	APC		2	1		
	BiOrbic	1	2			
	CONFIRM				1	2
	CONNECT					1
	CURAM			1	2	
	FutureNeuro			1		
	iCRAG	1				
	I-Form				1	2
	Insight					1
	IPIC			3	1	2
	Lero					1
	MaREI	1				
	SSPC			1	2	
	VistaMilk		1			2
EI/IDA Technology Centres	CeADAR					1
	DPTC	2	1			
	FHI		1	2		
	IMR	2			1	3
	Learnovate					1
	MCCI					1
	MTI		1	2		
	PMTC			1	2	3
EI Technology Gateway	APT	2	3		1	
	CAPPA		2	3	1	
	COMAND					1
	CREDIT	1			3	2
	CREST	2			1	
	Design+			3	1	2
	IMaR				2	1
	MET		2	1		
	MiCRA		2	1		
	Nimbus	2				1
	PEM	2			1	
	PMBRC			1		
	SEAM				1	
	Shannon ABC		2	1		
	TSSG					1
	WiSAR	2				1
Other Centres &Institutes of Scale	HIHI			1		2
	ICHEC	2		3		1
	NIBRT			1	2	
	Tyndall National Institute			3	2	1
	Teagasc Centres		1			

1 = priority sector **2 =** secondary sector **3 =** tertiary sector

Research Centres, Technology Centres & Technology Gateways

This Section provides details of Research Centres, Technology Centres and Technology Gateways funded through Enterprise Ireland,IDA Ireland and Science Foundation Ireland programmes. Centre and Gateway profiles are listed alphabetically.

ADAPT
Research Centre for Digital Media Technology

SFI Research Centre Programme

WHAT IS IT?

ADAPT focuses on developing next generation digital technologies that transform how people communicate by helping to analyse, personalise and deliver digital data more effectively for businesses and individuals. ADAPTS AI-powered analysis techniques allow more powerful tailored access to customer and community insights, allowing you to explore video, text, speech and image data in a natural way across languages and devices, helping companies unlock opportunities that exist within digital content to re-imagine how to connect people, process and data to realise new economic value. By enabling deeper engagement for users, ADAPT enhances efficiencies and global reach for a range of industry partners in industries such as Information & Communications Technology (ICT), localisation, financial services, eCommerce, eHealth, media, entertainment and games, life sciences, digital culture and humanities, and eLearning/education.

EXPERTISE

- Analysing media, content and customer interactions
- Enabling global reach via innovative machine translation
- Transforming and delivering personalised content
- Extracting actionable knowledge from all forms of digital content and user interactions
- Empowering innovative customer engagement and interaction across multimodal media

RESEARCH PERFORMED BY:

Trinity College Dublin

Dublin City University

University College Dublin

Technological University Dublin

Maynooth University

Athlone Institute of Technology

Munster Technological University

CENTRE DIRECTOR:

Prof. Vincent Wade

Click here for further information

AMBER

Research Centre for Advanced Materials and BioEngineering Research

SFI Research Centre Programme

WHAT IS IT?

AMBER is a dynamic, multidisciplinary partnership between world-leading material scientists, bioengineers and industry. The Centre works collaboratively to address fundamental research questions and create solutions with impact for society in ICT, MedTech, energy and sustainable industrial technologies. AMBER is built upon an outstanding reputation in research supported by state of the art infrastructure at its Advanced Microscopy Laboratory and Additive Research Laboratory. AMBER's highly ambitious multidisciplinary research programme brings scientists and bioengineers together to work collaboratively in key areas to generate impact for society. AMBER is focused on driving innovation through excellent science and a vibrant culture of industrial engagement and commercialisation, contributing a pipeline of highly skilled graduates to the Irish science, technology, engineering and mathematics (STEM) sector, creating jobs and economic growth.

EXPERTISE

- 2D materials and composites
- Biomaterials
- Medical devices
- Semiconductor and memory devices
- Polymers and membranes

RESEARCH PERFORMED BY:

Trinity College Dublin

University College Cork

RCSI, University of Medicine & Health Sciences

Tyndall National Institute

University of Limerick

National University of Ireland Galway

Dublin City University

Athlone Institute of Technology

CENTRE DIRECTOR:

Prof. Michael Morris

Click here for further information

APC Microbiome Ireland
Microbiome Research Centre

SFI Research Centre Programme

WHAT IS IT?

APC Microbiome Ireland, founded as the Alimentary Pharmabotic Centre in 2003, is about people working together across the boundaries of traditional research sectors. APC has created a lively trans-disciplinary environment with clinicians, clinician-scientists and basic scientists from diverse backgrounds working in teams, sharing ideas and resources. Although focused upon the magic and mysteries of the gastrointestinal bacterial community, (the microbiota), the scale and scope of the work has become one of the fastest moving areas of biology, of relevance to all branches of human medicine and veterinary science, and is of growing importance to the economic welfare of society. The APC team has extensive experience collaborating with the food, pharmaceutical, biotechnology and diagnostic sectors and welcomes new industry partnerships. APC Microbiome Ireland's industry partners can access technology platforms, extensive databases and biobanks, as well as the expertise of its investigators.

EXPERTISE

- Analysing media, content and customer interactions
- Mining the microbiota for bioactives for use as therapeutics (e.g. antimicrobials) or diagnostics
- Designing new functional foods across the lifespan e.g. infants, athletes, elderly
- Exploring links between the microbiota and mental health
- Developing new biomarkers of GI and metabolic disease risk and manipulating risk by targetting the microbiota
- Technology Platforms

RESEARCH PERFORMED BY:

University College Cork

Teagasc

Munster Technological University

National University of Ireland Galway

University College Dublin

National Institute for Bioprocessing Research and Training

CENTRE DIRECTOR:

Prof. Paul Ross

Click here for further information

APT
Applied Polymer Technologies Gateway

EI Technology Gateway Network

WHAT IS IT?

The APT (Applied Polymer Technologies) Gateway applies polymer technologies for Irish-based companies who use polymer materials – ranging in size from startups and SMEs to multinational companies. APT has a core focus on three applied technology areas it aims to transfer to industry: biomedical polymers, polymer recycling and composites. APT is a dedicated resource for the Irish polymer manufacturing industry and regularly provides training and information dissemination, as well as production demonstration days for companies. Using its suite of characterisation equipment and pilot polymer processing facilities, APT can cover all areas of the production lifecycle. This capacity ranges from concept design and prototype development towards commercial launch of a development product, production optimisation and troubleshooting for existing processes and end of life recycling.

EXPERTISE

- Pilot and production-scale injection moulding, blow moulding, thermoforming, extrusion and compounding lines
- Advanced analytical facilities for materials research, testing and troubleshooting
- Design, rapid prototyping and micro-moulding capabilities

HOSTED BY:

Athlone Institute of Technology

GATEWAY MANAGER:

Dr Noel Gately

Click here for further information

BiOrbic
Bioeconomy Research Centre

SFI Research Centre Programme

WHAT IS IT?

BiOrbic develops sustainable novel processes and products using biobased resources, creating clusters for new industry partnerships and delivering the expertise and trained workforce to translate new technologies into new sustainable products, processes, markets and industries. The Centre collaborates closely with industry across the Agri-food and Marine sectors to convert residues and waste streams created during primary production processes to higher value products (including food/feed ingredients), creating new business opportunities and new value chains, enabling our partners to diversify and increase resource efficiency. Our partnerships stimulate rural regeneration, curtail environmental damage, extract healthy nutritional supplements, reduce import dependency, and develop human capital.

EXPERTISE

- Bioeconomy
- Agri-Food
- Marine
- Advanced Materials
- Renewable biological resources
- Biotechnology/Biologics
- Resilient and Resource-Efficient Value Chains
- Rural Renaissance

RESEARCH PERFORMED BY:

University College Dublin

Trinity College Dublin

University of Limerick

National University of Ireland Galway

Teagasc

CENTRE DIRECTOR:

Prof. Kevin O'Connor

Click here for further information

CAPPA
Centre for Advanced Photonics & Process Analysis Gateway

EI Technology Gateway Network

WHAT IS IT?

CAPPA (Centre for Advanced Photonics & Process Analysis) applies photonics solutions to industry in a wide range of sectors, including medical devices and technologies, pharmaceutical manufacturing, food & beverage technologies and electronics and telecommunications. Photonics is the science of generating, controlling and detecting light, and is a key enabling technology underpinning many different application areas. Examples addressed by CAPPA include advanced imaging & spectroscopy – a suite of powerful spectroscopy and microscopy techniques covering a wide wavelength range (including FTIR, Raman, UV/Vis) providing detailed information on chemical composition, active ingredient distribution, optical device dynamics, etc. It can be used to monitor processes, detect counterfeit products, aid root cause analysis, and investigate novel materials.

EXPERTISE

- New photonics devices
- Medtech & pharmaceuticals
- Food & beverages
- Manufacturing technologies

HOSTED BY:

Munster Technological University

GATEWAY MANAGER:

Liam Lewis

Click here for further information

CeADAR

Centre for Applied Data Analytics & Machine Intelligence

EI/IDA Technology Centre Programme

WHAT IS IT?

CeADAR is a market-focused technology centre that drives the accelerated development and deployment of data analytics and machine intelligence (DA&MI) technology and innovation. The Centre's work focuses on developing tools, techniques and technologies that enable more people, organisations and industries to use analytics and machine intelligence for better decision making and competitive advantage. CeADAR is the bridge between the worlds of applied research in DA&MI and their commercial application.

EXPERTISE

- predictive analytics
- machine and deep learning
- real-time analytics
- text analytics
- data visualisation
- blockchain and smart contracts

RESEARCH PERFORMED BY:

University College Dublin

Technological University Dublin

CENTRE DIRECTOR:

Dr Edward McDonnell

Click here for further information

COMAND
Connected Media Application Design And Delivery Gateway

EI Technology Gateway Network

WHAT IS IT?

