



Understanding research impact: analysis of the REF impact case studies

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20 May 2015

HIGHER EDUCATION *hefce*
FUNDING COUNCIL FOR ENGLAND

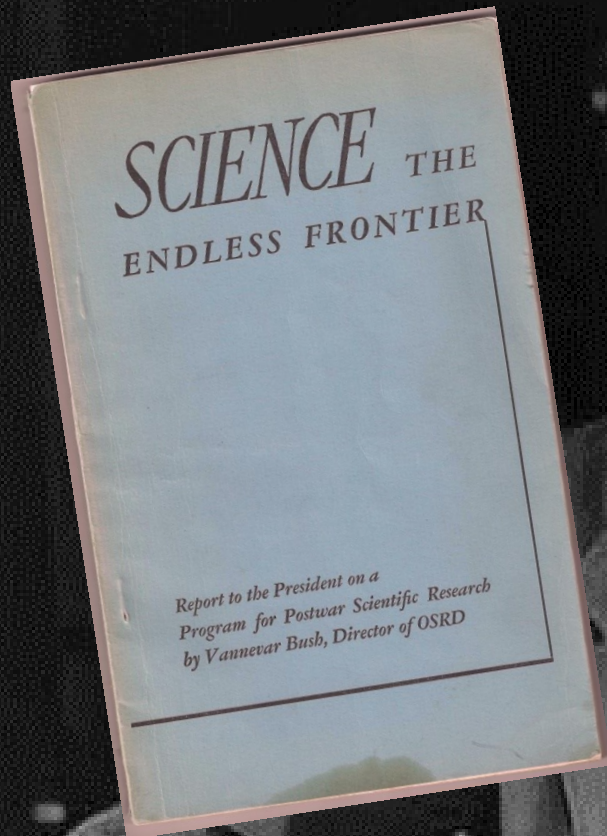
 @stevenhill

What is research impact?

- History
- Definitions
- Taxonomies
- What actually happens?
 - Knowledge exchange activity
 - REF impact case studies

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"As long as [universities] are vigorous and healthy and their scientists are free to pursue the truth wherever it may lead, there will be a flow of new scientific knowledge to those who can apply it to practical problems in Government, in industry, or elsewhere."

"Vannevar Bush portrait".
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Realising Our Potential 1993

3.13 Excellence is very important; second-rate research is a poor buy.

Funders of research will need to apply rigorous standards and impose strong criteria to maintain quality whilst giving much greater emphasis to relevance. There is no conflict between quality and relevance or appropriability. Indeed Research Councils already take account of multiple criteria when allocating funds. While the Research Councils should focus on the value of proposed research in terms of scientific excellence and timeliness, they should take more fully into account the extent to which outcomes could be taken up by potential

users. When setting priorities and allocating resources, Councils will take account of the needs of their particular user communities - the relevant industrial or service sectors, private and public, as well as central and local Government. The Government will similarly expect research relevant to industrial and other users to be taken into account by the Higher Education Funding Councils in their research assessment exercises.

Research Budget Allocations 2014

Research excellence is a critical asset for the UK, providing a competitive advantage in the global race for prosperity. The UK's strong research base is vital in pushing back the frontiers of human knowledge, supporting the wealth and welfare of the nation, tackling current and future challenges and contributing to the cultural richness of the UK. World class research plays a key role in economic growth through creating new businesses, improving the performance of existing businesses, delivering highly skilled people to the labour market, and attracting investment from global businesses. It is also vital to the implementation of the Government's Industrial Strategy. The 8 Great Technologies, launched by the Government in January 2013, illustrate how UK strengths in key areas of research have the potential to drive growth and societal benefits and where the UK has a competitive advantage.¹

The Warry Report

06/1678

Increasing the economic impact of Research Councils

**Advice to the Director General of Science and Innovation,
DTI from the Research Council Economic Impact Group.**

14th July 2006

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Impact definitions: Warry report

“An action or activity has an economic impact when it affects the welfare of consumers, the profits of firms and/or the revenue of government. Economic impacts range from those that are readily quantifiable, in terms of greater wealth, cheaper prices and more revenue, to those less easily quantifiable, such as effects on the environment, public health and quality of life.”

Impact definitions: RCUK

“The demonstrable contribution that excellent research makes to society and the economy. Economic and societal impacts embrace all the extremely diverse ways in which research-related knowledge and skills benefit individuals, organisations and nations by:

fostering global economic performance, and specifically the economic competitiveness of the United Kingdom, increasing the effectiveness of public services and policy, enhancing quality of life, health and creative output.”

