Welcome to the Interactive Course on

Assessing Impact of Science: Methods & Instruments

3-5 November, 2021

AESIS

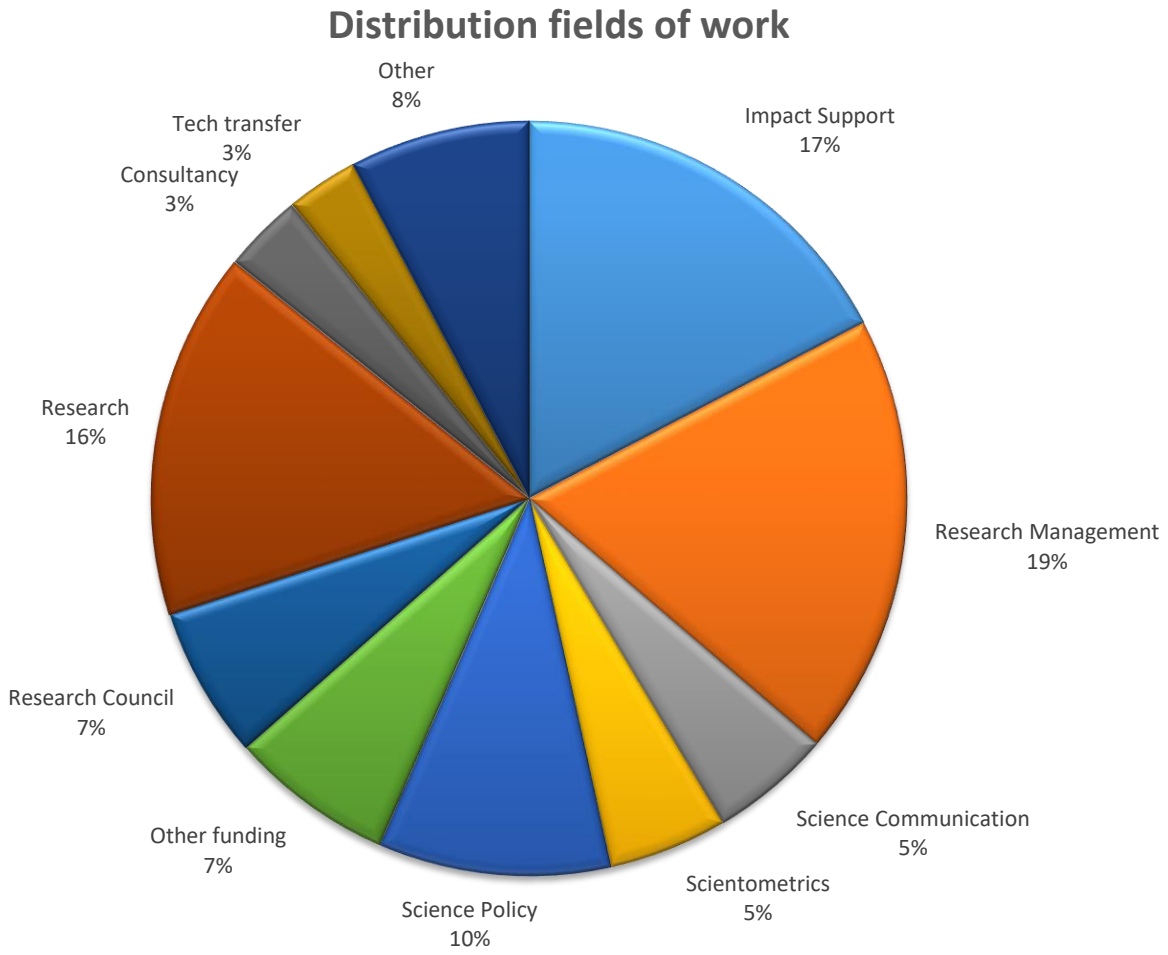
NETWORK FOR
ADVANCING & EVALUATING THE SOCIETAL IMPACT OF SCIENCE

DAY 1

#AISMI21
@AESISNET

OVERVIEW OF AESIS

AESIS was founded in 2015 with the aim of creating an international, open community for various types of professionals working on stimulating and demonstrating the impact of science on economy, culture and well-being.



