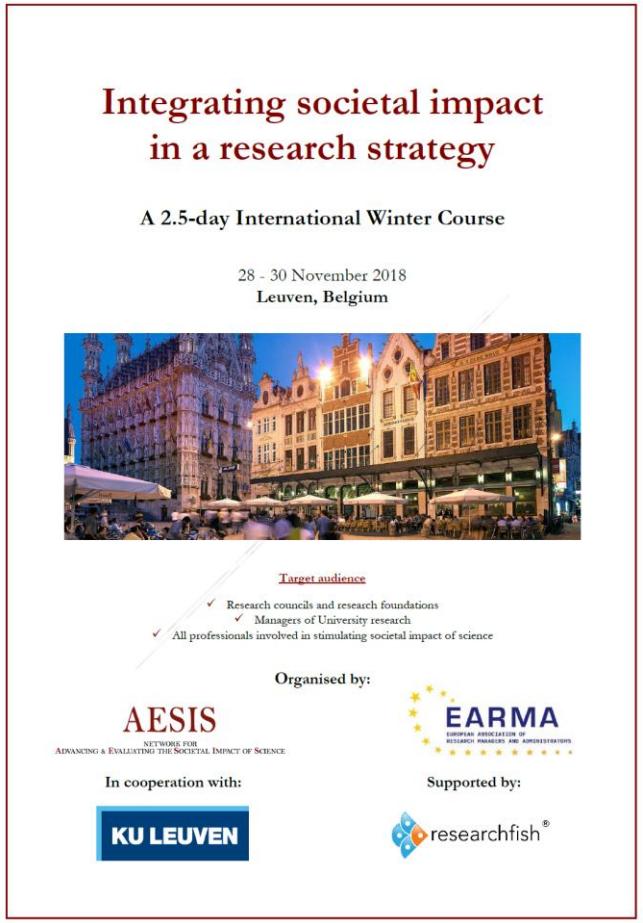
DAY 2

WELCOME
AND SUMMARY FROM DAY 1



OVERVIEW OF 3 DAY PROGRAMME

Day 1 Introductions (presenters and yourselves)
Useful frameworks to understand impact
Presentations
Introduction to your Case Study

Day 2 *Presentations*
Work on your Case Study and prepare your presentation

Day 3 Feedback, main issues & questions, close

UP NEXT....

Impact Orientated Research

Mike Smith

Impact Oriented Research

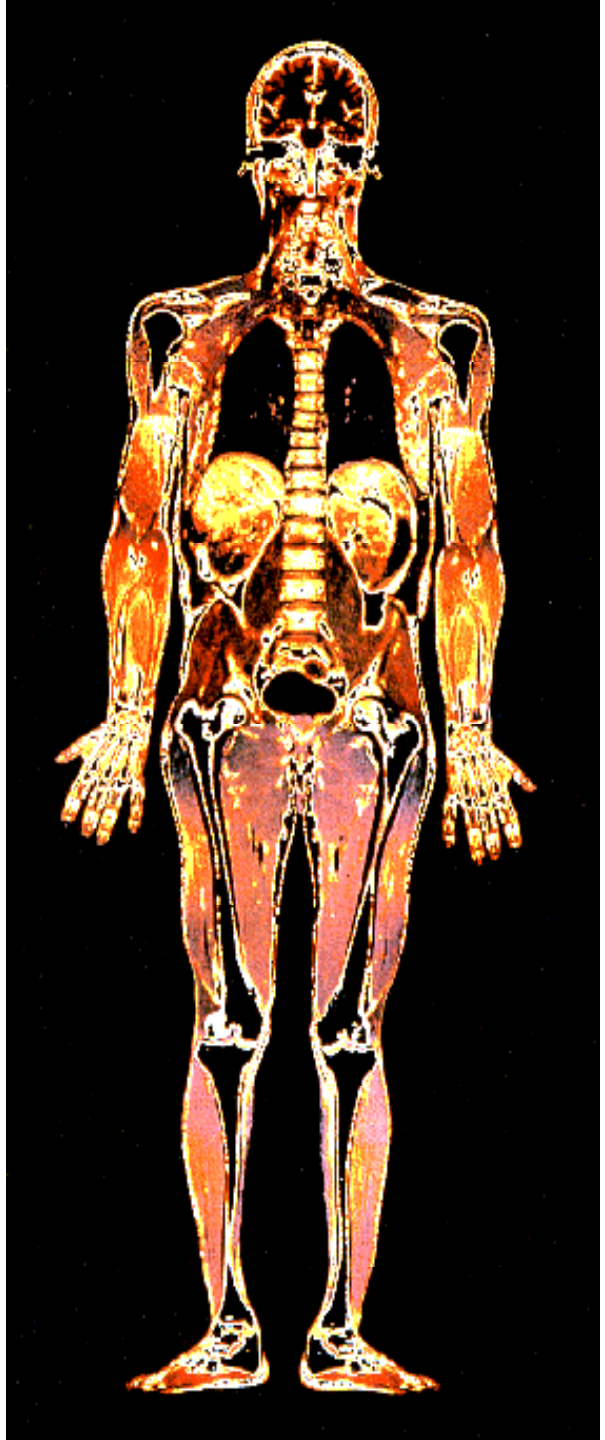
Professor Mike Smith
Emeritus Professor of Medical Science
Managing Partner, Harper Keeley LLP
Chair, Medipex Ltd

AESIS
NETWORK FOR
ADVANCING & EVALUATING THE SOCIETAL IMPACT OF SCIENCE

EARMA
EUROPEAN ASSOCIATION OF
RESEARCH MANAGERS AND ADMINISTRATORS

KU LEUVEN

researchfish®



Research, Innovation & Commercialisation

First 20 years:

- Medical scientist working on new medical technology, working in University Hospital Medical Schools, the NHS and with industry
- Published extensively and raised large amounts of grant funding and investment
- Partnership working internationally and with commercial companies
- Research and developed ideas and solutions that were available for patient benefit and of commercial interest

Research, Innovation and Commercialisation

Recent 20 years:

- Continued impact oriented research plus licensing, start-ups, spin-outs & commercialisation opportunities
- Extended personal commercial innovation activity into a wider range of technologies and businesses
- Corporate role as Pro Vice Chancellor in Universities and Director in the NHS, developing policy
- Non-Executive Director in a range of commercial ventures
- Chair and Founder of Medipex Ltd, a company to commercialise IP emerging from the health sector
- Chair of the Institute of Knowledge Transfer
- Formed an investment fund for Medical Technology

Societal Impact

More

- Stronger economy
- New companies
- Exports
- Jobs
- Stronger society
- Better Health
- Better Education
- Independence in old age

Less

- Inequalities
- Poverty
- Sickness and disease
- Unemployment
- Social care burden
- Crime/violence/terrorism
- Pollution
- Climate change

Personal perspective of impact (1)

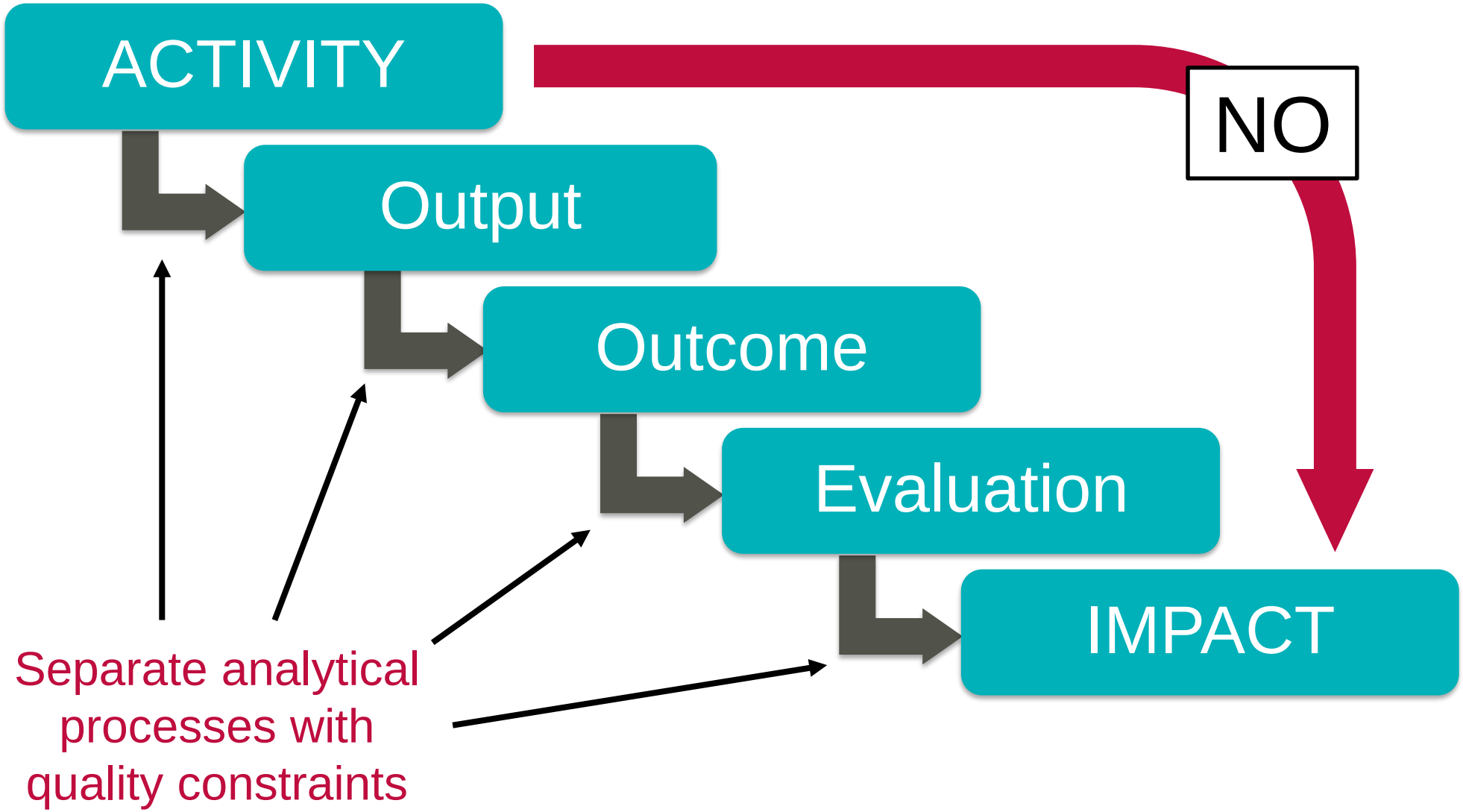
- Impact had been used in research for many years, since the 1970s - terms like ‘impact factor’ were embedded in the vocabulary of research
- In my own research I wanted to improve the health of patients (help them get better quicker or stop them becoming ill) – in the 1970s to 1990s I wasn’t aware that I was focussing on impact
- As an assessor for the UK research assessment exercises in 1996 and 2001, and a University lead for submissions, I experienced the then strategy, and problems, of focusing on research *outcome*, as it was called then, rather than impact

Personal perspective of impact (2)

- From the early 2000s the word impact increased in usage – and over-usage
- Narratives and indicators associated with the impact on Economic Transformation particularly in relation to regional/national/European structural funding
- Narratives but fewer indicators around Social Transformation, often presented to counter or complement the emphasis on economic impact
- Increase use of the term in driving wider funding decisions, only in some cases with an increased understanding and acceptance of the difference between impact and evaluation

Personal perspective of impact (3)

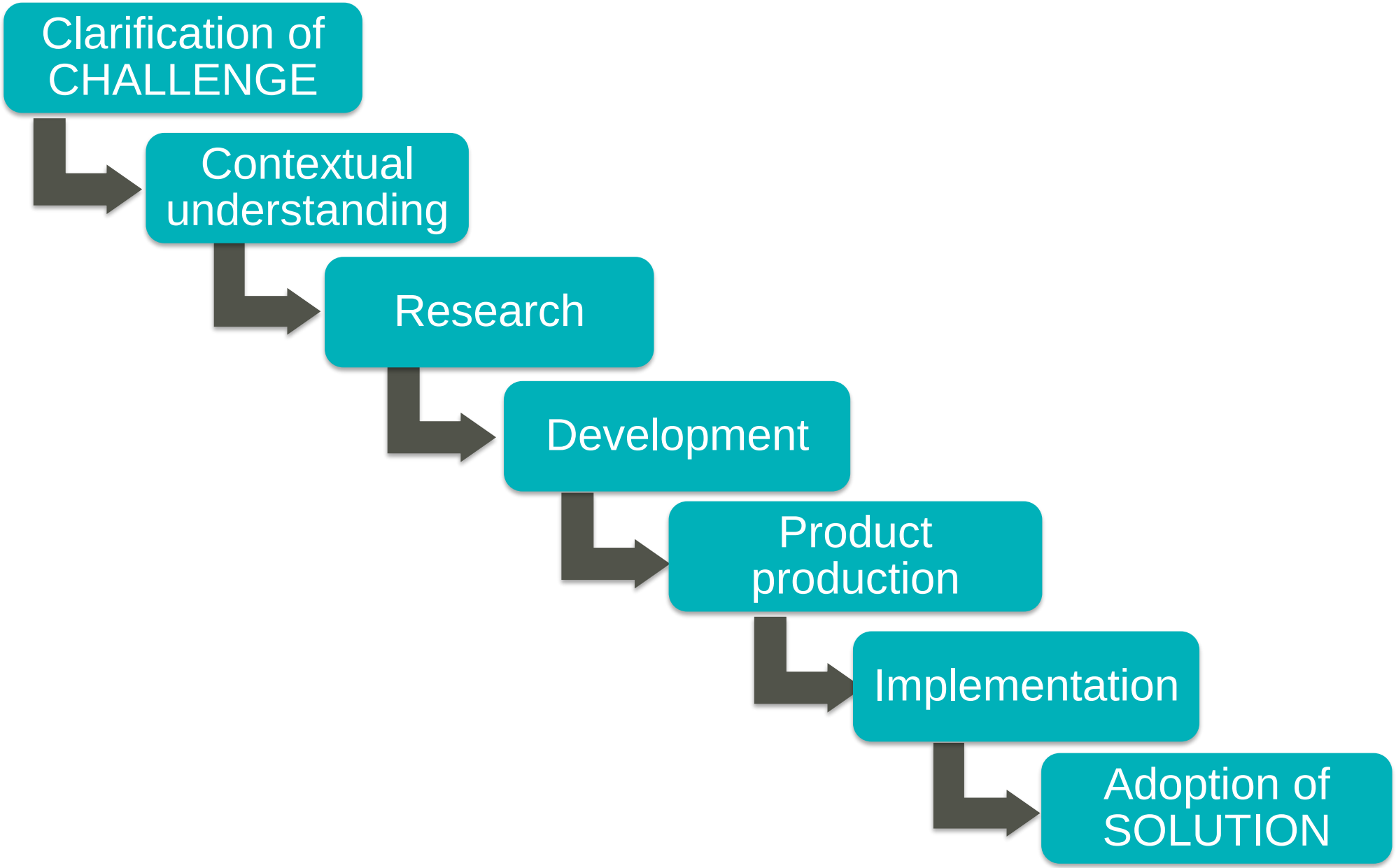
- Tendency to concentrate on ‘impression management’ to convince people of impact, particularly the reliance on good news stories
- Funded organisations and individuals comply with or object to the measurement of impact – but rarely considered changing what they do or how they do it, to *increase* impact
- Generally little awareness that funding bodies might be wanting to use the measurement of impact as a lever for change and to support their policy agendas

