



GMO TECHNOLOGY CONFERENCE, 10TH OCTOBER 2013

**EXCELLENCE & IMPACT – SCIENCE FOUNDATIONS IRELAND’S RESEARCH FUNDING
STRATEGY AND PROGRAMMES**

PROFESSOR MARK WJ FERGUSON

**DIRECTOR GENERAL, SCIENCE FOUNDATION IRELAND AND
CHIEF SCIENTIFIC ADVISER TO THE GOVERNMENT OF IRELAND**



Science Foundation Ireland

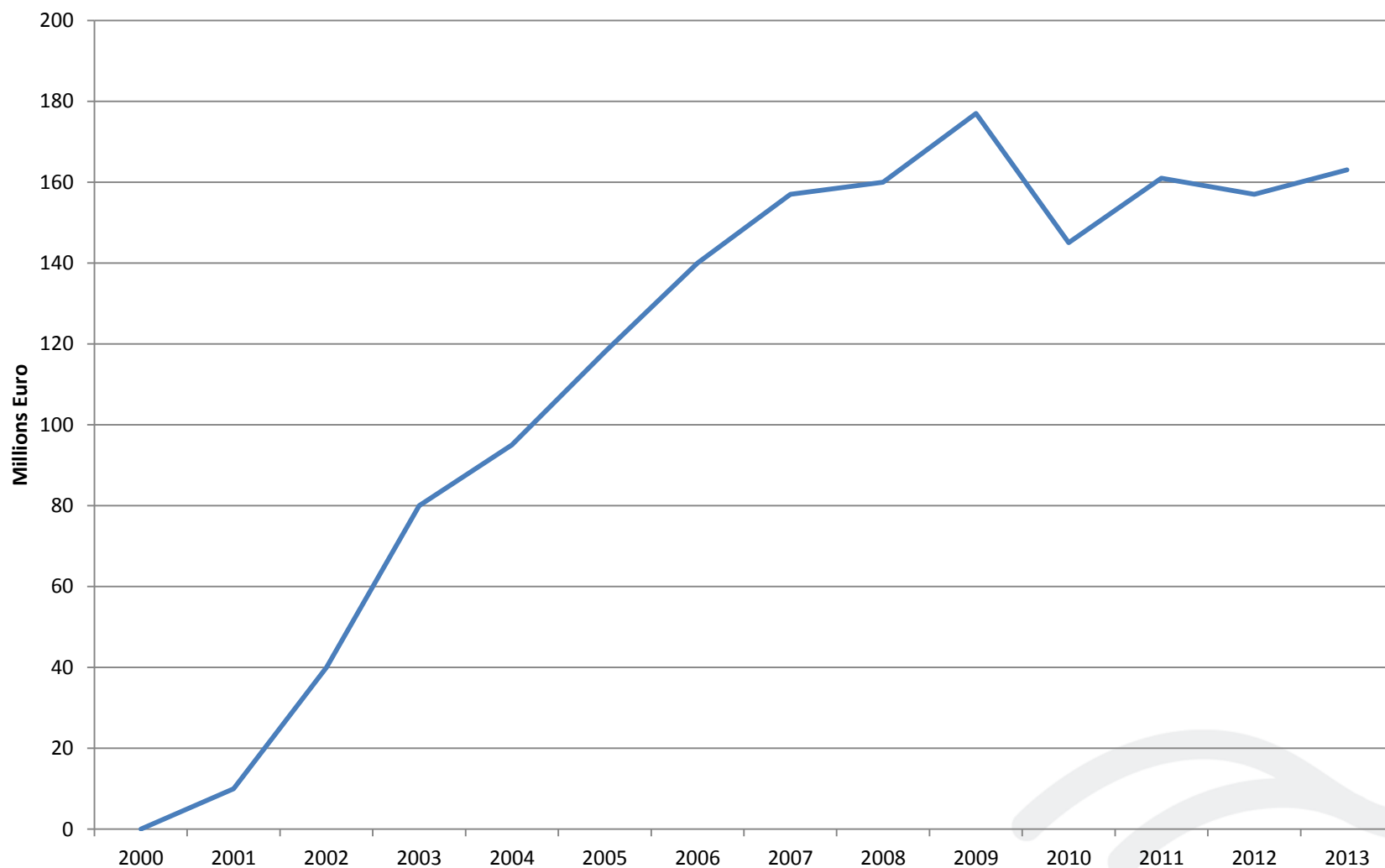


“SFI WILL BUILD AND STRENGTHEN SCIENTIFIC AND ENGINEERING RESEARCH