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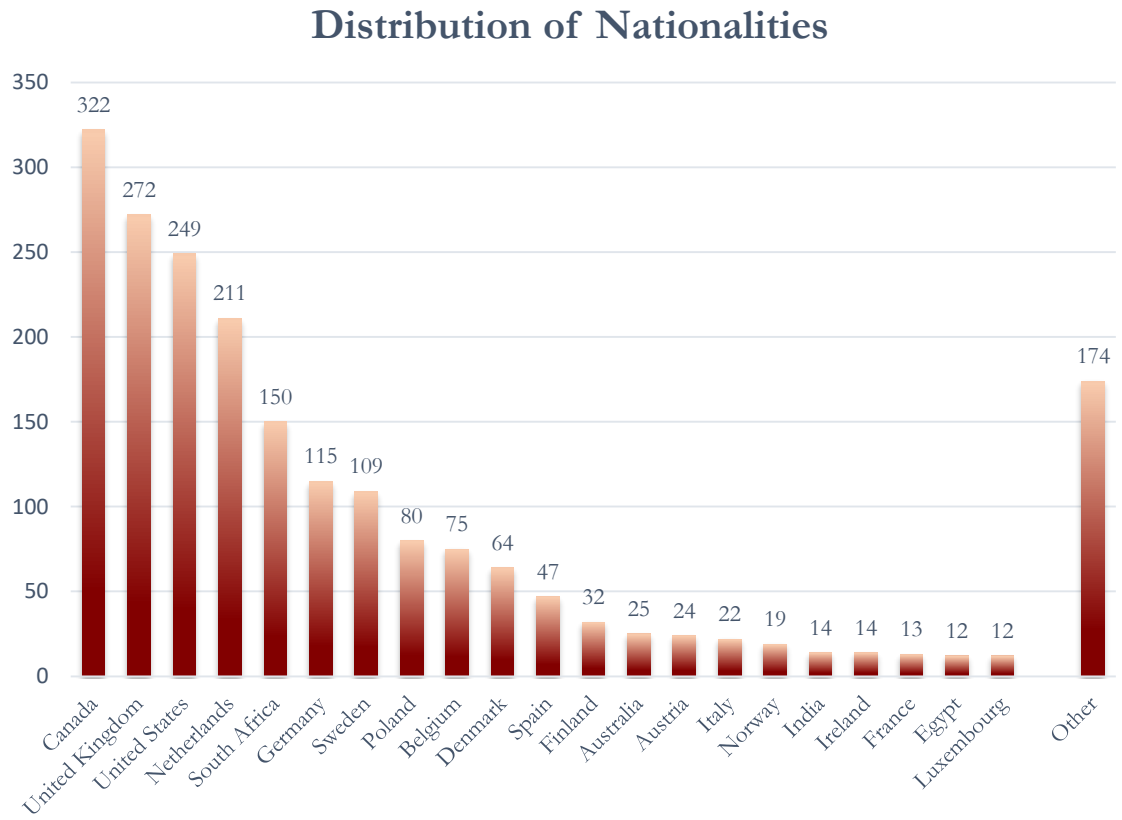