The COMAND Technology Gateway concentrates on the research and development of prospective interactive media technologies focused on: cross-platform applications, mobile media cloud, 3D sensing, and the interoperability for the Internet of Things. These technologies are complementary and combine to create the opportunity for new and innovative forms of "connected media" – personalised, real-time, interactive applications – in a wide range of commercial fields including telecoms, gaming, TV, e-health, e-learning, e-tourism, e-retailing, entertainment and digital marketing. COMAND's goal is to transfer these technologies to industry to maximise commercial benefit.

EXPERTISE

- Cloud media platform: leverage media processing in the cloud and end user
- Media systems: intelligent and cross-platform multimodal development
- User interfaces: multimodal interfacing
- Real-time data analytics
- Interoperability of the Internet of Things (IoT)

HOSTED BY:

Athlone Institute of Technology

GATEWAY MANAGER:

Anthony Cunningham

Click here for further information

CONFIRM
Smart Manufacturing Research Centre

SFI Research Centre Programme

WHAT IS IT?

CONFIRM's mission is to transform industry to become leaders in Smart Manufacturing. Smart Manufacturing is the process of fusing intelligence to the production process to improve manufacturing performance via automation and data analytics. With manufacturing being the second largest employer in Ireland, CONFIRM believes it has a responsibility to future proof the community so that it is best placed to adapt and thrive in Industry 4.0. CONFIRM gives industry partners a competitive advantage by ensuring the right research team is working to drive business readiness for Industry 4.0. CONFIRM has experience working with MNC and SMEs across diverse sectors, including; Computer, Electronic, Optical, Pharmaceuticals, Medical Devices, Chemical, Nutrition & Beverage, and Electrical equipment.

EXPERTISE

- Data Analytics: AI, Predictive Modelling, Decision Analytics
- Enterprise Modelling & Simulation
- Networking Systems & Internet of Things
- Product & Process Modelling
- Robotics & Control
- Sensors
- Software Systems
- Material Processing

RESEARCH PERFORMED BY:

University of Limerick

Tyndall National Institute

University College Cork

Munster Technological University

National University of Ireland Galway

Athlone Institute of Technology

Limerick Institute of Technology

CENTRE DIRECTOR:

Prof. Conor McCarthy

Click here for further information

CONNECT
Future Networks and Communications Research Centre

SFI Research Centre Programme

WHAT IS IT?

CONNECT's mission is to research and develop innovative solutions for the communications challenges facing society today. The Internet of Things (IoT), 5G networks and new broadband architectures are the Centre's main areas of focus. CONNECT works with a wide range of industry partners on targeted projects in the areas of Internet of Things, future cellular (5G and beyond), next-generation broadband, software-defined networks and cloud-based services. CONNECT's expert researchers are dedicated to delivering outstanding results at the pace and standard demanded by industry.

CENTRE DIRECTOR:

Dr Brendan Jennings

Click here for further information

EXPERTISE

- Dependable Networks (supporting mission-critical applications, leveraging edge computing)
- Sustainable IoT (scalable solutions for integrated energy harvesting, storage, and power management, reusable platforms, security and resiliency)
- Link Performance (MGb/s wireless & wireline transmission, flexible mmWave, photonic networking and in-body biological communications)
- Data-driven Optimisation & Management (proactive network management, distributed ML, actionable metrics, explainable AI)
- Customised Networks (end-to-end across shared networks to support verticals, slice monitoring, trust)
- The New Operators (frameworks for collaboration, business models, regulation)

RESEARCH PERFORMED BY:

Trinity College Dublin

Munster Technological University

Dublin City University

Maynooth University

Technological University Dublin

Tyndall National Institute

University College Cork

University College Dublin

University of Limerick

Waterford Institute of Technology

CREDIT
Centre for Renewable Energy Technology Gateway

EI Technology Gateway Network

WHAT IS IT?

The Centre for Renewable Energy Technology Gateway at Dundalk IT (CREDIT), is focused on Energy Efficiency and Optimisation as well as Energy Store and Supply Optimisation. The Gateway has expertise in solar, wind and ocean energy and will assist companies to make both their products and their manufacturing operations as energy efficient as possible.

The CREDIT Gateway provides a place for industry and experts to work together with a particular focus on helping start-ups and SMEs explore product innovation, source applied research opportunities and leverage tech solutions for their needs.

Over the past number of years there has been a growing demand from industry for detailed Energy Performance Measurement of products, prototypes and process innovations. The CREDIT Gateway delivers these assessments as a mechanism to help companies to optimise and decarbonise their energy and other Green House Gas emissions.

EXPERTISE

- Energy Efficiency & Optimisation
- Energy Demand and Supply Optimisation
- Wind and Ocean Energy
- Solar Energy
- Energy Storage
- Bio-Energy

HOSTED BY:

Dundalk IT

GATEWAY MANAGER:

Aidan Browne

Click here for further information

CREST
Centre For Research In Engineering Surface

EI Technology Gateway Network

WHAT IS IT?

The CREST (Centre for Research in Engineering Surface Technology) Technology Gateway is the only dedicated surface coatings laboratory on the island of Ireland. Its precursor was the Institute for Industrial Research Standards (IIRS), established in 1946. CREST operates within a certified ISO 9001 Quality Management System and provides a range of consultancy services to over 100 companies per year, from Irish SMEs to multinationals. Based in the FOCAS Research Institute, TU Dublin – Kevin St, CREST is a nationally approved laboratory that has been retained by many Irish government bodies to give advice on public and private funded projects. CREST Technology Gateway is addressing the needs of the Irish engineering, aerospace, automotive, architectural, electronics, biomedical and healthcare sectors in the area of surface coatings.

EXPERTISE

- Protective coatings for challenging environments
- Surface treatment of metal components
- Coatings for environmental applications
- Biomedical devices

HOSTED BY:

Technological University Dublin

GATEWAY MANAGER:

Dr Brendan Duffy

Click here for further information

CÚRAM
Medical Devices Research Centre

SFI Research Centre Programme

WHAT IS IT?

CÚRAM aims to radically improve health outcomes for patients by developing 'smart' medical devices and implants. CÚRAM positions Ireland as the driver in developing medical device technologies that will provide affordable transformative solutions for chronic diseases. The Centre strengthens Ireland's standing as a major global hub for medical device research and development. It develops these devices through collaborations with industry partners and hospital groups to enable their rapid translation to clinics. CÚRAM's research programme focuses on innovative design, assessment and manufacture of medical devices and is driven by specialist researchers, clinicians and industry partners, ultimately translating research into clinical settings. CÚRAM includes more than 45 industry partners, including Irish companies and multinationals. CÚRAM also supports product development and the creation of spin-out companies.

EXPERTISE

- Biomaterials
- Drug Delivery
- Tissue Engineering
- Regenerative Medicine
- Device Design
- Glycoscience

RESEARCH PERFORMED BY:

National University of Ireland Galway

University College Dublin

University College Cork

Trinity College Dublin

RCSI, University of Medicine & Health Sciences

Dublin City University

University of Limerick

Athlone Institute of Technology

National Institute for Bioprocessing Research and Training

CENTRE DIRECTOR:

Prof. Abhay Pandit

Click here for further information

DPTC
Dairy Processing Technology Centre

EI/IDA Technology Centre Programme

WHAT IS IT?

DPTC is a centre of excellence for dairy processing research and innovation. The Centre will help to fuel growth in the Irish dairy sector by performing research focused on cost-efficient processing, facilitating a step-change in environmental sustainability and creating, validating and commercialising a pipeline of science and technology-based manufacturing platforms for dairy ingredients. The foundation of the DPTC is a strong, long-term industry–academic collaborative partnership that will develop, build and translate the knowledge and capabilities in dairy processing that are needed today and for the long-term growth and development of the sector.

EXPERTISE

- Efficiencies – cost competitiveness in dairy processing
- Process development – next generation dairy processing science and technology
- Product innovation – innovating for value through dairy processing
- Quality and safety – product quality and safety by design
- Environmental sustainability – towards a zero emissions dairy industry

RESEARCH PERFORMED BY:

University of Limerick

University College Cork

University College Dublin

Dublin City University

National University of Ireland Galway

Teagasc

Technological University Dublin

Trinity College Dublin

CENTRE DIRECTOR:

Dr Anne Marie Henihan

Click here for further information

Design+
Applied Design Technology Gateway

EI Technology Gateway Network

WHAT IS IT?

The Design+ Gateway applies industrial design capabilities for companies from the Engineering, Information and Communications Technology (ICT) & Software and Bio-lifescience sectors. Approaching a product or service with the user in mind is key to successful product development. During the development process, Design+ use end-user insights to make informed decisions that drive strategic and tactical progress. The greater the meaning of the final experience, the greater the authenticity and level of user engagement – regardless of the product, service or system being designed. This is very important in engaging the user and building a positive experience. Through the analytical evaluation of prototypes, Design+ are enabled to develop the design for assembly and manufacturing making significant savings for a company. Design+ can also introduce the user at this early stage to review interaction and ergonomics and test the fundamental intent of the project – adding valuable insight to a project.

EXPERTISE

- Engineering: prototype design and scale to manufacture
- ICT & software: integration of user experience and interface design
- Bio lifesciences: product design orientated around end-user needs

HOSTED BY:

Institute of Technology Carlow

GATEWAY MANAGER:

Ailish Delaney

Click here for further information

Food for Health Ireland

Centre for Functional & Health Food Innovation

EI/IDA Technology Centre Programme

WHAT IS IT?