Impact definitions: REF

“For the purposes of the REF, impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia”

Impact definitions: LSE

“We define a research impact as a recorded or otherwise auditable occasion of influence from academic research on another actor or organization.”

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Pathways to Impact

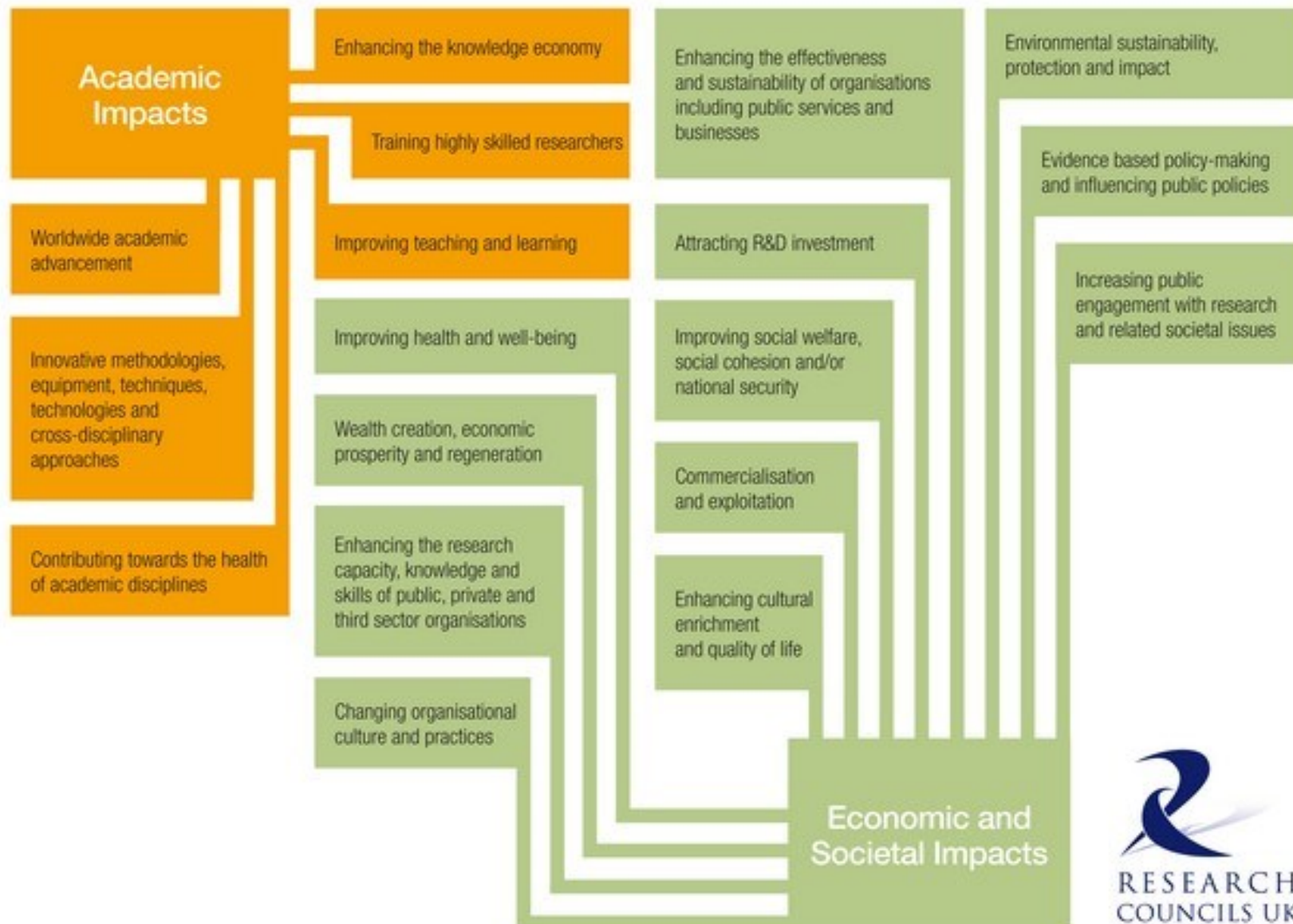


Table D1 Indicative range of impacts

Civil society	Informing and influencing the form and content of associations between people or groups to illuminate and challenge cultural values and social assumptions.
Cultural life	Creating and interpreting cultural capital in all of its forms to enrich and expand the lives, imaginations and sensibilities of individuals and groups.
Economic prosperity	Applying and transferring the insights and knowledge gained from research to create wealth in the manufacturing, service, creative and cultural sectors.
Education	Informing and influencing the form or the content of the education of any age group in any part of the world where they extend significantly beyond the submitting HEI.
Policy making	Informing and influencing policy debate and practice through interventions relating to any aspect of human or animal well-being or the environment.
Public discourse	Extending the range and improving the quality of evidence, argument and expression to enhance public understanding of the major issues and challenges faced by individuals and society.