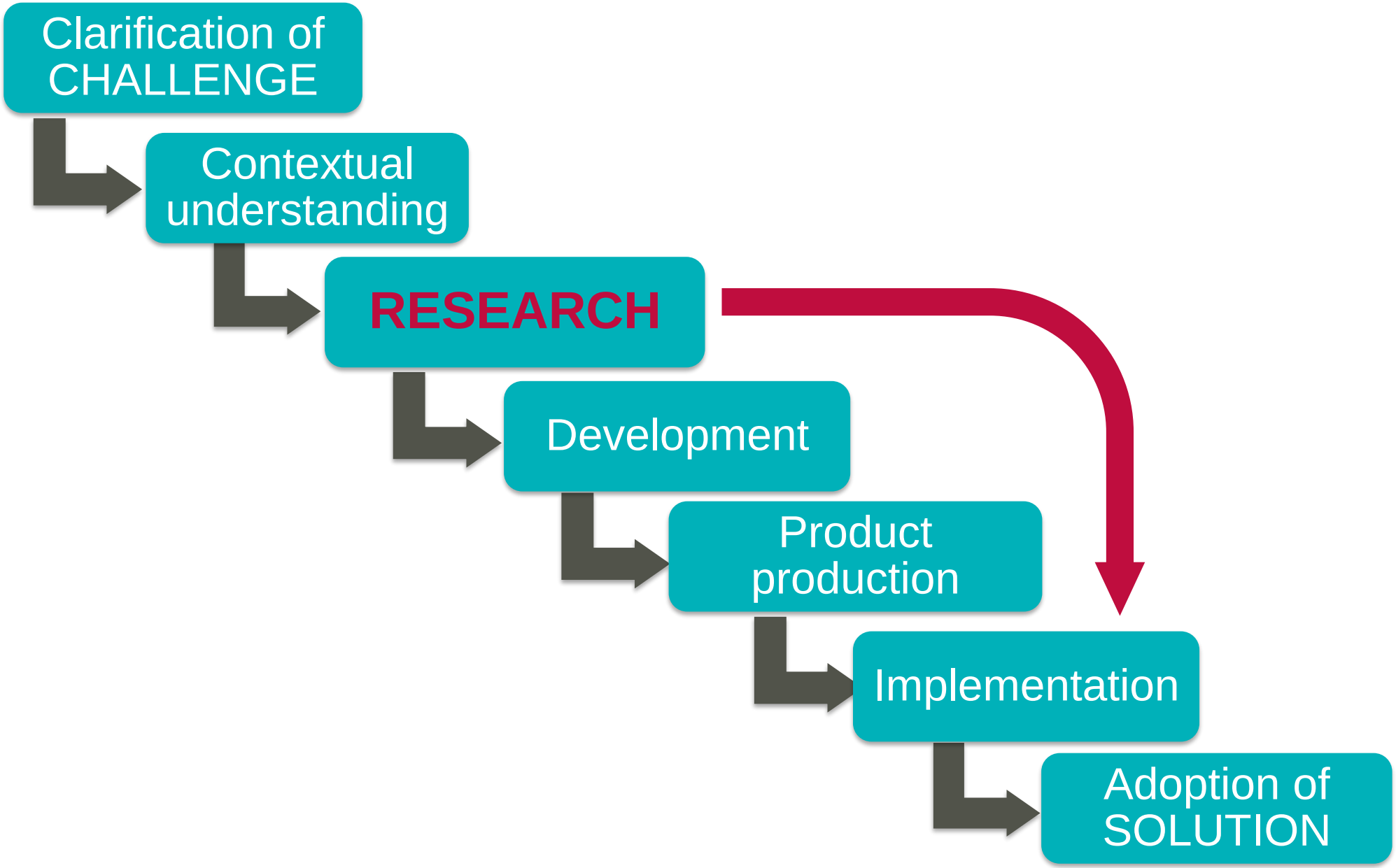


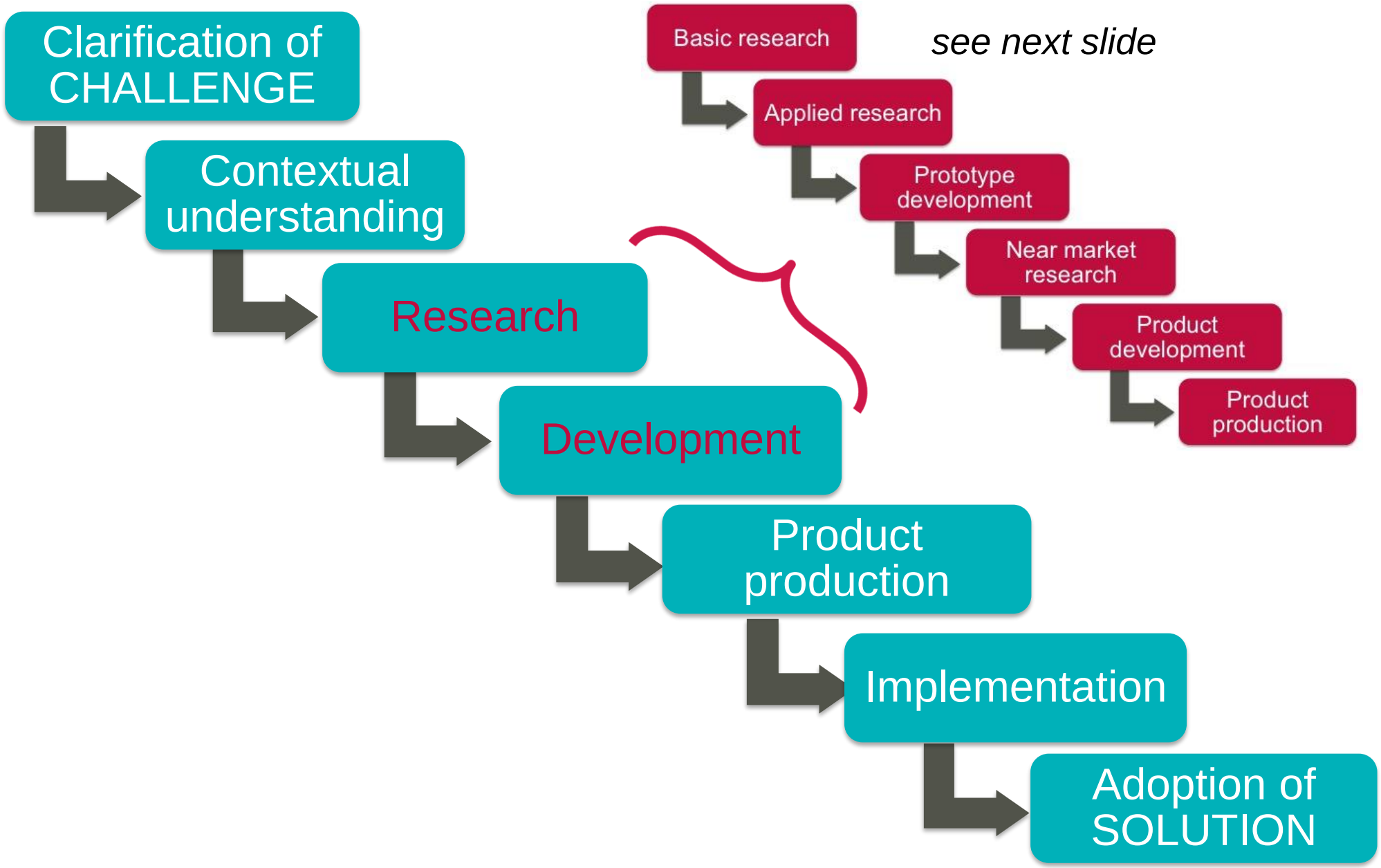
Impact Dichotomies

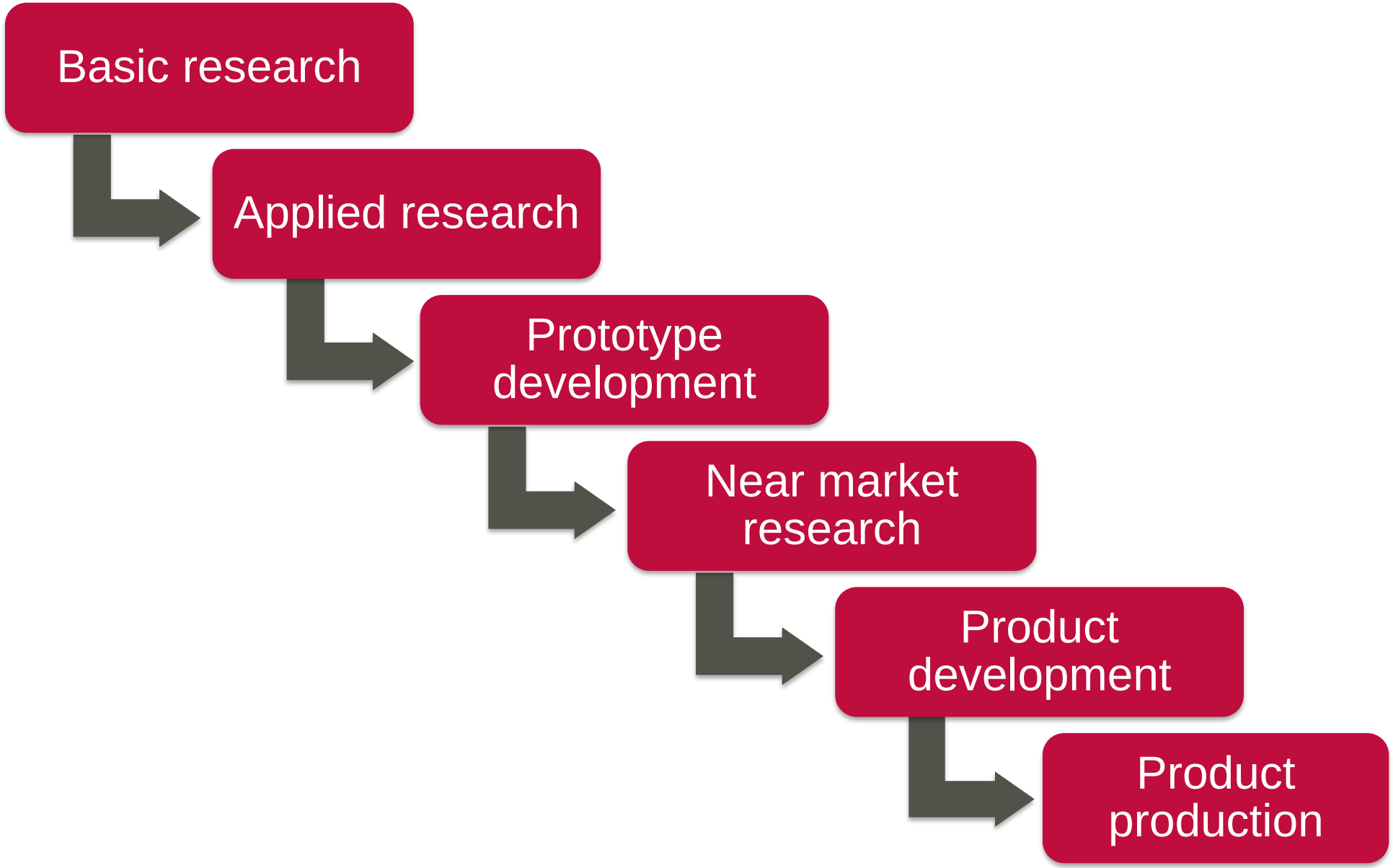
Research	or	Education
High quality research	or	Any innovative activity
Economic impact	or	Social impact
Short term impact	or	Long term impact
Quantitative indicators	or	Qualitative indicators
Unbiased assessment	or	Marketing information
Rigorous	or	Impression focused
Objective	or	Subjective (opinion lead)
Defensive	or	Transparent
Funded	or	Unfunded

- What is the challenge that needs to be resolved?
- How could this challenge be resolved?
- Is there new or emerging understanding, science, methodology or technology which indicates than *now* is the time ?
- Who else is interested; are they partners or competitors?
- What would success look like ? Essentially what parameters would you measure to demonstrate success (and show the impact)?
- If you identify a solution, do you need to undertake further work to ensure it is implemented and becomes widely adopted, to achieve maximum impact ?
- What is the end point and exit strategy?

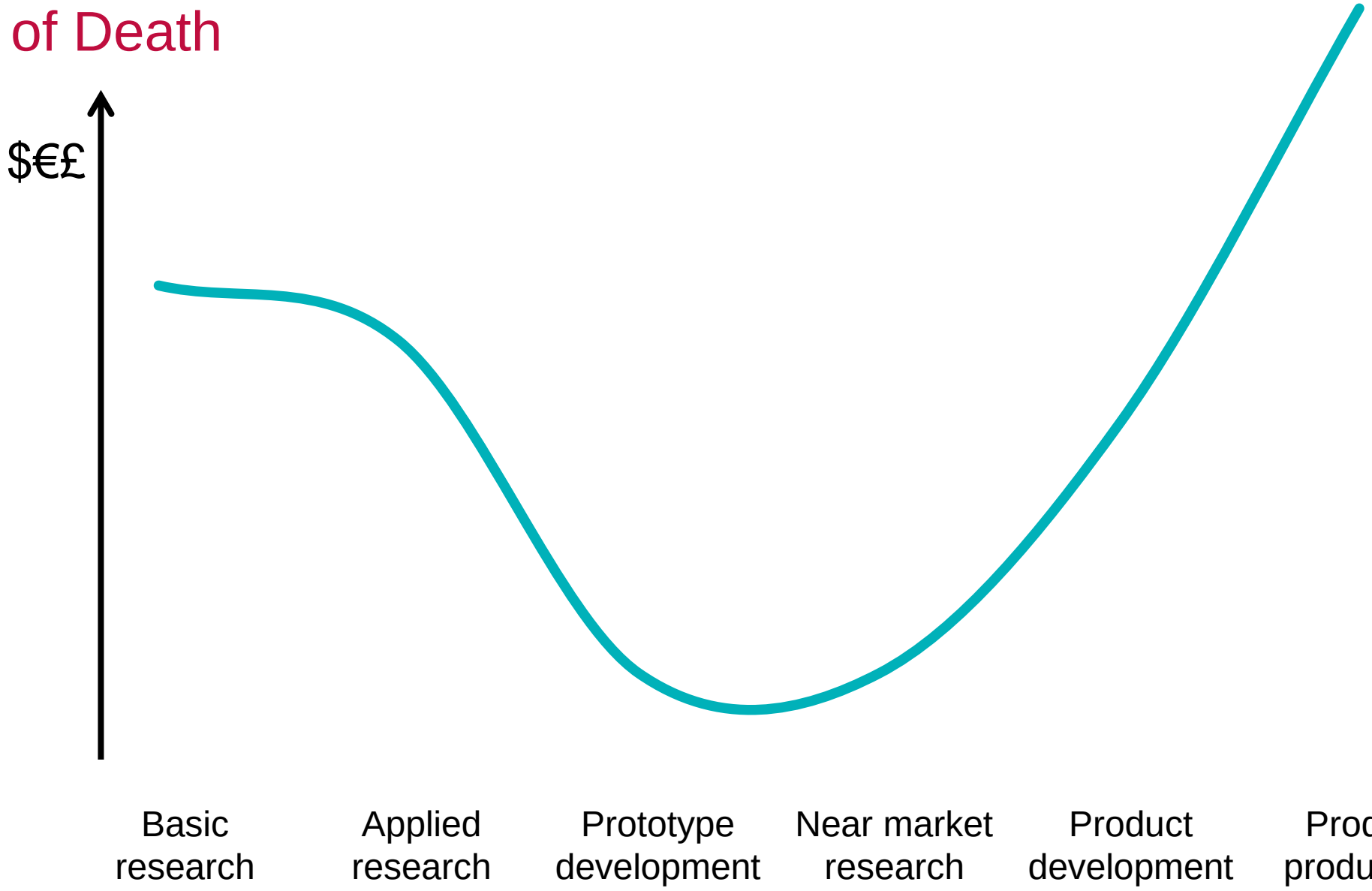





Clarification of CHALLENGE
Contextual understanding
Research
Development
Product production
Implementation
Adoption of SOLUTION
Basic research
Applied research
Prototype development
Near market research
Product development
Product production
see next slide



Valley of Death



Sector Specific Impact Parameters – Health

High Level – Examples

- Epidemiologically adjusted Mortality Rates
- QUALYs (Quality Adjusted Life Years)
- Human Development Parameters (IQ etc)
- Clinical Effectiveness (this has a specific definition in medicine and health)
- Economic Cost Effectiveness
- Change in national policy

All supported by high quality evidence

Sector Specific Impact Parameters – Health

Intermediate Level – Examples

- Clinical Efficacy (this has a specific definition in medicine and health)
- Measurable change in clinical practice (and its magnitude)
- Survival rates
- Patient response and reaction (eg reduced discomfort/stress)
- Cost reduction
- Change in local/regional policy

All should be quantifiable and verifiable

Sector Specific Impact Parameters – Health

Preliminary Level – Examples

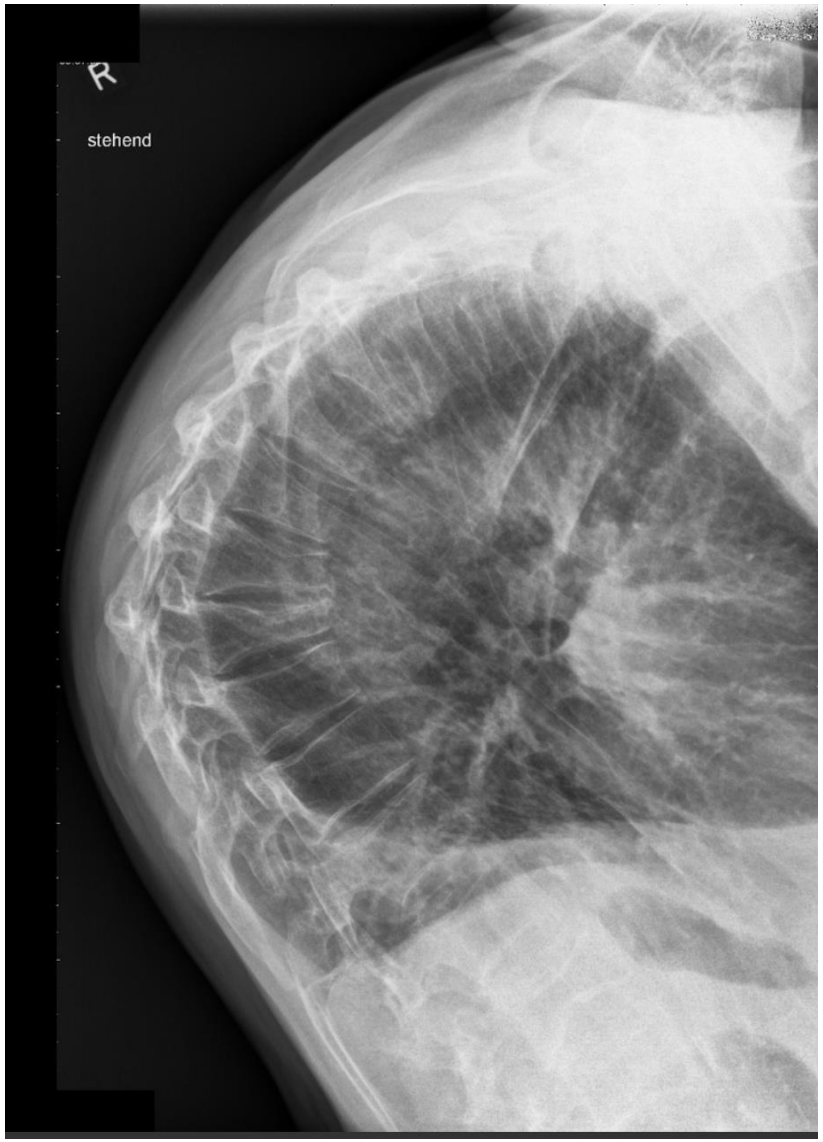
- Potential clinical efficacy
- Potential change in clinical practice
- Preliminary changes in survival rates
- Preliminary patient response and reaction
- Predicted cost reduction
- Change in departmental/institutional policy