Food for Health Ireland (FHI) brings together leaders in industry and research to improve global health through innovation in food. The Centre supports its partners to become market leaders in the development of functional food ingredients that offer health benefits to consumers. Food for Health Ireland is a collaborative model for functional and health food innovation and commercialisation. FHI has spent more than a decade developing bespoke research and technology to uncover ingredients and foods that improve health and wellness. It has the experience, knowledge and facilities to take innovations in food from the lab to the factory, helping you to test the prototype in a commercial environment. Our human-intervention trials have produced results that can tackle the health issues underpinning diabetes, obesity and heart health, as well as supporting healthier ageing.

EXPERTISE

Healthy Ageing: Muscle & Bone Health, Appetite Modulation, Gut & Immune function

- Metabolic Health: Glycemic Management, Weight Management
- Digestive Health: Microbiome, Maternal and infant, IBS/ IBD
- Sports & Physical Performance: Recovery, Endurance, Immune Function
- Cardiovascular Health: Vascular Flow, Blood Lipids, Lipid Metabolism

RESEARCH PERFORMED BY:

University College Dublin

Teagasc

Dublin City University

University of Limerick

Trinity College Dublin

University College Cork

CENTRE DIRECTOR:

Dr Nessa Noronha

Click here for further information

FutureNeuro
Chronic and Rare Neurological Diseases Research Centre

SFI Research Centre Programme

WHAT IS IT?

The FutureNeuro vision is to enable people with neurological diseases to live independently. FutureNeuro uniquely combines three thematic areas of diagnostics, therapeutics and e-health, mapped closely to targeted projects with industry partners to leverage and create exceptionally strong synergy between basic, clinical and applied (industry-focused) research capacity. They have established expertise in Epilepsies, Motor Neurone Disease, Multiple Sclerosis, Parkinson's and Alzheimer's, providing faster diagnosis, personalised treatments and patient-centred care. FutureNeuro connects national and multinational industry with key academics and clinicians based in Ireland's leading hospitals to provide diagnostic, therapeutic and e-health solutions. FutureNeuro's target projects with industry partners will bring diagnostic supports to market, a pipeline of new drugs, and connected health solutions that enable patients to monitor and report their health better than ever before.

EXPERTISE

- Connected Health
- Diagnostics/Biomarkers
- Electronic Patient Records
- Epigenetics
- Human Genetics
- Neurology
- Neuroscience and Behaviour
- Pharmacogenomics
- Precision Medicine
- Sensors and Monitoring
- Therapeutics

RESEARCH PERFORMED BY:

RCSI, University of Medicine & Health Sciences

Trinity College Dublin

Dublin City University

National University of Ireland Galway

University College Dublin

University College Cork

Waterford Institute of Technology

CENTRE DIRECTOR:

Prof. David Henshall

Click here for further information

iCRAG
Applied Geosciences Research Centre

SFI Research Centre Programme

WHAT IS IT?

iCRAG is the Research Centre for Applied Geosciences. iCRAG's multidisciplinary research transcends industry and academic boundaries to address key research challenges in the fields of energy security, raw materials supply, groundwater protection, safeguarding the geomarine environment and protection from the Earth's hazards. The technology developed by iCRAG takes the form of soft-knowledge, data, methods, protocols, policy documents and software. This technology helps companies discover and develop natural resources for their mutual benefit, and the benefit of Ireland. As a Science Foundation Ireland (SFI) Research Centre, iCRAG encompasses the broad community of Irish geoscience researchers and engages with industry partners from diverse geoscience-related sectors, including hydrocarbons, marine, minerals and groundwater.

EXPERTISE

- Raw materials – mineral/aggregate geoscience
- Marine – marine geoscience
- Groundwater – hydrogeology/ hydrology
- Energy Security – petroleum geoscience
- Geohazards - protection from Earth's hazards
- Geochemistry, geophysics, 3D geological modelling, public perception and understanding of geosciences

RESEARCH PERFORMED BY:

University College Dublin

Trinity College Dublin

Dublin Institute of Advanced Studies

National University of Ireland Galway

University College Cork

Maynooth University

Teagasc

Dublin City University

Geological Survey Ireland

CENTRE DIRECTOR:

Prof. Murray W. Hitzman

Click here for further information

I-Form
Research Centre for Advanced Manufacturing

SFI Research Centre Programme

WHAT IS IT?

I-Form, the Science Foundation Ireland (SFI) Research Centre for Advanced Manufacturing, is delivering the next level of understanding and control for complex manufacturing processes. I-Form's mission is to shape the future of manufacturing through high-impact research into the application of digital technologies to materials processing. I-Form brings together a nationwide pool of expertise in materials science, engineering, data analytics and cognitive computing. I-Form is applying exciting developments in digital technologies to materials processing, to improve understanding, modelling and control, thus increasing the competitiveness of Irish manufacturing on the world stage.

EXPERTISE

- Process digitalisation, for optimisation and control
- Process simulation, for shorter development times
- Data analytics, enabling realtime process feedback
- Augmented reality, for enhanced operator decision making
- Cognitive computing/artificial intelligence/machine learning
- Additive manufacturing (3D printing)
- Surface engineering
- Precision engineering
- Cyber physical systems
- Bonding/Joining
- Casting/Moulding

RESEARCH PERFORMED BY:

University College Dublin

Dublin City University

National University of Ireland Galway

Maynooth University

Trinity College Dublin

Institute of Technology Sligo

Waterford Institute of Technology

CENTRE DIRECTOR:

Prof. Denis Dowling

Click here for further information

IMaR
Intelligent Mechatronics & RFID Technology Gateway

EI Technology Gateway Network

WHAT IS IT?

The IMaR Gateway is an applied research provider delivering technology solutions for industry. Under direction from an industrial steering committee, IMaR provides expertise in hardware, software, Internet of Things (IoT) and data analytics innovation for increased productivity in the manufacturing, agriculture and process sectors. IMaR offers a range of services to industry such as project development and specification, prototype/proof of concept development, consultancy and industry collaborations, as well as assistance in sourcing funding for research and development projects.

EXPERTISE

- Intelligent sensor systems & robotics automation
- RFID and data analytics to enable process automation
- Process Analytic Technology
- Industrial Internet of Things (IoT)

HOSTED BY:

Munster Technological University

GATEWAY MANAGER:

Dr John Barry

Click here for further information

IMR
Irish Manufacturing Research Technology Centre

EI/IDA Technology Centre Programme

WHAT IS IT?

Irish Manufacturing Research (IMR) is an independent manufacturing and industrial energy efficiency research centre focused on delivering solutions for the manufacturing ecosystem throughout Ireland. IMR's passion is to make Ireland a world leader in advanced manufacturing operations. As an independent research centre, IMR offers manufacturing industry a unique environment to collaborate with peers across all manufacturing sectors, and to inform and guide manufacturing research that not only addresses industry problems but also visions for future factories. IMR is a cross-sectoral research centre with partner companies in semiconductors, Information & Communications Technology (ICT), pharmaceuticals, medical devices, food, energy services, aerospace and other areas.

EXPERTISE

- Manufacturing informatics
- Operational excellence
- Energy management
- Energy efficiency
- Operations research
- Industry 4.0
- Additive Manufacturing
- Robotics & Automation
- Sustainable Manufacturing

RESEARCH PERFORMED BY:

Dublin City University

Limerick Institute of Technology

Maynooth University

National University of Ireland, Galway

Trinity College Dublin

Munster Technological University

University College Cork

University of Limerick

University of Ulster

CENTRE DIRECTOR:

Barry Kennedy

Click here for further information

Insight
Research Centre for Data Analytics

SFI Research Centre Programme

WHAT IS IT?

Insight is one of the largest data analytics centres in Europe. It undertakes high-impact research, seeks to derive value from Big Data and provides innovative technology solutions for industry and society by enabling more informed decision-making. As a Science Foundation Ireland (SFI) Research Centre, Insight offers data analytics solutions for a broad range of industry and other partners in the areas of Health and Human Performance, Enterprises and Services, Smart Communities and Internet of Things, Sustainability and Operations. Insight's expertise includes the whole data value chain, from the integration of multiple heterogeneous data sources to discovering patterns and trends in data and making sense of them.

EXPERTISE

- Personal Sensing
- Machine Learning and Statistics
- Optimisation and Decision Analysis
- Media Analytics
- Natural Language
- Processing
- Linked Data/Semantic
- Web Recommender Systems

RESEARCH PERFORMED BY:

National University of Ireland Galway

Dublin City University

University College Dublin

University College Cork

Maynooth University

Tyndall National Institute

Trinity College Dublin

University of Limerick

CENTRE DIRECTOR:

Prof. Noel O'Connor

Click here for further information

IPIC
Research Centre for Photonics

SFI Research Centre Programme

WHAT IS IT?

IPIC's integrated research team has competencies in the theory of novel light-emitting materials through to the design of devices and systems. IPIC accelerates transfer from laboratory to market by using our advanced fabrication and packaging capabilities to develop concepts and deliver low-volume manufacturing of prototypes. The Centre works closely with over 35 industry partners to develop their next generation products, across Ireland's high growth technology sectors such as Information & Communications Technology (ICT) and MedTech, supporting their attraction to and growth in Ireland. In addition, IPIC commercialises its disruptive technologies through start-up companies and co-ordinate the Photonics Ireland National Technology Platform.

EXPERTISE

- Enabling continued growth of the internet through faster, more energy-efficient devices
- Delivering smart medical devices for improved treatment of disease
- Developing highly compact instrumentation for point-of-care diagnostics
- Developing systems for food and environment monitoring

RESEARCH PERFORMED BY:

Tyndall National Institute

Munster Technological University

Dublin City University

National University of Ireland Galway

Trinity College Dublin

University College Cork

CENTRE DIRECTOR:

Prof. Paul Townsend

Click here for further information

Learnovate
Learnovate Technology Centre

EI/IDA Technology Centre Programme

WHAT IS IT?