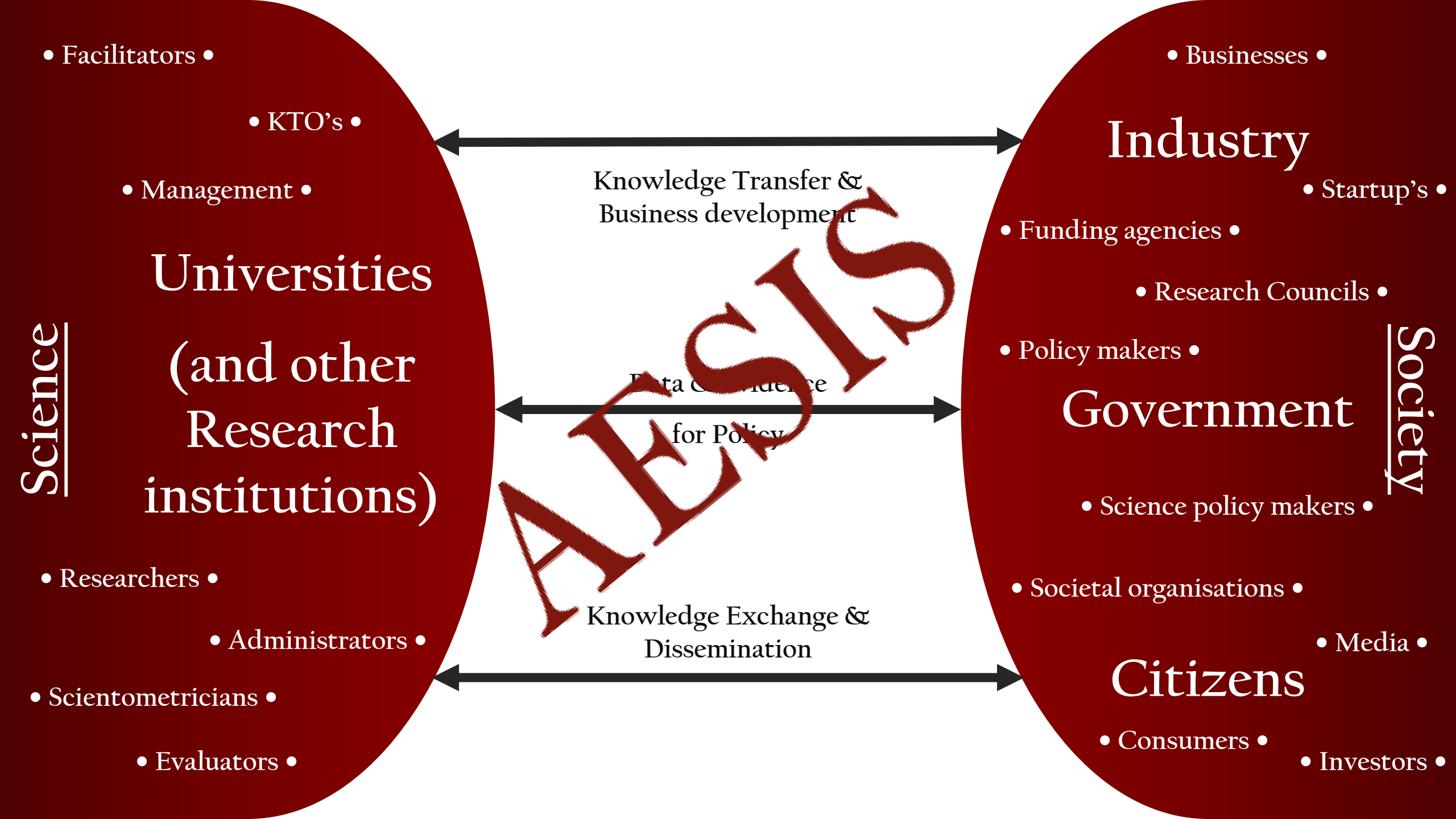
• Facilitators •
• KTO's •
• Management •
Universities
(and other
Research
institutions)
Science
• Researchers •
• Administrators •
• Scientometricians •
• Evaluators •
Knowledge Transfer &
Business development
for Policy
AESIS
Knowledge Exchange &
Dissemination
• Businesses •
Industry
• Startup's •
• Funding agencies •
• Research Councils •
• Policy makers •
Government
Society
• Science policy makers •
• Societal organisations •
• Media •
Citizens
• Consumers •
• Investors •

THE TEAM

Anika Duut van Goor – Director

Bonita Liu – Lead Project Manager

Emma den Ouden – Office & Conference Manager

Yeşim Tırpan– Project Manager

Caterina Tognoni – Project Manager

ZOOM

OVERVIEW OF THE COURSE

Wednesday 3rd November

Opening & Introductions- Martin Kirk & Anika Duut van Goor
Impact Definitions, Strategies & Policies- Ellen Hazelkorn
Integrating Impact in a Research Strategy- Jonathan Grant
Panel- Jonathan Grant, Martin Kirk, Anika Duut van Goor
Introduction to Course Assignment

