



# ΔAURORAΔ

Comparative approaches to  
measuring the impact of  
research



EARMA Annual Conference April 2017

# Why capture research impact?

## 1. Value for money

- Policymakers want to prove the value of university research

## 2. Funding

- Research funding agencies need evidence of impact

## 3. Strategy

- Integral part of the University's research culture and strategy

# What is research impact?

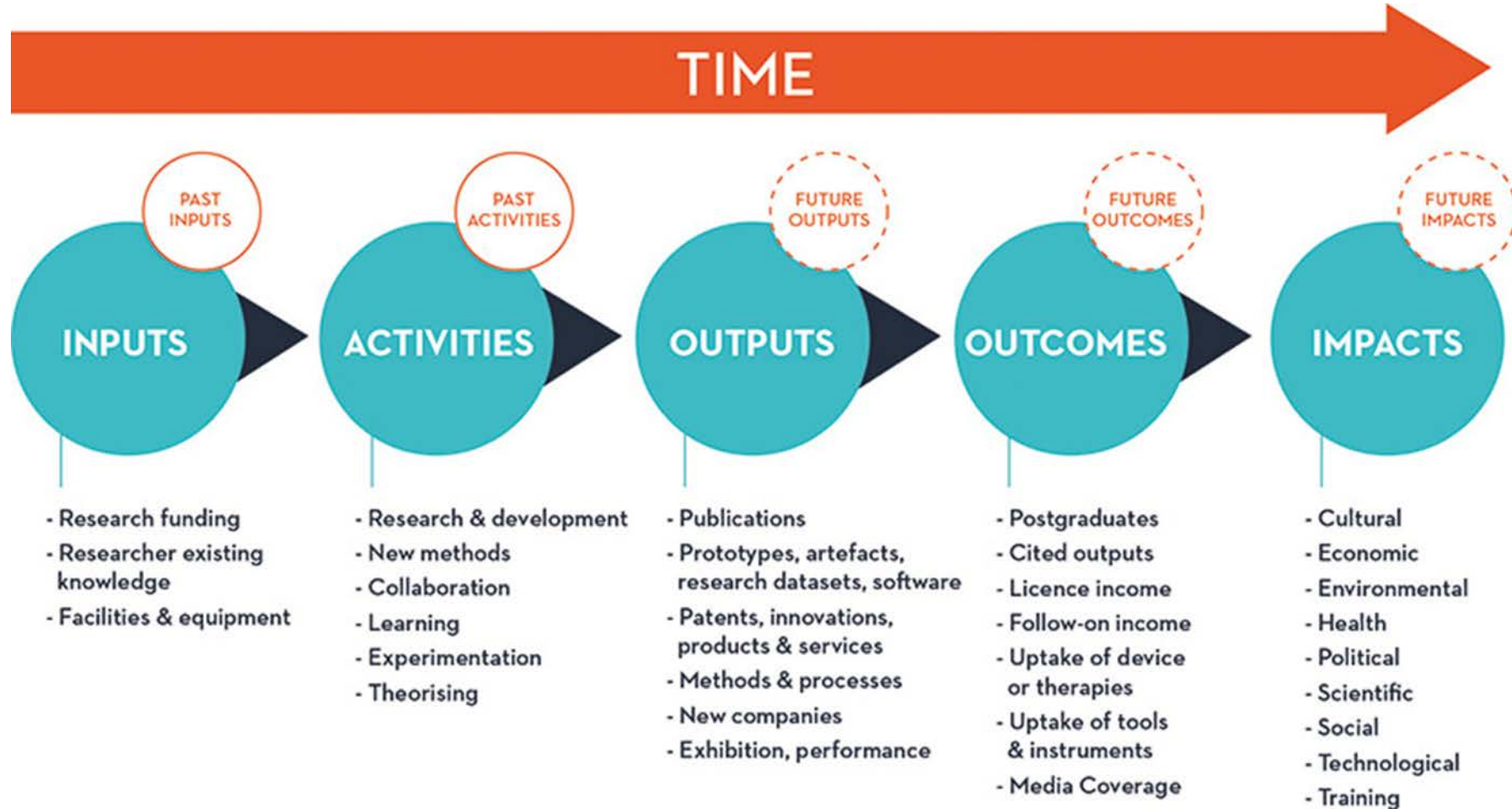
Anna Augustyniak

University College Dublin

# What is research impact?



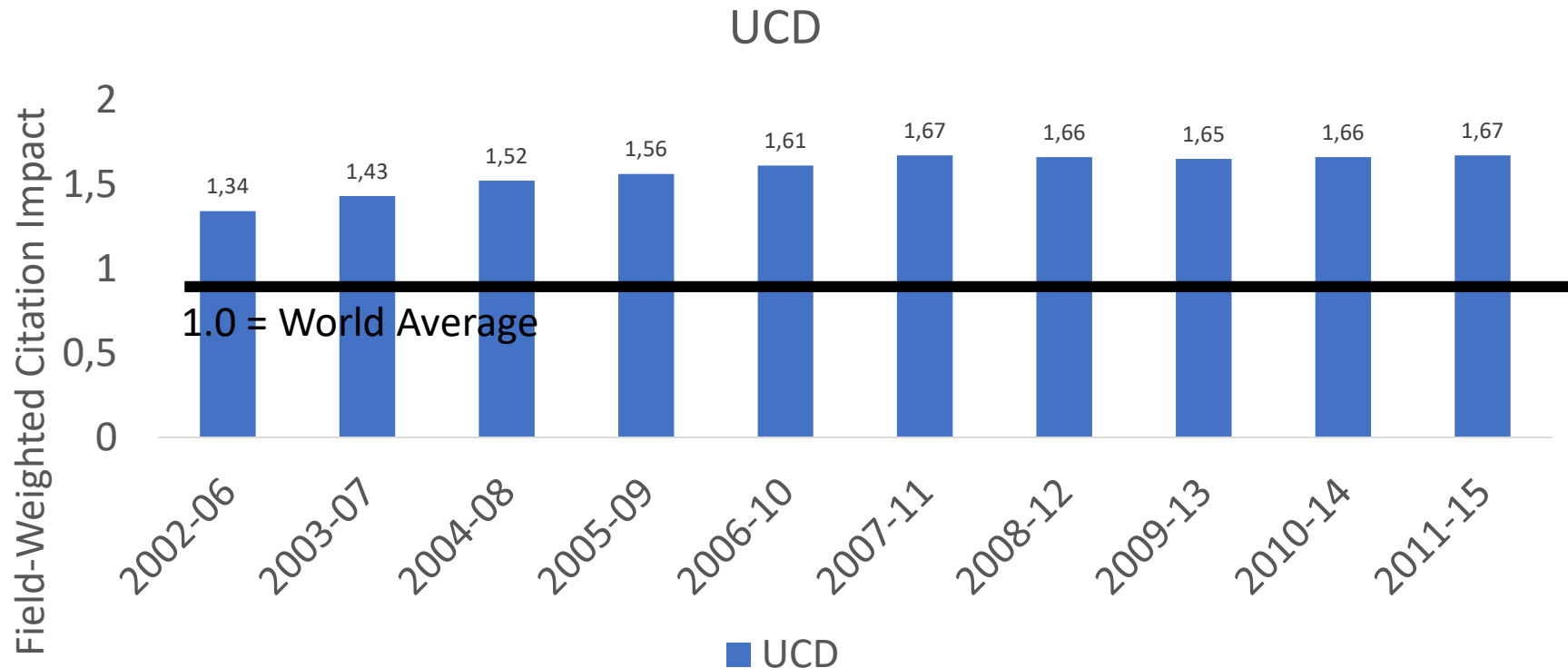
# Research impact as a journey



# Can Measure Academic Impact

67%

Above world average in 2011-2015



# How to capture Economic & Societal Impact?

## Creating cars that drive themselves

An engineering project at University of Oxford offers the possibility of autonomous personal vehicles that could save people time and make roads safer.



With over 30 million vehicles on British roads, the time and wasted time are inevitable. The Mobile Robotics Group (MRG) with Engineering Science, however, has a vision: one in which 'smarter' vehicles experience of road transport. Robotic time to work at the wheel, they can be more reliable, and cut emissions sensibly than people do.

MRG is a world leader in developing cars to understand their environment. A functioning robot car has the same questions as any human. What's around me? What do I do? Underpinning this task is known as localisation and mapping, which allows the car to build a map of the world around it.

So the MRG is building intelligent cars to understand their environment. A functioning robot car has the same questions as any human. What's around me? What do I do? Underpinning this task is known as localisation and mapping, which allows the car to build a map of the world around it.

Cameras and lasers subtly mounted allow it to build a map of all the static and dynamic features of the world to encounter (such as road markings, where the kerbs are). Over time, with information the vehicle subsequently learns to assess the dynamic situation.

35

RESEARCH

RESEARCH STRATEGY

DIVISIONS

RESEARCH IMPACT

LIBRARY

If you know of some impact from Oxford research which you would like to share, please contact the [Knowledge Exchange and Impact Team](#).

Search

Search case studies

Department

- Any -

Division

- Any -

Research funded

- Any -



### Statistical expertise in drug discovery

Being able to buy in to the expertise of the Pharmaceutical Research and Biotechnology Centre is providing major companies with valuable tools for drug discovery.



### Putting out 'Digital Wildfires' before they take hold

Should social media be controlled, and if so how? Researchers in the Department of Computer Science are working to find the best ways to prevent provocative online content spreading out of control.

REF2014 impact case studies  
Research Excellence Framework

About

How to search

FAQs

API

Terms of Use

REF2014

## Search REF Impact Case Studies

Browse the index below or search all Case Studies using keywords [e.g. "NHS"].

Search all Case Studies...

Search

See all case studies

Learn about [advanced search options](#) and read our [Terms of Use](#).