The Learnovate Centre is an industry-led research centre focused on the future of work and learning. Part of Enterprise Ireland's Technology Centre Programme, Learnovate is located in Ireland's leading university, Trinity College Dublin. The Centre is at the forefront of developing the next-generation workforce with research fusing state-of-the-art technology with the human experience of learning. Learnovate helps startups, SMEs and multinationals actualise ideas that transform lives through learning. By connecting industry and academic expertise, the Centre empowers organisations to connect people, processes and technology to engage and motivate learners whether students, employees or customers. In operation for more than a decade, the team at Learnovate has developed a unique set of skills and expertise in learning science, cognitive science, technology and innovation. With these transdisciplinary skills, the Centre is uniquely placed to help companies evolve as their people adapt to an emerging future of rapid and continuous change.

EXPERTISE

- Skills Development
- Competency Frameworks
- Skills Assessment
- Performance Management
- Remote Working
- Learning Analytics
- Personalised Learning
- Real-Time Support
- Tacit Knowledge
- Learner Motivation
- Wellbeing & Learning

RESEARCH PERFORMED BY:

Trinity College Dublin

University College Dublin

National University of Ireland Galway

Waterford Institute of Technology

CENTRE DIRECTOR:

Nessa McEniff

Click here for further information

Lero
Research Centre for Software

SFI Research Centre Programme

WHAT IS IT?

The Irish Software Research Centre (Lero) brings together leading software teams from universities and institutes of technology in a co-ordinated centre of research excellence with a strong industry focus. As the world's second largest software exporter, Ireland is recognised internationally as a leading location for companies in the software sector. Fifteen out of the top 20 global technology firms have strategic operations in Ireland. Lero is a key pillar in that sector. Since it was founded in 2005, Lero has become one of the best-known, and most highly regarded, software research centres in the world. Lero has expertise across multiple disciplines from deep theoretical computer science and formal methods through to participatory design, human-computer interaction, ethics and values.

EXPERTISE

- Methods and standards for high integrity software
- Autonomous and adaptive systems
- Software performance
- Adaptive security and privacy

RESEARCH PERFORMED BY:

University of Limerick

Dublin City University

Dundalk Institute of Technology

Munster Technological University

National University of Ireland Galway

Maynooth University

Trinity College Dublin

University College Cork

University College Dublin

Waterford Institute of Technology

CENTRE DIRECTOR:

Prof. Brian Fitzgerald

Click here for further information

MaREI
Research Centre for Energy, Climate and Marine

SFI Research Centre Programme

WHAT IS IT?

MaREI is the Science Foundation Ireland (SFI) Research Centre for Energy, Climate and Marine research and innovation, coordinated by the Environmental Research Institute (ERI) at University College Cork. The Centre comprises over 200 researchers working with over 70 industry partners, focusing on defined global challenges such as the Energy Transition, Climate Action and the Blue Economy. MaREI delivers excellent research with societal impact by supporting business, informing policy and empowering society, resulting in the development of a dynamic research ecosystem that is responsive to the needs of all its stakeholders. As a driver of collaboration, researchers engage with stakeholders across more than 36 countries and have a proven track record of academic excellence.

EXPERTISE

- MRE device modelling, design, testing and optimisation
- Novel materials and structural testing
- Energy conversion and demand side optimisation
- Observation, monitoring and operations
- Marine and coastal management
- Energy systems modelling

RESEARCH PERFORMED BY:

University College Cork

University of Limerick

National University of Ireland Galway

Maynooth University

University College Dublin

Munster Technological University

Trinity College Dublin

Dundalk Institute of Technology

Technological University Dublin

Dublin Institute of Advanced Studies

Tyndall National Institute

Economic and Social Research Institute

CENTRE DIRECTOR:

Prof. Jerry Murphy /
Prof. Brian Ó Gallachóir

Click here for further information

MET
Medical & Engineering Technology Gateway

EI Technology Gateway Network

WHAT IS IT?

Based at GMIT's Galway campus, the Medical and Engineering Technologies (MET) Gateway offers a range of applied technologies relevant to companies in the product engineering and design application phase. These technologies include Medical imaging technologies that allow for companies' prototypes to be tested under simulated conditions and biomedical engineering technologies, which include the translation of medical data (MRI's, ultrasounds, etc.) into engineering data and then into clinically endorsed anatomical models with accompanying simulation system. The Gateway personnel offers a unique conduit between medical product engineering and an in-depth knowledge of internal anatomy. MET has expertise in data analytics and the visualisation of clinical data/the Gateway's clinical data repository to inform the design of the next generation of medical device prototypes. They also provide services in design verification technologies, such as 3D solid works design, rapid prototyping in 3D printing and 4 axis machining, technical reviews and brainstorming, materials and product testing.

EXPERTISE

- Medical imaging technologies
- Biomedical engineering technologies and solutions
- Data analytics and visualisation
- Design engineering & verification
- Manufacture

HOSTED BY:

Galway Mayo Institute of Technology

GATEWAY MANAGER:

Sharon White

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MiCRA

Microsensors For Clinical Research & Analysis Gateway

EI Technology Gateway Network

WHAT IS IT?

The MiCRA (Microsensors for Clinical Research & Analysis) Gateway focuses on the advancement of biosensor technologies, using materials such as enzymes and advanced polymers. MiCRA delivers solutions to companies in many sectors including in vitro diagnostics, environmental, food and pharmaceuticals. MiCRA's facility consists of state-of-the-art surface science instrumentation, cell culture and microbiology labs, and prototype fabrication facilities. Staffed by microbiologists, chemists, physical scientists and engineers, MiCRA helps companies in many areas including sensor prototyping and manufacturing, materials development and characterisation, immunoassay platform development, enzyme biosensors for human and animal health care, and biosensors for the rapid and sensitive detection of bacteria.

EXPERTISE

- Sensor prototyping and manufacturing
- Materials development and characterisation
- Immunoassay platform development
- Enzyme biosensors for human & animal health care
- Biosensors for the rapid and sensitive detection of bacteria

HOSTED BY:

Technological University Dublin

GATEWAY MANAGER:

Jack McDonnell

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Microelectronic Circuits Centre Ireland (MCCI)

Microelectronics Technology Centre

EI/IDA Technology Centre Programme

WHAT IS IT?

MCCI's (Microelectronic Circuits Centre Ireland) vision is to be the first choice for Microelectronics research that enables future products and applications. MCCI is a technology centre focused on carrying out microelectronic circuit research for the benefit of industry and is a world leader in analogue and mixed-signal integrated circuit research. MCCI is working with medical companies on new ultra-low power implantable microchips to monitor the human body, with smart food companies on microchips that can detect DNA in food products, with energy companies to reduce the power in data centres and communications companies on networks of the future. The world-class circuits that MCCI designs allow companies to differentiate their products in energy services, aerospace and other areas.

EXPERTISE

- Analogue and mixed-signal circuits research
- Sensor interfaces
- Communications
- Smart medical devices
- Smart agri-food devices

RESEARCH PERFORMED BY:

Tyndall National Institute

University College Dublin

University College Cork

University of Limerick

Maynooth University

Munster Technological University

CENTRE DIRECTOR:

Donal O'Sullivan,
Acting Director

Click here for further information

Meat Technology Ireland (MTI)

Meat Technology Centre

EI/IDA Technology Centre Programme

WHAT IS IT?

Meat Technology Ireland (MTI) is an industry-led initiative that will build a strategic research and innovation base in beef and sheep meat processing in Ireland. The Centre is a 'one-stop shop' for meat processing research and technology, serving as a hub to co-ordinate all beef and sheep meat processing research needs. Meat Technology Ireland is an €8.1 million five-year research and innovation programme, developed by industry and co-funded by Enterprise Ireland and a consortium of nine beef and sheepmeat processing companies. The companies behind the initiative are ABP Ireland, Ashbourne Meat Processors, Dawn Meats Group, Dunbia (Ireland), Hilton Foods Ireland, Irish Country Meats, Kepak Group, Liffey Meats, and Slaney Foods International.

EXPERTISE

- Genomic predictions
- Meat tenderness management
- Meat safety and shelf life extension
- Meat characterisation technologies
- Meat and health
- Future market opportunities

RESEARCH PERFORMED BY:

Teagasc

Technological University Dublin

University College Cork

Irish Cattle Breeders Federation

Dublin City University

University College Dublin

CENTRE DIRECTOR:

Dr John Colreavy

Click here for further information

Nimbus
Embedded Computing & Software Systems Gateway

EI Technology Gateway Network

WHAT IS IT?

The Nimbus Gateway's main domains are energy, water, smart buildings & cities, eHealth, eLearning and location-based services. Nimbus assists companies to develop smart technology solutions for the world in which we live through the Internet of Things, with a focus on devices/things networks software, data analytics, and applications and services. These technologies are applied to the energy, water and location-based services and applications sectors. Nimbus assists clients of all sizes, from start-ups and SMEs to multinationals, to develop product prototypes.

EXPERTISE

- Electronics/hardware
- Sensor devices and systems
- Mechanical design
- Miniaturisation
- Networks and wireless communications
- Software
- Data analytics
- Systems integration, controls and optimisation tools
- UX (User Experience) & UI (User Interface)
- Virtual and augmented reality

HOSTED BY:

Munster Technological University

GATEWAY MANAGER:

Richard Linger

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PEM
Precision Engineering & Manufacturing Gateway

EI Technology Gateway Network

WHAT IS IT?