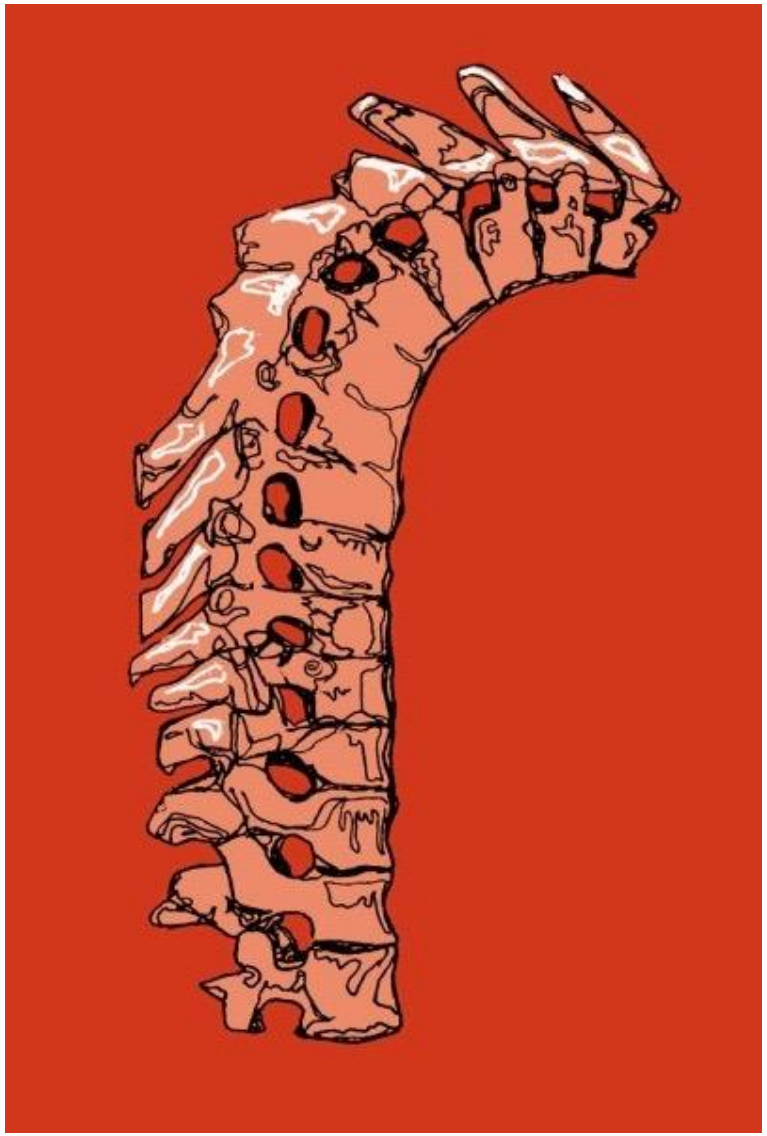
These measures of 'impact' are unlikely to be rigorously quantifiable or verifiable

Case Study 1:
Research, Development and Implementation

Non-invasive bone mineral measurement and the development of bone scanners for osteoporosis

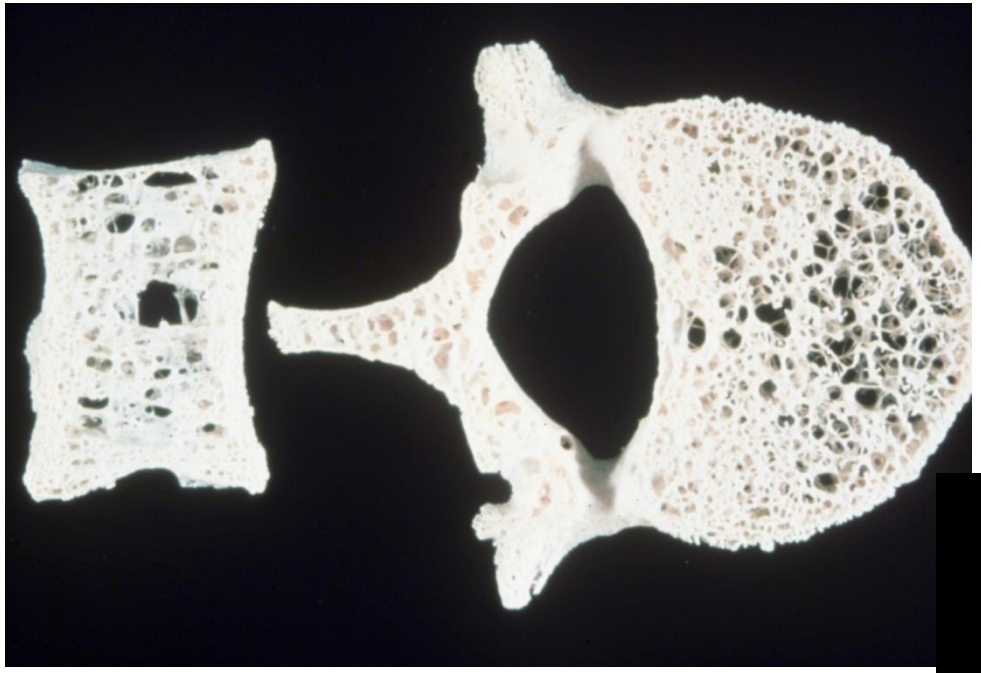
Dowager's hump

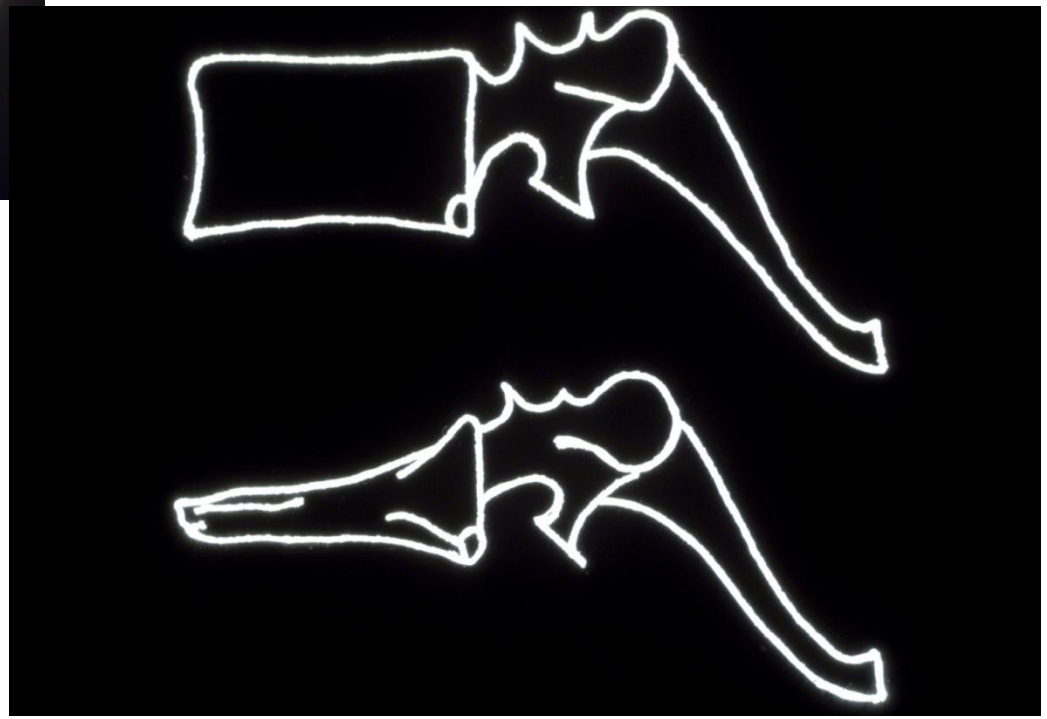


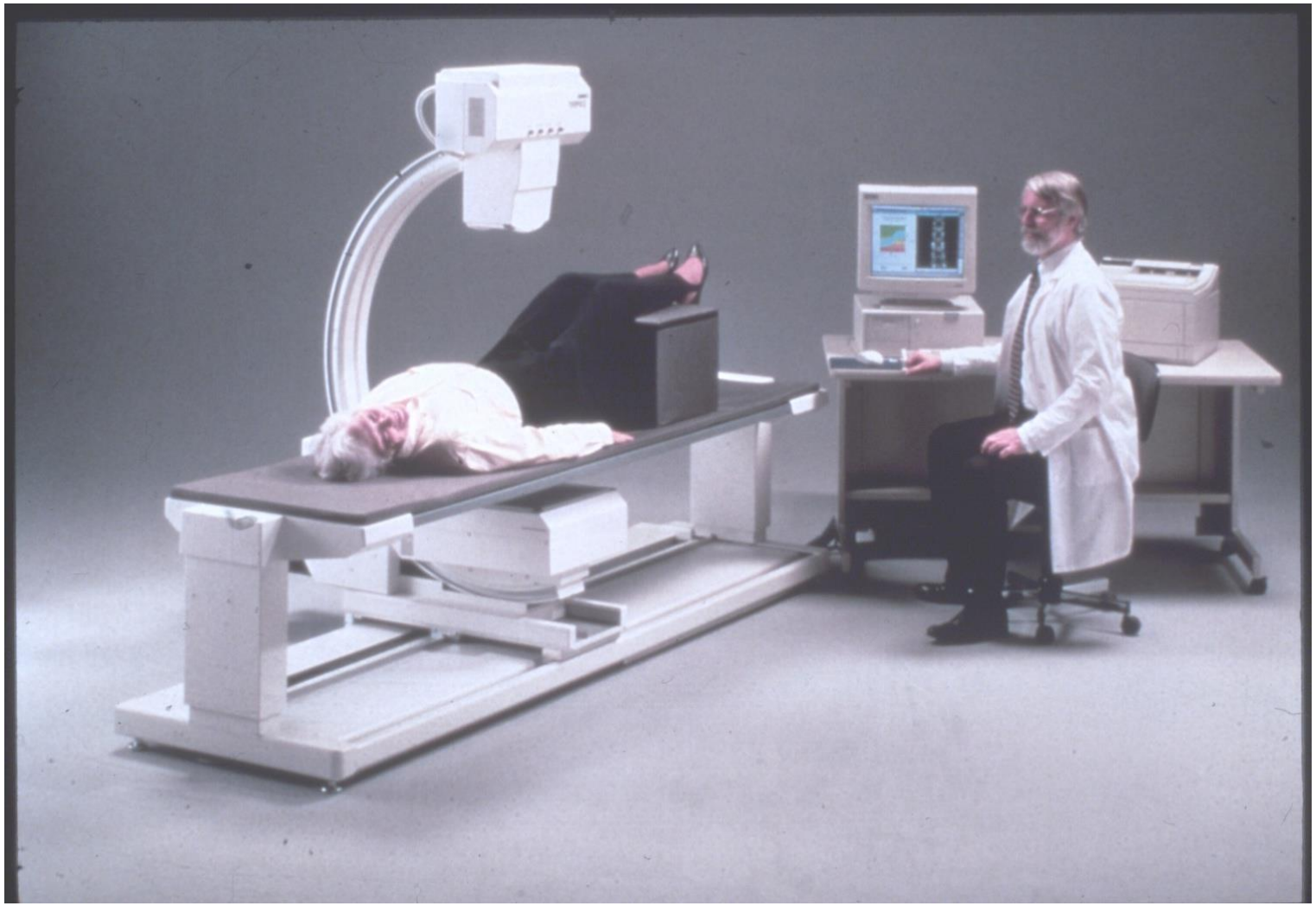


Osteoporosis - Incidence and burden

- Osteoporosis affects ~75 million people in Europe, USA & Japan.
- Worldwide, 1 in 3 women over age 50 will experience osteoporotic fractures, as will 1 in 5 men aged over 50.
- In Europe, disability due to osteoporosis is greater than most cancers and is comparable or greater than rheumatoid arthritis, asthma and high blood pressure related heart disease.
- In women over 45 years of age, osteoporosis accounts for more days spent in hospital than many other diseases, including diabetes, myocardial infarction and breast cancer.
- A 10% loss of bone mass in the vertebrae can double the risk of vertebral fractures, and similarly, a 10% loss of bone mass in the hip can result in a 2.5 times greater risk of hip fracture .

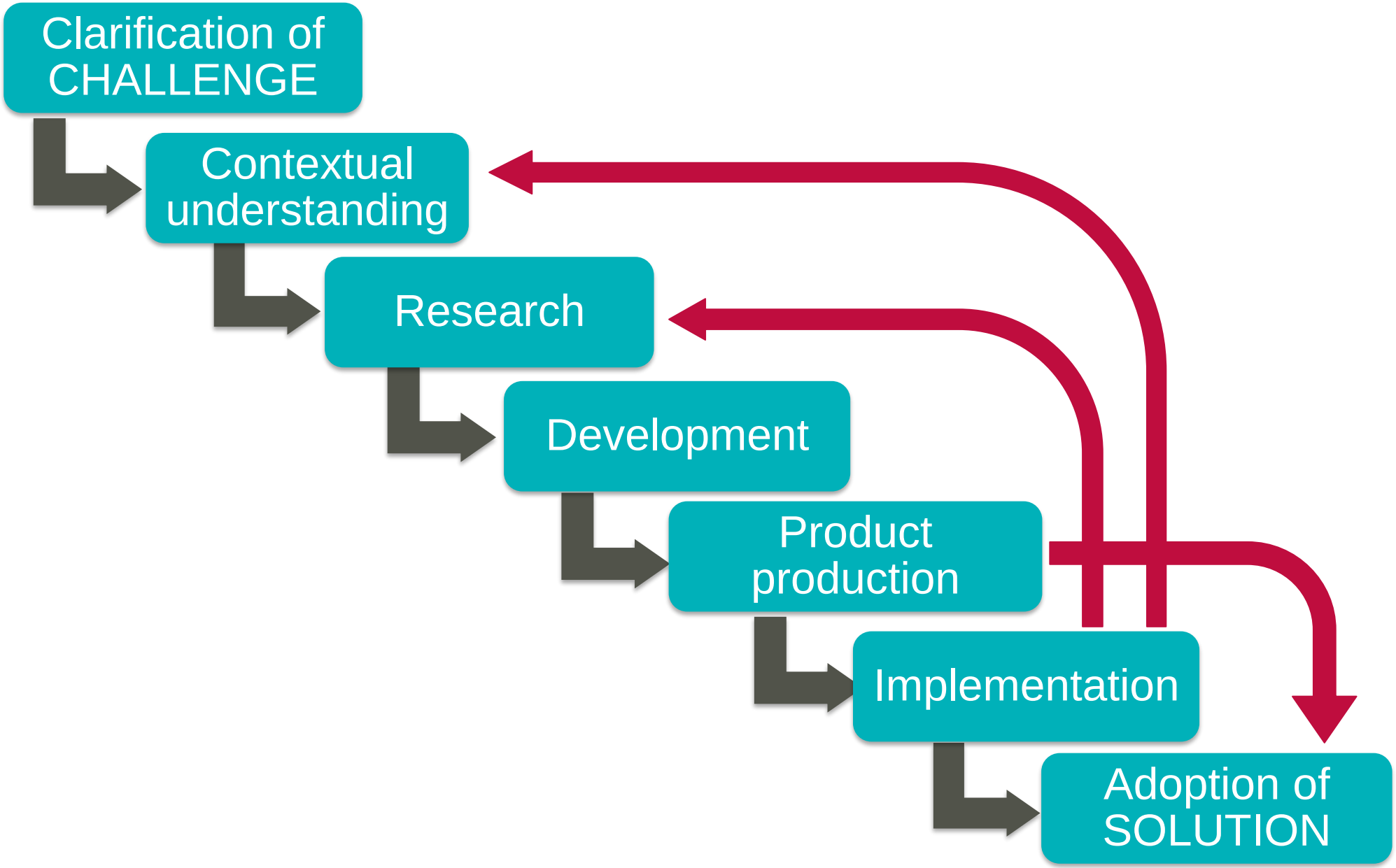






Bone Scanners for Osteoporosis (UK)

First research abstract published	1963
Development of equipment	1974 - 1980
Commercial equipment available	1978 - 1982
Purchased by research groups	1978 - 1988
Initial purchase by NHS	~1990
Questions about cost effectiveness	1994
Advocacy campaign	1995 - 1998
Widespread NHS use	2000
Impact on societal health	?