Thursday 4th November

Impact Evaluation for National or Regional Strategy- Steven Hill
Impact Assessment Frameworks- Jordi Molas-Gallart
Tools & Methods for Impact Evaluation- Michelle Herbert & Ole Henning Sørensen
Panel- Steven Hill, Jordi Molas-Gallart, Michelle Herbert & Ole Henning Sørensen

Friday 5th November

Understanding Performative Aspect of Impact Assessments- Laurens Hessels
Responsible Metrics for Impact Performance- James Britt Holbrook
Panel- Laurens Hessels & James Britt Holbrook
Participant presentations

OVERVIEW OF DAY 1 PROGRAMME

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Introduction to Course Assignment

Getting to know each other…

- Where do you stand in the science eco-system?
- Why are you here and what would you like to take away?
- Why is the topic of this course important (to you)?

"…the real and legitimate goal of the sciences is the endowment of human life with new inventions and riches." *Francis Bacon, Novum Organum, 1620*

"Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world." *Louis Pasteur, French biologist & bacteriologist (1822 - 1895)*

"Nothing in science has any value to society if it is not communicated, and scientists are beginning to learn their social obligations." *Anne Roe, the Making of a Scientist, 1953*

"…science and technology is the warp drive that accelerates that kind of change [raise the fortunes of people] for everybody." *Barack Obama, Wired, 2016*

Impact in its adolescence

- Until 80s — Industries involving academics when necessary
- 80s: — Contract research & technology transfer (TTO's)
- 90s: — Entrepreneurship, Scienceparks
- 00's: — Third mission, accountability of value, TT -> KT
- 10's: — From output to Societal Impact
- 20's: — Integration, not add on. Transformation.

Labels: TT, KT, KE, KEC, 3rd Thing (arm, leg, mission)

More labels: *Valorisation?*, Economic & Societal Impact, Outcomes, Industry liaison, Broader Impact, Knowledge mobilization, …

TT focus – market oriented

- Transfer of new technologies to the market
  - Contract research
  - Patents & Licenses
  - Start-ups

- Market demand is often clear
- Input from research is often tangible
- Outcomes often quantifiable
- TTO's well organised

Societal Impact – broader & more vague…

- Society at large, even directly
- Knowledge transfer by all scientific disciplines
- It's about people & quality of life
- Vast number of impact-pathways

Societal Impact – obstacles with definition

- Difficult to operationalise
- Differences per discipline
- Differences per stakeholder
- Differences per (national) context

Defining impact

An effect on, change or benefit to the economy, society, culture, public policy or services, ~~health~~, the environment or quality of life, beyond academia

REF

Research impact is the contribution that research makes to the economy, society, ~~environment or~~ culture, beyond the contribution to academic research

Defining impact

Find the impact in your institutions mission and/or strategy

Defining impact

Reach → Beyond academia

→ Regional, National, International

Demonstrable → Long term impact (fundamental research)

→ Indirect impact (interdisciplinary)

→ Unclear correlations

Interpretation → Different for EVERY stakeholder

Why assess impact?

➢ Analysis	To understand why, how and whether research is effective, and how it can be better supported.
➢ Advocacy	'makes the case' for research funding among policymakers and the public
➢ Accountability	Evidence efficient use of resources to taxpayer, donors, partners, etc…
➢ Allocation	How to distribute funding (institution, field, people …)
➢ Acclaim	Compare and recognise value of HE institutions
➢ Adaptation	Steer change in structures, cultures, activities and priorities

Source: Parks, Sarah, Daniela Rodriguez-Rincon, Sarah Parkinson, and Catriona Manville, The changing research landscape and reflections on national research assessment in the future. Santa Monica, CA: RAND Corporation, 2019. https://www.rand.org/pubs/research_reports/RR3200.html.