The PEM (Precision Engineering & Manufacturing) Gateway's objective is to assist precision engineering companies based in the North West and nationally to develop enhanced manufacturing processes and procedures. It achieves this by offering industry a range of solutions, ranging from design for manufacturing, process modelling and simulation, advanced process monitoring and control, as well as advanced material synthesis and characterisation. In-house specialisms include the development of complex micro and nano scale structures using techniques such as laser machining and welding for polymers and electro-chemical machining.

EXPERTISE

- Precision engineering and design
- Manufacturing process modelling and simulation
- Advanced process monitoring and control
- Advanced material syntheses and characterisation

HOSTED BY:

Institute of Technology Sligo

GATEWAY MANAGER:

Finola Howe

Click here for further information

PMBRC
Pharmaceutical & Molecular Biotechnology Research Centre Gateway

EI Technology Gateway Network

WHAT IS IT?

The PMBRC (Pharmaceutical & Molecular Biotechnology Research Centre) Gateway supports bio-lifescience companies across Ireland. PMBRC occupies an 800m^2 state-of-the-art facility, with an extensive suite of characterisation and analytical equipment as well as access to a dedicated team of 34 industry-focused research personnel. PMBRC collaborates with many companies across a number of sectors, including pharmaceutical, medical device, food and veterinary. PMBRC undertakes collaborative projects of a variety of sizes – from large-scale projects to more short-term feasibility studies and contract analysis. Some of the projects and areas of development the PMBRC have collaborated on with industry include: materials characterisation and pre-formulation; drug delivery and formulation; chromatography, separation science and impurity identification; novel sensor and process technologies; and biomedical research and molecular biotechnology.

EXPERTISE

- Physico-chemical characterisation of materials
- Advanced analytical capability
- Formulation, process development and drug delivery

HOSTED BY:

Waterford Institute of Technology

GATEWAY MANAGER:

Dr Niall O'Reilly

Click here for further information

PMTC
Pharmaceutical Manufacturing Technology Centre

EI/IDA Technology Centre Programme

WHAT IS IT?

The Pharmaceutical Manufacturing Technology Centre (PMTC) is a leading industry informed research centre focused on developing advanced technology solutions for all stages of pharmaceutical manufacturing. The market-focused research delivers solutions to contemporary issues currently facing the pharmaceutical industry. The PMTC is coordinated by an industry–academia advisory committee with an industrially driven research programme. Indigenous SMEs along with MNCs access the PMTC to inform the state-funded research agenda and to advance their own research and innovation priorities.

EXPERTISE

- Powder Characterisation, Lyophilisation, OSD process characterisation
- Enabling and control of continuous processing by process analytical technology (PAT)
- Data Analytics for Pharmaceutical Manufacturing including MVDA, modelling, computational fluid dynamic and Data Analytics for Continuous Manufacturing
- Pharmaceutical plant cleaning, developing efficient, sustainable cleaning processes based on proven scientific principles

RESEARCH PERFORMED BY:

University College Cork

University of Limerick

Munster Technological University

National University of Ireland Galway

CENTRE DIRECTOR:

Sarah Hayes

Click here for further information

SEAM
South Eastern Applied Materials Gateway

EI Technology Gateway Network

WHAT IS IT?

SEAM (South Eastern Applied Materials) facilitates the development of technology solutions through collaboration and access to expertise in the Irish research infrastructure. The SEAM gateway provides innovative materials engineering solutions for industries from wide ranging sectors such as biomedical, pharma, precision engineering, energy and electronics. SEAM's unique strength lies in its ability to anticipate and understand so as to respond quickly and professionally to industry needs through provision of competitive customised solutions and more importantly, act as a one stop shop for getting the job done. SEAM creates value-added competitiveness to industries using the latest technologies to deliver real solutions for real problems. SEAM have a proven track record of delivering for industry, having executed over 950 direct-funded industry projects spanning across over 120 companies since its launch in 2009.

EXPERTISE

- X-ray micro-tomography (XMT): 3D non-destructive characterisation
- Finite element analysis: 3D software modelling
- 3D metal additive manufacturing
- Materials & precision engineering: engineering design & characterisation
- Biomedical engineering: development of novel materials

HOSTED BY:

Waterford Institute of Technology

GATEWAY MANAGER:

Eoghan O'Donoghue

Click here for further information

Shannon ABC

Shannon Applied Biotechnology Gateway Centre

EI Technology Gateway Network

WHAT IS IT?

Shannon ABC (Applied Biotechnology Centre) delivers solutions to the challenges faced by industries by developing new processes and products from bio-resources. These solutions are delivered to the biotech, food and life science industries. Shannon ABC develops state-of-the-art processes, using ingredients and biological products from natural resources. The results of these processes include drug development, and value-added food, flavour and medicinal products. Collaboration, a key focus of Shannon ABC, has happened on both a regional and a national basis with partners in the industry of bioactive compounds, as well as with others in the biotechnology sector. Shannon ABC delivers confidential collaboration with industry, academia, research centres and researchers in Ireland and abroad through Horizon 2020.

EXPERTISE

- Physico-chemical characterisation of materials
- Bioprospecting & bioprocessing: screening, extraction, characterisation and testing of bioactive molecules, as well identifying routes to scale-up
- Analytical and research services

HOSTED BY:

Munster Technological University

Limerick Institute of Technology

GATEWAY MANAGER:

Dr Tim Yeomans

Click here for further information

SSPC
Research Centre for Pharmaceuticals

SFI Research Centre Programme

WHAT IS IT?

SSPC is a hub of Irish research expertise developing innovative technologies to address key challenges facing the pharmaceutical and biopharmaceutical industry. The aim of SSPC is to deliver industry-relevant technical solutions, which result in job growth and retention within this sector in Ireland and grow the skills base of qualified scientists and engineers. The research carried out by SSPC crosses the pharmaceutical production chain from molecule to medicine, with the objective of gaining a better understanding of mechanisms, controlling processes, and predicting outcomes for the efficient and environmentally sustainable production of safe medicines.

EXPERTISE

- New frontiers in pharmaceutical synthesis
- Crystal growth and design
- Drug product formulation and manufacture
- Advanced biopharmaceutical technologies
- Automation in manufacturing (med device, pharma, fine chemicals)

RESEARCH PERFORMED BY:

University of Limerick

University College Cork

National University of Ireland Galway

Trinity College Dublin

Dublin City University

University College Dublin

RCSI, University of Medicine & Health Sciences

Maynooth University

Waterford Institute of Technology

CENTRE DIRECTOR:

Prof. Michael Zaworotko / Prof. Gavin Walker

Click here for further information

TSSG
Telecommunications Software & Systems Group Gateway

EI Technology Gateway Network

WHAT IS IT?

The TSSG (Telecommunications Software & Systems Group) Gateway develops technology to bring a business idea to reality. TSSG is an advanced software R&D Centre with particular expertise in all aspects of mobile networks and communications platforms and services, hosted at Waterford Institute of Technology. TSSG has completed over 120 projects over the past five years with companies based in Ireland, including work for multinationals such as IBM and Cisco and EI clients regionally and nationally They have also created 10 startups such as recently acquired FeedHenry, ZolkC and Kodacall.

EXPERTISE

- Distributed & cloud-based mobile services
- Next generation Internet Protocol (IP) based voice and video
- Virtual and augmented reality services
- Location, context, smart space and social service enablers
- Data science and mining

HOSTED BY:

Waterford Institute of Technology

GATEWAY MANAGER:

Miguel Ponce De Leon

Click here for further information

VistaMilk

Research Centre for Digitalising Dairy Production and Processing

SFI Research Centre Programme

WHAT IS IT?

VistaMilk will lead the Agri-Food technology sector through innovation and enhanced sustainability across the entire dairy supply chain. While focused on pasture-based dairy production, the advances developed in the Centre will be equally applicable to confinement dairy production and processing systems as well as acting as a catalyst for global growth in the Agri-Tech sector. Through a strategy of highly-interconnected, innovative and ambitious scientific ventures and disciplines, VistaMilk will develop and deploy the scientific solutions and value-creating decision support tools, informed by sophisticated data analytical approaches, to empower the dairy industry in advancing efficiencies across all components of the food chain, and, in doing so, develop a vibrant and dynamic Agri-Tech indigenous industry.

EXPERTISE

- Agri-Food
- Human health, Animal welfare & Environmental sustainability
- High granularity, real-time sensing technologies in the Agri-Food domain
- Integrated communication technologies
- Advanced multi-level analytics
- Value-creating decision support tools

RESEARCH PERFORMED BY:

Teagasc

Dublin City University

National University of Ireland Galway

Waterford Institute of Technology

Tyndall National Institute

University College Dublin

CENTRE DIRECTOR:

Prof. Donagh Berry

Click here for further information

WiSAR
Wireless Sensor Applied Research Laboratory Gateway

EI Technology Gateway Network

WHAT IS IT?

The WiSAR (Wireless Sensor Applied Research Laboratory) Gateway uses expertise in wireless, embedded systems and power electronics to provide solutions for the Internet of Things (IoT). The primary goal of this Gateway is to achieve ultra-low power consumption in Wireless Sensor Networks (WSN). Expertise is provided to Irish industry across many sectors, including sports and tourism, marine, and renewable energies, relating to wearable technology, remote monitoring, power electronics and communications.

EXPERTISE

- Wearable tech: healthcare, sport and tourism
- Remote monitoring: industrial control, environmental and marine
- Power electronics: renewable energy and electric vehicles
- Communications: WLAN, ZigBee, Bluetooth, UWB, RF and microwave

HOSTED BY:

Letterkenny Institute of Technology

GATEWAY MANAGER:

Dr Stephen Seawright

Click here for further information

2.5 Other R&D Centres and Institutes of Scale

There are many research centres and research groups based in the Higher Education Sector and beyond that have specialist expertise of value to companies, in addition to the Enterprise Ireland Technology Gateways, Enterprise Ireland Technology Centres and SFI Research Centres. Space constraints restrict how much information can be included in the Directory and further information may be found via the KTI website.

