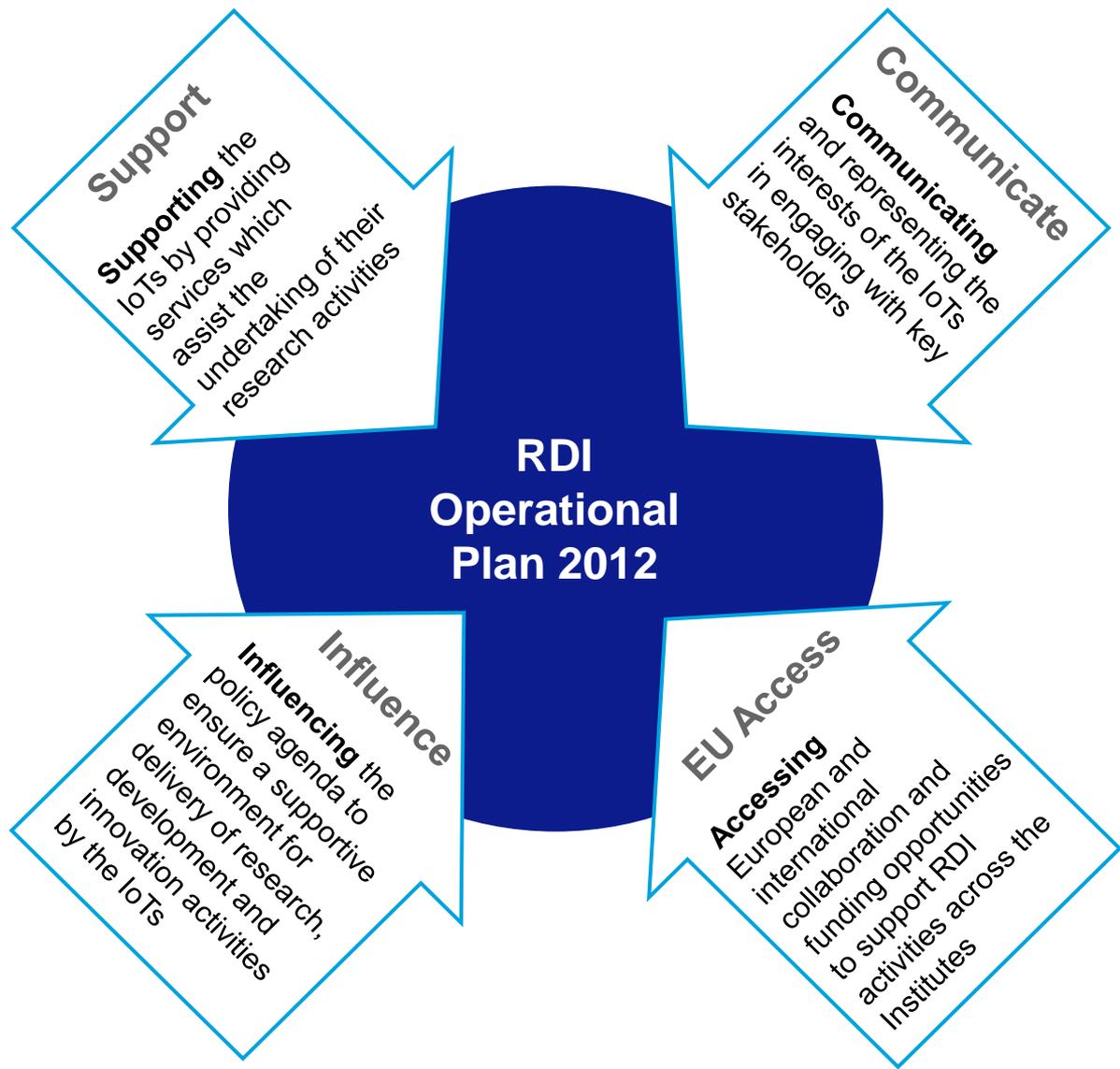# Don't work alone
Support and networking
for postgraduate researchers

Andrew Brownlee
Presentation to SMARTSkills Postgraduate Workshop
24th October 2013

ICTI
institutes of technology ireland

IOTI works for the Institutes of Technology and can provide activities to support, influence and communicate on behalf of your research...