AND ITS INFRASTRUCTURE IN THE AREAS OF GREATEST STRATEGIC VALUE TO IRELAND’S LONG TERM COMPETITIVENESS AND DEVELOPMENT.”

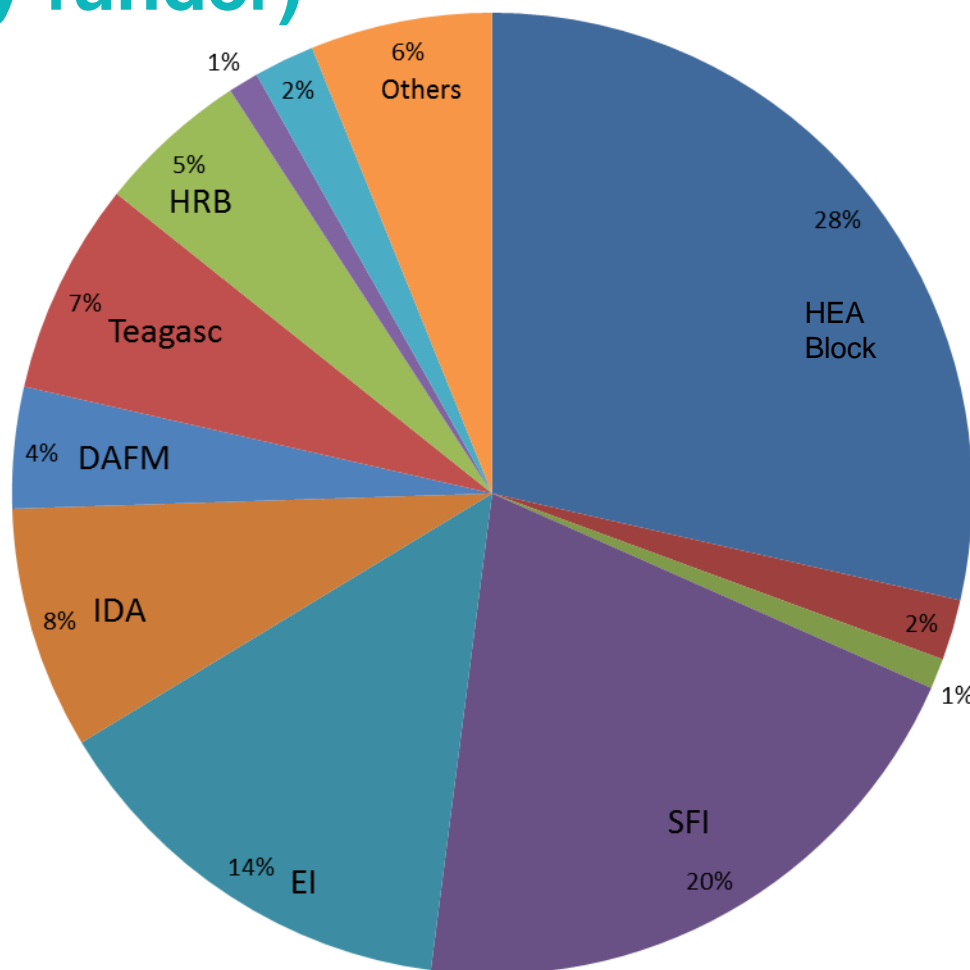
- **Founded 12 years ago**
- **> €1.5 billion committed to date**



SFI Expenditure on R&D 2000 – 2013



Public Expenditure on R&D 2012 (by funder)



■ HEA Block 28% (€225m)

■ IRCSET 2% (€20m)

■ IRCHSS 1% (€11m)

■ SFI 20% (€161m)

■ EI 14% (€112m)