KTI Website

The following pages describe centres and institutes of scale active in research, development and training with and for companies.

Health Innovation Hub Ireland

WHAT IS IT?

Health Innovation Hub Ireland (HIHI) is a partnership of clinical and academic centres across Ireland, led by University College Cork, in partnership with NUI Galway, Trinity College Dublin and Munster Technological University. HIHI brings enterprises and healthcare professionals together to test, validate and help commercialise innovative technologies, products and services, while enabling greater innovation in healthcare delivery.

Health Innovation Hub Ireland is a joint Enterprise Ireland / HSE backed initiative providing a vital bridge between the health service and Irish innovators - understanding the evolving needs of the health system and the journey to market for the enterprise. HIHI helps businesses to navigate the health system, facilitates engagement with clinical staff and accelerates collaboration between the two.

For enterprise, HIHI enables frontline piloting and testing, to fast-track development and commercialisation. The health service partner sees how innovation can deliver improved patient benefit.

HIHI also supports the implementation of ideas from those within the healthcare system and enables delivery of an innovation culture within the health service through a suite of knowledge building resources and provides guidance for healthcare professionals on the key steps from ideation to adoption.

EXPERTISE

- Innovation in healthcare technologies
- Clinical access and engagement
- End-user feedback studies
- Healthcare needs verification
- Early design validation
- Pilot and validation studies
- Health Innovation Knowledge Network

LOCATED IN:

University College Cork (HQ)

In partnership with:

Munster Technological University

Trinity College Dublin

National University of Ireland, Galway

NATIONAL DIRECTOR (INTERIM):

Dr Tanya Mulcahy

Click here for further information

Irish Centre for High-End Computing

WHAT IS IT?

The Irish Centre for High-End Computing (ICHEC) is Ireland's national centre for High-Performance Computing (HPC) providing e-infrastructure, services and expertise to academia, industry and the public sector.

ICHEC enables the application of HPC for developing efficient services and solutions based technologies such as artificial intelligence, high performance data analytics, Earth Observation, quantum computing and cybersecurity across a number of sectors including environmental sciences, healthcare, agriculture, energy, financial services and ICT.

By operating Kay (Ireland's national supercomputer) and the National Quantum Learning Platform, ICHEC enables researchers, enterprises and the public sector to innovate solutions for complex social, economic and environmental challenges.

ICHEC works in partnership with industry and public authorities in joint R&D activities, skills development, and provisioning HPC and data management services to accelerate and de-risk their digital transformation and green transition.

ICHEC is also the National HPC Competence Centre in Ireland under the EuroHPC Competence Centre (EuroCC) initiative.

EXPERTISE

- HPC, Edge Computing & Data Management
- Performance Optimisation
- High Performance Data Analytics
- Artificial Intelligence
- Environmental/Climate Sciences & Informatics
- Earth Observation
- Renewable Energy
- Quantum Computing
- Training & Skills Development

LOCATED IN:

Founded in NUI Galway in 2005, ICHEC has offices in Dublin and Galway employing 40 staff.

NATIONAL DIRECTOR:

Prof. Jean-Christophe ("JC") Desplat

Click here for further information

National Institute for Bioprocessing Research & Training

WHAT IS IT?

NIBRT is the National Institute for Bioprocessing Research and Training. Its mission is to support growth and development of the biopharmaceutical industry in Ireland and globally through leading edge biopharma manufacturing research, education and training. It is a world leader in the space and is an important resource for the global biopharmaceutical industry having won numerous national and international awards.

Inspired by the manufacturing challenges facing the industry, NIBRT delivers transformative research across multidisciplinary areas such as analytical science, cell and genetic engineering, informatics, and bioprocess engineering. This research, often conducted in partnership with academic and industrial scientists, is utilised to advance the state-of-the-art in their fields and to revolutionise the manufacturing of recombinant proteins, vaccines and cell and gene therapies.

Housed in state-of-the-art biopharmaceutical facilities in Dublin, NIBRT supports the multinational biopharmaceutical manufacturers across Ireland and internationally. The Institute's research partners currently include BMS, Janssen, Amgen, Roche, Agilent, Siemens, ThermoFisher and others. NIBRT's training clients currently include MSD, Pfizer, Takeda, Wuxi, Lilly, Sanofi-Genzyme and BioMarin among others. Contract research clients include Jazz, Horizon Therapeutics and Merck Serono.

EXPERTISE

- Biopharmaceutical manufacturing (Protein, Cell, Gene, Oligonucleotide, Vaccine)
- Bioanalytics and product characterisation
- Process analytical technologies/ quality by design
- Process development and optimisation
- Data analytics / informatics
- Customised training and education programmes

RESEARCH PERFORMED BY:

NIBRT (in house facilities)

National collaborating institutes and research centres include:

University College Dublin

Trinity College Dublin

Dublin City University

NUI Galway (CCMI)

University of Limerick (SSPC, PMTC)

University College Cork

Tyndall Institute

Sligo Institute of Technology

LOCATED IN:

State of the art facilities in Dublin

CEO:

Dr Darrin Morrissey

Click here for further information

Teagasc Research Centres

WHAT IS IT?

Teagasc (the Agriculture and Food Development Authority) is the national body providing integrated research, advisory and training services to the agriculture and food industry and rural communities. It offers state-of the-art scientific expertise and research services for industry (primarily the food industry), using world-class facilities and equipment. Engagement ranges from basic consultancy services to large scale collaborations. Teagasc also offers training for the food industry.

Teagasc's research areas are:

- Animal and Grassland Research and Innovation
- Crops, Environment and Land Use
- Food
- Rural Economy and Development
- Teagasc has advisory offices throughout Ireland.

FACILITIES

- Laboratory and Test Bakery Facilities
- The Bioactive Protein Discovery Unit
- The Bio-Functional Food Engineering Facility
- The Flavour Chemistry Facility
- The Meat Industry Development Unit
- The National Food Imaging Centre
- The NMR suite
- The Nutraceutical Research Facility
- The Prepared Consumer Food Centre
- The Teagasc Sequencing Centre
- The Tissue culture facility

LOCATED IN:

Research Centres are:

- Animal Bioscience Research Centre Grange, Co. Meath
- Ashtown Food Research Centre, Dublin
- Athenry Animal & Grassland Research Centre, Co. Galway
- Grange Animal & Grassland Research Centre, Co. Meath
- Johnstown Castle, Environment Research Centre, Co. Wexford
- Moorepark Food Research Centre, Co. Cork
- Oak Park, Crops Research Centre, Carlow
- Rural Economy Research Centre, Co. Galway

DIRECTOR OF RESEARCH:

Dr Frank O'Mara

Click here for further information

Tyndall National Institute

WHAT IS IT?

Tyndall National Institute is one of Europe's leading institutes for deep-tech research and innovation, established by the Irish Government as a National Institute in partnership with University College Cork. Tyndall's philosophy is excellent impact from excellent research, with a global reputation in its core technology research platforms of photonics and micro- nano-systems.

Tyndall has a research community of 600 staff and postgraduate students specialising in information and communications technology (ICT) research across materials, devices and systems. Critical to Tyndall's success is its focus on market-needs-driven research, particularly as applied to the fields of Communications, Health, Agri-Tech, Energy and the Environment. It is one of Ireland's leading institutes in knowledge and skills transfer to industry and new venture creation, and is host to 70 industrial researchers-in-residence from Ireland's SME and MNC community.

At its headquarters in Cork, Tyndall hosts state-of-the-art semiconductor fabrication & packaging facilities across more than 30 laboratories, delivering prototypes and new product innovation to its international network of industry partners. Tyndall also hosts the International Energy Research Centre (IERC), an industry-led collaborative research centre in the field of integrated sustainable energy systems jointly funded by the Irish government and industry members. As part of a major expansion underway, Tyndall's Wireless Communications Laboratory is located in Dublin, and the Institute expects to almost double in size over its current strategic plan.

EXPERTISE

- Advanced materials and semiconductor wafer fabrication for III-V, MEMS, CMOS
- Microelectronic and photonic integration and packaging
- Mixed signal, analog and photonics device & circuit design
- Quantum computer engineering
- Biophotonics, bioelectronics, biomedical devices and systems
- Optical communication systems
- RF, microwave and wireless communications
- Smart sensors and systems
- Human centric systems for work and living
- Integrated energy systems and climate mitigation

LOCATED IN:

Lee Maltings Campus, Cork

The Digital Hub, Dublin

CEO:

Prof William Scanlon

Click here for further information

SECTION 3

Accessing Research Talent and Skills

The Government strategy Project Ireland 2040 has prioritised the development and maintenance of a pipeline of highly trained, well networked research talent in areas of strategic importance for Ireland. A number of publicly funded initiatives have been designed to enhance access to highly skilled research talent among Irish businesses. The following Irish government and EU funding programmes are designed to enhance the innovation capacity of Irish business through the opportunity to increase the mobility of researchers between the research base and industry.

SECTION 3.1

Graduate Skills Support

InterTrade Ireland Innovation Boost Programme

WHAT IS IT?

The Innovation Boost programme provides support by helping to fund a high calibre science, engineering or technology graduate and partnering them with a third level institution with specific expertise. Within each partnership, partners work collectively to develop and implement solutions to an identified technology need within the company.

RESEARCH PROJECTS

Twelve-month projects are typically process improvement; 18-month projects are typically new product/ process/service development.

WHO IS IT FOR?

A manufacturing or tradeable services company, located on the island of Ireland, with an understanding of and capacity for innovation. The Innovation Boost programme is particularly aimed at SMEs with an established trading history.