Support

Supporting the IoTs by providing services which assist the undertaking of their research activities

Communicate

Communicating and representing the interests of the IoTs in engaging with key stakeholders

RDI Operational Plan 2012

Influence

Influencing the policy agenda to ensure a supportive environment for delivery of research, development and innovation activities by the IoTs

EU Access

Accessing European and international collaboration and funding opportunities to support RDI activities across the Institutes

The Office must also **account** for its work by making clear its responsiveness, quality, value-for-money and effectiveness

Postgraduate researchers are the most critical aspect of developing and sustaining specialist, impact focused research activities...

Development and Application of Marine and Freshwater Research Capability in GMIT
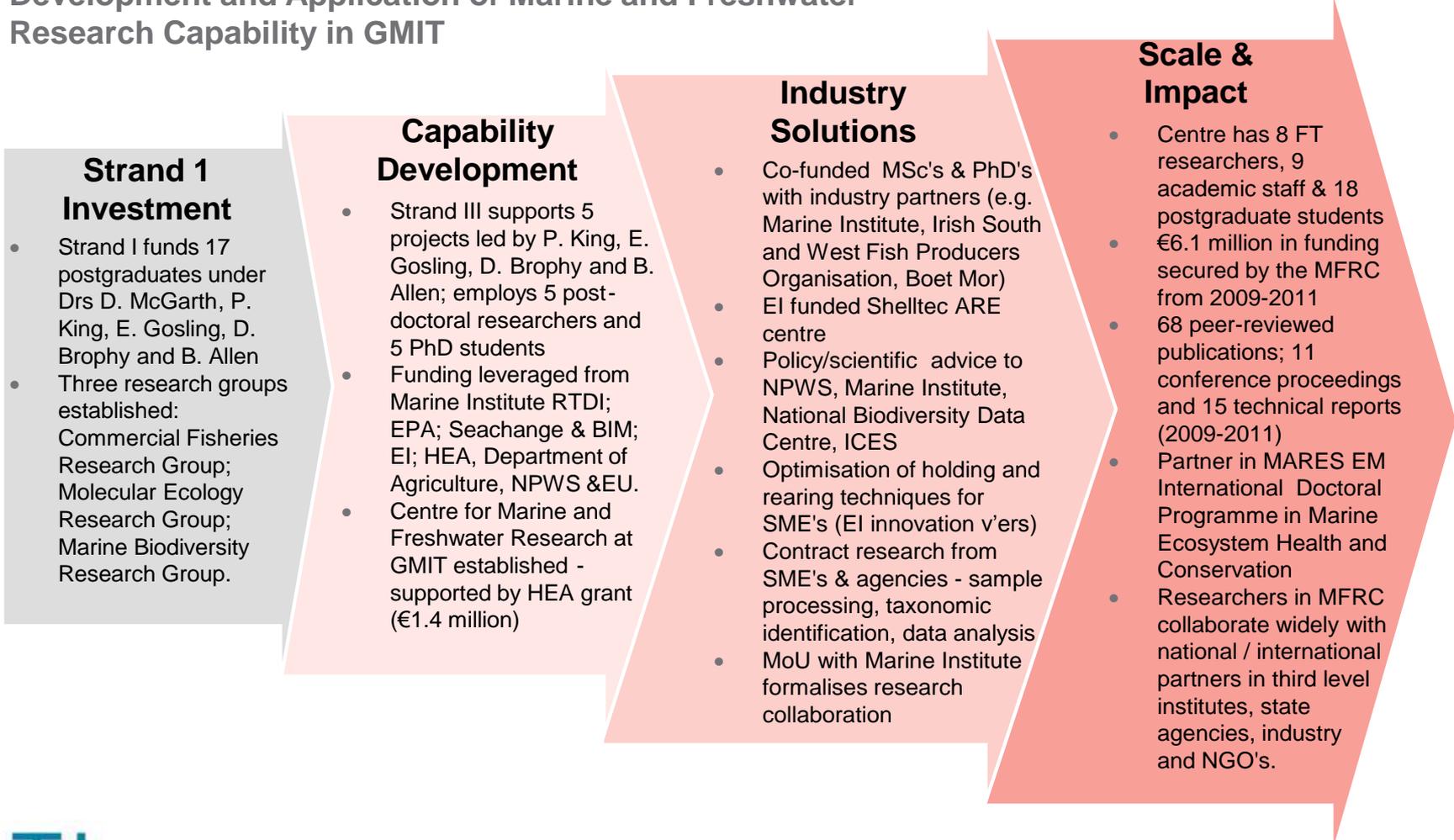
Strand 1 Investment
- Strand I funds 17 postgraduates under Drs D. McGarth, P. King, E. Gosling, D. Brophy and B. Allen
- Three research groups established: Commercial Fisheries Research Group; Molecular Ecology Research Group; Marine Biodiversity Research Group.