■ IDA 8% (€63m)

■ DAFM 4% (€28m)

■ Teagasc 7% (€58m)

■ HRB 5% (€37m)

■ EPA 1% (€10m)

■ Department of Jobs, Enterprise & Innovation 2% (€19m)

■ Others (DCNR, SEIA, ESRI etc.) 6% (€51m)

Total: €796 million

What SFI actually does

- **Makes grants to Higher Education Institutes in Ireland**
- **Based on competitive, international merit review for scientific excellence and impact**
- **Trains people**
- **Builds infrastructure**
- **Produces scientific results and technology**
- **Significant industrial linkages attracting, anchoring and starting companies**
- **Leverages other research funding e.g. Industrial / EU / Charitable / Philanthropic**
 - **People & technology transfer to Industry & Society**
 - **Industry more competitive, better public services**
 - **Higher value products/services**
 - **Higher living standards**

What do we currently get for our annual €150m?

- A research ‘engine’ of 3000 people, led by 500 leading scientists
- 28 clusters/centres of scale
- 5740 scientific publications
- 80 patent filings, 27 patents awarded
- 39 licensed technologies
- 10 spin out companies formed
- 583 companies partaking in 1,035 collaborations
- €156m in leveraged non-SFI funding

Job Links to SFI

SFI is a key part of the enterprise ecosystem

- From 1 January – 5 December 2012
 - SFI has links to 4,575 (52%) of the 8,788 jobs announced by the IDA during this period



Ireland International Citations Rankings (Thomson Reuters)



In global Top 20 in all fields

1 Molecular Genetics and Genomics

2 Probiotics

3 Immunology

6 Nanotechnology

8 Materials Science

10 Computer Science



Smart Specialisation

- Small countries are not scaled down versions of large countries – cannot do everything well
- You cannot win unless you choose to compete
- Select sectors
- Prioritise funding
- Align all the actors behind the choices



Research Prioritisation Exercise



- Steering Group established in October 2011
- To identify a number of priority areas for future investment in publicly-funded research
- Report published March 2012