HOW MUCH IS AVAILABLE?

Funding is available up to €47,400 for 12-month projects and up to €67,900 for 18-month projects.

DURATION

Twelve or 18 months, following a lead-in/recruitment period of four to six months.

APPLICATION PROCESS

This is an annual funding call. Approval is normally within six to eight weeks of application.

Click here for further information

SECTION 3.2

Postgraduate and Postdoctoral Skills Support

Irish Research Council Employment Based Programme

WHAT IS IT?

Combining excellent research with workplace experience, the IRC Employment-Based Postgraduate Programme provides students in all disciplines with an opportunity to bring excellent research ideas into an Irish employment partner with the support of a Higher Education Institution (HEI) in Ireland. The researcher is primarily based at the employment partner. Funding is provided to support an Irish-based enterprise to employ a researcher, which will be based in the company, to undertake a programme of postgraduate research, with the support of a HEI.

RESEARCH PROJECTS

Research carried out under this programme spans all academic disciplines, industry sectors and types of research. The research will be in an area relevant to the company's mission.

WHO IS IT FOR?

Small or large companies with a physical operational base in Ireland – they will employ the postgraduate researcher for the duration of the award. Companies must be in a position to financially contribute to the award for the full agreed duration.

HOW MUCH IS AVAILABLE?

The IRC will support an employee to complete a higher degree by research, including a contribution to salary, student fees and research costs. The employment partner commits a minimal annual contribution of one quarter of the award value.

DURATION

One, two, three or four years as per type of postgraduate degree applied for (Research Masters or PhD).

APPLICATION PROCESS

There is a single call per year. From application to project commencement, the indicative timeframe is nine months.

Note: *If a company wishes to support an application to this programme but does not have pre-existing contacts in higher education institutions, the IRC will assist the company in advertising its interest. The application is submitted by the researcher with the support of an academic supervisor and an enterprise mentor.*

Click here for further information

Irish Research Council Enterprise Partnership Scheme

WHAT IS IT?

The Enterprise Partnership Scheme provides funding support for enterprise to collaborate with a Higher Education Institution in Ireland to enable a researcher to undertake a programme of postgraduate or postdoctoral research in an area linked with the company mission. At the end of the project, the researcher will gain workplace skills and a degree by research or postdoctoral experience.

RESEARCH PROJECTS

Research carried out under this programme spans all academic disciplines, industry sectors and types of research. The research will be in area closely aligned with the company's strategic interests.

WHO IS IT FOR?

Open to all companies (in Ireland or overseas). Companies must be in a position to financially contribute to the award for the full agreed duration.

HOW MUCH IS AVAILABLE?

The IRC contributes up to two thirds per annum towards the cost of the postgraduate or postdoctoral researcher. The enterprise partner commits an annual contribution of one third of the award value. This award includes a postgraduate stipend or postdoctoral salary for the researcher, a contribution to research costs and student fees.

DURATION

One, two, three or four years as per type of postgraduate degree applied for (Research Masters or PhD). For postdoctoral fellows, the duration of an award is two years.

APPLICATION PROCESS

There is a single call per year. From application to project commencement, the indicative timeframe is nine months.

Note: *If a company wishes to support an application to this scheme but does not have pre-existing contacts in higher education institutions, the IRC will assist the company in advertising its interest. The application is submitted by the researcher with the support of an academic supervisor and an enterprise mentor.*

Click here for further information

Science Foundation Ireland Centres for Research Training Programme

WHAT IS IT?

The purpose of the Science Foundation Ireland (SFI) Centres for Research Training (CRT) Programme is to build on research excellence and to provide cohorts of academically outstanding future research leaders with the skills and knowledge required to address the future challenges of an ever-changing work environment. All training programmes will be defined through close engagement as one out of every five students are funded from non-SFI partner sources.

The SFI CRT programme will work closely with industry and international academic partners to provide training for 700 postgraduate students over the lifetime of the programme. Students taking part in the programme will spend a number of internships with industry partners or at international partner laboratories. Each SFI CRT has four intakes of at least 30 postgraduate students, i.e., up to 120 students will be trained through the CRT over the duration of the programme. Scholarships will be awarded for fully funded 4-year PhD students.

KEY FOCUS OF RESEARCH

There are six CRTs covering the following thematic areas:

- Advanced Networks for Sustainable Societies
- Artificial Intelligence
- Digitally Enhanced Reality
- Genomics Data Science
- Foundations of Data Science
- Machine Learning

APPLICATION PROCESS

Applications can be submitted through each CRT's own website or through findaphd.com by searching for SFI CRT

Click here for further information

Science Foundation Ireland Industry Fellowship Award

WHAT IS IT?

The Science Foundation Ireland (SFI) Industry Fellowships programme develops and supports academic partnerships with industry. Fellowships can be awarded to staff and postdoctoral academic researchers based in Ireland, wishing to spend time in industry worldwide.

RESEARCH PROJECTS

Research carried out in the programme can span most areas of science, technology, engineering and mathematics (STEM) and is applicable to all industry sectors.

WHO IS IT FOR?

It is open to Irish or internationally based research-performing companies and academic partners from institutions in Ireland. There is no necessity for the company to have an existing Irish base.

HOW MUCH IS AVAILABLE?

The maximum SFI contribution to an Industry Fellowship award is €100,000 in direct costs over a period of between one and 12 months full-time, or between two and 24 months part-time.

DURATION

Fellowships can be for between 1 and 12 months in duration if full time or for up to 24 months if part time.

APPLICATION PROCESS

There are two fixed call deadlines annually, one in June and one in December. Submitted proposals are subject to international peer review.

Click here for further information

Horizon Europe Marie Skłodowska-Curie Actions Doctoral Networks

WHAT IS IT?

The Doctoral Networks (DN) scheme focuses on training PhD students to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit. A consortium of organisations from different European countries and different sectors of the economy collaborate to train a cohort of doctoral students in a specific research area, equipping them with the skills to become creative, entrepreneurial and industry-ready researchers. A DN consortium can be large, involving eight to twelve organisations, with a minimum of three being required.

RESEARCH PROJECTS

All areas of research can be funded in a DN project, including STEM (science, technology, engineering and maths) subjects, the social sciences, humanities and economic sciences.

WHO IS IT FOR?

DN applicants can be from academia and from non-academic organisations such as companies (SMEs or MNCs) based in Europe. The European Industrial Doctorate may be of particular interest to companies.

HOW MUCH IS AVAILABLE?

A typical project budget is from €1m up to €4.5m. The amount allocated to industry partners varies depending on the number of PhD students recruited. There is no requirement for industry co-financing in cash terms.

DURATION

Maximum four years.

APPLICATION PROCESS

Annual funding call for Doctoral Networks.

CONTACT:

mariecurie@iua.ie

Click here for further information

Horizon Europe Marie Skłodowska-Curie Actions Postdoctoral Fellowships

WHAT IS IT?

Postdoctoral Fellowships (PF) offer the opportunity for excellent researchers with a PhD to carry out a targeted research and training project in academia or in companies (MNCs and SMEs). The project should be innovative and designed to capitalise and build on the researcher's strengths and experience.

RESEARCH PROJECTS

All areas of research can be funded in a fellowship project, including STEM subjects, the social sciences, humanities and economic sciences.

WHO IS IT FOR?

PF applicants can be from academia and from non-academic organisations such as companies (SMEs and MNCs).

HOW MUCH IS AVAILABLE?

A typical project budget is €100,000 per annum, including the researcher's salary, employer's costs, research budget and management/overheads costs. There is no requirement for industry co-financing in cash terms.

DURATION

Two years (European fellowship) or Three years (Global fellowship). A 6 month placement in the non-academic sector at the end of the fellowship is optional.

APPLICATION PROCESS

Annual funding call for Postdoctoral fellowships.

CONTACT:

mariecurie@iua.ie

Click here for further information

Horizon Europe Marie Skłodowska-Curie Actions Staff Exchange

WHAT IS IT?

The Staff Exchange (SE) scheme facilitates research co-operation between different countries and different sectors of the economy, via exchange and upskilling of research and innovation staff. The focus is on sharing of knowledge and ideas from research to market (and vice versa) for the advancement of science and the development of innovation.

RESEARCH PROJECTS

All areas of research can be funded in a SE project, including STEM subjects, the social sciences, humanities and economic sciences.

WHO IS IT FOR?

SE applicants can be from academia and from non-academic organisations such as companies (SMEs and MNCs).

HOW MUCH IS AVAILABLE?

A typical project budget is from €200,000 up to €1.5m. The amount allocated to industry partners depends on the number and duration of the exchange visits involving their staff. There is no requirement for industry co-financing in cash terms.

DURATION

Maximum four years.

APPLICATION PROCESS

Annual funding call for Staff exchange.

CONTACT:

mariecurie@iua.ie

Click here for further information

SECTION 4

Agencies Active in Research, Development and Innovation with Enterprise

Enterprise Ireland

Department of Enterprise, Trade and Employment

WHAT IS IT?

Enterprise Ireland (EI) is the Irish Government's Agency responsible for the development and growth of Irish enterprises in world markets. EI works in partnership with Irish enterprises to help them start, grow, innovate and win export sales in global markets. In this way, Enterprise Ireland supports sustainable economic growth, regional development and secure employment.

EI operates a range of programmes to foster entrepreneurship and drive innovation: supporting the commercialisation of research, new business creation and quality research spin-outs; driving participation in international research programmes (e.g., Horizon Europe, European Space Agency); providing direct support for in-company Research & Development, innovation and business process development and; building market-led enterprise collaborations that harness the talent in the Irish public research system

Click here for further information

Environmental Protection Agency

Department of the Environment, Climate and Communications

WHAT IS IT?