Capability Development
- Strand III supports 5 projects led by P. King, E. Gosling, D. Brophy and B. Allen; employs 5 post-doctoral researchers and 5 PhD students
- Funding leveraged from Marine Institute RTDI; EPA; Seachange & BIM; EI; HEA, Department of Agriculture, NPWS &EU.
- Centre for Marine and Freshwater Research at GMIT established - supported by HEA grant (€1.4 million)
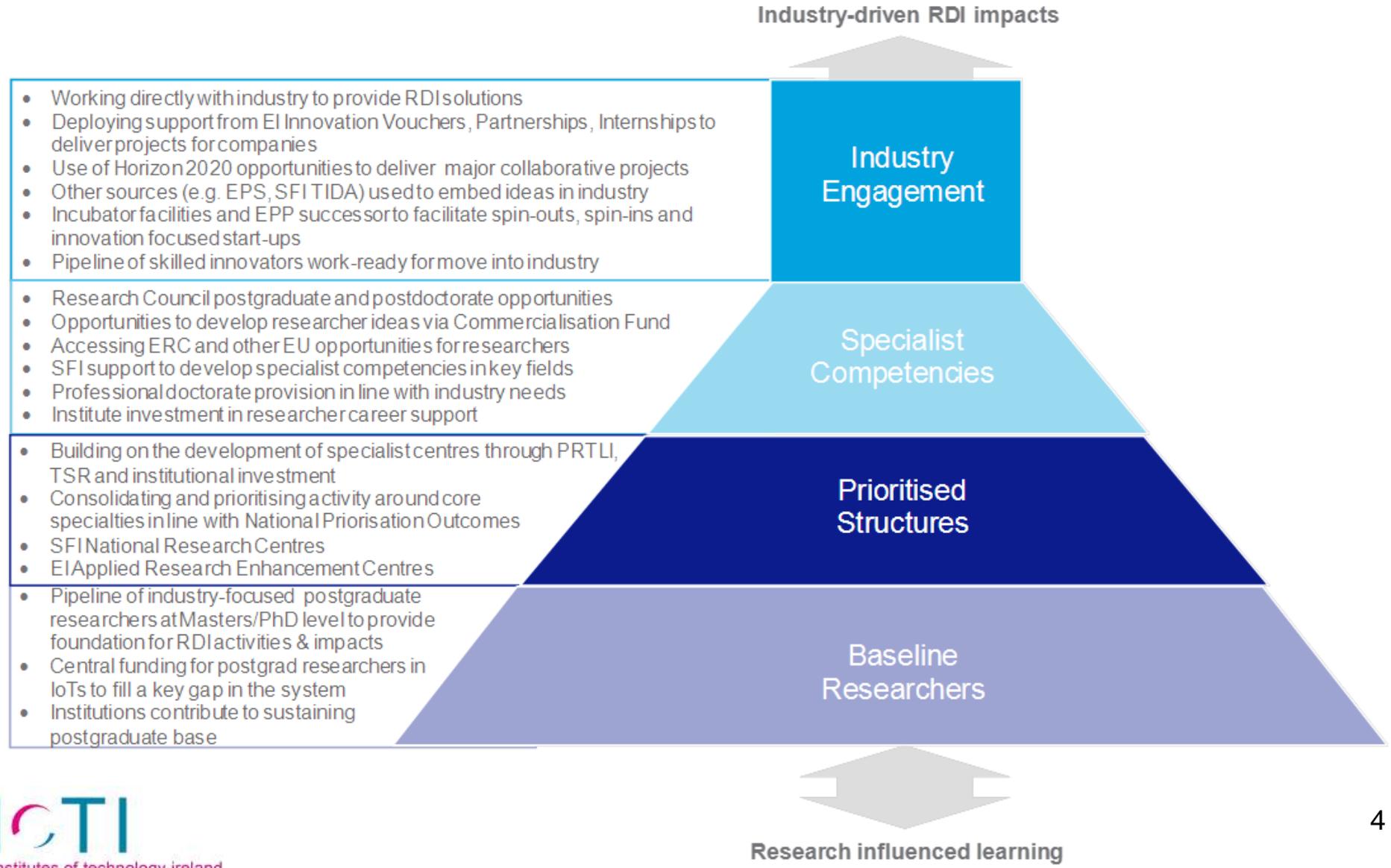
Industry Solutions
- Co-funded MSc's & PhD's with industry partners (e.g. Marine Institute, Irish South and West Fish Producers Organisation, Boet Mor)
- EI funded Shelltec ARE centre
- Policy/scientific advice to NPWS, Marine Institute, National Biodiversity Data Centre, ICES
- Optimisation of holding and rearing techniques for SME's (EI innovation v'ers)
- Contract research from SME's & agencies - sample processing, taxonomic identification, data analysis
- MoU with Marine Institute formalises research collaboration