Public services	Contributing to the development and delivery of public services or legislation to support the welfare, education, understanding or empowerment of diverse individuals and groups in society, including the disadvantaged or marginalised.

SEO SECTOR AND DIVISION CODES AND TITLES

Sector A: Defence

81 Defence

Sector B: Economic Development

82 Plant Production and Plant Primary Products
83 Animal Production and Animal Primary Products
84 Mineral Resources (excl. Energy Resources)
85 Energy
86 Manufacturing
87 Construction
88 Transport
89 Information and Communication Services
90 Commercial Services and Tourism
91 Economic Framework

Sector C: Society

92 Health
93 Education and Training
94 Law, Politics and Community Services
95 Cultural Understanding

Sector D: Environment

96 Environment

Sector E: Expanding Knowledge

97 Expanding Knowledge

SOCIO-ECONOMIC OBJECTIVE *continued*

DIVISION 82 PLANT PRODUCTION AND PLANT PRIMARY PRODUCTS *continued*

GROUP 8201 FORESTRY
This group covers R&D directed towards improving the operation, maintenance and protection (including forest fire fighting and control) of native forests, softwood and hardwood plantations. It includes harvesting and transportation of wood and other forest products from forests and plantations and the integration of farm and forestry.

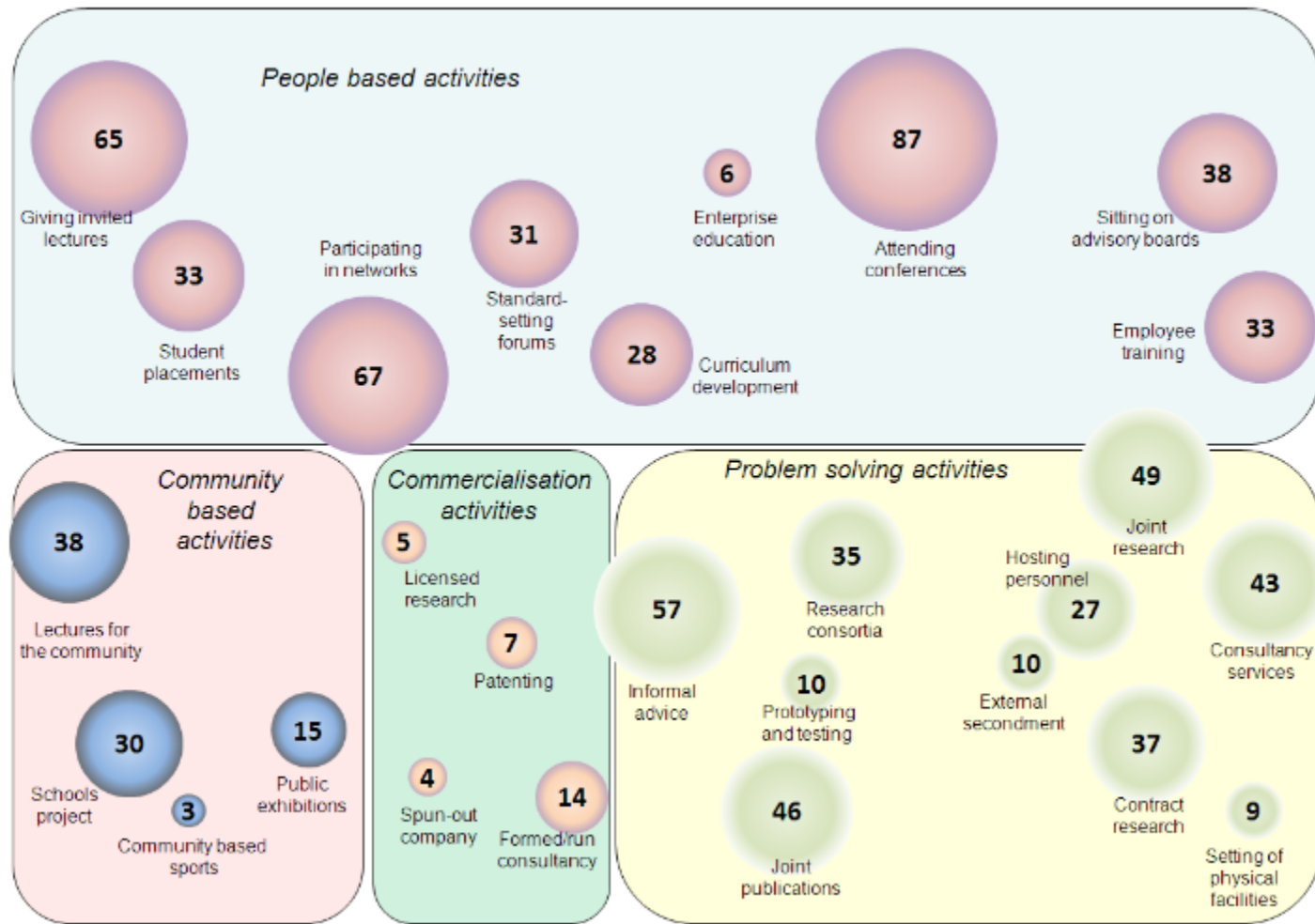
This group has six objectives:

- 820101 Hardwood Plantations
- 820102 Harvesting and Transport of Forest Products
- 820103 Integration of Farm and Forestry
- 820104 Native Forests
- 820105 Softwood Plantations
- 820199 Forestry not elsewhere classified

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Diversity in Knowledge Exchange



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Unit of Assessment

Main Panel A

(1596)

[1 - Clinical Medicine](#)

(385)

[2 - Public Health, Health Services and Primary Care](#)

(163)

[3 - Allied Health Professions, Dentistry, Nursing and Pharmacy](#)

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Main Panel B

(1484)

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Main Panel C

(1972)

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Main Panel D

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[27 - Area Studies](#)

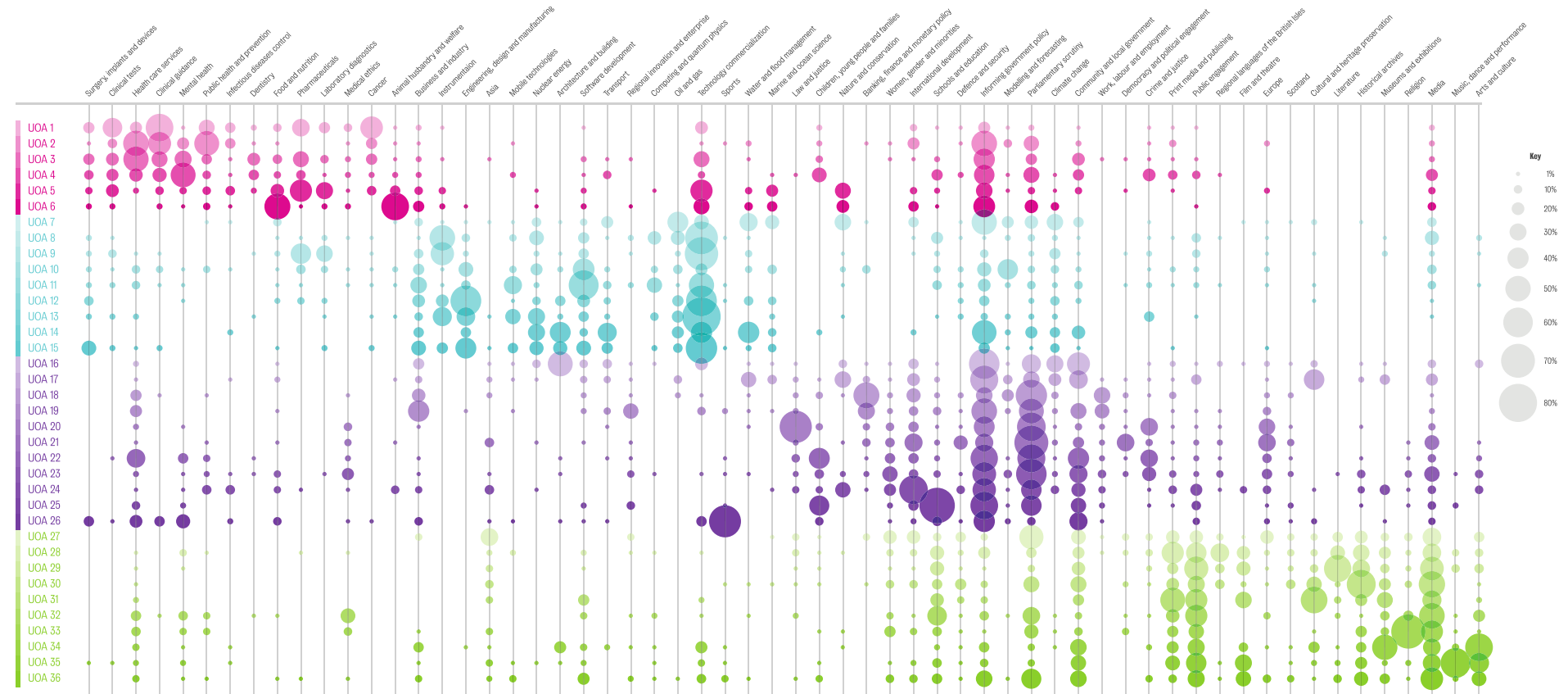
(69)