### Browse the index

Submitting Institution

Unit of Assessment

Summary Impact Type

Research Subject Area

Impact UK

### Submitting Institution

Type institution name

East

(453)

East Midlands

(435)

[Anglia Ruskin University](#)

(32)

[Bishop Grosseteste University](#)

(6)

[University of Bedfordshire](#)

(24)

[De Montfort University](#)

(15)

[University of Cambridge](#)

(227)

[University of Derby](#)

(21)

[Cranfield University](#)

(23)

[University of Leicester](#)

(86)

[University of East Anglia](#)

(64)

[University of Lincoln](#)

(35)

[University of Essex](#)

(48)

[Loughborough University](#)

(71)

[University of Hertfordshire](#)

(30)

[University of Northampton](#)

(17)

[Norwich University of the Arts](#)

(2)

[University of Nottingham](#)

(152)

[Writtle College](#)

(4)

[Nottingham Trent University](#)

(38)



UCD Impact Case Study

UCD Research and Innovation

## Using DNA to Pick a Winner

Dr Emmeline Hill

UCD School of Agriculture and Food Science



SCIENTIFIC

TECHNOLOGICAL

ECONOMIC

### SUMMARY

The Thoroughbred horse racing and breeding industry is an international, multi-billion euro business, with more than 100,000 foals born each year. What makes one horse run faster than another is the question that has perplexed race goers for generations.

Dr Hill's research into the so-called 'speed gene' began in 2004 when she received funding from Science Foundation Ireland to investigate the genetic influences on racing performance in Thoroughbred horses. Built around scientific excellence her research led to the development of a 'Speed Gene' Test which can predict the best race distance (short, middle or long) for an individual horse. She set up a spin-out company, Equinome in 2010 to commercialise her scientific results.

The key impacts are economic in terms of jobs created by the new company as well as scientific in that this proprietary technology has the potential to transform how those in the multi-billion global bloodstock industry make key decisions.

This ground breaking research places Ireland at the forefront of the Thoroughbred horse breeding industry by applying science to horse performance.

### DESCRIPTION

In 2004 Dr Emmeline Hill was awarded a President of Ireland Young Researcher award from Science Foundation Ireland, to establish at UCD the world's first academic research programme dedicated to understanding genetic contributions underlying athletic traits in the Thoroughbred. While the research was initiated before the horse genome was sequenced in 2007, this advance enabled the research team to utilise the new genomic tools for the horse, that had previously been unavailable.

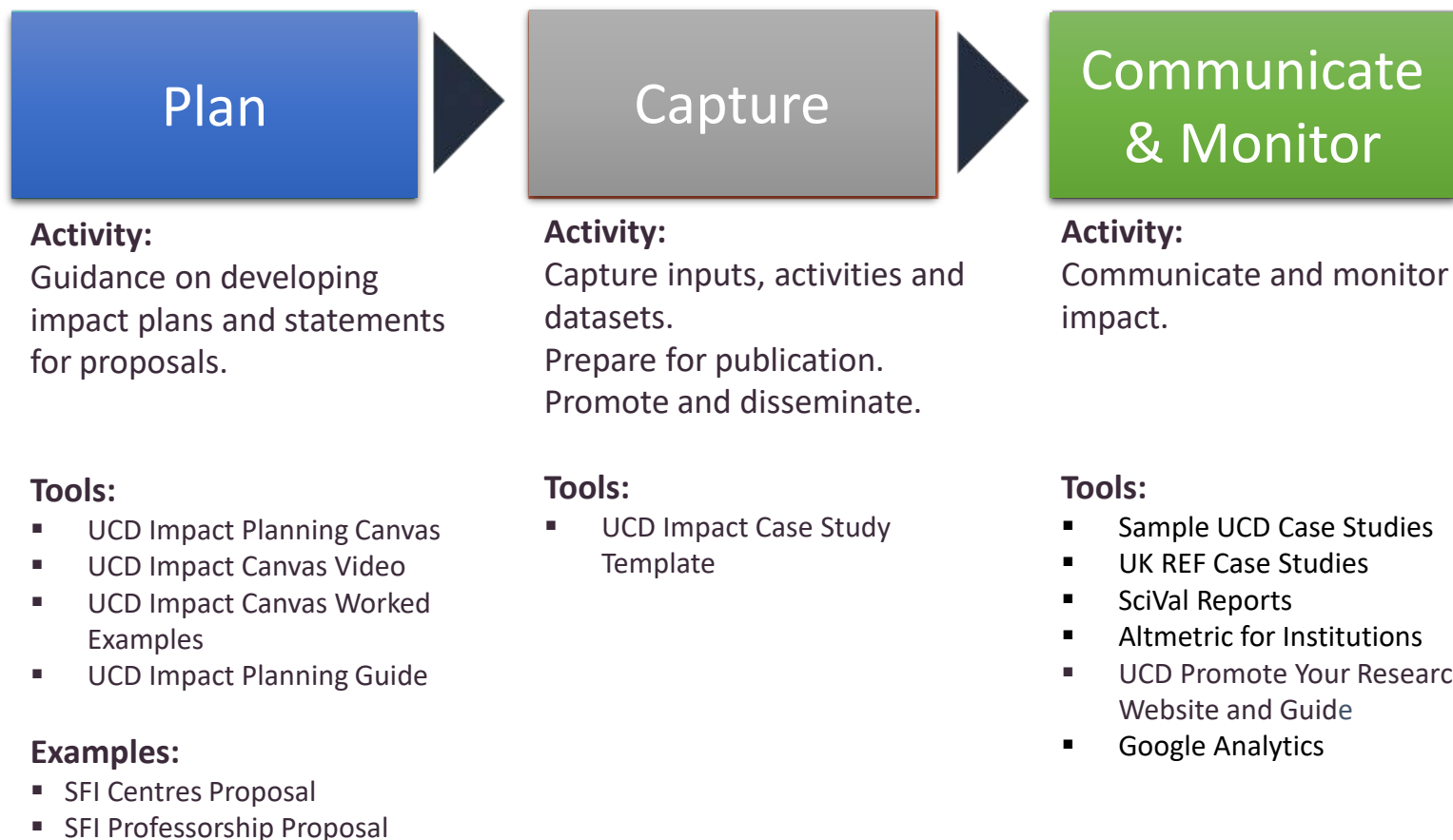
Relying on access to DNA samples from co-operation with trainers and breeders in Ireland and internationally, the team started to build up a valuable set of reference samples. As well as evaluating differences in the DNA sequence the researchers investigated differences in gene expression in the skeletal muscle of the horse and began an understanding of the metabolic changes that occur in response to exercise and training. This research led to the publication of the world's first description of a gene contributing to a specific performance related trait in Thoroughbreds. They found that a variant in the myostatin gene had an unexpectedly large and singular effect on the distance to which a racehorse was best suited, and they called this 'The Speed Gene'.



Dr Emmeline Hill and Mr Jim Bolger, the renowned Irish racehorse trainer and breeder, pictured with Banimpire, a multiple-Group race winning racehorse.

# IMPACT

## SUPPORTS AND RESOURCES





# UCD IMPACT PLANNING CANVAS

UCD RESEARCH & INNOVATION

Plan



# Canvas Worked Examples

## Plan

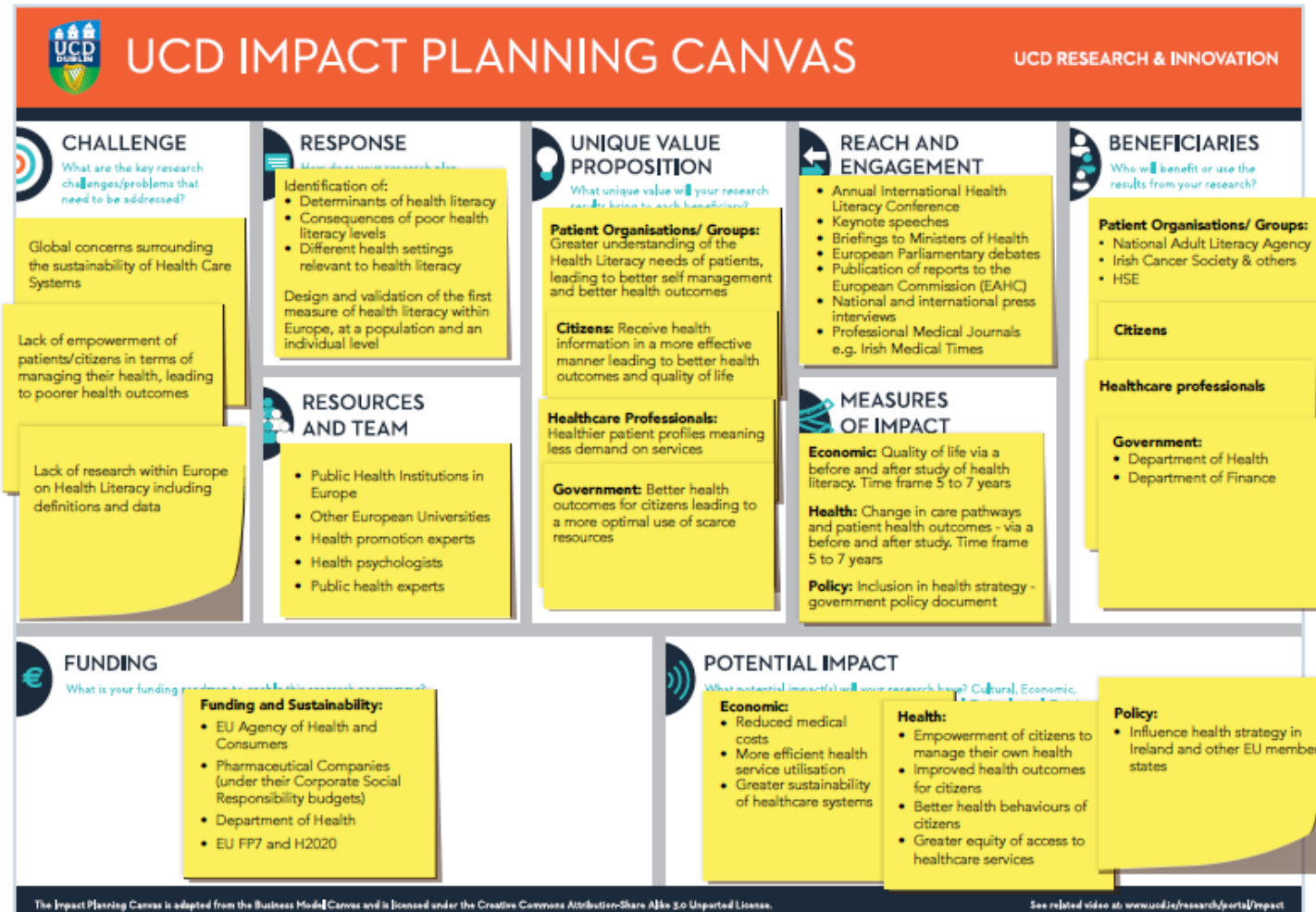
### IMPACT CANVAS EXAMPLE: HEALTH LITERACY

Dr Gerardine Doyle is a Senior Lecturer in Accounting and Tax in the UCD College of Business.