Scale & Impact
- Centre has 8 FT researchers, 9 academic staff & 18 postgraduate students
- €6.1 million in funding secured by the MFRC from 2009-2011
- 68 peer-reviewed publications; 11 conference proceedings and 15 technical reports (2009-2011)
- Partner in MARES EM International Doctoral Programme in Marine Ecosystem Health and Conservation
- Researchers in MFRC collaborate widely with national / international partners in third level institutes, state agencies, industry and NGO's.

institutes of technology ireland

Early stage researcher development needs to be linked to whole system approach to funding, supporting & maintaining RDI activity…

Industry-driven RDI impacts

- Working directly with industry to provide RDI solutions
- Deploying support from EI Innovation Vouchers, Partnerships, Internships to deliver projects for companies
- Use of Horizon 2020 opportunities to deliver major collaborative projects
- Other sources (e.g. EPS, SFI TIDA) used to embed ideas in industry
- Incubator facilities and EPP successor to facilitate spin-outs, spin-ins and innovation focused start-ups
- Pipeline of skilled innovators work-ready for move into industry

Industry Engagement

- Research Council postgraduate and postdoctorate opportunities
- Opportunities to develop researcher ideas via Commercialisation Fund
- Accessing ERC and other EU opportunities for researchers
- SFI support to develop specialist competencies in key fields
- Professional doctorate provision in line with industry needs
- Institute investment in researcher career support

Specialist Competencies

- Building on the development of specialist centres through PRTLI, TSR and institutional investment
- Consolidating and prioritising activity around core specialties in line with National Priorisation Outcomes
- SFI National Research Centres
- EI Applied Research Enhancement Centres