How to measure impact

Traditional (TT) indicators

- (Private) Investments in start-ups / technology
- Patents / licences
- Jobs created
- etc

How to measure impact

Quantifiable indicators (REF/SEP/etc)

- The citations of science in the parliament
- The scientific advisory functions in government
- The citations of science in main newspapers/daily news
- Contract research
- Policy reports
- Articles in professional journals for non-academic readers
- Public prizes
- Other outputs (instruments, infrastructure, datasets, software tools or designs that the unit has developed) for societal target groups

How to measure impact

Qualitative/Narratives

- Public awareness, attitude or understanding of risks improved
- Quality or productivity of professional or public service improved
- Public health or quality of life improved
- Project lowered risks to security
- User experience has improved
- Changes in environmental or architectural design standards or general practice
- Development of ethical standards
- Professional research capabilities improved
- Project challenged conventional wisdom, stimulating debate among stakeholders
- Improved access to justice and other opportunities
- Impact on democratic participation
- Creating, inspiring or supporting new forms of expression (like artistic, literary etc.)
- Understanding, developing and adopting alternative economic models
- Etc…

Current themes and pressing issues

- Qualitative and Quantitative indicators & Output, outcome, impact discussion, Responsible metrics
- Incentivising for Impact & Fundamental (curiosity-driven) research vs societal impact
- Understanding societal (and political!) needs from science in different parts of the world
- Connecting Stakeholders in one impact strategy
- Where to harmonise (all inclusive), where to diversify per discipline

Current themes and pressing issues

- Engagement & Co-creation, vs one way street
- Credibility of Science & Science communication
- Open science & Impact
- Big data and AI
- SDG's and cross-border collaboration against grand challenges

What do we need?

Transformation

And so:

And of course:

Ellen Hazelkorn

Joint Managing Partner, BH Associates; Professor emeritus, Technological University Dublin (Ireland), and Joint Editor, Policy Reviews in Higher Education

Break

*We will be back at **12.15***

Break

*We will be back at **13.30***

Jonathan Grant

Founding Director, Different Angles Ltd

Break

*We will be back at **14:30***

Break

We will be back at ***15:15***

Panel

Jonathan Grant
Martin Kirk
Anika Duut van Goor

Introduction to the Course Assigment

A proposal to improve the societal impact of your institute by integrating effective impact assessment methods and tools

Final presentations: November 5, 13.45-15.30 GMT

Elements to consider

1. What is the current state of impact assessment at your organisation? Which tools and methodologies are currently in use?
2. What tools and systems are available to you to support evaluation of your impact? What is missing?
3. What is you/your organisation's objective in assessing impact -- the 'why' behind measuring impact?
4. From which level will you be assessing impact (regional-, institutional-, project-level?) and what would this mean for the methodology and tool(s) you would use?
5. To what extent can you use current research information systems for assessing impact? If you create your own 'system' for assessing impact, how would this system relate to your accountability towards research funders, existing impact rankings, your internal system of evaluating the performance of your researchers, and the research profile of your institution?
6. How will you evaluate success, strengths and weaknesses of your assessment system and strategy?

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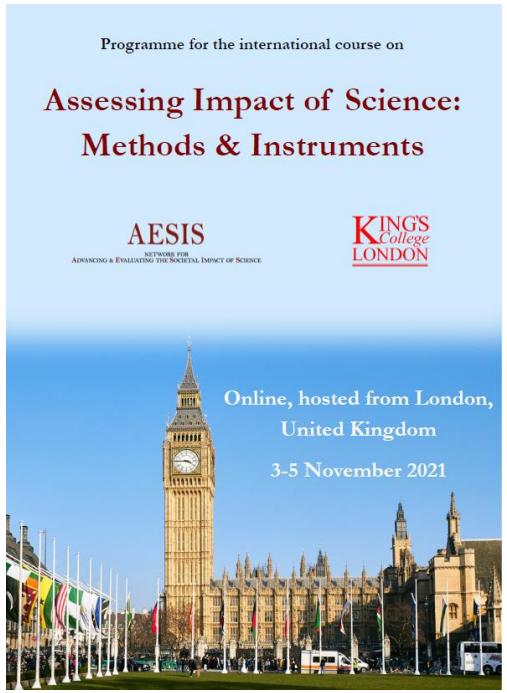

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Q&A and Informal Chat

End of Day 1

Thank you