Limitations of the REF dataset

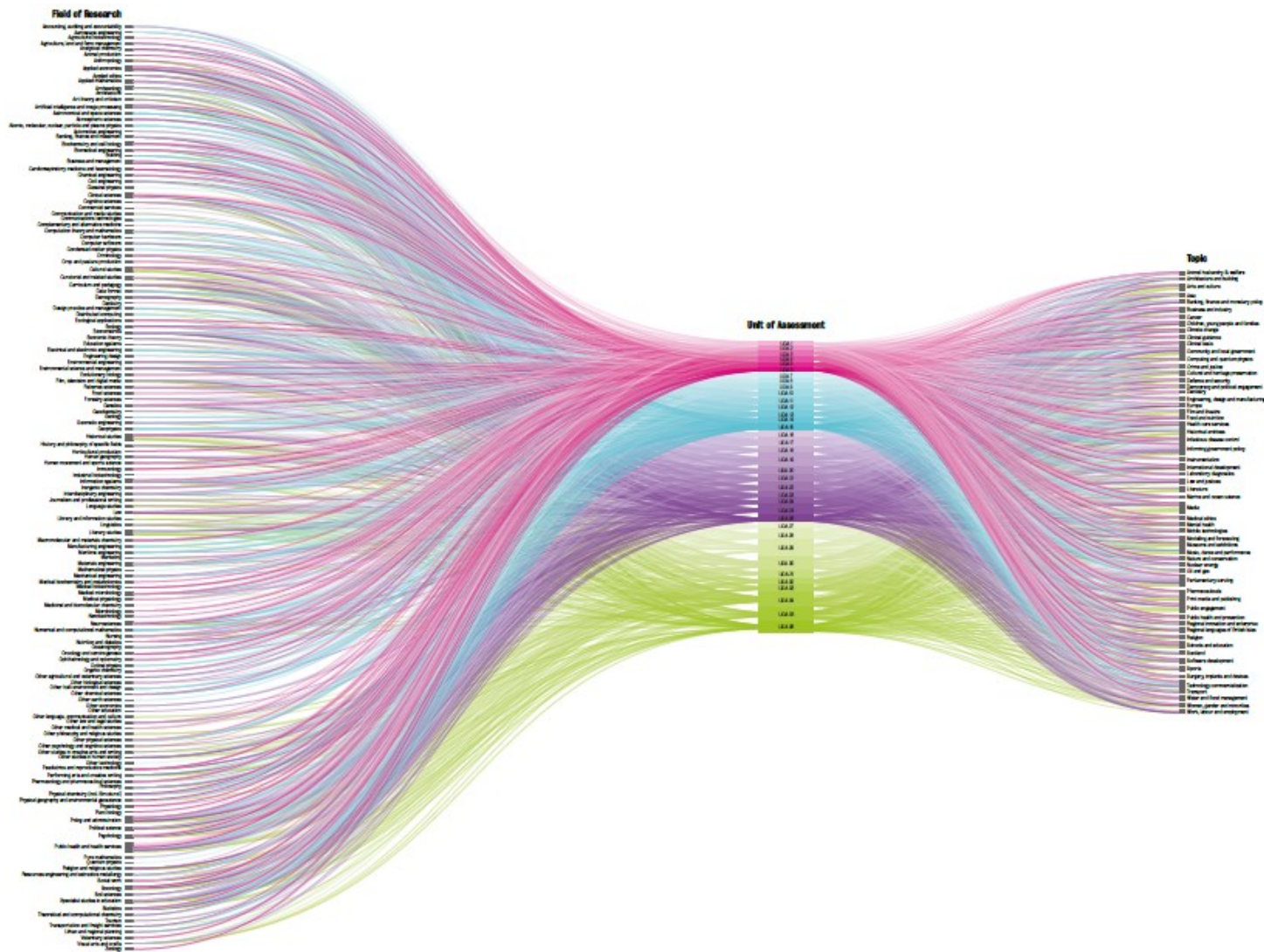
- Constrained by:
 - Definition of impact
 - Rule (timing, underpinning research, etc.)
- Assessment purpose