Prioritised Structures

- Pipeline of industry-focused postgraduate researchers at Masters/PhD level to provide foundation for RDI activities & impacts
- Central funding for postgrad researchers in IoTs to fill a key gap in the system
- Institutions contribute to sustaining postgraduate base

Baseline Researchers

Research influenced learning
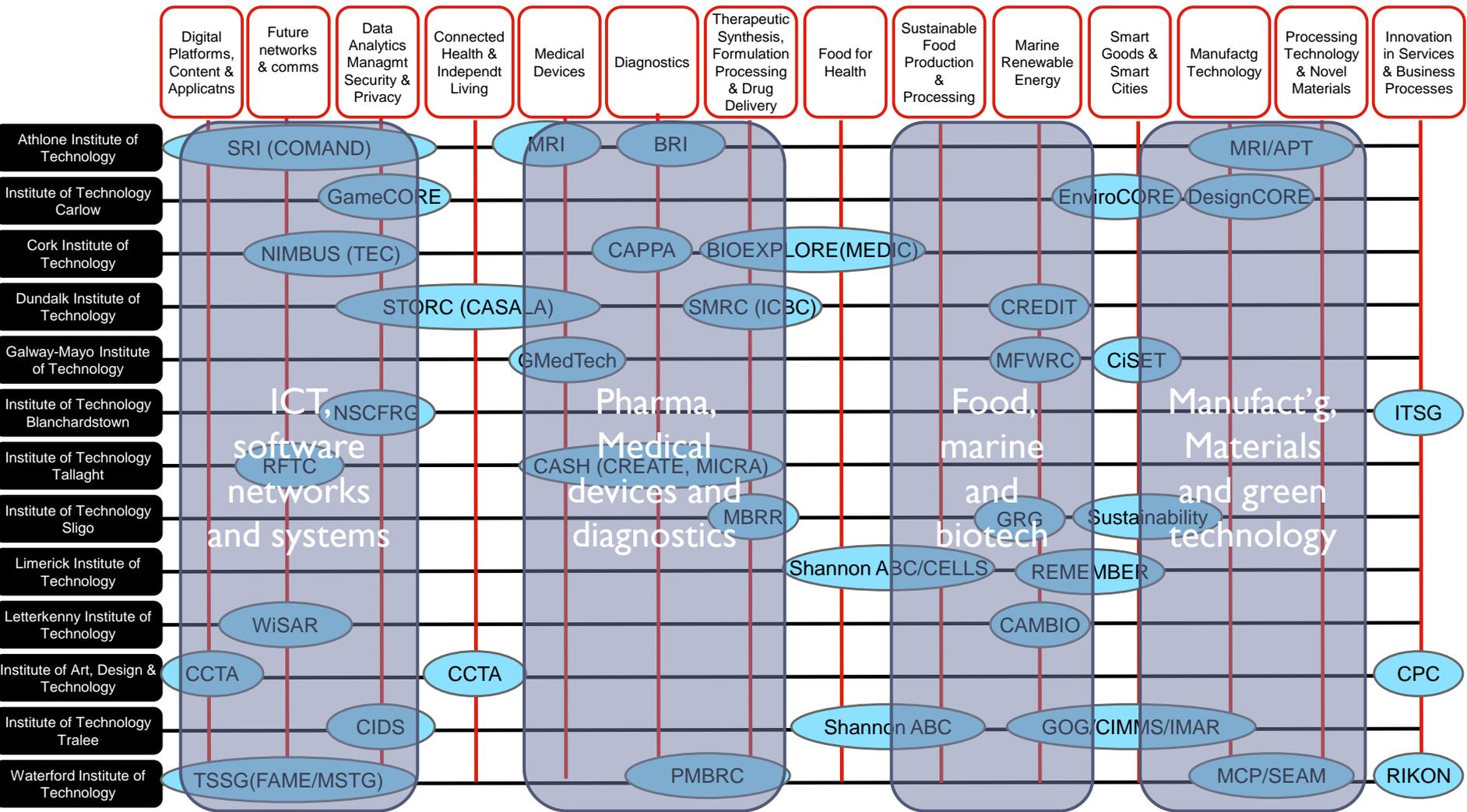
IoTI
institutes of technology ireland