Gerardine's research is interdisciplinary spanning the disciplines of accounting, taxation, economics, medicine, public health and sociology. Gerardine has been Principal Investigator in the conduct of large inter-disciplinary EU funded comparative research projects that have addressed key health policy and societal challenges.

Gerardine was the principal investigator for Ireland on a study of health literacy across eight European countries (HLS-EU) funded by the European Agency for Health and Consumers (2009-2012).

The European Health Literacy Survey is the first ever pan-European study of health literacy. The study aimed to extend our understanding of the concept of health literacy, moving beyond the clinical setting to include health literacy in the context of disease prevention and health promotion. The study sought to enhance our understanding of the consequences of low levels of health literacy for citizens and for the state. The study generated first time population data on health literacy in eight European countries – Austria, Bulgaria, Germany, Greece, Ireland, The Netherlands, Poland and Spain.



# Case Study Template

Capture

1	<b>Researcher(s) Name:</b>
2	<b>Name of School (and Institute where applicable):</b>
3	<b>Types of Impact (Maximum of 3):</b> <p>Most research projects will have impacts in multiple areas. Please tick all that apply to your research.</p> <p> <input type="checkbox"/> Academic             <input type="checkbox"/> Cultural             <input type="checkbox"/> Economic             <input type="checkbox"/> Environmental             <input type="checkbox"/> Health             <input type="checkbox"/> Political             <input type="checkbox"/> Scientific             <input type="checkbox"/> Social             <input type="checkbox"/> Technological             <input type="checkbox"/> Training         </p>
4	<b>Title of Case Study:</b> Strong, easy to understand title expressed in layman's terms that draws in the reader.
5	<b>Images: (1 – 3 high quality images)</b> <p>Please provide 1 – 3 images to depict how their research is making a difference to society, the economy or other research.</p> <p>Please ensure that the relevant permissions have been sought, copyright is not infringed and that any necessary release forms have been signed.</p>
6	<b>Research Description (maximum 250 words):</b> <p>This section provides details of what research was undertaken, in what timeframe and by whom (include collaborators). It should outline the key research insights or findings that underpinned the impact achieved (to be described in next section below).</p>
7	<b>Summary of the Impact (maximum 500 words):</b> <p>This section should provide a narrative, with supporting evidence, to explain:</p> <ul style="list-style-type: none"> <li>➤ How the research underpinned made a distinct and material contribution to the impact.</li> <li>➤ The nature and extent of the impact.</li> </ul> <p>Be as clear as possible about exactly <b>WHAT</b> the impact was, adding some sort of precise quantification wherever possible. Numeric data and indicators need to be meaningful and contextualised to clearly support the case being made (not used as a substitute for a clear narrative). Avoid generalised or exaggerated statements about impact.</p> <p>Clearly identify specifically <b>WHO</b> has benefited from the work or which groups/organisations have changed something as a result of it (bear in mind that this may include 'intermediary' organisations as well as your intended 'end users' or audiences). It can be useful to indicate the numbers of people impacted and <b>WHEN</b> these impacts occurred. Also relevant is <b>WHERE</b> the impact has occurred, particularly whether the impact is local, national and/or international in scope.</p> <p>Case studies can be brought to life with greater resonance by including quotes that illustrate the impact - significant credibility is added if these quotes are from people with high profile and relevant job titles.</p>
8	<b>Research References:</b> <p>Include references, web links, grant information, awards, reviews, peer review or other quality assurance processes. If referencing publications, please include the link to the publication and the Digital Object Identifier (DOI).</p>

Types of impact

Title of Case Study

Images

Research description

Summary of impact

What,  
Who,  
Where,  
When

References to research & impact

# Types of Impact

Communicate  
& Monitor

## CULTURAL



Contribution to understanding of ideas and reality, values and beliefs.

## ECONOMIC



Contribution to the sale price of products, a firm's costs and revenues (micro level), and economic returns either through economic growth or productivity growth (macro level).

## ENVIRONMENTAL



Contribution to the management of the environment, for example, natural resources, environmental pollution, climate and meteorology.

## HEALTH



Contribution to public health, life expectancy, prevention of illnesses and quality of life.

## POLITICAL



Contribution to how policy makers act and how policies are constructed and to political stability.

## SCIENTIFIC



Contribution to the subsequent progress of knowledge, the formation of disciplines, training and capacity building.

## SOCIAL



Contribution to community welfare, quality of life, behaviour, practices and activities of people and groups.

## TECHNOLOGICAL



Contribution to the creation of product, process and service innovations.

## TRAINING



Contribution to curricula, pedagogical tools, qualifications

# Case Study Examples

Communicate  
& Monitor

**UCD Impact Case Study** UCD Research and Innovation

## The Poverty Effects of a Fat Tax in Ireland

Professor David Madden  
UCD School of Economics


**Summary**  
As part of a suite of measures to combat obesity, a tax on sugar-sweetened beverages (SSBs) (a version of the so-called 'fat tax') has been proposed. One reservation about such a policy is the impact it would have on poorer families, as such beverages may form a higher portion of their budget. This study examined expenditure patterns and confirmed that this indeed would be the case. However, the effects upon poverty could easily be offset by a simultaneous subsidy on fruit and vegetables set at such a level that the overall impact on tax revenue would be neutral.

**Description**  
**Research Objectives**  
This study carried out a detailed examination of expenditure patterns of Irish households using the nationally representative Household Budget Survey. The purpose was to investigate:  
- the poverty impact of a tax on sugary and fatty foods and sugar-sweetened beverages in particular  
- a tax on SSBs which would be accompanied by a subsidy on fresh fruit and vegetables set at such a level that the impact on overall revenue would be neutral  
- combinations involving a tax of other fatty/sugary goods combined with a subsidy on fresh fruit and vegetables.

**Research Findings**  
The study employed a consumption dominance approach which meant that the results obtained would be robust to a wide range of chosen poverty measures. Adjustments were made to the data to reflect differing family size and composition (total) in this area as consumption of SSBs is heavily influenced by these factors.

**Research Findings**  
Analysis confirmed that a tax on SSBs would increase poverty as consumption of these goods is more concentrated amongst lower income households. Both tax/subsidy packages were found to have a negligible impact upon poverty.

**Impact**  
This research investigated the poverty impact of a tax on sugary and fatty foods and sugar-sweetened beverages.



**UCD Impact Case Study** UCD Research and Innovation

## Migrant children in education

Professor Dymna Devine  
UCD School of Education and UCD Geary Institute

**Summary**  
Migration is undoubtedly a hot topic internationally but debates rarely focus on the impact and experience of migration on education. My research in this area has examined the changing ethnic and demographic profile in schools in Ireland over the past fifteen years. A core focus has been identifying policies and practices in schools in newly multi-ethnic contexts, and the challenges and opportunities that arise from rapid social and cultural change. A specialist focus has been exploring these issues through the lens of children's voices, highlighting dynamics of inclusion/exclusion, power and inequalities as migrant children transition between home/community and school. In addition my work has explored how teaching and leadership practices evolve in newly multi-ethnic contexts, and the wider impact of increasing ethnic diversity in a predominantly (Catholic) faith-based state funded education system.

**Description**  
Much of the research into ethnicity and schooling has emerged in countries with a long history of immigration. Such research consistently highlights the relative under-performance of migrant children into the second and third generation in schools. My research is part of a growing interest internationally on research in newly multi-ethnic societies, as well as research that prioritise the role of children as key social actors in society. Most recently I have built on this through research with migrant children in schools in New York.

**Impact**  
Drawing predominantly on ethnographic and micro-analysis of the life worlds of children in schools, I have explored the meanings which children attach to their experiences and how this contributes to their evolving identities and their position as learners, and as persons of value in the education system. Through a deep analysis of how migrant children experience their friendships, teaching and learning, I have shown how the foundations for inequalities and differences in learning are reinforced through practices of misrecognition in schools.

**Impact**  
This research examined the impact of the changing ethnic and demographic profile in schools in Ireland over the past fifteen years.



**UCD Impact Case Study** UCD Research and Innovation


## Using DNA to Pick a Winner

Dr Emmeline Hill  
UCD School of Agriculture and Food Science

**Summary**  
The Thoroughbred horse racing and breeding industry is an international, multi-billion euro business, with more than 400,000 foals born each year. What makes one horse run faster than another is the question that has perplexed race givers for generations.  
Dr Hill's research into the so-called 'speed gene' began in 2004 when she received funding from Science Foundation Ireland to investigate the genetic influences on racing performance in Thoroughbred horses. Her research led to the development of a 'Speed Gene' test which can predict the best race distance (sprint, middle or long) for an individual horse. She set up a spin-out company, Equigen, in 2010 to commercialise her scientific results.  
The key impacts are economic in terms of jobs created by the new company as well as scientific, as that this proprietary technology has the potential to transform how those in the much larger global bloodstock industry make key decisions.