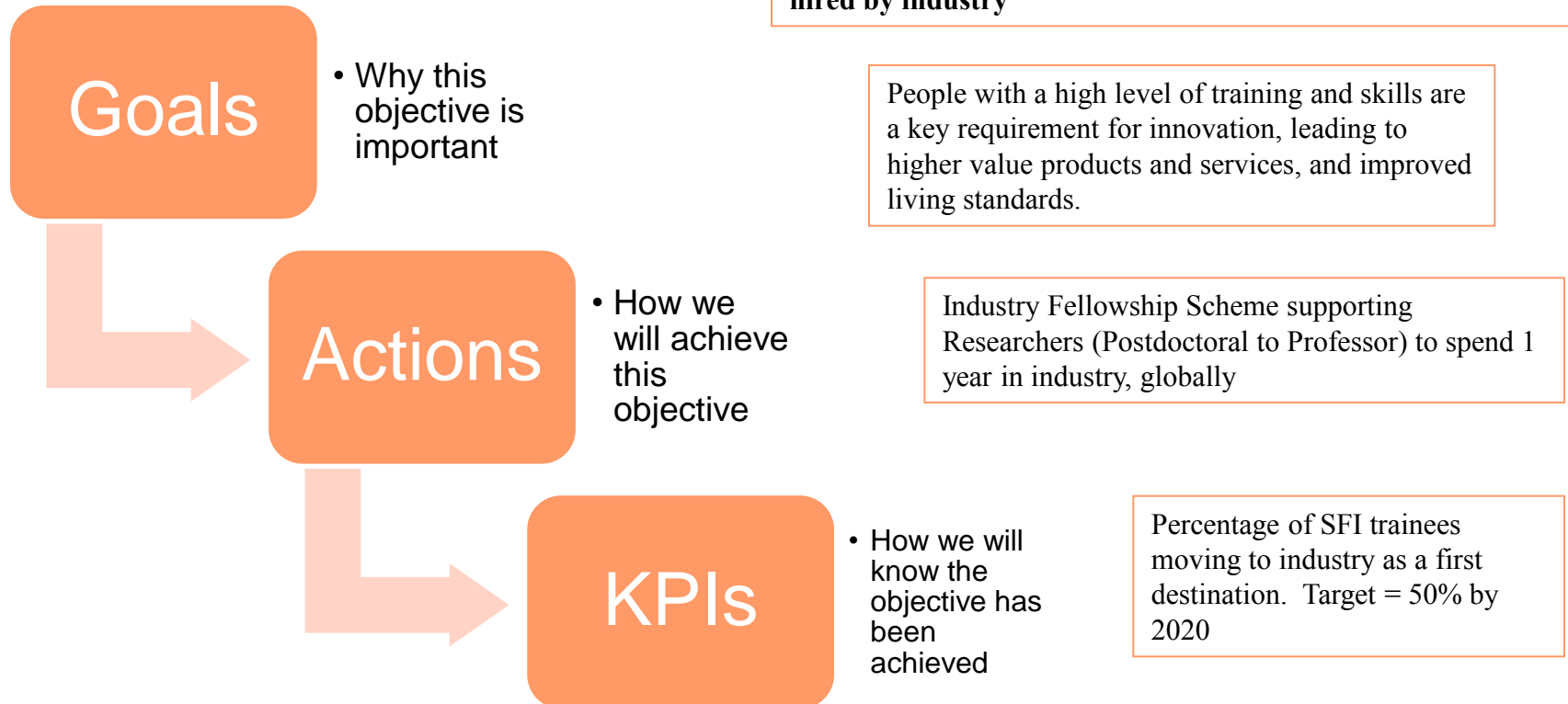
SFI Agenda 2020: Excellence and Impact

4 Strategic Objectives:

- (A) To be the best science funding agency in the world at creating impact from excellent research and demonstrating clear value for money invested
- (B) To be the exemplar in building partnerships that fund excellent science and drive it out into the market and society
- (C) To have the most engaged and scientifically informed public
- (D) To represent the ideal modern public service organisation, staffed in a lean and flexible manner, with efficient and effective management.



Structure of Agenda 2020



Science Funding

- Excellence is required but is not sufficient, need impact
- Diverse Portfolio of uncorrelated risk
- Intelligent mix between scientists choosing what to research and being told where they should be looking
- The folly of rewarding A whilst hoping for B
- What you Measure is what you Get
- Support for outstanding people, projects, centres, infrastructure, movement, collaboration, exchange, partnership
- Themes



Programmes open in 2013

SFI Research Centres
SFI Investigators Programme
SFI Research Centres – Spokes (Rolling Call)
SFI / EI Technology Innovation Development Award (TIDA) Feasibility Study
SFI Starting Investigator Research Grant (SIRG) Programme
SFI Industry Fellowship
SFI Research Professorship Programme
President of Ireland Young Researcher Award
SFI ERC Support Programme
SFI ERC Resubmission Incentivisation Programme
SFI International Strategic Cooperation Award
US-Ireland R&D Partnership Programme
SFI-HRB-Wellcome Trust Biomedical Research Partnership
European Joint Programming Initiative (JPI)
SFI Conferences and Workshops
SFI Partnerships Programme

SFI Research Centres

- Largest ever state/industry co-funded research investment in Ireland
- €200m of new Exchequer funds from SFI for 7 World Class Research Centres over 6 years
- €100m co-investment by over 150 industry partners
- Supports key growth areas targeted in the Action Plan for Jobs 2013
- Targets research into major social challenges, including Health and Energy
- Directly supporting 800 top-class researcher positions

Research Centres (Life Sciences)

Centre	Topic(s)	Approx. Budget	
		Total	Annual
APC – Alimentary Pharmabiotic Centre	Food for health; pharmabiotics	€50m	€8m
INFANT	Perinatal health	€15m	€2m
SSPC – Synthesis and Solid-State Pharmaceutical Centre	Pharmaceutical production chain: synthesis, isolation and formulation	€30m	€5m



Research Centres (ICT & Energy)