4

To have a successful career postgraduate researchers need to consider this wider system…

▸ Need to work collaboratively and not in isolation

▸ Identify peers to work with both within and outside institutions

▸ Enlist the help of mentors that can help to shape development

▸ Look at wider skills development needs in addition to discipline specific development

▸ Consider cross-disciplinary opportunities for collaboration

▸ Try to establish international links with relevant research centres and groups

IOTI is trying to support postgraduate and early stage researcher development through a range of activities…

- ▸ **Support:** Running support programmes around Marie Curie, IRC, H2020 and other relevant calls

- ▸ **Mentoring:** Establishing network of mentors to review draft funding applications and advise early career researchers

- ▸ **Peer-to-peer:** Linking up early career researchers in peer networks around particular research themes (e.g. International development)

- ▸ **EU access:** Facilitating contact with key EU stakeholders and supporting access to funding sources

- ▸ **Lobbying:** Working with Government and Unions to resolve issues facing early career researchers

- ▸ **Funding:** Continuing efforts to ensure a sustainable funding base for IoTs for postgraduate and postdoctoral research

- ▸ **Strategic approach:** Agreeing a national career development framework recognising critical role of early career researchers in IoTs

IOTI
institutes of technology ireland

There are many ways that IOTI can help including support in identifying other relevant research groups...

Institute	Digital Platforms, Content & Applicatns	Future networks & comms	Data Analytics Managmt Security & Privacy	Connected Health & Independt Living	Medical Devices	Diagnostics	Therapeutic Synthesis, Formulation Processing & Drug Delivery	Food for Health	Sustainable Food Production & Processing	Marine Renewable Energy	Smart Goods & Smart Cities	Manufactg Technology	Processing Technology & Novel Materials	Innovation in Services & Business Processes
Athlone Institute of Technology	SRI (COMAND)				MRI	BRI							MRI/APT	
Institute of Technology Carlow		GameCORE									EnviroCORE	DesignCORE		
Cork Institute of Technology		NIMBUS (TEC)			CAPPA	BIOEXPLORE(MEDIC)								
Dundalk Institute of Technology		STORC (CASALA)			SMRC (ICBC)				CREDIT					
Galway-Mayo Institute of Technology					GMedTech				MFWRC		CiSET			
Institute of Technology Blanchardstown			NSCFRG											ITSG
Institute of Technology Tallaght		RFTC			CASH (CREATE, MICRA)									
Institute of Technology Sligo						MBRR				GRG	Sustainability			
Limerick Institute of Technology							Shannon ABC/CELLS	REMEMBER						
Letterkenny Institute of Technology	WiSAR								CAMBIO					
Institute of Art, Design & Technology	CCTA			CCTA										CPC
Institute of Technology Tralee		CIDS						Shannon ABC		GOG/CIMMS/IMAR				
Waterford Institute of Technology	TSSG(FAME/MSTG)				PMBRC							MCP/SEAM		RIKON

ICT, software networks and systems

Pharma, Medical devices and diagnostics

Food, marine and biotech

Manufact'g, Materials and green technology

IOTI institutes of technology ireland

7

We have also attempted to make our research expertise more accessible through website profiles and case studies...