**Description**  
In 2004 Dr Emmeline Hill was awarded a President of Ireland Young Researcher award from Science Foundation Ireland, to establish an UCD the world's first academic research programme dedicated to understanding genetic contributions underlying athletic traits in the Thoroughbred. While the research was initiated before the horse genome was sequenced in 2007 this advance enabled the research team to utilise the new genomic tools for the horse, that had previously been unavailable.  
Relying on access to DNA samples from co-operation with trainers and breeders in Ireland and internationally, the team started to build up a valuable set of reference samples. As well as evaluating differences in the DNA sequence the researchers investigated differences in gene expression in the skeletal muscle of the horse and began an understanding of the metabolic changes that occur in response to exercise and training. This research led to the publication of the world's first description of a gene contributing to a specific performance related trait in Thoroughbreds. They found that a variant in the myostatin gene had an unexpectedly large and singular effect on the distance to which a racehorse was best suited, and they called this 'The Speed Gene'.

**Impact**  
This ground breaking research places Ireland at the forefront of the Thoroughbred horse breeding industry by applying science to horse performance.



**UCD Impact Case Study** UCD Research and Innovation

## UCD Helps BioAtlantis Develop Novel Animal Health Product

Professor John O'Doherty and Professor Torres Sweeney  
UCD School of Agriculture and Food Science and UCD School of Veterinary Medicine

**Summary**  
In 2003 Dublin-based biotechnology company, BioAtlantis began collaborating with UCD researchers to develop a seaweed-based product to promote better animal health.  
A key driver in the partnership was the ruling from Europe in 2006 that banned the use of in-feed growth promoting antibiotics. This was a major blow to the farming community throughout the EU and BioAtlantis, in partnership with UCD, sought to develop an effective natural alternative that could be validated by independent scientific research.  
As a result of this successful collaboration with UCD researchers, BioAtlantis launched a pioneering animal health product, Lactoblast. This breakthrough product has significant international sale potential worldwide. As a result of the collaboration UCD has become an internationally recognised centre of research excellence in the use of seaweed bioactives in animal nutrition.  
The research collaboration has received funding from the Department of Agriculture, Food and Marine, Science Foundation Ireland, Enterprise Ireland and the Irish Research Council.

**Description**  
Modern systems of animal production have been extremely successful in delivering large volumes of low cost food to the human population. The combination of high productivity and large numbers of animals inevitably means that animals are exposed to considerable stress during their productive period. Modern animal production has traditionally dealt with some of the problems of stress by using antimicrobial growth promoters to improve performance and for health. However, the use of antibiotic growth promoters was banned in EU member states since January 2006 and alternative systems to overcome stress, and to maintain efficient animal production had to be identified.

**Impact**  
As a result of a successful collaboration with UCD, BioAtlantis launched a pioneering animal health product on the world stage.




Gathered and optimised impact case studies with academics from all UCD colleges

# An example form Arts & Humanities

Communicate  
& Monitor



Adobe Acrobat  
Document






## UCD Impact Case Study

UCD Research and Innovation

### Remembering and Commemorating the Irish Famine

Dr Emily Mark-FitzGerald  
UCD School of Art History and Cultural Policy



CULTURAL POLITICAL SOCIAL

#### SUMMARY



Dr Emily Mark-FitzGerald's research explores the history of the 1840s Irish Famine in visual representation, commemoration, and cultural memory from the 19th century until the present, across Ireland and the nations of its diaspora. Her work has included the first extensive global survey of community and national responses to the Famine's 150th anniversary in the 1990s, documenting more than 140 Famine memorials worldwide. By outlining why these memories matter and to whom, her research offers an innovative look at a well-known migration history, and explores how a now-global ethnic community redefines itself through acts of public memory and representation. This research impacts upon four primary groups: academics, policy-makers, museum and heritage professionals, and Irish diaspora community groups, in addition to the wider public.

Dr Mark-Fitzgerald advises commemorative project groups on protocols concerning the commissioning of public monuments, and is a Core Advisory Board member of the International Network of Irish Famine Studies.

#### RESEARCH DESCRIPTION

As the watershed event of 19th century Ireland, the Famine's political and social impacts profoundly shaped modern Ireland and the nations of its diaspora. Yet not until the 150th anniversary of the Famine in the 1990s did it receive widespread commemorative attention, with more than one hundred monuments newly constructed across Ireland, Northern Ireland and beyond.

Whether at small or large scale, these commemorative monuments offer unique insight into the interplay between Irish history, memory, and heritage. The work of commemorative committees, fundraising activities, commissioning of artists, physical construction of the works,