Case Study 2:
Research through to Commercialisation
Magnetic Resonance Imaging

Computerised Tomography (CT)

Tomo~ From the Greek meaning ‘a slice’

~graphy adapted from the English/American and meaning:

‘a machine for a hospital costing a load of money which will make its manufacturers a fortune’

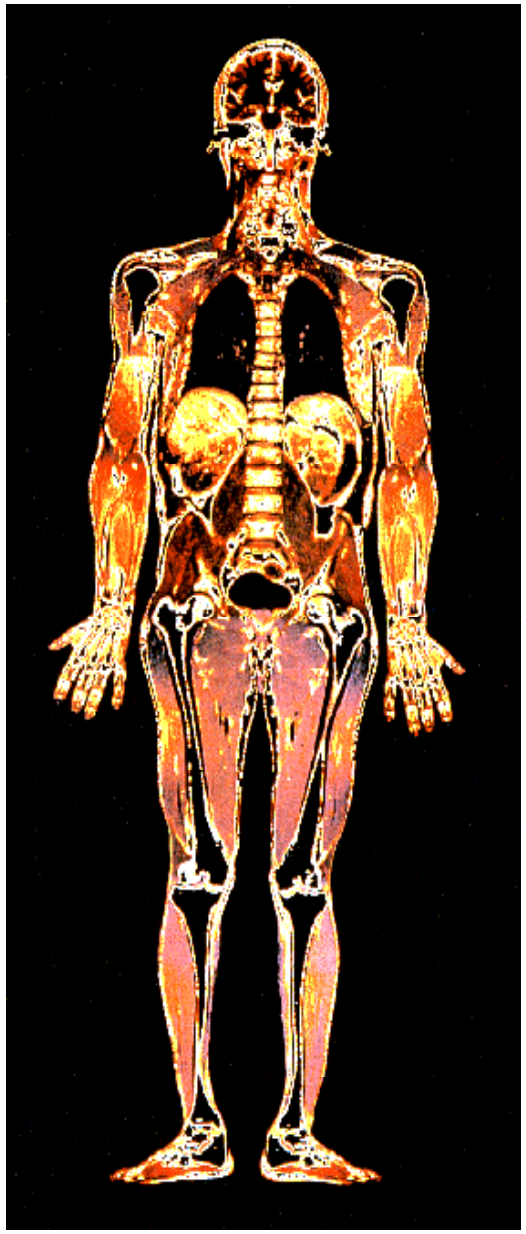
Computerised Tomography (CT)

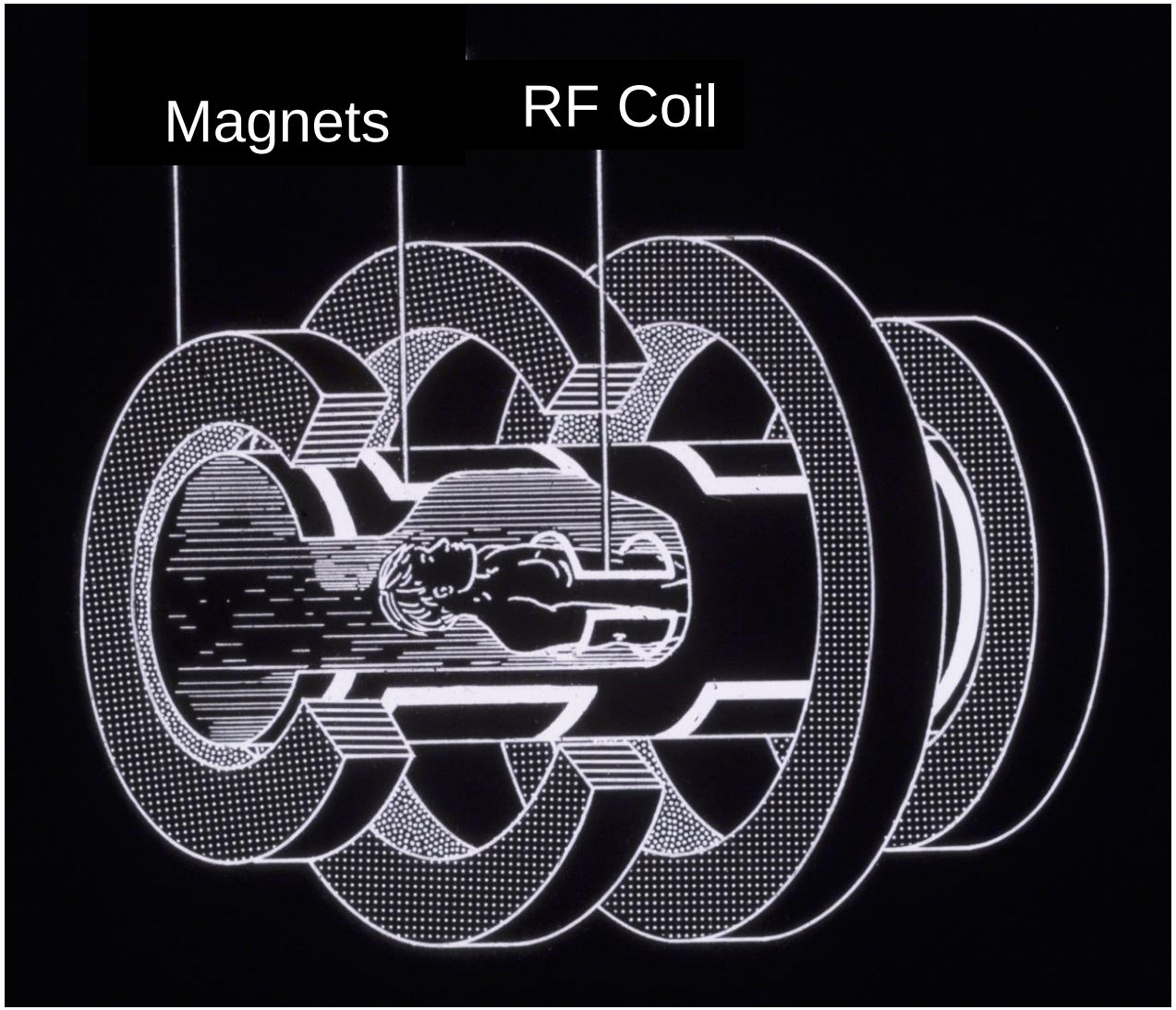
Developed by EMI in the early 1970s, systems were quickly installed many hospitals. Changed the attitude towards ‘scanners’.

- Back-projection mathematics (1917)
- Semiconductors (1960s)
- Mini-computers (1970s)

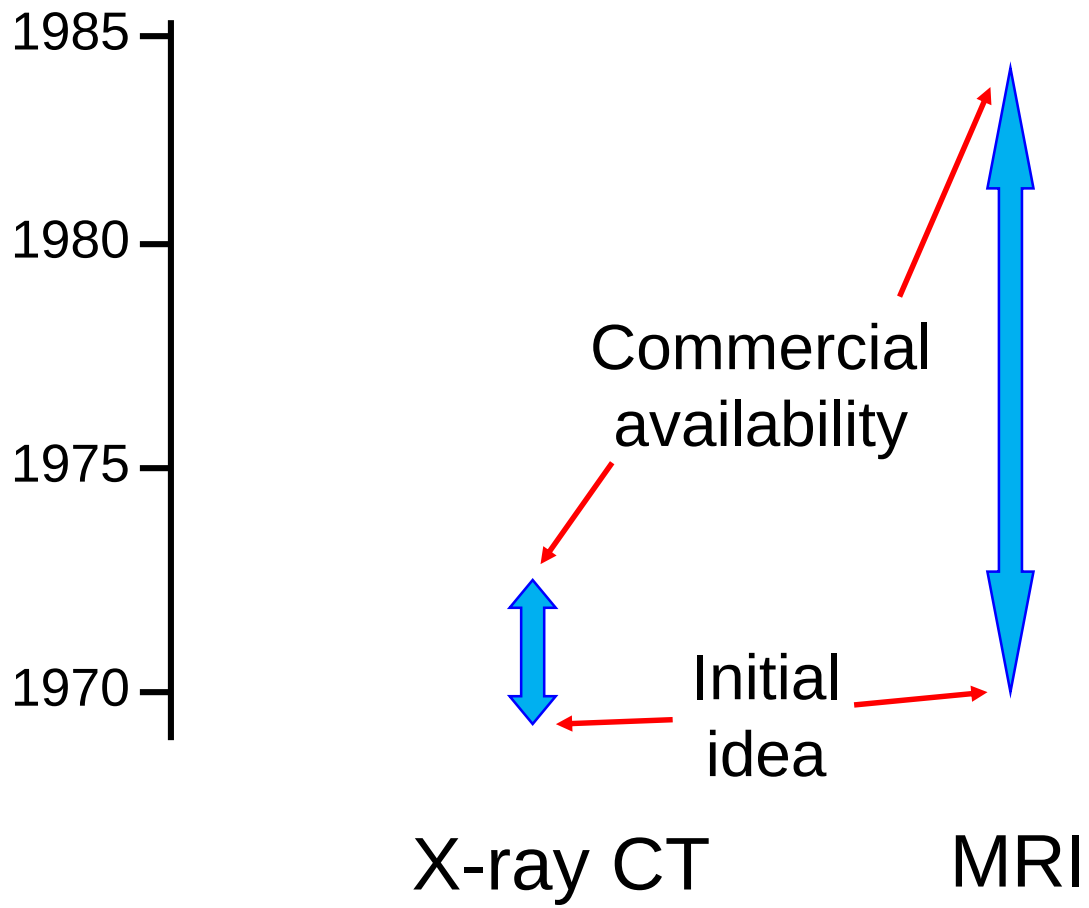
Legislation introduced in the USA to restrict their use.