We run mentoring and support initiatives for postgraduate students interested in Irish Research Council and other calls…

▸ Webinars providing guidelines on how to write applications

▸ Guidance from previously successful applicants and their supervisors

▸ Examples of best practice applications

▸ Pre-evaluation service involving a panel of mentors from across IoTs

▸ Have focused on other schemes such as Marie Curie and open to suggestions on further help that could be provided

▸ Also launched a strategic postgraduate scholarship initiative earlier this year across 11 participating IoTs (including GMIT)

  ▸ Funding proposal made to HEA to roll this out on wider scale next year and fill a major gap in IoT postgraduate funding

institutes of technology ireland

There will be a concerted effort to build on FP7 success via support programmes around Horizon 2020…

▸ Has been a lot of success by Institutes on Research for the Benefit of SMEs in FP7

▸ Horizon 2020 challenge-based, broader topics, less prescriptive and with a strong emphasis on expected impact

▸ Significant opportunities around marine related research

▸ First calls for proposals published on 11th December 2013

▸ DG Research have indicated simpler, innovation partnership style approach to encourage work with SMEs under Horizon 2020

▸ IOTI looking at holding a support event in December to help development of ideas & application skills, building on success of last year's FP7 event

  ▸ This will link to a wider programme of support and mentoring

IOTI
institutes of technology ireland

We are trying to facilitate thematic based international research working groups like the UASnet environment initiative…

▸ UASnet brings together national Universities of Applied Science (UASs) in Ireland, Finland, Portugal, Lithuania, Belgium, Denmark, Netherlands, Estonia, Switzerland and France

▸ Webinar held last week around environment-related research

  ▸ Hopefully this can provide the foundation to start building collaborations which can target future funding

▸ The initiative should help identification of peers with complimentary expertise which will improve access to funding opportunities

▸ Also offers a reference and support group when discussing work and potential work in this area

▸ To move this forward, we are looking at putting in place:

  ▸ Discussion forums

  ▸ Establishment of sub-networks around particular themes

  ▸ Support resources for funding calls

  ▸ Regular information and newsletters to raise and maintain awareness

  ▸ Webinars/events showcasing the work of different participants

IcTI
institutes of technology ireland

Another recent good example of developing collaborative networks was kicked off earlier this year around international development...

▸ 44 researchers from IoTs (excluding DIT) participating from broad range of disciplines

  ▸ Tourism development

  ▸ Home economics and health information

  ▸ Linguisitics

  ▸ Food research, agriculture and crop management

  ▸ Water and environment

  ▸ Governance and management

  ▸ Computing and social media

  ▸ Education in developing countries

  ▸ Mechatronics and sensors

  ▸ Rural development

▸ Engaged Irish Aid who are very keen on what IoTs have to offer

▸ Networking conference held in DIT to progress initiative, set up thematic groups, target funding, etc

More collaboration with other IRISH institutions should be a key objective...

▸ Major weakness across the IoT sector, although the SMART initiative is a great example of what should be happening

▸ Was a weakness across university sector but improving collaboration (with other universities) in response to SFI calls

▸ Collaborating with universities will be the main way to increase access to SFI funding

▸ There will be no institutional approach for collaboration between universities and IoTs (or TUs if they come to fruition)

▸ These new relationships must therefore be driven by peer-to-peer contact

▸ Target the key people involved in SFI research centres in your field and build relationships based on the unique attributes we can bring

▸ Has to be role as SFI Research Centre spokes moving forward

Finding a company or other external research partner can play a significant role in helping to develop capability (and access funding!)...

Innovation Voucher €5,000

Initial problem-solving around manufacturing process

EI Feasibility Study €15,000

Feasibility study on auto-washer re-design to reduce water, detergent & energy consumption

Product development to take solution to market

Innovation Partnership €160,000

Fraunhofer

FP7 R4SMEs €1.6million

Development of a Next Generation Robotic Milking Parlour

institutes of technology ireland

Please contact me if you require any further information…

Andrew Brownlee
Director of Research, Development and Innovation
Institutes of Technology Ireland
1st Floor, Fumbally Square
Fumbally Lane
Dublin 8
Tel. 00353 1 708 2953
Mob. 00353 876203405
E-mail: andrew.brownlee@ioti.ie
Twitter: andrewbrownlee7

institutes of technology ireland