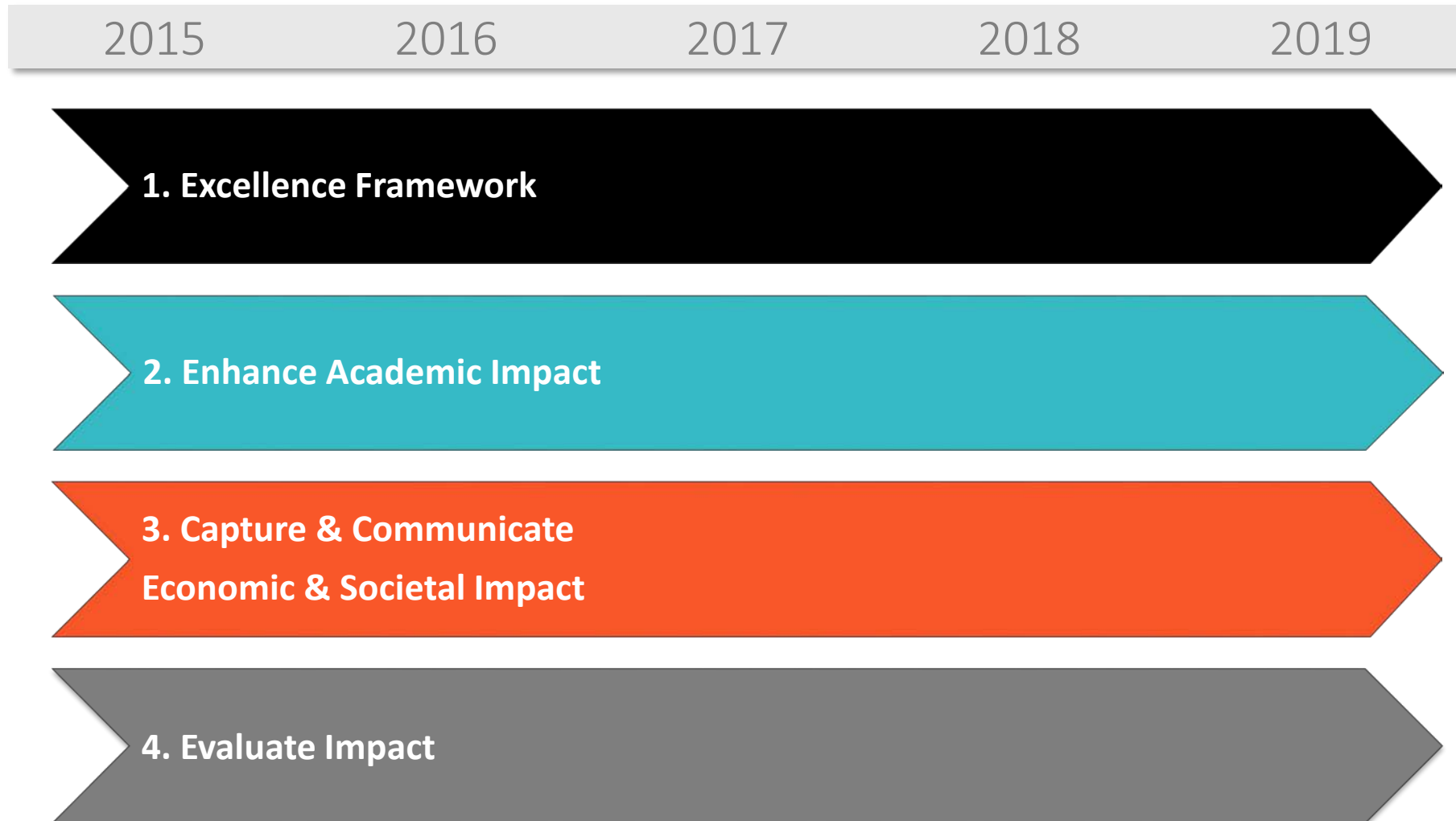


# **Embedding a University-wide Culture of Research Impact – Key Initiatives**

Liam Cleere

University College Dublin

# Impact work programme

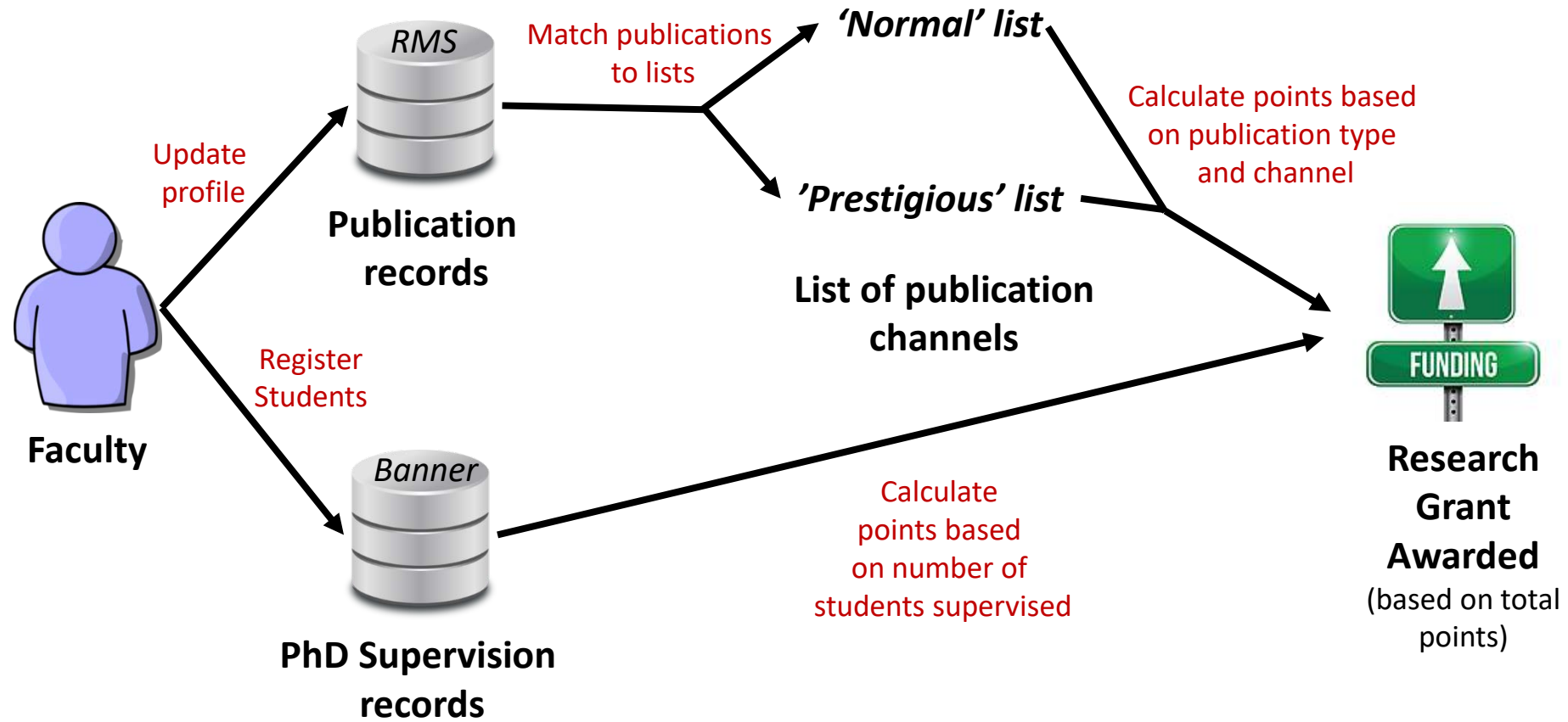


# 1. Excellence Framework

To achieve this vision we will pursue ten key objectives									
<b>University KPIs</b> Note: Proposed Measures (Column 1) are taken directly from the UCD Strategic Plan 2015–2020. • Where Possible goals and targets to be based on percentage increase. • Comparator group of World Top 200 Universities to be identified for benchmarking where data are available to do so. • Reserve the right to substitute KPIs if more appropriate measures become available									
Current Version: Updated 7th Jan 2016 Total KPIs: 33 Total MIs: 81									
Proposed Measures	Metrics	Measures already defined	Source	Availability	Benchmark	Note	KPI / Mgt Information	Reporting Levels	Updated
<b>1. Increase the quality, quantity and impact of our research, scholarship and innovation.</b> UCD Strategy 2015 – 2020 states: • Further develop already-strong portfolio of innovation programmes, patent development, spin-out companies and technology transfer. • Adopt actions to increase the quality, quantity and impact of our research, scholarship and innovation to levels equal to or exceeding those of a comparator group of world top 100 universities.									
Research quantity	Publication Volume	Scopus Documents: 2010-2014 13,950	Scopus/SciVal	Available	Comparator group of world top 200 universities	Recognise disciplinary norms Investigate possibility of normalising by number of academic staff taking note of the difficulty in obtaining a standard definition of academic staff for benchmarking purposes	KPI	Institution, College, Schools	Quarterly
	PhD students (Incoming new entrants)		Banner	Available	Irish Comparisons available through HEA.	Leading Indicator	KPI	Institution, College, Schools	
	Research Awards: Externally Funded Research Awards Value per year	2013/14: (€14m)	UCD Research (RMS Grants)	Available	HEA Website (Uni Profiles) / Grant Thornton Report	Leading Indicator Compare Irish Universities Question if this is a research impact measure	KPI	Institution, College, Schools	Quarterly
Research Impact	Field-Weighted Citation Impact	SciVal FwCI 2010-2014: 2010-2014: 1.62	Scopus/SciVal	Available	Comparator group of world top 200 universities	Not clear that we need both citation volume and FwCI as KPIs	KPI	Institution, College, Schools	Quarterly
Recognise high quality work that is not captured by quantitative metrics.	Track esteem indicators and transformative contributions (Societal Impact)	Altmetric mentions per article: 6.37 (3 year total)	Altmetric	Available	Comparator group of world top 200 universities Altmetric will allow comparison with other institutions.	Altmetrics is a developing tool and is a very incomplete measure here. Mention of delivering impact economically, socially, culturally and in the formation of public policy. Further investigative work needs to be carried out to evaluate the usefulness of Altmetrics. To be included tentatively: will be replaced if an alternative more appropriate tool or measure is found. Usefulness will be in tracking changes over time and against a comparator group of institutions.	KPI	Institution, College, Schools	Quarterly
	Prestigious research awards: ERC	ERCs	UCD Research	Available		ERC awards	KPI	Institution	Annually
Innovation	Number of new Spin outs (2014)	4	UCD Nova	Available	HEA Website (Uni Profiles)	Do we protect Intellectual Property or put in public domain? May replace at a later date should a	KPI	Institution	Annually

UCD Key Performance Indicators (Jan 2016)

## 1. Excellence Framework



Output-Based Research Support Scheme (Oct 2016)

## 2. Enhance Academic Impact



**PROMOTE YOUR RESEARCH**

Tips to promote your research for greatest impact

**I'M NEW TO THIS – I NEED TO BE CONVINCED**

As global scientific output doubles every nine years, it is more important than ever to ensure your research stands out.

[READ MORE](#)


**I'M READY TO GET STARTED**

Optimising the discoverability of your research on the internet is a great way to enhance its visibility, citation rate and impact. Read the UCD Guide on Promoting your Research for greatest impact.

[READ MORE](#)

UCD Promote your research website (Mar 2016)


## 2. Enhance Academic Impact




### PROMOTE YOUR RESEARCH

- HOME
- I'M NEW TO THIS >
- I'M READY TO GET STARTED >
- RESOURCES >
- ABOUT

---

 Follow us on Twitter  
#PromoteYourResearch

# I'm ready to get started




You are here:

[Home](#) > [I'm ready to get started](#)


**“** Optimising the discoverability of your research on the internet is a great way to enhance its visibility, citation rate and impact.

Throughout the three stages of this guide, PREPARE, PROMOTE and MONITOR, we will show how social media and online dissemination tools can be used to boost the profile of your research.