The Environmental Protection Agency (EPA) is at the front line of environmental protection and policing. EPA funded environmental research provides essential scientific support for environmental policy development, implementation and broader decision making. Since 1994, the EPA has funded research that has increased national understanding of the environment, the challenges it faces and responses to these. It has also developed high quality research capacity and supported innovation that is internationally respected. The EPA research programme is a Government of Ireland initiative funded by the Department of Communications, Climate Action and Environment.

Click here for further information

IDA Ireland

Department of Enterprise, Trade and Employment

WHAT IS IT?

IDA Ireland is Ireland's national inward investment promotion agency. IDA Ireland partners with multinational companies to win and develop foreign direct investment (FDI), providing jobs for the economic and social benefit of Ireland. Over the past 70 years, IDA Ireland has evolved to become a global force in attracting FDI to Ireland and a key influencer in the development of the Irish economy and its reputation abroad. As Ireland's FDI agency, IDA has partnered with over 1500 client companies, using dedicated support mechanisms to help them not only establish but expand their Irish operations.

Click here for further information

Health Research Board

Department of Health

WHAT IS IT?

The Health Research Board (HRB) is the lead health research agency in Ireland, funding research, generating evidence reviews to underpin healthcare decisions, and collecting national data on alcohol and drug treatment/ deaths, disability, and psychiatric admissions.

HRB supports the National Consent Declaration Committee to provide consent declarations under the Health Research Regulations, and the National Office for Research Ethics Committees to provide a transparent and cohesive national research ethics review system.

HRB supports an integrated clinical research and trials infrastructure including clinical research facilities, disease specific clinical trial networks, and a national clinical trials feasibility programme for both commercial and academic multicentre clinical trials (HRB-Clinical Research Coordination Ireland) co-funded with Enterprise Ireland.

HRB's areas of expertise include: Enabling a coordinated clinical trials infrastructure; Enhancing expertise and capacity for high-quality clinical research; Supporting academic and industry-initiated clinical trials and studies of pharmaceuticals, nutraceuticals or clinical care pathways, medical devices and diagnostics.

Click here for further information

Higher Education Authority

Department of Further & Higher Education, Research, Innovation and Science

WHAT IS IT?

The Higher Education Authority (HEA) leads the strategic development of the Irish higher education and research system with the objective of creating a coherent system of diverse institutions with distinct missions, which is responsive to the social, cultural and economic development of Ireland and its people and supports the achievement of national objectives. The HEA reports, through its parent Department, to the Minister for Further and Higher Education, Research, Innovation and Science on the system-level outcomes of the higher education sector across a range of national strategic objectives.

The HEA has a statutory responsibility, at central government level, for the effective governance and regulation of higher education institutions and the higher education system. Objectives span: research capacity-building; enhancement of teaching and learning; promotion of equity of access to higher education; enhancement of institutions' responsiveness to the needs of wider society and; the internationalisation of Irish higher education.

Click here for further information

Irish Research Council

Department of Further & Higher Education, Research, Innovation and Science

WHAT IS IT?

The Irish Research Council is an associated agency of the Department of Further and Higher Education, Research, Innovation and Science, under the aegis of the Higher Education Authority (HEA).

The core function of the IRC is to support excellent frontier research across all disciplines and all career stages. The IRC promotes diverse career opportunities for researchers by partnering with enterprise and employers. To date, this has led to over 1,000 awards in collaboration with enterprise and employers for early career researchers from postgraduate to postdoctoral levels. The IRC also has a particular role in supporting research with a societal focus and has established partnerships across government and with civic society.

Click here for further information

Marine Institute

Department of Agriculture, Food and the Marine

WHAT IS IT?

The Marine Institute is the state agency responsible for marine RTDI providing a range of scientific, advisory and economic development services. The Marine Institute operates national marine research infrastructures that provide essential platforms for research and early technology development. These include laboratories, two research vessels, oceanographic equipment, as well as supporting a number of test and demonstration platforms.

The Marine Institute manages the National Marine Research Programme, which includes Industry-Led awards, Networking & Marine Research Communications grants, funding for access to ship-time, as well as National Infrastructure Access Programme and other targeted project calls. The Institute supports and promotes marine research at a national and international level, to help researchers build partnerships and successfully compete for EU grant-aid.

Services cover a diverse range of areas such as marine bioresources, biodiversity, climate change, shipping services, economics, food safety and fish health, seabed mapping, and data & spatial technologies.

Click here for further information

Science Foundation Ireland

Department of Further & Higher Education, Research, Innovation and Science

WHAT IS IT?

Science Foundation Ireland (SFI) is the national foundation for investment in research in the areas of science, technology, engineering, and mathematics (STEM) to assist the development and competitiveness of industry, enterprise and employment in Ireland. It also promotes and supports STEM education and engagement to improve awareness and understanding of the value of STEM to society and to support the STEM careers pipeline.

SFI makes grants based upon the merit review of distinguished scientists. SFI also advances co-operative efforts among education, government, and industry that support its fields of emphasis and promotes Ireland's ensuing achievements around the world.

Click here for further information

Sustainable Energy Authority of Ireland

Department of the Environment, Climate and Communications

WHAT IS IT?

Sustainable Energy Authority of Ireland (SEAI) is Ireland's national energy authority investing in, and delivering, appropriate, effective and sustainable solutions to help Ireland's transition to a clean energy future. SEAI works with the public, businesses, communities and the Government to achieve this, through expertise, funding, educational programmes, policy advice, research and the development of new technologies. SEAI coordinates and funds a range of research, development & demonstration activities relating to the production, supply & use of energy. They support solutions that enable technical and other barriers to market uptake of energy related products, processes & systems, to be overcome.

The SEAI areas of expertise include energy efficiency; renewable energy; electric vehicles; research and innovation; data and analytics.

Click here for further information

Teagasc

Department of Agriculture, Food and the Marine

WHAT IS IT?

Teagasc supports science-based innovation in the agri-food sector and wider bio-economy that underpins profitability, competitiveness and sustainability. It contributes to the national programme of innovation activities, including the creation of commercially-applicable knowledge. Teagasc is committed to transferring its discoveries from the lab to industry, in a flexible manner, for the benefit of the Irish economy. Developing partnerships and collaborations with industry is central to Teagasc's strategy.

Teagasc areas of particular expertise include food biosciences, food chemistry and technology, food safety and food industry development; animal and grassland research and innovation; crops, environment and land use; rural economy and development; technical and specialist services.

Click here for further information

SECTION 5

European Programmes to Support RD&I

Eureka Programme

WHAT IS IT?

EUREKA is the world's biggest public network for international cooperation in R&D and innovation. Eureka is open to SMEs, large companies, universities and research organisations. EUREKA offers opportunities to combine expertise, exchange knowledge and enhance resources. EUREKA projects focus on the R&D of close-to-market products, processes or services. EUREKA does not fund projects but evaluates the collaborative project plan and endorses it as EUREKA approved project. Project consortium members can self-fund or, if eligible, are funded by national agencies. Enterprise Ireland client companies are funded through the Agile Fund or the R & D Fund (see Section 1.2). Universities and research organisations are funded through the International Research Fund (IRF). Clients of other national agencies such as IDA or Udaras can be funded via relevant agency programmes.

EUREKA PROGRAMMES INCLUDE:

Eurostars

The largest international funding programme for SMEs wishing to collaborate on R&D projects that create innovative products, processes or services for commercialisation. Each consortium must be led by an R&D-performing SME. **CLICK HERE** for more information.

Clusters

Thematic programmes driven by communities of large companies, SMEs, universities, research institutes and end users. Work alongside major industry players on close-to-market projects to deliver innovation objectives. **CLICK HERE** for more information.

Network projects

Facilitating collaboration between organisations in Eureka countries offering the freedom to design a project proposal and build an ideal consortium for a project with any technological focus. **CLICK HERE** for more information.

Globalstars

Calls for R&D projects with partners in a country outside the Eureka network.
CLICK HERE for more information.

InvestHorizon

An investment readiness programme for deep-tech innovative SMEs.
CLICK HERE for more information.

European Space Agency

WHAT IS IT?

Ireland's membership of the European Space Agency (ESA) allows industry and researchers to participate in European space industry programmes. Enterprise Ireland's role in relation to ESA is to support Irish companies to develop sustainable business opportunities through engagement with ESA. The team provides a source of expertise for Irish companies in developing and executing space strategies, as well as being a point of reference for the international space industry when they want to identify relevant sources of space-related expertise within Ireland.

Irish industrial capabilities in space technology is highly diverse, including structures, materials, microelectronics, photonics, telecommunications, radio frequency and life sciences. There is also a growing number of Irish companies active in the "downstream" sector in developing products for the related ground segment systems as well as end user equipment, services and applications which utilise space-based systems. Opportunities exist for Irish companies in developing and adapting technologies for the commercial space market, technology spin-out from space to non-space and in developing innovative applications and services that utilise space systems.

Click here for further information

Enterprise Ireland - European Support National Contact Point Network (NCP) for Horizon Europe

WHAT IS IT?

Horizon Europe is the new EU research and innovation programme which will have a budget of around €95.5 billion for 2021-2027. Ireland's track record in European research programmes is well recognised throughout Europe and beyond. The National Support Network for Horizon Europe's goal is to build on that track record, providing hands-on assistance to Ireland's researchers and companies to actively participate in Horizon Europe. Applicants to any part of Horizon Europe are strongly encouraged to contact the team in order to explore potential opportunities across the programme.

This network, led by Enterprise Ireland, is made up of 32 national delegates and national contact points covering all areas of the programme. The network is drawn from 10 State agencies and Government departments, and is the main structure to provide guidance, practical information and assistance on all aspects of participation in Horizon Europe from Ireland.

Click here for further information

KTI is supported by:

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