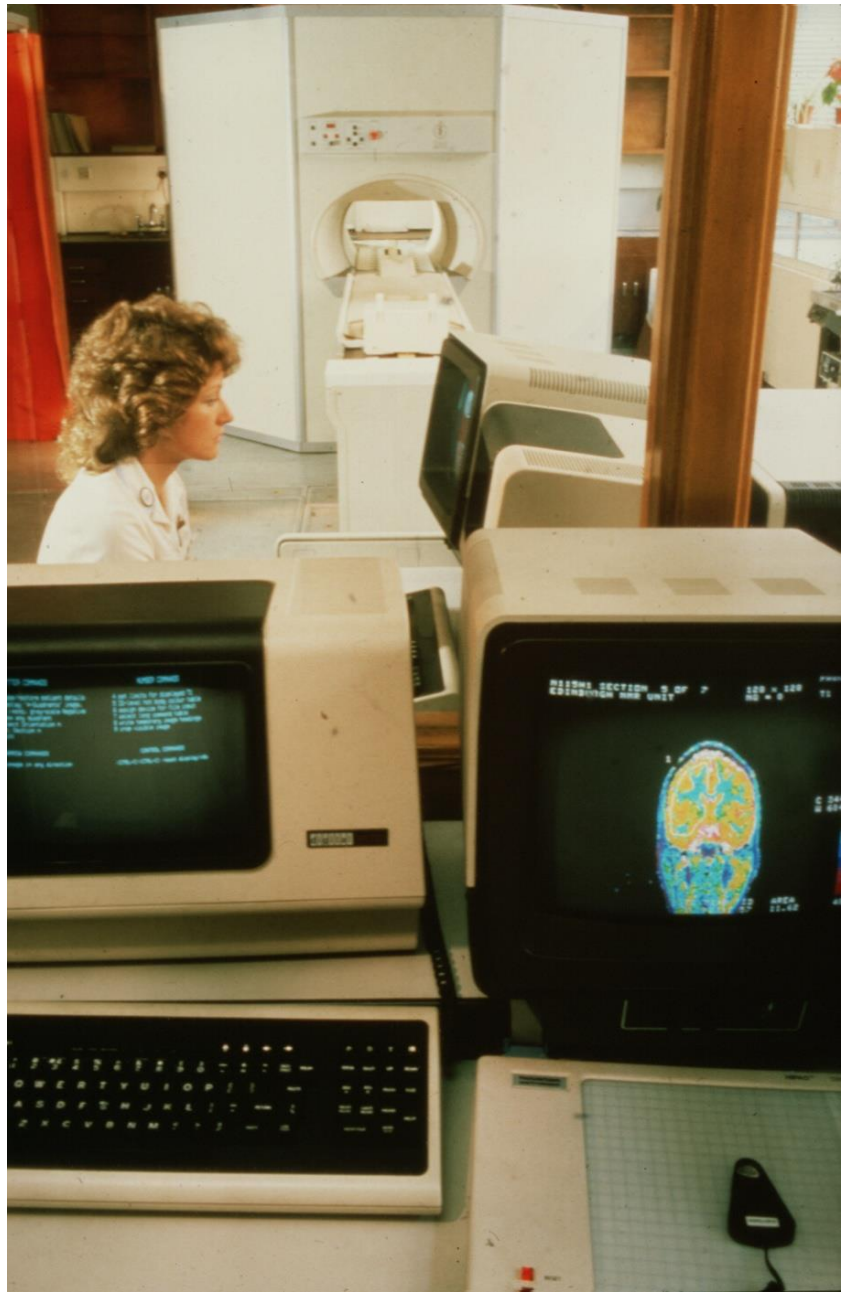
Magnetic Resonance Imaging

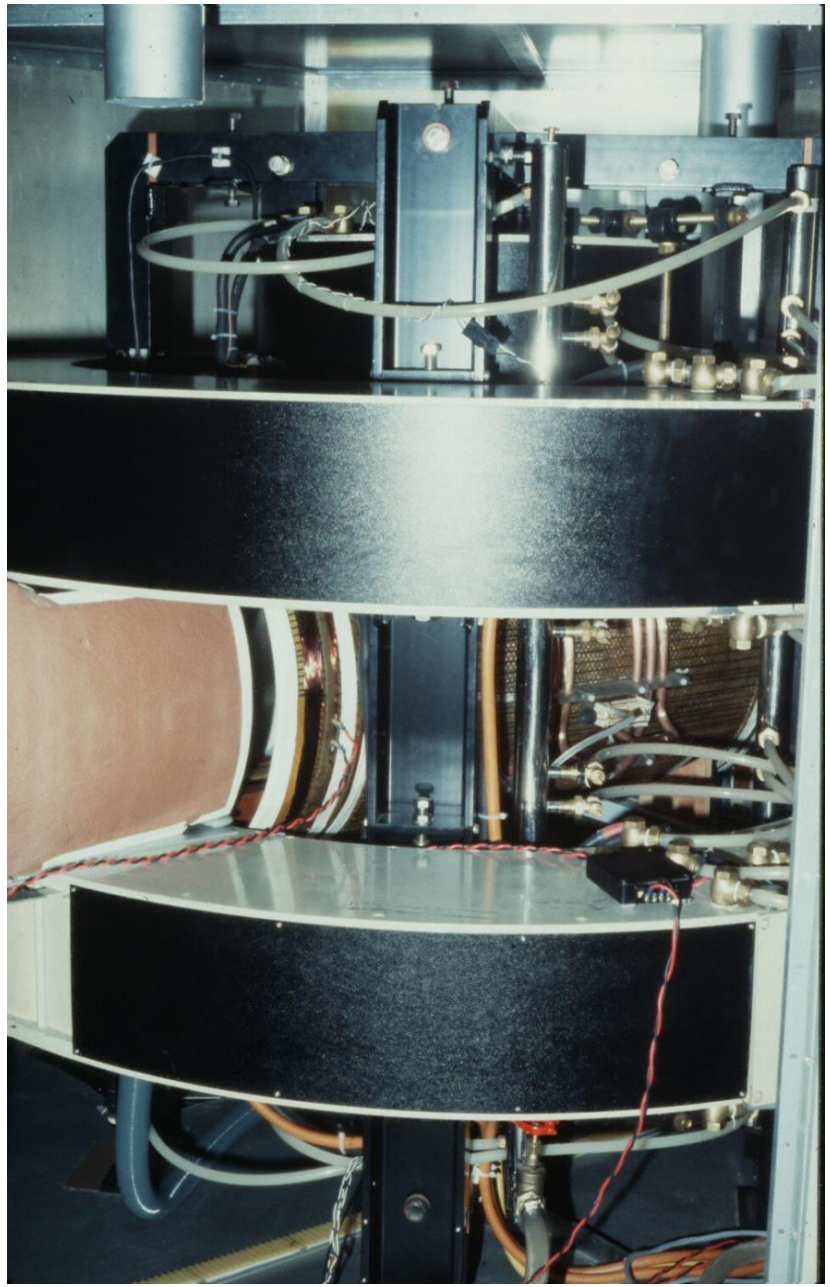


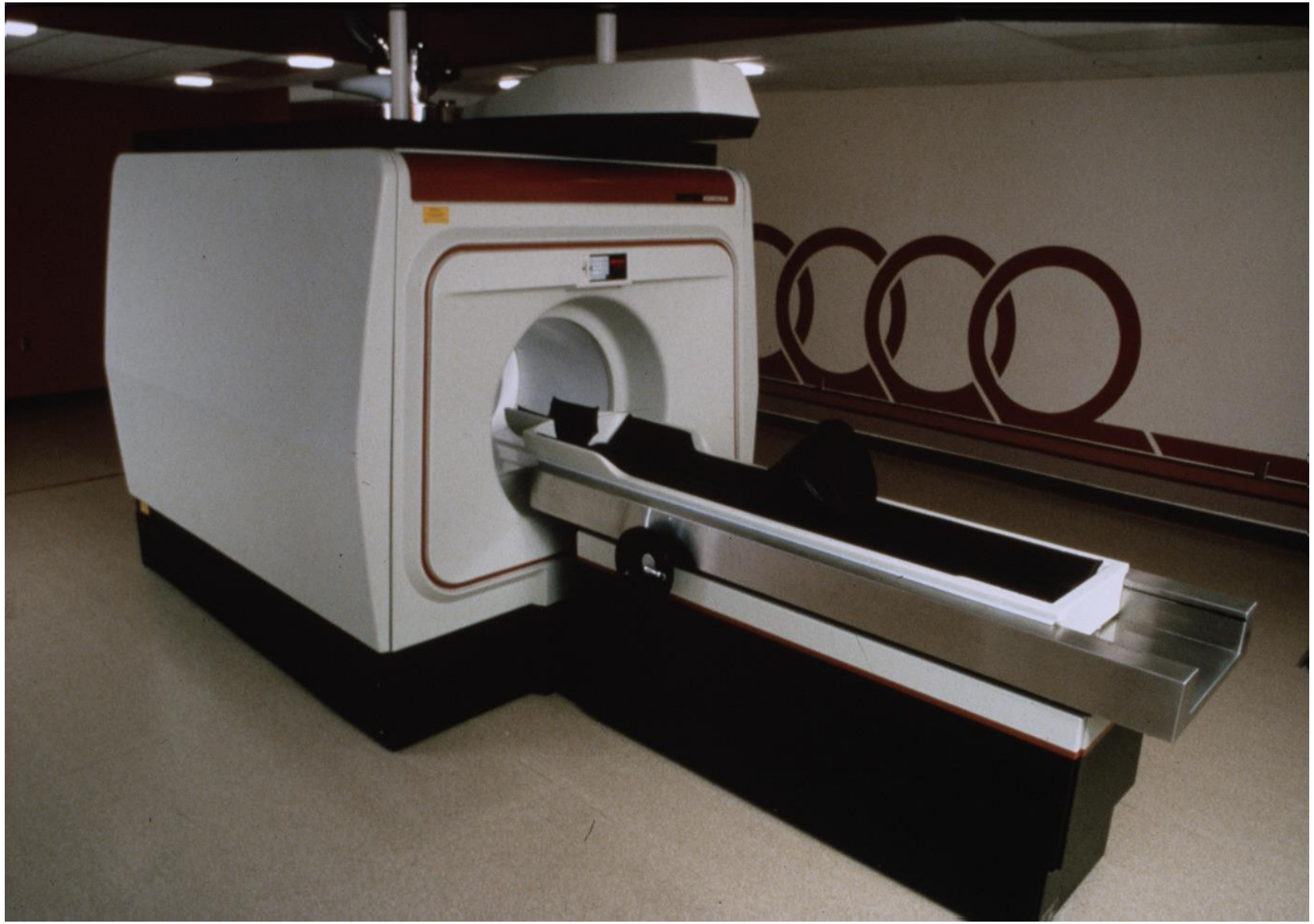


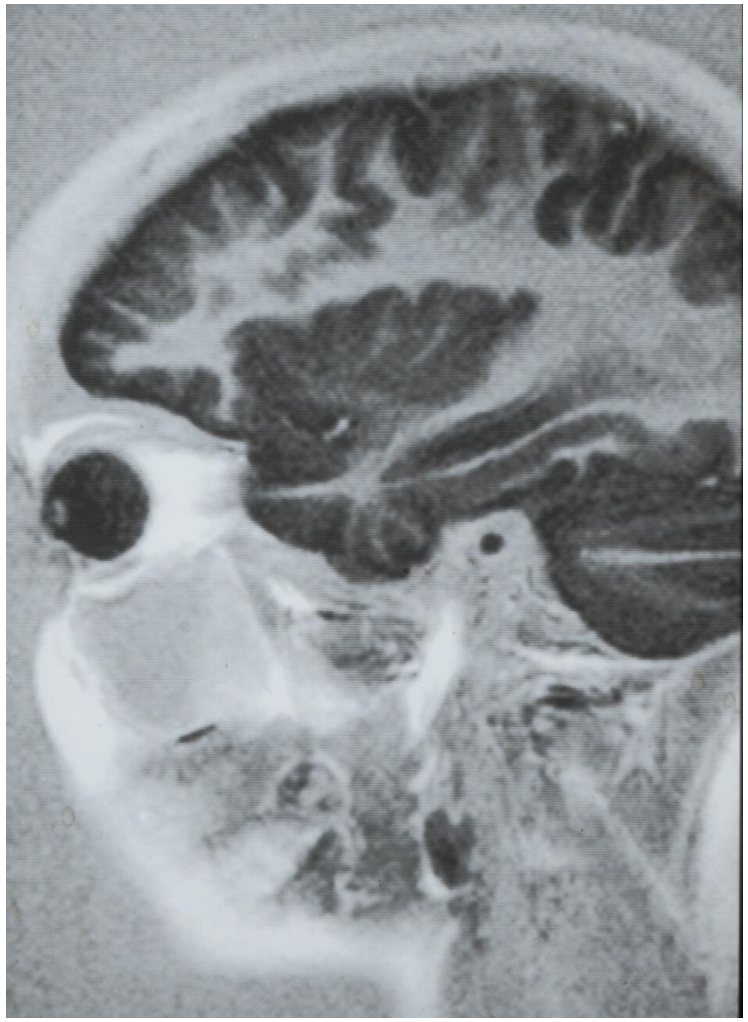
Development of X-ray CT and MRI











Magnetic Resonance Imaging (1)

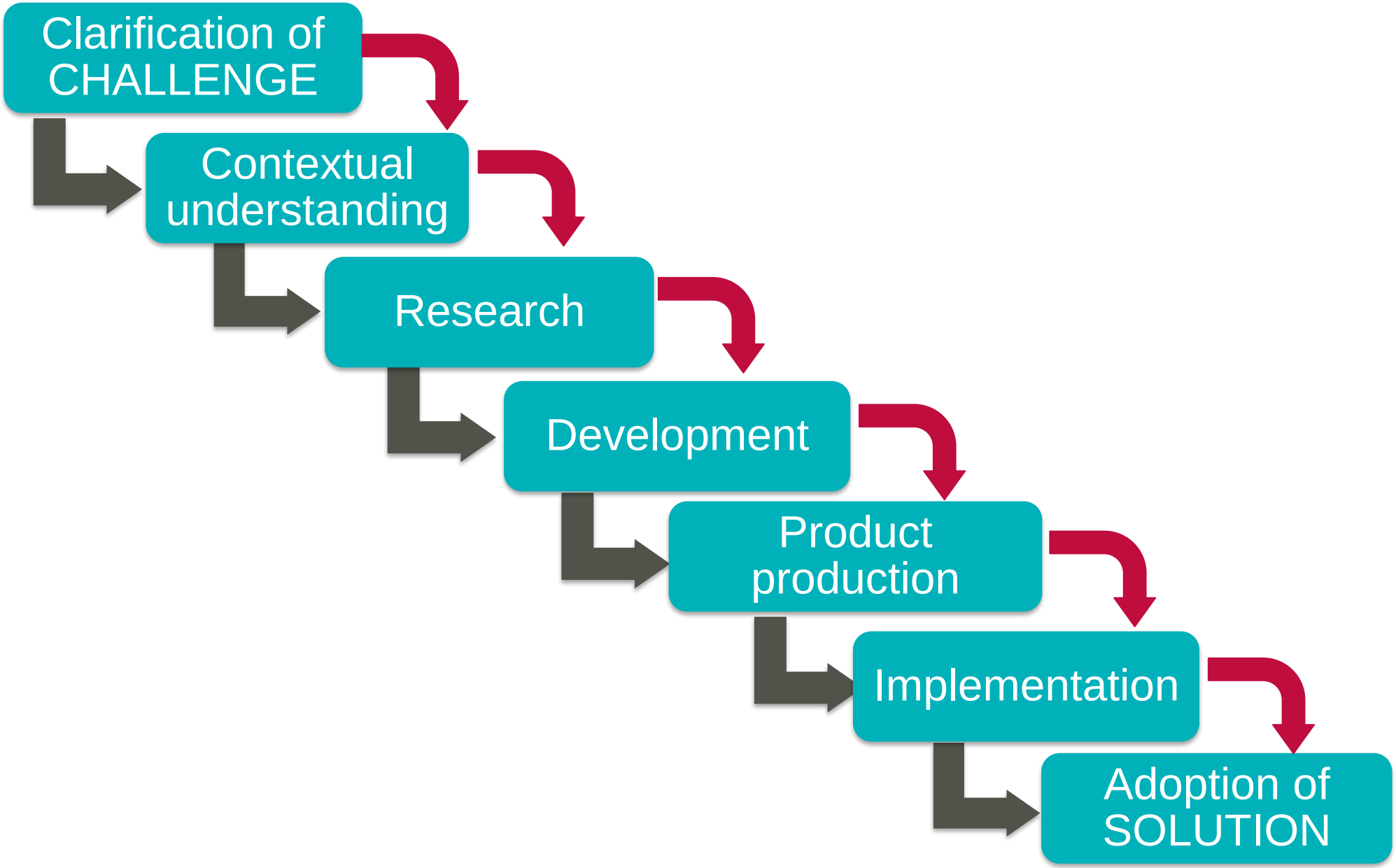
Following the impact and financial success of CT, the science/engineering of MRI was funded and developed	1974 – 1982
Paper which underpinned the practical approach to clinical MRI	1980
Development of low field commercial system from UK company (University spin-out)	*1982 - 1985*
Development of low field commercial systems from global imaging companies	1983 > 1989
Forced sale of UK company	*1986*

Magnetic Resonance Imaging (2)

Development of high field MRI systems by global imaging companies	1987 > 2010
Wide availability in health systems with an ‘impact’ on health care and patient management	1995 >
Clinical and cost effectiveness (ie everyday use in non-selected patients) started to become clearer	2005 >

Which impact is important?

- Commercial impact
- Health system impact
- Individual patient impact
- Economic impact
- Societal impact


Clarification of CHALLENGE
Contextual understanding
Research
Development
Product production
Implementation
Adoption of SOLUTION

Case Study 3: Contextual understanding, implementation and adoption

Kangaroo Care

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Babies and families in neonatal units

- ~10% of babies admitted to neonatal units; about 70,000 annually in UK
- Numbers and length of stay increased almost threefold since mid-1990s
- This is due to improved survival at lower gestation, increased multiple births, increased maternal age

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Kangaroo/skin-to-skin care

Significant improvements in the following

- Breastfeeding
- Head circumference growth
- Oxygen saturation
- Hypothermia
- Serious morbidity at two and six months

With no adverse effects

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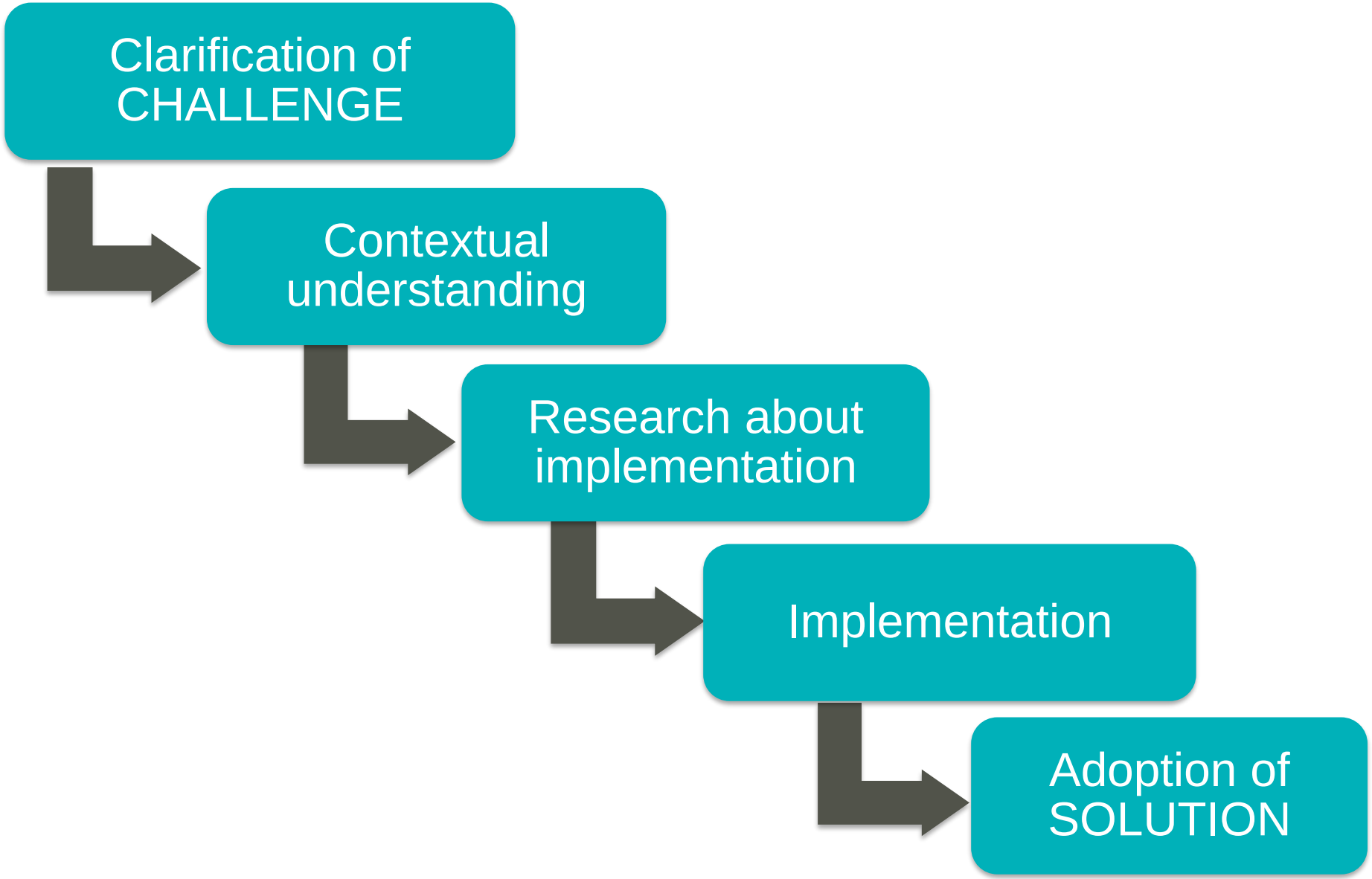
Health research and impact

- This is much wider than medical research
- Not only can it have a significant impact on population health it can have a greater impact per unit cost than medical research
- A health dividend produces an economic dividend
- Can produce conflict with technological/commercially focussed interventions which could have a commercial/economic impact



Case Study 4:
Long-Term Strategic Research

Thin film nanoscience - High Power Impulse Magnetron Spluttering (HIPIMS) Research Group

Engineering Research

500,000 researchers

Materials Research

100,000 researchers

Thin Film Research

10,000 researchers

Plasma Vapour Deposition (PVD)

3,000 researchers

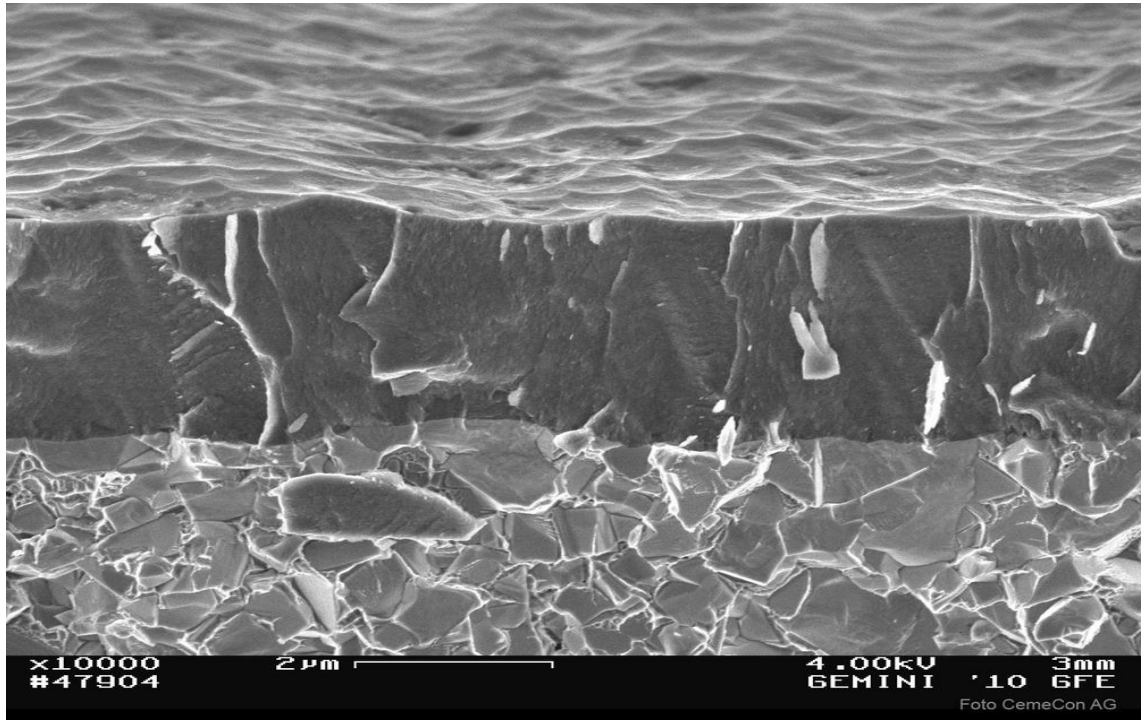
High Power Impulse Magnetron Spluttering (HIPIMS)

200 researchers

High Power Impulse Magnetron Spluttering (HIPIMS)

- Sheffield Hallam University
- Prof Papken Hovsepian
- Prof Arutiun ‘Harry’ Ehiasarian

Thin film deposition
with structural integrity



High Power Impulse Magnetron Sputtering Research Group

- First joint UK/Fraunhofer Centre
- Partnerships with major German and UK global companies
- Extensive patent portfolio

HIPIMS Research Group – 20 years old

- University investment in the best equipment and infrastructure
- Prestigious international quality publications and significant patent portfolio
- The group has raised major funding from EU, Government and Industry
- International leaders in the science and technology of HIPIMS and run the Global Conference on HIPIMS
- First joint UK / Fraunhofer Research Centre
- Major international industrial partners

Sixth International Conference on Fundamentals and Industrial Applications of **HIPIMS –** June 2015

- Every two years, alternating between Sheffield & Braunschweig
- Significant industrial and academic interest and contribution

Case Study 5:
Contextual understanding and implementation

Contract from an SME to review a manufacturing process in order to improve business efficiency

- Business School identified ways to streamline the company's processes
- Materials Engineering identified way to improve the manufacturing process