### Prepare

Preparing for Publication



### Promote

Dissemination of publications and other research outputs



### Monitor

Keeping track of your research output

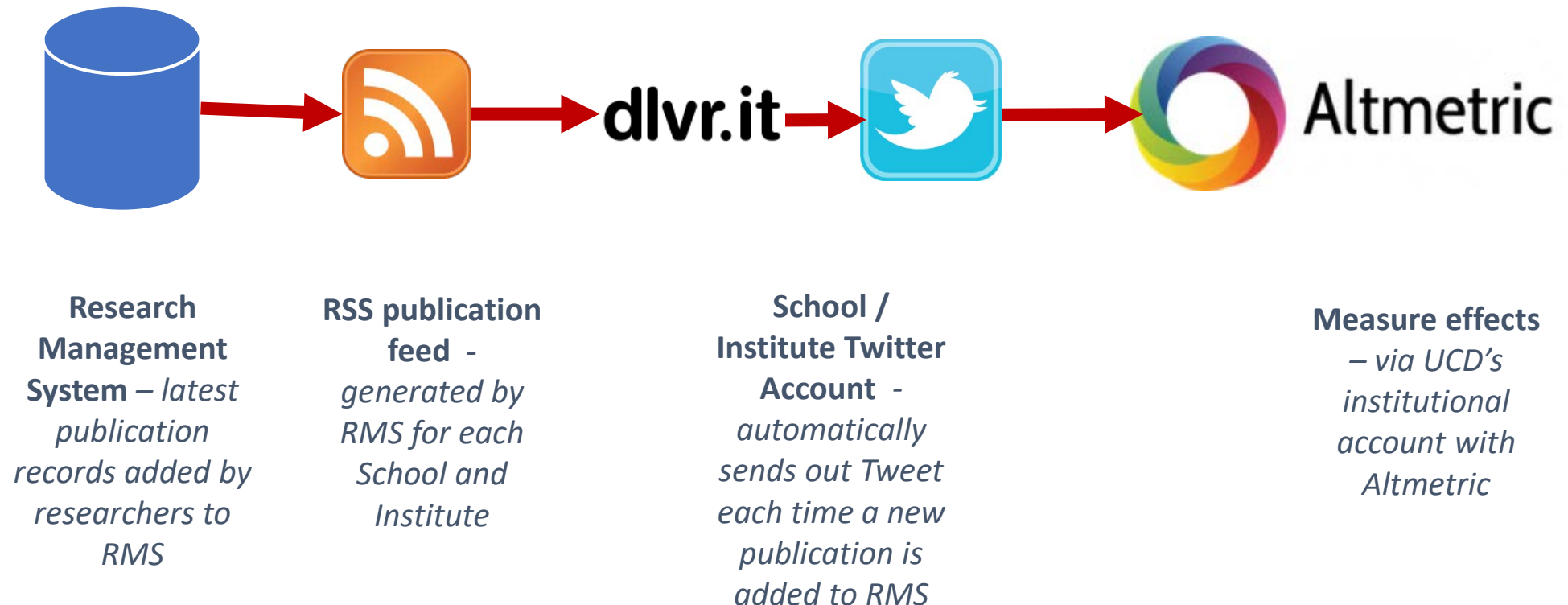
# Automated Twitter Feed

1. Collection

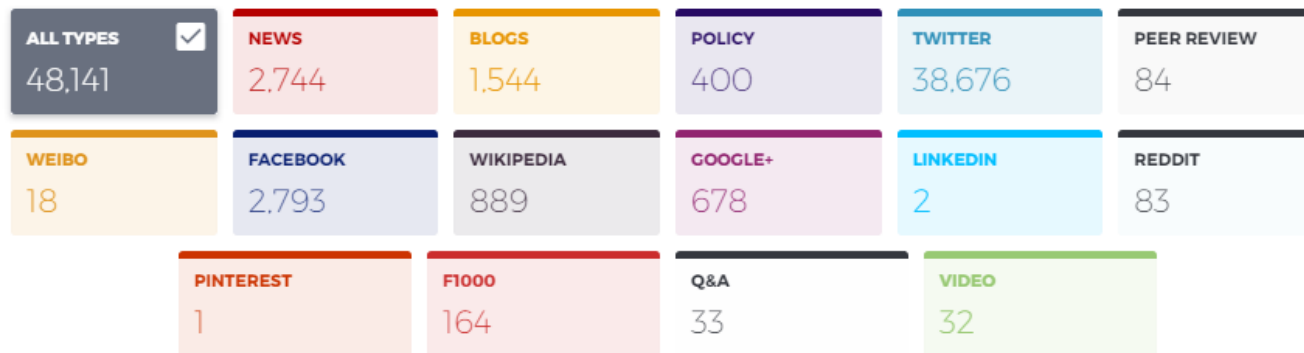
2. RSS

3. Automated Feed to  
Twitter via Dlvrit

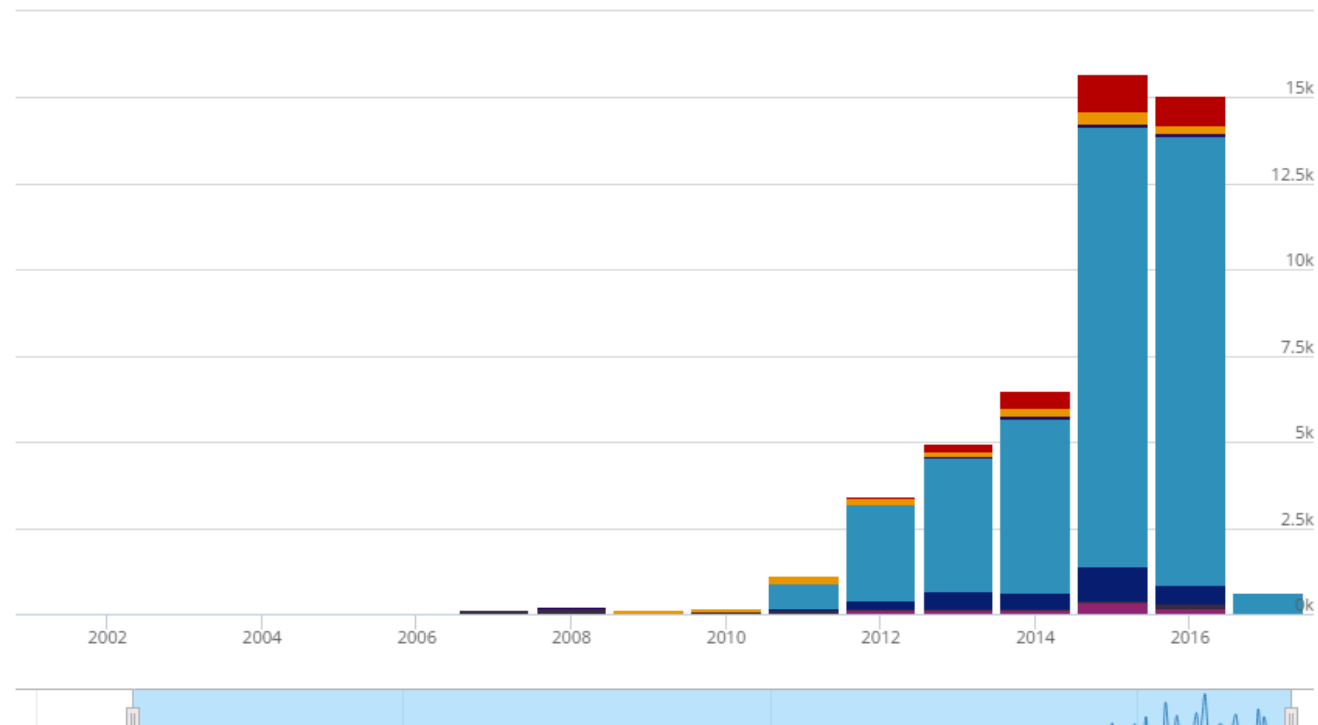
4. Measurement



## MENTION SUMMARY



ZOOM 1 week 1 month 3 months 6 months 1 year All time



## SUMMARY

Total mentions	48,141
Research outputs	15,766
Outputs with mentions	5,757
Sources of attention	15

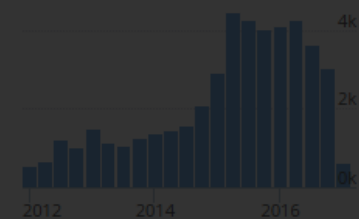
EXPORT RESULTS AS CSV

RETURN TO SEARCH

All overview statistics and institutional data were last updated **about 11 hours ago**. The next update will run in **about 13 hours**.

Export results as CSV

## ATTENTION SUMMARY



All overview statistics and institutional data were last updated **about 11 hours ago**. The next update will run in **about 13 hours**.

### 3. Capture & Communicate Economic & Societal Impact



UCD Impact Portal website (Jun 2016)

# IMPACT

## SUPPORTS AND RESOURCES

### PLAN

**Activity:**

Guidance on developing impact plans and statements for proposals.

**Tools:**

- UCD Impact Planning Canvas
- UCD Impact Canvas Video
- UCD Impact Canvas Worked Examples
- UCD Impact Planning Guide

**Examples:**

- SFI Centres Proposal
- SFI Professorship Proposal

### CAPTURE

**Activity:**

Capture inputs, activities and datasets.  
Prepare for publication.  
Promote and disseminate.

**Tools:**

- UCD Impact Case Study Template

### COMMUNICATE & MONITOR

**Activity:**

Communicate and monitor impact.

**Tools:**

- Sample UCD Case Studies
- UK REF Case Studies
- SciVal Reports
- Altmetric for Institutions
- UCD Promote Your Research Website and Guide
- Google Analytics

## 4. Evaluate Impact



**Delivering Impact - The Economic, Social and Cultural Impact of UCD (Apr 2015)**

A wide-angle photograph of the University of Dublin campus. In the foreground, there's a green lawn with a large, dark, spherical stone sculpture. A paved path winds through the lawn. To the left, a lake with several fountains is visible. In the background, there are modern university buildings with glass facades and a large, circular building. The sky is blue with white clouds.

# €1.3bn

**Annual economic  
output generated by  
UCD and its students  
in Ireland**

# Focus for 2017

- Implement New Research Management Information System
- Research Impact Case Study Competition
- Impact Seminar Series
- Output-Based Research Support Scheme II
- Support Colleges and Schools on impact:
  - Impact for proposals
  - Localised metrics to aid strategies
  - Impact Planning Canvas Workshops



# MEASURING SOCIETAL IMPACT

HELEN LEWIS – UNIVERSITY OF EAST ANGLIA  
SIGRIDUR BECK – UNIVERSITY OF GOTHENBURG

# AURORA NETWORK UNIVERSITIES



UNIVERSITY OF  
GOTHENBURG



UNIVERSITY OF ICELAND



## ABOUT THE AURORA NETWORK

**We are a community of European Universities, who share a mission to advance social good and solve global challenges - and so do our students.**

Through the Aurora Network, we will:

- Share our collective best practice in being relevant, socially inclusive and diverse institutions. Access to education is at the core of our institutional missions and we will demonstrate our commitment to inclusion and diversity.
- Ensure we learn from each other in how we respond to an increasingly digitised world. Through our research, education and engagement, we will combine our expertise in how to remain relevant and resilient in the digital landscape.
- **Commit to delivering research which provides solutions to societal issues - locally, nationally and internationally.**
- Make our university experience a lasting and meaningful one for our students. While we provide an education which other universities aspire to, we will also encourage our alumni to make a real impact in the world as truly global citizens.

# THE CHALLENGE OF MEASURING SOCIETAL IMPACT

- The view from AURORA Network members
- The view from session attendees

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# Looking at utilization possibilities through four logics