Centre	Topic(s)	Approx. Budget	
		Total	Annual
AMBER – Advanced Materials and Bio-Engineering Research	Materials Science; nano-technology; bio-nano	€55m	€9m
INSIGHT	Big data; data analysis, data management; Connected Health	€75m	€12m
I-PIC – Irish Photonic Integration Research Centre	Photonics systems – communications & med-devices	€25m	€4m
MaREI – Marine Renewable Energy Ireland	Marine renewable energy; materials; smart grid	€25m	€4m

SFI Research Centres 2013

- SFI launching a call for new Research Centres in 2013
- Expect to fund 3-4 centres
- Call will be thematic in focus
- Themes for 2013 SFI Research Centres Call are:
 - Future Networks and Communications
 - Digital Platforms, Content and Applications
 - Medical Devices
 - Diagnostics
 - Sustainable Food Production and Processing
 - Smart Grids and Smart Cities
 - Manufacturing Competitiveness
 - Software (Platform science & technology)
 - Geosciences Underpinning Sustainable Economic Development
 - Earth and Ocean Observation

Research Centre Spokes Programme

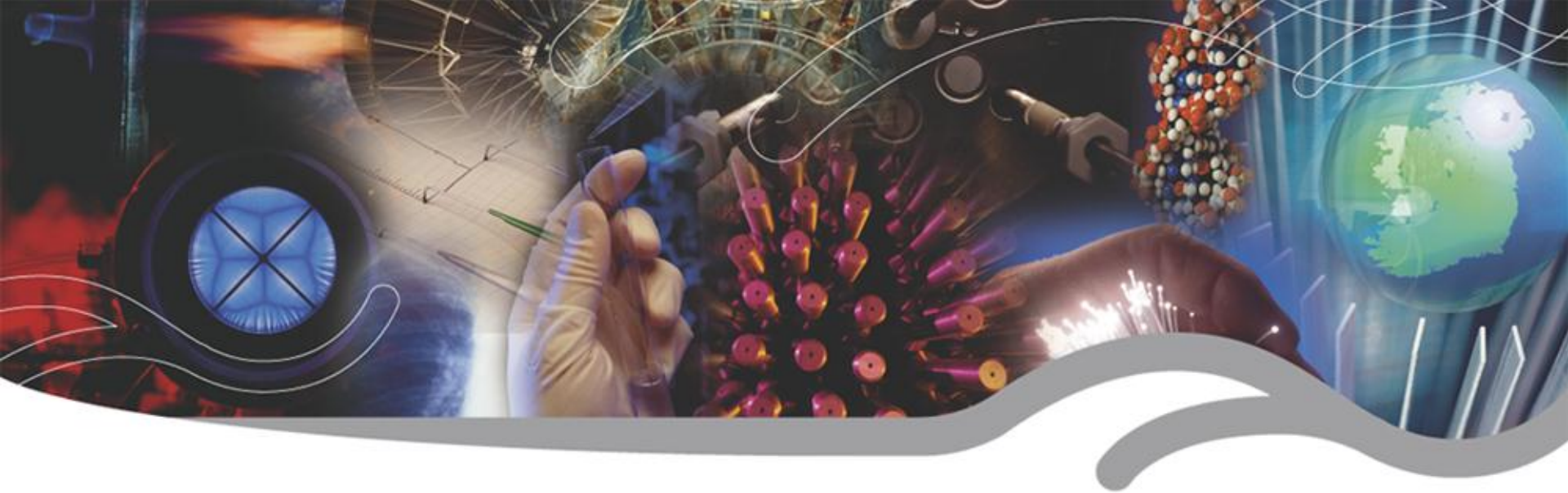
- **Flexible funding mechanism to allow Centres to grow as they attract new industry partners**
- **Two strands – fixed & rolling call**
- **Fixed call:**
 - Run annually. 30% cost share (10% cash, 20% in-kind)
- **Rolling call:**
 - Submissions accepted any time.
 - 50% cash cost-share.



Time of Unprecedented Opportunity & Change

- Fast pace of discovery
- Knowledge generation no longer the only rate limiting step – knowledge application
- Huge quantities of data
- Significant political and societal changes
- Market share is won or lost at times of change





Fondúireacht Eolaíochta Éireann

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