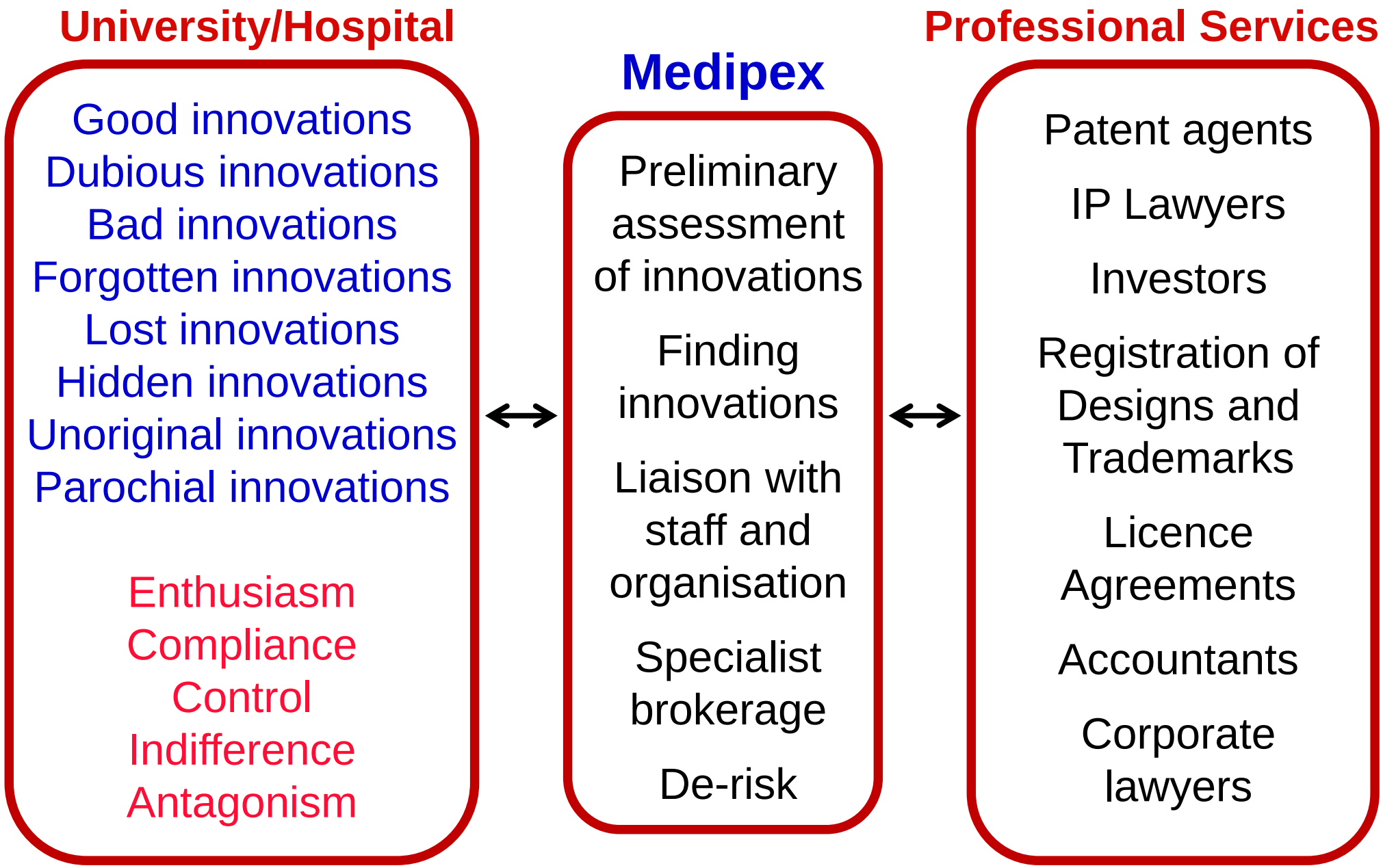
Consequences:

- Positive response from company and good PR for University ✓
- Income to the University and justification for government funds ✓
- Improved cost-effectiveness for the company ✓
- Staff redundancies so negative job creation ✗
- Company did not re-invest savings to grow company ✗
- Overall economic and societal impact – more ✗ than ✓

Case Study 6:
Stimulating Impact

Special Purpose Vehicle to identify and commercialise IP emerging from the Health Sector

62



Model for Partnership

'Company Limited by Guarantee'

- Not for profit
- All Hospitals can be members (equivalent to shareholders) with additional, external non-executive directors
- Universities are partners
- Private sector governance
- Can manage state aid issues
- Can operate a trading subsidiary
- Can interface effectively with specialist professionals (IP lawyers, patent agents, funding agencies etc)

Principal Medipex activities

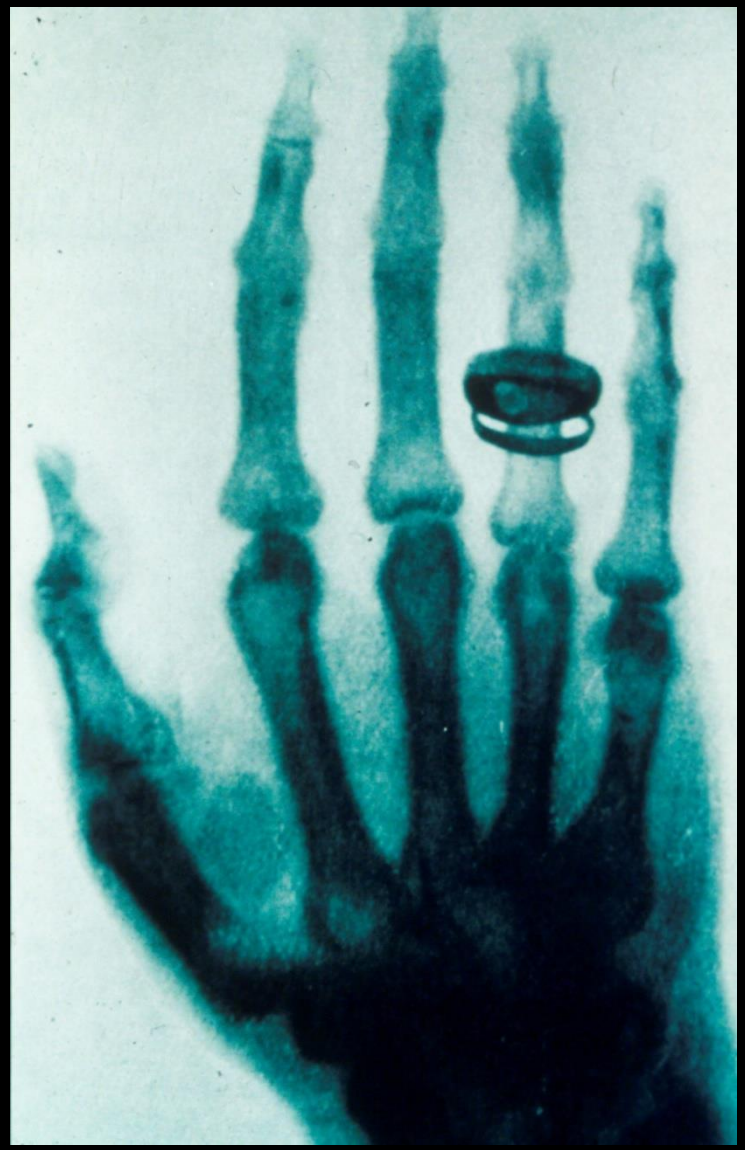
- Knowledge transfer in the healthcare sector with the NHS and at the NHS/University interface
- IP awareness raising, education and training
- Sector specific identification and management of IP
- Patent registration and IP protection
- Assessment of commercial potential
- Commercial exploitation - license, spin-out or start-up formation
- Non-commercial exploitation of IP
- Commercialisation of the knowledge base in the NHS/University

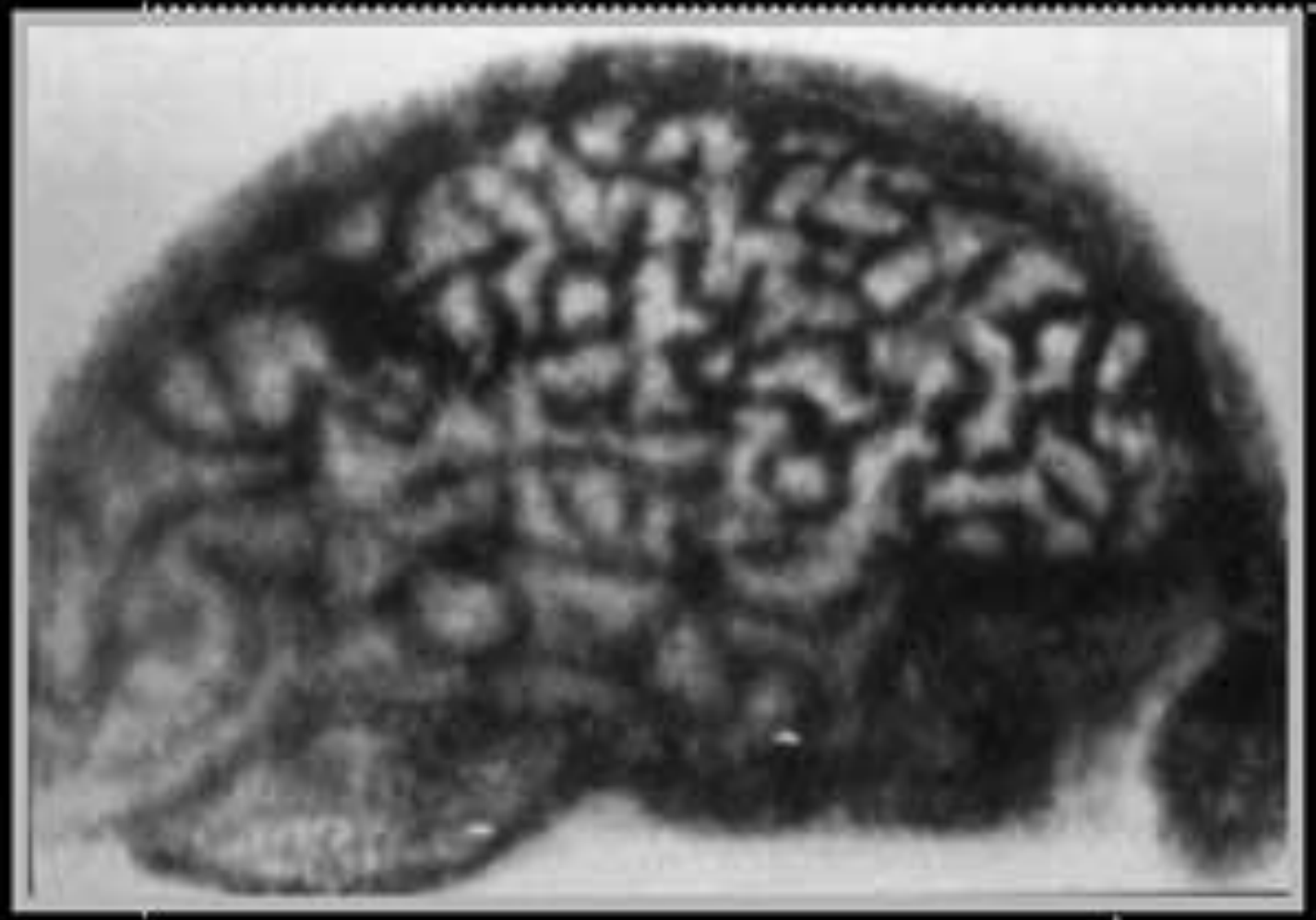
An effective business model to drive impact

Concluding Remarks

Distorting impact

- Increase in ‘impression management’ by institutions
  - PR and marketing require ‘good’ news stories as opposed to stories about strong impact
  - Proof by example of good impact rather than a comprehensive overall assessment of impact
  - Reticence about using rigorous quantitative indicators
- Focus on ‘academic impact’
  - Profile on academic social media sites
  - Commercial internet sites set up to ‘increase impact’
  - ‘Cyber loafing’





What Universities do

- Teaching - for 800 years
- Research - for 170 years
- Knowledge Transfer - for 25 years
- Impact - for 10 years

Impact – General

- Impact can take a long time to become apparent
- Impact is not static – it continues to change with time
- Impact is not always positive – also it can move from positive to negative
- The narrative and presentation of impact has become an industry and may distort actual impact

Impact – Measurement

- Measurement of impact needs to be prospective not retrospective
- Parameters of impact should be determined prospectively to enable measurement and the creation of evidence
- Impact needs to be evidenced, often quantitatively - this may require some cultural adjustment in some academic areas
- Impact requires external independent validation - this often needs to be sought out

Impact – Resource Implications

- The measurement of impact is time consuming
- The accurate measurement of impact is expensive
- Funding is generally not available to demonstrate or measure impact - if it is, too much is expected for too little funding
- The production of evidence to demonstrate impact needs funding to find it and measure it properly
- Everyone thinks its everyone else's responsibility to fund the cost of impact assessment

Impact - Planning

- Choose research problems that *a priori* you expect to have an impact - potential impact could influence an early research strategy
- Impact should be part of the plan

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NETWORK FOR
ADVANCING & EVALUATING THE SOCIETAL IMPACT OF SCIENCE

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Integrating societal impact in a research strategy

28 November – 30 November 2018, Leuven

UP NEXT

Break

10.45-11.15

Anna de Pape Hall

UP NEXT….

Implementation Of Societal Impact: Lessons Learned

Barend Van Der Meulen & Kathryn Graham

LEARNING OUTCOMES

- Think about assessing and measuring progress to achieving your societal impact strategy
- Consider how to communicate your impact to your key stakeholders
- Review hands on examples and discuss lessons of implementation experiences

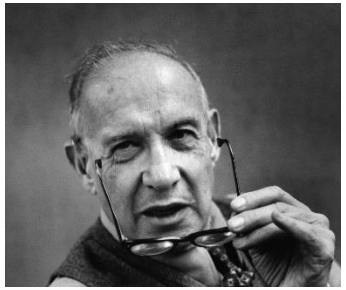
The proposal is that integrating a societal impact strategy upfront will increase the likelihood of achieving impact

AESIS

4

ASSESS SOCIETAL IMPACT: USE MONITORING, EVALUATION AND IMPACT MEASURES AS EVIDENCE

"What gets measured gets improved"



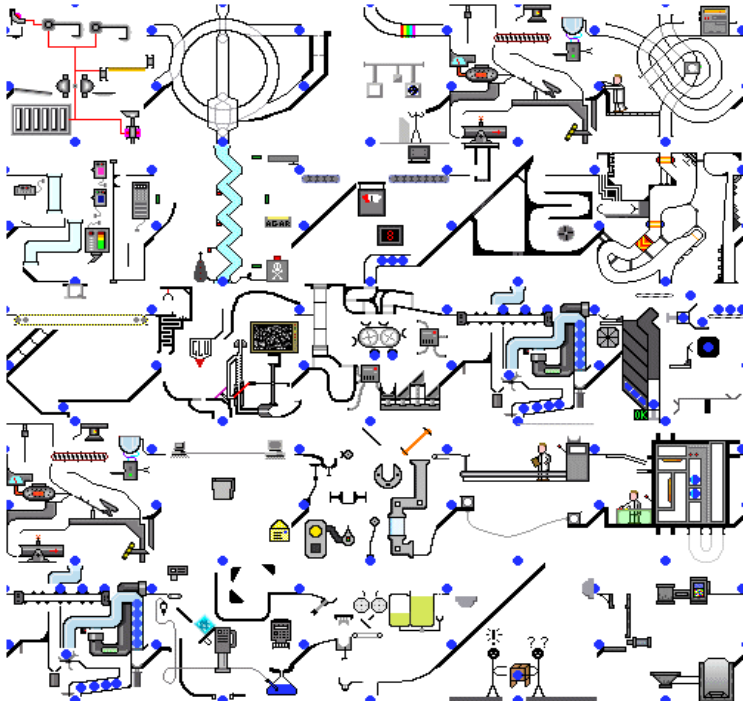
Peter Drucker

TIP: USE MONITORING AND EVALUATION MEASURES

*"Monitoring and Evaluation concerns the **systematic** collection of information, in order to improve decision making and enhance organizational learning with the ultimate aim of bringing about [strategies] that better meet needs and lead to improvements in targeted **Social, Economic and Environmental** conditions [Impact]."*

Source: Jess Dart, Better Evaluation

ACHIEVING SOCIETAL IMPACT REQUIRES CONTRIBUTION FROM MANY ACTORS



TIMING CONSIDERATIONS FOR TRACKING IMPACT

Pre (ex-ante)

During (ex durante)

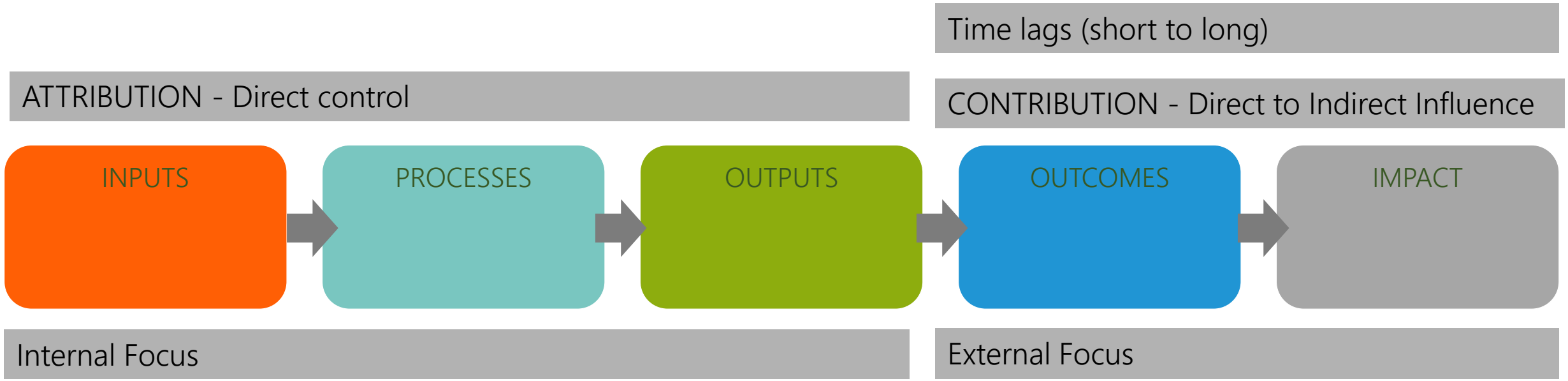
Post (final and follow up)

Planning

Monitor impact progress and evaluate for course correction

Evaluate and assess achievement of impact

WHAT ELSE SHOULD WE CONSIDER?