Make research available through contractual networks



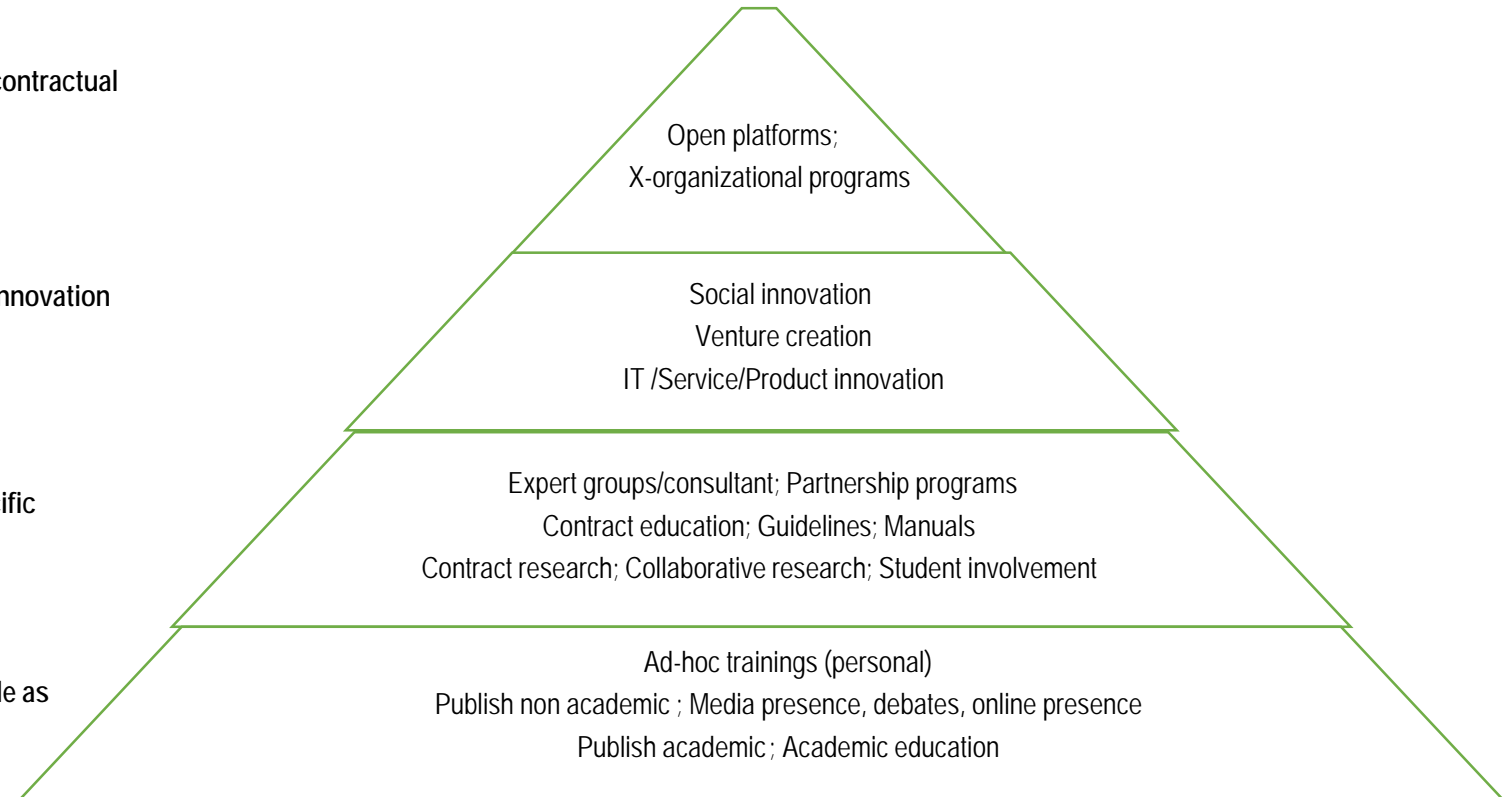
Make research available through innovation processes



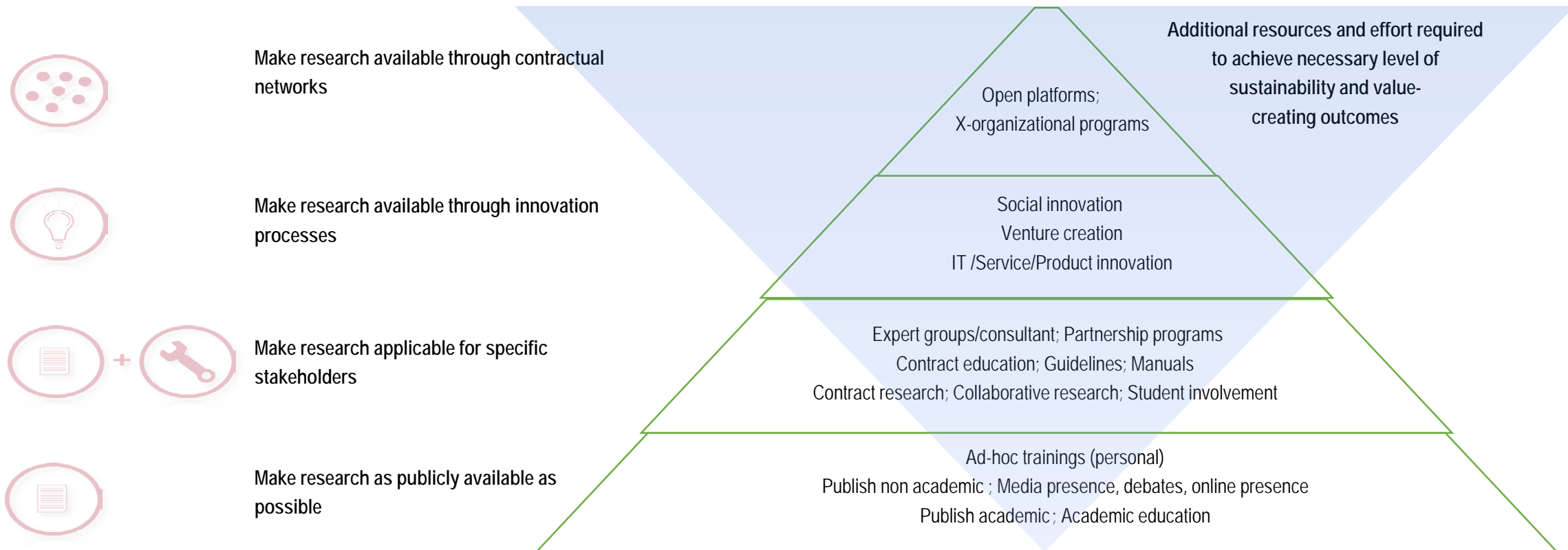
Make research applicable for specific stakeholders



Make research as publicly available as possible

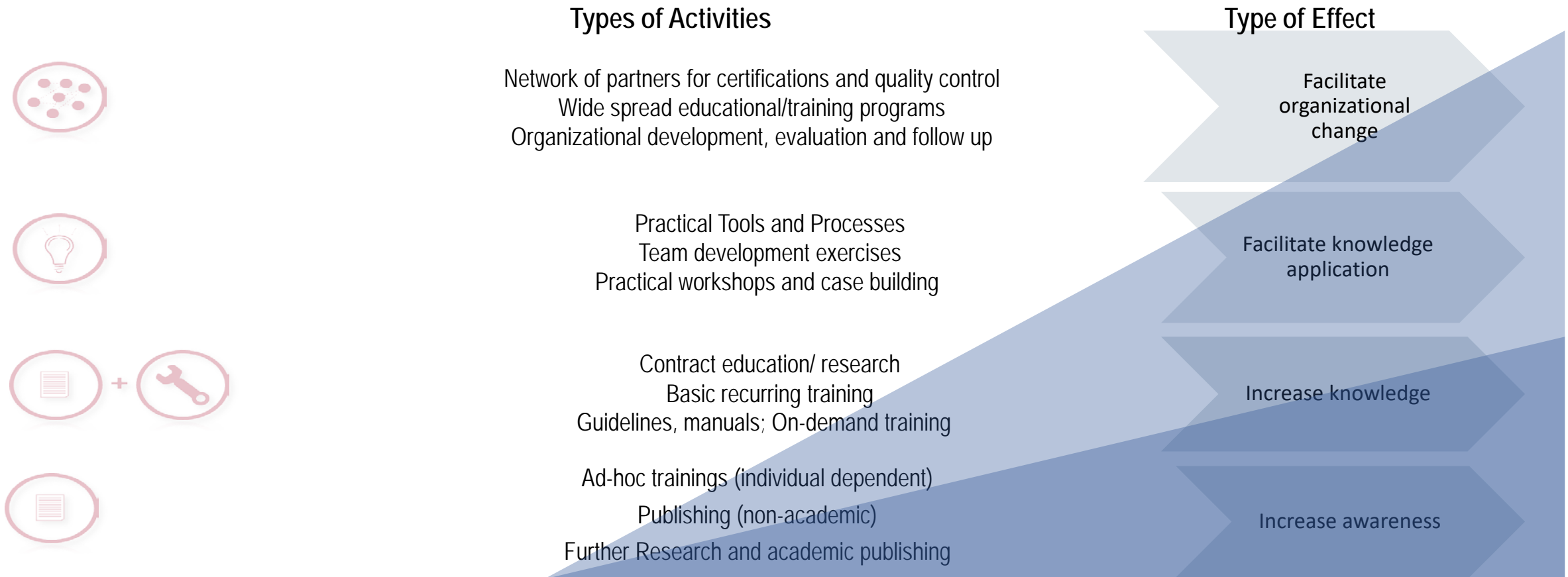


# What are the options – a realistic view of goals

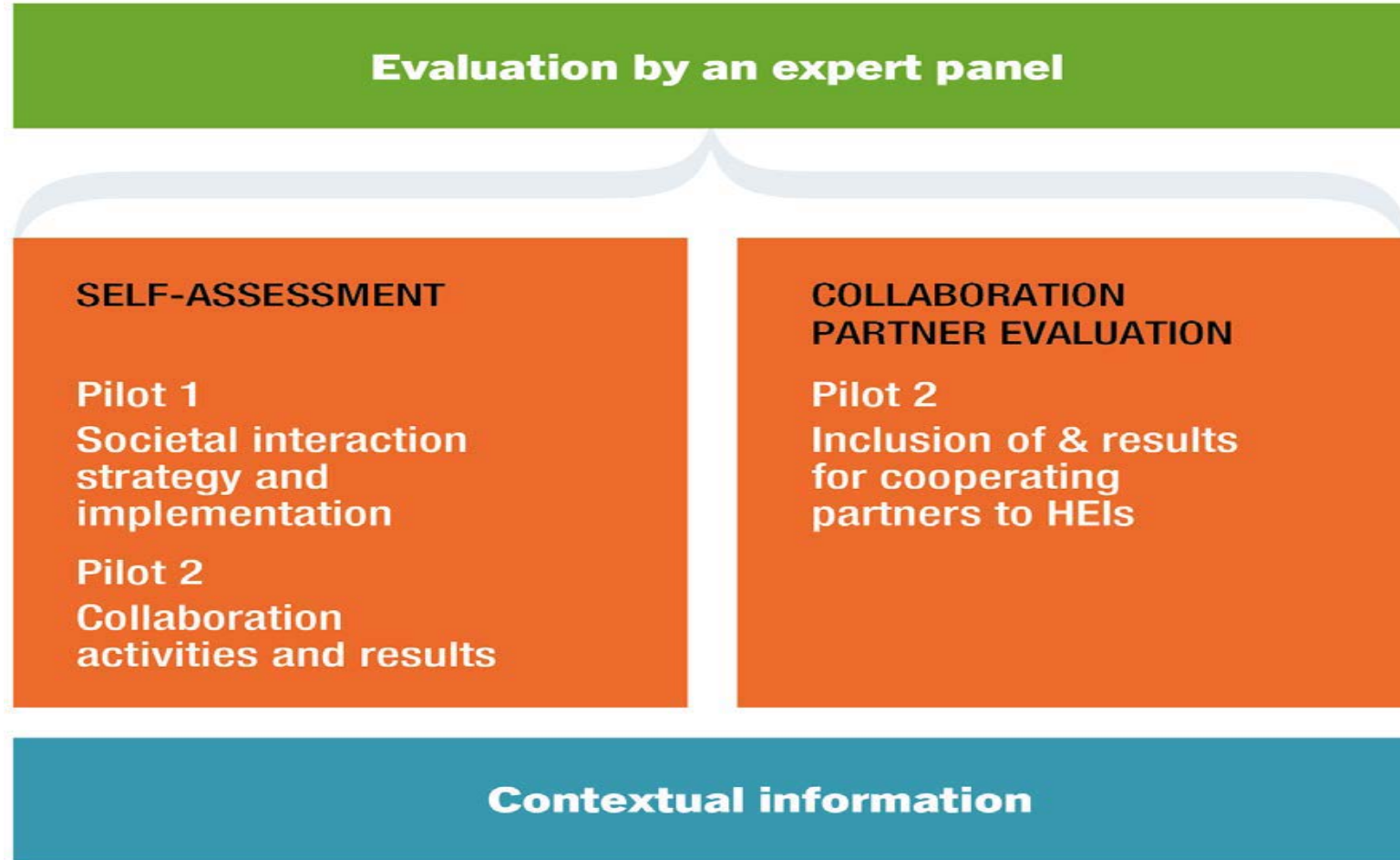


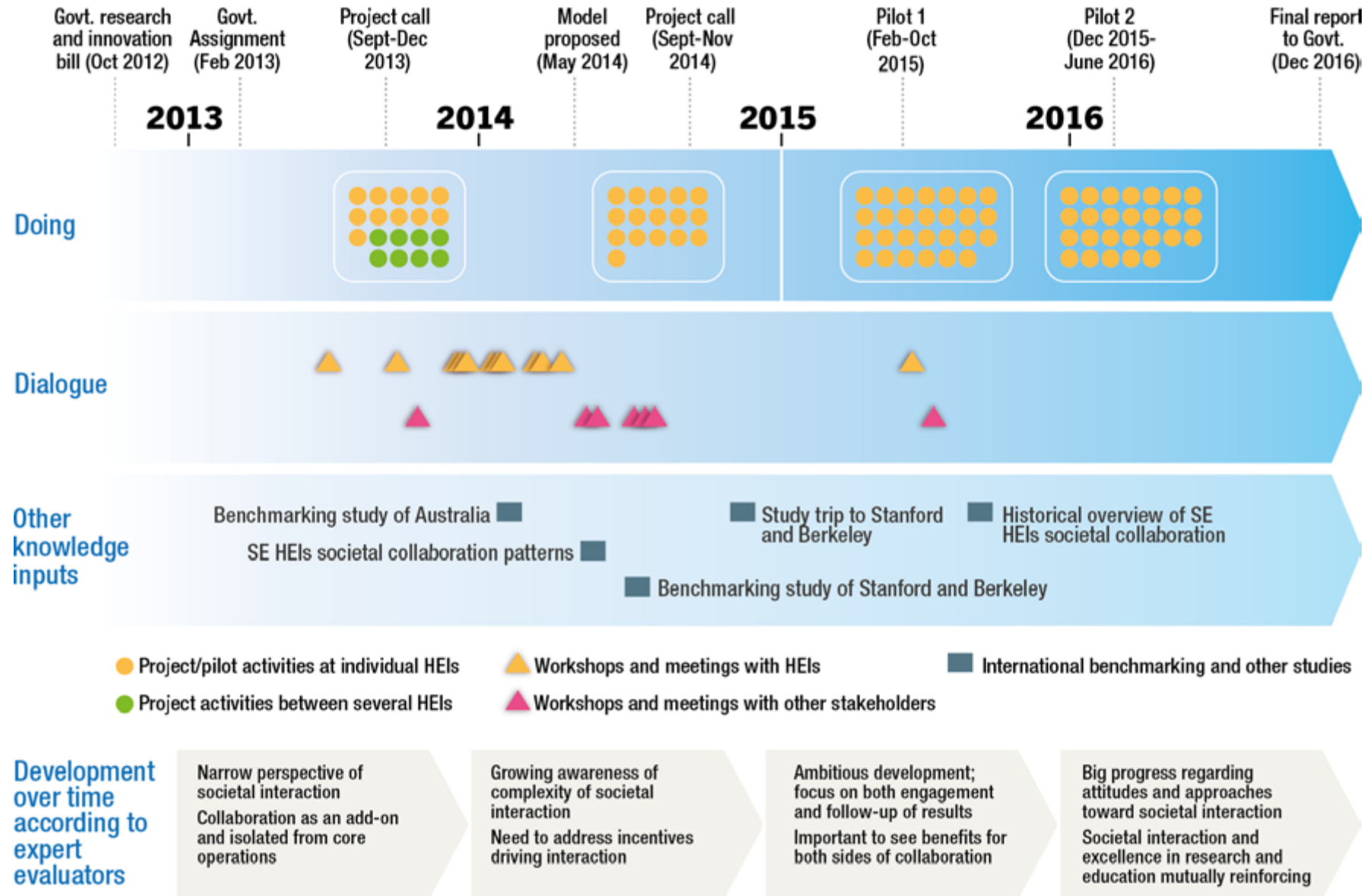
# Utilization options

Example of utilization activities and outcomes that can be generated from research efforts



# The Swedish Innovation Agency Model





**Figure 8: Overview of process for pilot calls**

	HEIs' Input	International Expert Panel Evaluation		Allocation of Funding
<b>Pilot 1</b> (27)	<p><i>Written documentation</i></p> <ul style="list-style-type: none"> <li>• Background information on HEI's context</li> <li>• Self assessment of strategy and implementation</li> <li>• Documentation (or other) to validate self-assessments</li> </ul>	<p><i>Quality and performance of...</i></p> <ul style="list-style-type: none"> <li>• Strategy</li> <li>• Implementation</li> </ul>	<p><i>Assigning rating...</i></p> <ul style="list-style-type: none"> <li>• Emerging</li> <li>• Developed</li> <li>• Well-advanced</li> </ul>	<p><i>Budget of 60 MSEK for each pilot call allocated to HEIs...</i></p> <ul style="list-style-type: none"> <li>• Fixed amount of 500.000 SEK for each participating HEI</li> <li>• Remaining amount divided among HEIs based on their evaluation rating (pro-rated based on size of the HEI)</li> </ul>
<b>Pilot 2</b> (26)	<p><i>Written documentation</i></p> <ul style="list-style-type: none"> <li>• Description of 10 societal collaboration activities</li> <li>• Self assessment of activities and results</li> <li>• Documentation (or other) to validate self-assessments</li> </ul> <p><i>Survey of collaboration partners</i></p> <p><i>Interviews of teams from each HEI</i></p>	<p><i>Quality and performance of...</i></p> <ul style="list-style-type: none"> <li>• Activities</li> <li>• Results</li> </ul>	<p><i>Assigning rating...</i></p> <ul style="list-style-type: none"> <li>• Good</li> <li>• Very good</li> <li>• Excellent</li> </ul>	<p><i>Budget of 60 MSEK for each pilot call allocated to HEIs...</i></p> <ul style="list-style-type: none"> <li>• Minimum 1.500.000 SEK for each HEI</li> <li>• Remaining amount divided among HEIs based on their evaluation rating (pro-rated based on size of the HEI)</li> </ul>

TABLE 1. GROWING PERVERSE INCENTIVES IN ACADEMIA

<b><i>Incentive</i></b>	<b><i>Intended effect</i></b>	<b><i>Actual effect</i></b>
"Researchers rewarded for increased number of publications."	"Improve research productivity," provide a means of evaluating performance.	"Avalanche of" substandard, "incremental papers"; poor methods and increase in false discovery rates leading to a "natural selection of bad science" (Smaldino and McElreath, 2016); reduced quality of peer review
"Researchers rewarded for increased number of citations."	Reward quality work that influences others.	Extended reference lists to inflate citations; reviewers request citation of their work through peer review
"Researchers rewarded for increased grant funding."	"Ensure that research programs are funded, promote growth, generate overhead."	Increased time writing proposals and less time gathering and thinking about data. Overselling positive results and downplay of negative results.
Increase PhD student productivity	Higher school ranking and more prestige of program.	Lower standards and create oversupply of PhDs. Postdocs often required for entry-level academic positions, and PhDs hired for work MS students used to do.
Reduced teaching load for research-active faculty	Necessary to pursue additional competitive grants.	Increased demand for untenured, adjunct faculty to teach classes.
"Teachers rewarded for increased student evaluation scores."	"Improved accountability; ensure customer satisfaction."	Reduced course work, grade inflation.
"Teachers rewarded for increased student test scores."	"Improve teacher effectiveness."	"Teaching to the tests; emphasis on short-term learning."
"Departments rewarded for increasing U.S. News ranking."	"Stronger departments."	Extensive efforts to reverse engineer, game, and cheat rankings.
"Departments rewarded for increasing numbers of BS, MS, and PhD degrees granted."	"Promote efficiency; stop students from being trapped in degree programs; impress the state legislature."	"Class sizes increase; entrance requirements" decrease; reduce graduation requirements.
"Departments rewarded for increasing student credit/contact hours (SCH)."	"The university's teaching mission is fulfilled."	"SCH-maximization games are played": duplication of classes, competition for service courses.

Modified from Regehr (pers. comm., 2015) with permission.



Thank you for listening.