HOW DO WE CAPTURE THE EVIDENCE REQURIED?
INDICATORS DEFINED

Measure, metric and indicator often used interchangeably

- Indicator: The particular characteristic or dimension used to determine change (e.g. speed)
- Measure/metric: The unit of measurement (e.g. km/hr)

ENGAGE STAKEHOLDERS AND STRATEGICALLY ALIGN TO GENERATE AND SELECT INDICATORS

Participative approach

- Ask stakeholders about societal impacts and indicators of interest

Strategically align

- Research vision
- Organization's mission
- Organizational and/or external mandatory requirements

DEVELOP QUESTIONS AND INDICATORS ALONG IMPACT PATHWAY

Develop impact questions and ask stakeholders what they need to know

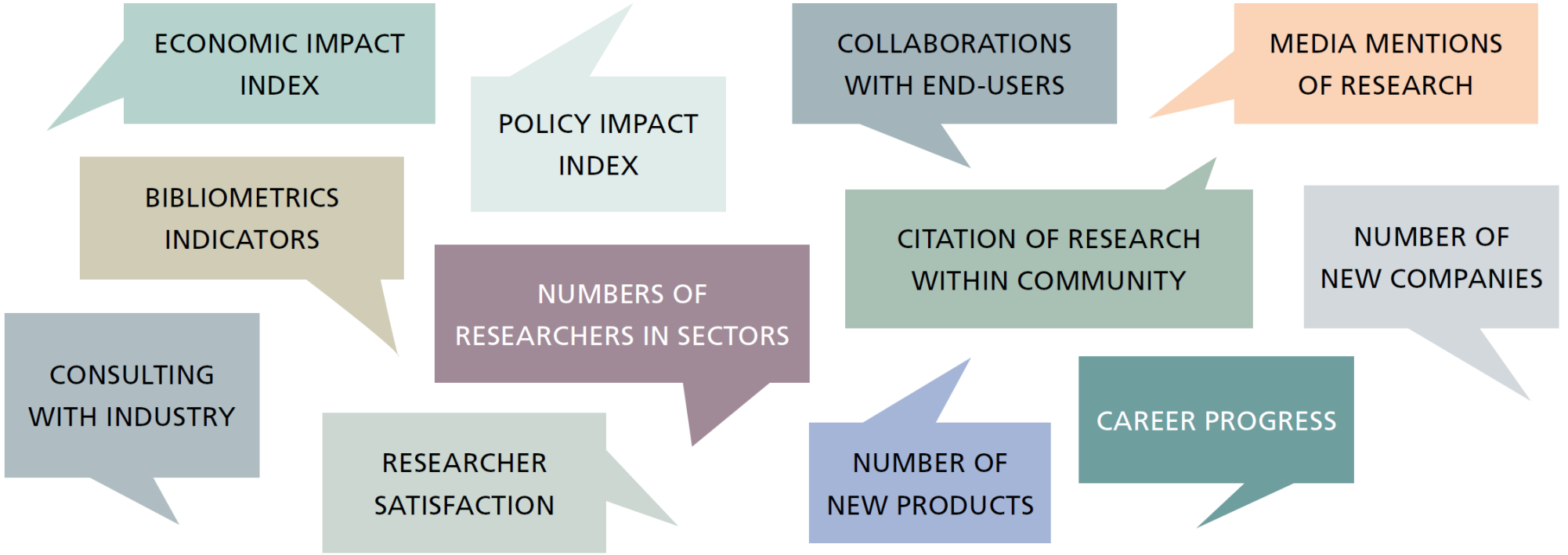
▼

Indicators

Gives the evidence to answer their questions

USE THE CONCEPT OF INDICATORS

TO THINK THROUGH WHAT COUNTS AS EVIDENCE



Source: Jonathan Grant, ISRIA

HOW DO WE CAPTURE THE EVIDENCE REQURIED TO ANSWER STAKEHOLDER QUESTIONS?

INPUTS	PROCESSES	OUTPUTS	OUTCOMES	IMPACT
What resources are invested in research?	What activities are you doing to achieve organizational mission	What are the direct results/services/ solutions produced?	What was the uptake or adoption?	What were the changes/effects/benefits of using solutions for the beneficiaries?
• staff FTE • funding • in-kind contributions •equipment/facilities	• RTD • education • industry engagement (incl. SMEs)	• publications • prototypes • patents applications • training packages • updated standards	• Awareness of products • Build capacity • Knowledge advanced • Stakeholder adoption • Behavioral change	**Economic** • diversified economy • quality workforce **Environmental** • water savings • reduced GHGs **Social** • health • wellbeing

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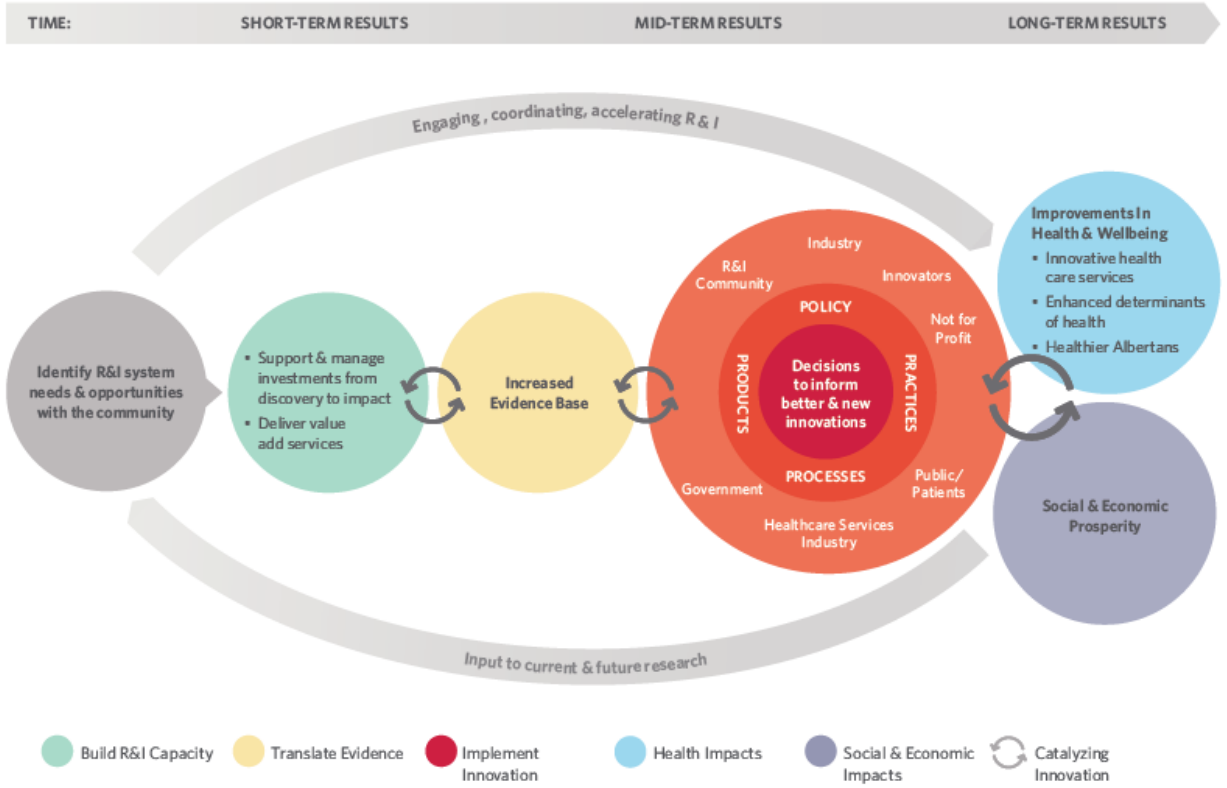
AI – HEALTH IMPACTS



Performance Monitoring, Evaluation and Assessment Activities

EXAMPLE OF FIT FOR PURPOSE INDICATORS

ENVIRONMENTAL IMPACT CATEGORIES	SOCIAL IMPACT CATEGORIES	ECONOMIC IMPACT CATEGORIES
1. Air quality	1. Health and wellbeing	1. National economic performance
2. Ecosystem health and integrity	2. Access to resources and opportunities	2. Trade an competitiveness
3. Climate	3. Quality of life (material security and livelihoods)	3. Productivity and efficiency
4. Natural hazards mitigation	4. Safety	4. Management of risk and uncertainty
5. Energy generation and consumption	5. Security (e.g. cyber, biological, civil and military)	5. Policies and programs
6. Land quality	6. Resilience	6. New services, products, experiences and market
7. Aquatic environments	7. Indigenous culture and heritage	7. Securing and protection existing markets
8. Built environments	8. Innovation and human capital (creativity and invention)	
	9. Social cohesion	

EXAMPLE OF STANDARD INDICATORS

NAPHRO indicators
Provincial share of national & other funding
Research & Innovation (R&I) GDP
Pharmaceutical R&I spending
Biotechnology R&I spending
Federal-level funding success rates
Patents
Licensing
Spin-offs
Employment
Educational impacts

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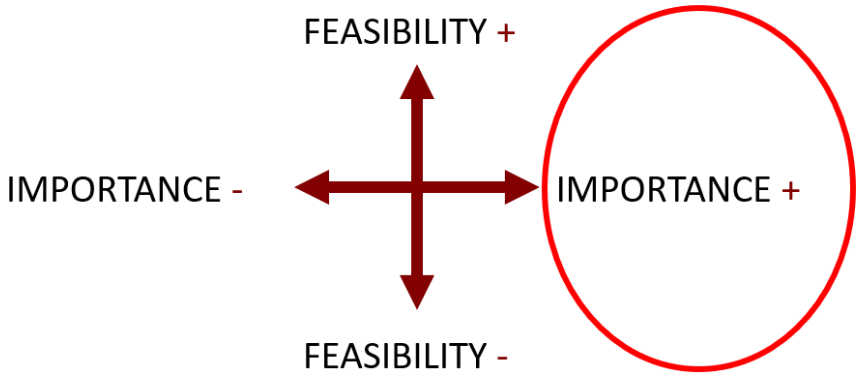
Source: Kathryn Graham, Anne-Maree Dowd ISRIA

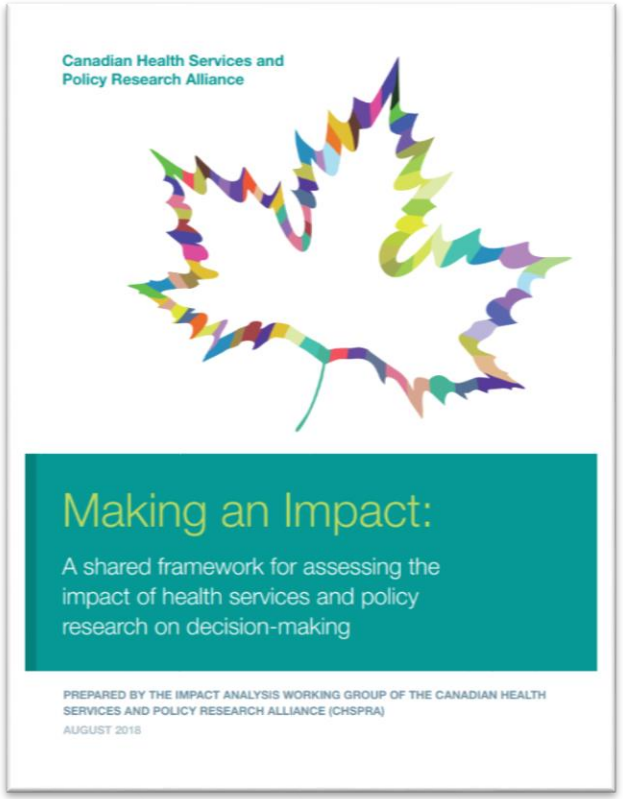
MULTI DATA COLLECTION

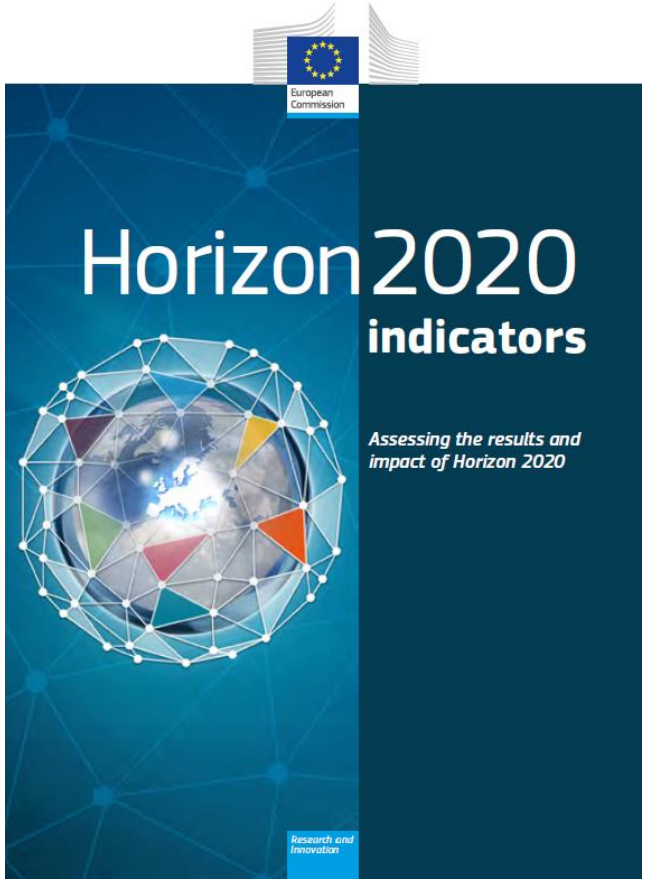
- Interviews
- Bibliometrics
- Focus groups
- Document analysis
- Surveys / questionnaires
- Economic analysis
- Case studies
- Text mining

SELECTING INDICATORS

INDICATOR QUADRANT TECHNIQUE







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LEARNING ACTIVITY

10-15 MINUTES

IN SMALL GROUPS

DISCUSSING INDICATORS FOR USE AND ACTION

The government of Youropeland wants to assess the impact of the SSG's initiative.

- As a group, identify 3 key performance indicators to assess the societal impact from yesterday's impact pathways
- List potential data sources for each indicator
- From your experience, what challenges do you anticipate with respect to assessing and reporting on your indicators?

5 COMMUNICATE SOCIETAL IMPACT

MESSAGE-DRIVEN COMMUNICATION

DESCRIBING RESEARCH

DESCRIBING THE IMPACT

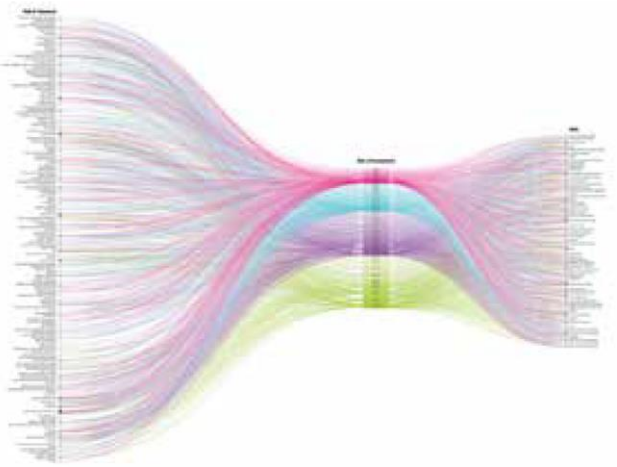
AESIS

Source: Jonathan Grant ISRIA

COMMUNICATE IMPACT TO STAKEHOLDERS

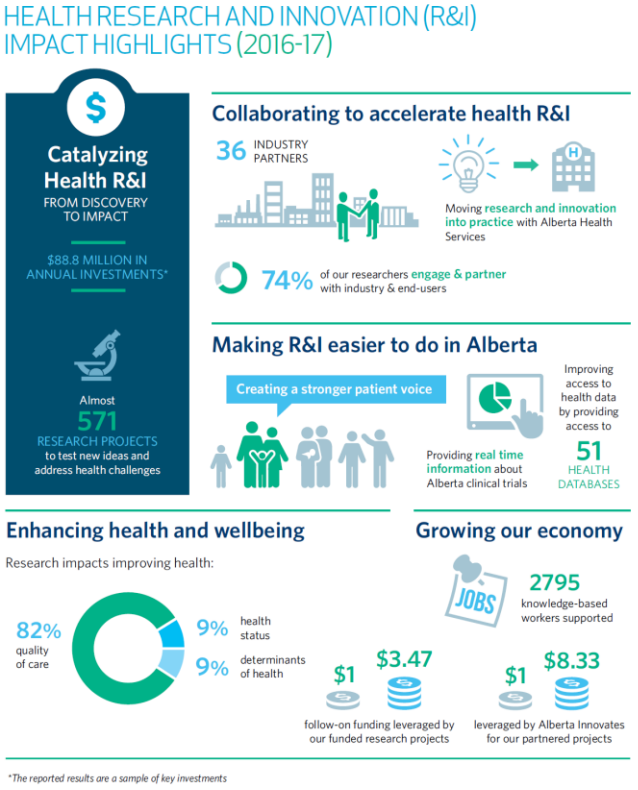
WHAT CHANNELS DO I NEED TO USE?

- Advisory board invitation
- Briefing notes
- Infographics
- Visualizations
- Blogs
- Twitter campaigns



twitter


ALBERTA INNOVATES
ANNUAL IMPACT REPORT FOR HEALTH INNOVATION 2016-17
This report is a comprehensive summary of outcomes and early impacts in 2016-17 resulting from research and innovation investments by Alberta Innovates' Health Innovation. This information is collected annually for the purposes of accountability and learning.
albertainnovates.ca


HEALTH RESEARCH AND INNOVATION (R&I) IMPACT HIGHLIGHTS (2016-17)
Catalyzing Health R&I
FROM DISCOVERY TO IMPACT
$88.8 MILLION IN ANNUAL INVESTMENTS*
Almost 571 RESEARCH PROJECTS to test new ideas and address health challenges
Collaborating to accelerate health R&I
36 INDUSTRY PARTNERS
Moving research and innovation into practice with Alberta Health Services
74% of our researchers engage & partner with industry & end-users
Making R&I easier to do in Alberta
Creating a stronger patient voice
Improving access to health data by providing access to 51 HEALTH DATABASES
Providing real time information about Alberta clinical trials
Enhancing health and wellbeing
Research impacts improving health:
82% quality of care
9% health status
9% determinants of health
Growing our economy
2795 knowledge-based workers supported
$1 $3.47 follow-on funding leveraged by our funded research projects
$1 $8.33 leveraged by Alberta Innovates for our partnered projects
*The reported results are a sample of key investments

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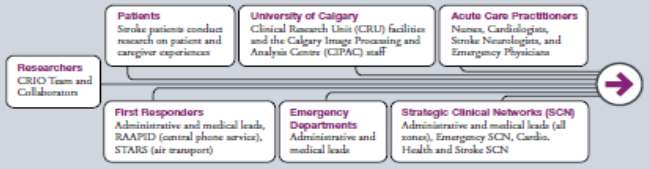
ALBERTA INNOVATES

Collaborating from 'Door to Needle' to Implement New Stroke Therapy

A team of researchers led by Dr. Michael Hill is using an endovascular treatment (ET) to improve the quality of stroke care. Stroke patients receive ET treatment during transport on specialized ambulances to improve health outcomes. This is integrated health service delivery in action.



HEALTH IMPACTS

Early treatment of stroke will **improve recovery outcomes** for patients and **reduce death** from strokes. This new therapy is accessible to rural areas, potentially reaching 25% of stroke patients.

"The overall mortality rate was reduced from two in 10 patients for standard treatment of care to one in 10 patients – a 50 per cent reduction with ET."
- (AIHS news release, Feb. 11, 2015)

SOCIAL AND ECONOMIC IMPACTS

*"For every stroke you convert from a severe stroke to a mild stroke, you **save the health system a million dollars in lifetime costs**, and you save the patient (from having) a lot of disabilities and return them back to their life."*
- Dr. Tom Jeerakathil (Edmonton Journal article, July 8, 2015)

The team leveraged **$6 million** in funding to support this work.

PROVINCIAL APPROACH

Collaboration with Emergency SCN and Cardiovascular Health and Stroke SCN has supported this research with connections, infrastructure, data access, and resources.

INTERNATIONAL REACH

Canadian Best Practice Recommendations for Stroke Care published internationally.

*"This breakthrough has the potential **to improve the lives of the 15 million people** who suffer strokes worldwide each year."*
- Ed McCauley, PhD, vice-president (research), University of Calgary. (AIHS news release, Feb. 11, 2015)

novo nordisk fonden

Classification and prognostification of colorectal cancer

Colorectal cancer is known to have great inter-tumour diversity which means that the cells in the tumors can be very different. Tumours at the same stage can equally be very diverse and unpredictable. Due to this great diversity in colorectal cancer prognosis and response to treatment can be difficult to predict leading to both under- and overtreatment.

The research group under Jesper Bertram Bramsen has found a molecular-subtype-specific biomarker that can be used to improve the prognosis for patients with colorectal cancer. The research group has analysed 1,100 colorectal cancer samples, discovered three different cancer cells and five tumour archetypes and made it possible to find specific subtype-biomarkers. This subtyping-framework and the newly discovered biomarkers can be an important factor in improving the treatment and prognostics for colorectal patients.

There is annually 4,500 new cases and 1,900 deaths of colorectal cancer in Denmark, which accounts for 3.7% of all deaths. The findings are published and thereby other researchers can use the new subtypes-framework in their research.

NHS
National Institute for Health Research

Search

NHS National Institute for Health Research 70 YEARS OF THE NHS 1948 - 2018

Home → Research and impact → Making a difference → The beautiful game

The challenge

Being obese can increase the risk of many illnesses. It increases chances of having high blood pressure, diabetes, coronary artery disease and stroke - and after smoking, is the most preventable cause of cancer. Male obesity is more prevalent in the UK than in the rest of Europe and is set to increase at a faster rate than female obesity in the next 40 years. Current trends suggest that 60 percent of men will be obese in England by 2050, with figures for Scotland likely to be similar, and it is predicted that the link between obesity and socioeconomic deprivation, already evident in women, will soon appear in men.

Recognising the need for more research-based evidence, and in response to the publication of 'Healthy Weight, Healthy Lives: A cross-government research and surveillance plan for England', the NIHR issued an Obesity Themed Call in 2009, and the Football Fans in Training (FFIT) evaluative study was funded as a result.

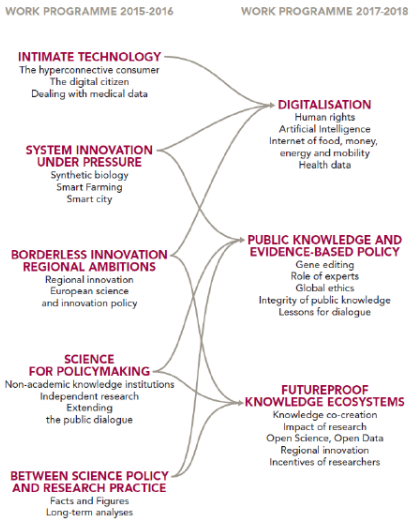
Rathenau Instituut

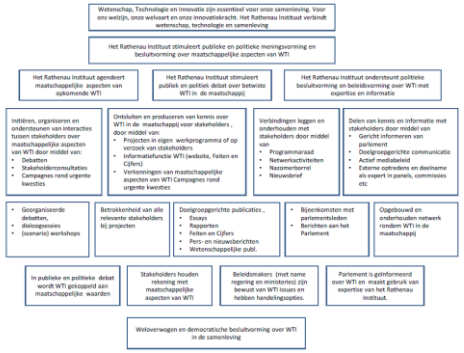
Challenges

- Many activities, publications
- Political debate issue oriented
- No control on political arena
- Outcomes and impacts difficult to trace
- Attribution difficult

What we did

- Focus on 3 themes (12 -> 5 -> 3)
- Link impact to vision
- Communication department responsible for media content and contact
- Liaison officer for parliament
- Dedicated publications for parliament
- Monitoring direct results
- Narratives for annual reports and evaluation for long term impacts





AESIS

Our vision		Science, Technology, and Innovation (STI) are essential for society, for our well-being, prosperity and innovativeness. The Rathenau Instituut connects science, technology, and society.			
Our mission		The Rathenau Instituut encourages public and political opinion formation and decision-making on the social aspects of STI.			
Our objectives	The Rathenau Instituut puts the social aspects of emerging STI on the agenda.	The Rathenau Instituut encourages public and political debate on disputed STI within society.		The Rathenau Instituut provides expertise and information in support of political decision-making and policy-making regarding STI.	
What we do	Initiate, organise and support interaction between stakeholders about social aspects of STI through: • Debates • Stakeholder consultation • Campaigns about urgent issues	Disclose and produce knowledge about STI in society for stakeholders, through: • Projects within own work programme or at request of stakeholders • STI information function (website, Facts and Figures) • Exploration of social aspects of STI • Campaigns about urgent issues	Create and maintain links with stakeholders by means of: • Programme Panel • Network activities • Late summer social event • Newsletter	Share knowledge and information with stakeholders through: • Specific information for Parliament • Targeted communication • Active media policy • External appearances and participation as expert on panels, commissions, etc.	
Direct results	• Organised debates • Dialogue sessions • (Scenario) workshops	Involvement of all relevant stakeholders in projects	Targeted publications • Essays • Reports • Facts and Figures • Press releases and news reports • Scientific publications	• Meetings with MPs • Reports to Parliament	Network about STI in society constructed and maintained
Outcomes	In public and political debate, STI is linked to social values	Stakeholders take account of societal aspects of STI	Policy-makers (specifically the government and ministries) are aware of STI issues and have options for action.	Parliament is informed about STI and makes use of expertise of Rathenau Instituut.	
Our impact		Well-considered, democratic decision-making on STI within society			

Figure 1 From vision to outcomes. Logical Framework Analysis for the Rathenau Instituut

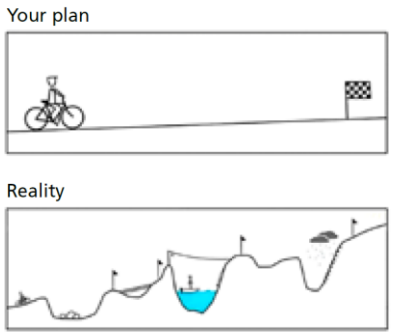
Lessons learned

1. Focus, focus, focus
2. Be ambitious, and realistic
3. Organize those impact paths that really matter
4. Monitor at level of organization or organization unit
5. Narratives at level of long term issue

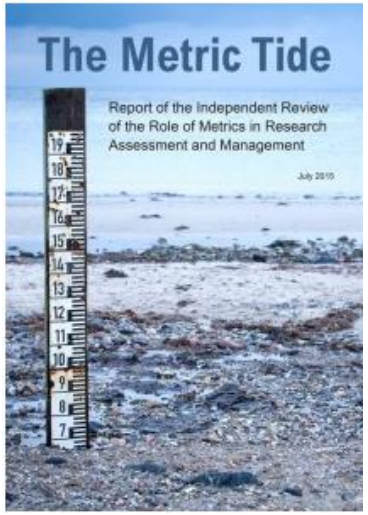
- Public debate
  - N stakeholder activities
  - N public lectures
  - Mentions in newspapers
  - Website visitors, downloads
  - Social media followers
  - Monitoring public image
- Political debate
  - mentions in debates
  - mentions in all parliamentary documents
  - meetings with MoP
  - invitations by parliament,

LESSONS LEARNED AND APPLICATIONS IN PRACTICE

"Everyone has a plan until they get punched in the face"



KEY MESSAGES



- Use monitoring and evaluation **evidence** to trace progress and make course correct to achieve impact
- Impact pathway help guide selection of a balance set of indicators that can answer stakeholder questions
- Measure responsibly
- Communicate to your stakeholder by leading with your impact

FURTHER READING

- American Evaluation Association (AEA), Research, Technology and Development (RTD) Evaluation Topical Interest Group. 2015. *Evaluating outcomes of publicly-funded research, technology and development programs: Recommendations for improving current practice. Version 1.0.* https://higherlogicdownload.s3.amazonaws.com/EVAL/271cd2f8-8b7f-49ea-b925-e6197743f402/UploadedImages/RTD%20Images/FINAL_RTD_Paper_20150303.pdf
- Wilsdon J, et al. 2015. *The metric tide: Report of the independent review of the role of metrics in research assessment and management*. HEFCE. http://www.hefce.ac.uk/pubs/rereports/Year/2015/metrictide/Title,104463,en.html
- HM TREASURY, CABINET OFFICE, NATIONAL AUDIT OFFICE, AUDIT COMMISSION, and OFFICE FOR NATIONAL STATISTICS, 2001. Choosing the Right FABRIC: A Framework for Performance Information. London, UK: HM Stationary Office. https://www.nao.org.uk/wp-content/uploads/2013/02/fabric.pdf

UP NEXT

Lunch

12.30 – 13.30

Anna de Pape Hall

UP NEXT....

Monitoring, Measuring and Maximizing Impact at a System Level

Borbala Schenk

Training Session 7.

Dr. Borbála Schenk
Head of the Office of the Director-General,
Centre for Social Sciences, Hungarian Academy of Sciences
EARMA Representative

EARMA
EUROPEAN ASSOCIATION OF
RESEARCH MANAGERS AND ADMINISTRATORS

mtatk

AESIS

What do we mean by research impact?

Scientists want research impact

Politicians want research impact

European citizens want research impact

Industry wants research impact

I want research impact

=

Scientists want

Politicians want

European citizens want

Industry wants

I want

Overview and aim of the session

1. The evolving concept of impact in the European research funding framework

2. The societal impact gap

3. Getting ready for bridging the impact gap

I. The evolving concept of impact in the European research funding framework

What is the ambition of the H2020 Framework?

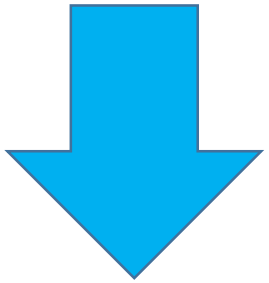
"wider societal, economic or environmental
cumulative changes over a long period of time"

(European Commission, Horizon 2020 indicators - Assessing the results of impact of Horizon 2020, Brussels 2015, page 6)

achieving substantial impact beyond academic impact
increase competitiveness
reaching out to the citizens

I. The evolving concept of impact in the European research funding framework

Europe is great in creating,
but not that great in turning the discoveries into products or direct benefits



Horizon Europe introduces new dynamics in impact

I. The evolving concept of impact in the European research funding framework

Impact in the H2020 framework

Impact in Horizon Europe

I. The evolving concept of impact in the European research funding framework

Impact in the H2020 framework

- calls - impact objectives are usually pre-defined in general terms
- plays equal part in evaluation of H2020 RIA and CSA proposals
- increasing role of assessing impact, ongoing discussions

plays prominent role

Impact in Horizon Europe

- keeping what was good in H2020
- role of innovation strengthened
- more direct reach to citizens
- missions: the „impact champions”

new dynamics

- ambitions of HorizonEurope
- complexity of research projects
- need for greater collaboration, diversity

Mind the societal impact gap

2. The societal impact gap

scientific results ⟺ impact expected does not happen

scientific results ⟹ negative impact

Do you have experience with the societal impact gap?
What caused the societal impact gap?
How did you overcome it?

2. The societal impact gap

Achieving and maximising impact = management task

WHY?

2. The societal impact gap

It is the research manager's task to provide solutions for all kinds of impact-related challenges.

Plus: Horizon Europe calls for more unified, simplified procedures → it means that the specifics of the project will have to be dealt with on a case-by case basis building on the expertise of the support staff.

2. The societal impact gap

Case study 1.

Marginal models for categorical data. These are statistical models when previous knowledge restricts certain marginal distributions of the contingency table. Such models are relevant in several applications, including repeated measurements and panel studies, graphical models that represent Markov type properties or fusion of data sets from different sources. I have mostly worked on existence, characterization and parameterization issues related to such models. Many of the theoretical results are generalizations of results known for log-linear models and may be used to better understand and characterize Markov models associated directed acyclic graphs and chain graphs. In general, new insights into the smoothness properties of conditional independence models may be obtained.

2. The societal impact gap

Case study 1.

Challenge

Potential for impact

2. The societal impact gap

Case study 2.

Research project of University of Dystopia 1.

Our research results show that providing scholarships in schools of good reputation is the most effective method of giving chance to the talented children living in poverty-stricken areas to have access to appropriate education. This is the only way the child gets a chance to break out of the circumstances that would block his/her path of mobility.

Research project of University of Dystopia 2.

Based on the data collected, we can conclude there is only one sustainable solution to help the children living in deep poverty in small villages: to support local schools and strive to create the appropriate standards of living locally, so that the family could stay together.

2. The societal impact gap

Case study 2.

Challenge

Potential for impact

2. The societal impact gap

Case study 3.

Research result?

2. The societal impact gap

Case study 3.

Challenge

Potential for impact

2. The societal impact gap

Case study 4.

Social scientists and public policy officials generally consider education, the labor market, and social services to be tools of minority inclusion. This project sees the media as being equally important. Media constructs and re-constructs the image—a “selfie” of society. Discovering how groups are included in (or excluded from) this “selfie” is paramount to our research.

How are minority groups, particularly the Roma community, visually represented by the media? Our research applies a multi-method approach: content analysis of the main topical frames within news, and also of actors and voices within media coverage. In our analysis, also using data from previous research, we analyzed the longitudinal trends and changes in the representation of Roma in the news since the early 90s. Using qualitative methodology, we seek to identify visual elements that support social exclusion and represent existing stereotypes. A historic analysis of public policy and police documents demonstrates that some of the existing stereotypical representations have very old roots, derived from the official language of state institutions from the 1950s-70s.

An equally important element of our research is to investigate how Roma people feel about how they are portrayed by mass media

2. The societal impact gap

Case study 4.

Challenge

Potential for impact

3. Getting ready for bridging the impact gap

Why? Possible causes of impact gap

How? Tools to overcome impact gap

3. Getting ready for bridging the impact gap

Impact risk assessment

**not a complex procedure,
but an honest procedure**

3. Getting ready for bridging the impact gap

Impact risk assesment

What can possibly put a barrier to achieving and maximizing impact?	How does this risk influence the project?	How to prevent/overcome this risk?
RISK	POTENTIAL OF RISK	TOOL-KIT

3. Getting ready for bridging the impact gap

Case study – Impact risk assessment

DEMOS is built on the assumption that populism is symptomatic of a disconnect between how democratic polities operate and how citizens perceive their own aspirations, needs and identities within the political system. As such, DEMOS explores the practical value of 'democratic efficacy' as the condition of political engagement needed to address the challenge of populism. The concept combines attitudinal features (political efficacy), political skills, knowledge, and democratic opportunity structures.

In order to better understand populism DEMOS addresses its hitherto under-researched aspects at micro, meso-, and macro-levels: its socio-psychological roots, social actors' responses to the populist challenge, and populism's effects on governance. DEMOS focuses not only on the polity, but equally on citizens' perspectives: how they are affected by, and how they react to, populism. Politically underrepresented groups and those targeted by populist politics are a particular focus, e.g. youth, women, and migrants. As populism has varying socially embedded manifestations, DEMOS aims at contextualising it through comparative analysis on the variety of populisms across Europe, including their historical, cultural, and socioeconomic roots, manifestations, and impacts. DEMOS develops indicators and predictors of populism and elaborates scenarios on the interactions of populism with social actors and institutions both at the national and the EU levels.

3. Getting ready for bridging the impact gap

Impact risk assesment
DEMOS

RISK	POTENTIAL TO HARM	TOOLKIT

Summary

1. The evolving concept of impact in the European research funding framework

overview from the system-level,
how the concept of impact is changing in the European research support framework

2. The societal impact gap

think about the challenges of impact in a broadened way, move out of comfort zones sustained by back-pocket-solutions, assess the management task in achieving impact

3. Getting ready for bridging the impact gap

think through the possible challenges of achieving impact, not take it for granted that the methods suggested for maximizing impact would work, set up an impact risk assessment

Summary

Take-home messages

1. .
2. .
3. .

Summary

Take-home messages

1. New dynamics and even more emphasis on impact is on the Horizon
2. Mind the impact gap
3. Assess honestly and be prepared in due time

Borbala Schenk

Head of the Office of the Director-General at Centre for Social Sciences Hungarian Academy of Sciences MTA TK // EARMA

Hungary

Thank you for thinking together about impact!

Please feel free to contact me with questions or comments: schenk.borbala@tk.mta.hu

https://www.linkedin.com/in/borbala-schenk-9b8078aa/

UP NEXT

Break

15.15 – 15.45

Anna de Pape Hall

UP NEXT… It's your turn

CASE STUDY SESSION 2:

HOW TO SET UP AN IMPACTFUL RESEARCH PROGRAM

UP NEXT

RECAP AND REMAINING QUESTIONS

UP NEXT
Course Dinner

18.00

Restaurant Troubadour
Muntstraat 27