[illegible]

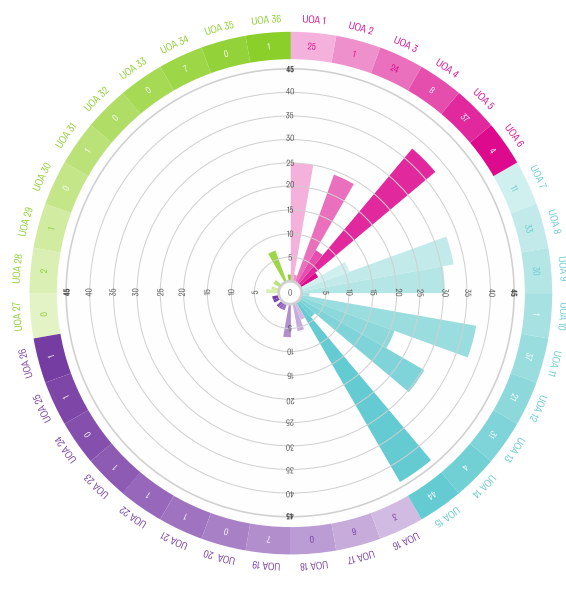
Diferent types of impact are more common in different disciplines (1)



There is a diverse range of impact pathways



Commercial activity existent in a relatively small proportion of case studies

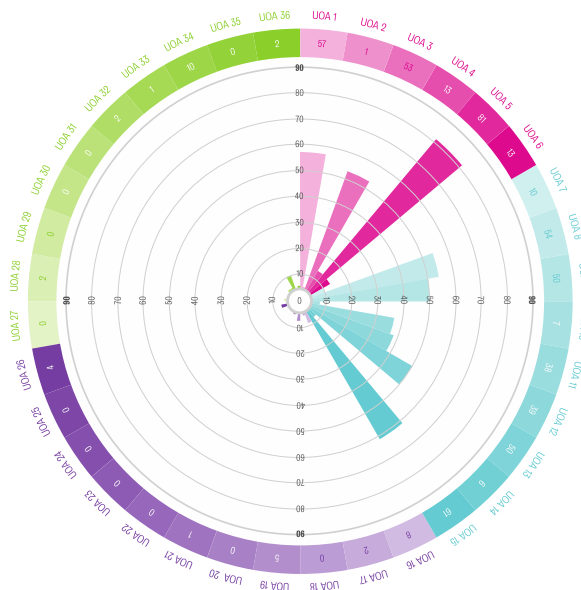


Overlap
n=163

“spin-outs”

n = 344

c5% of case studies

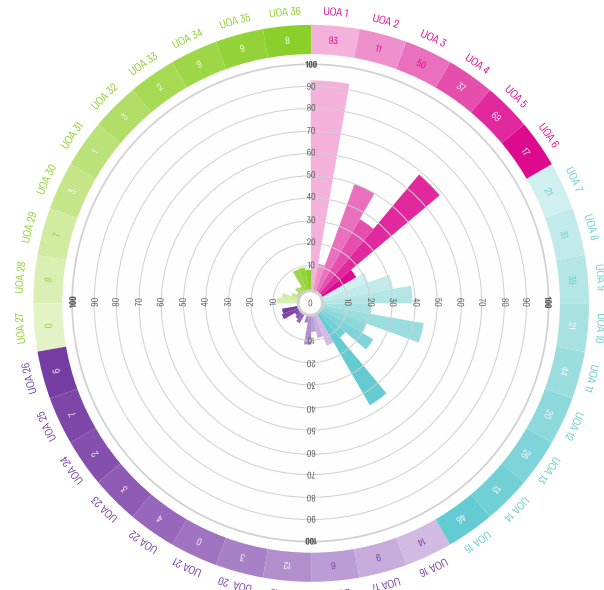


Overlap
n=212

“patents”

n = 570

c9% of case studies

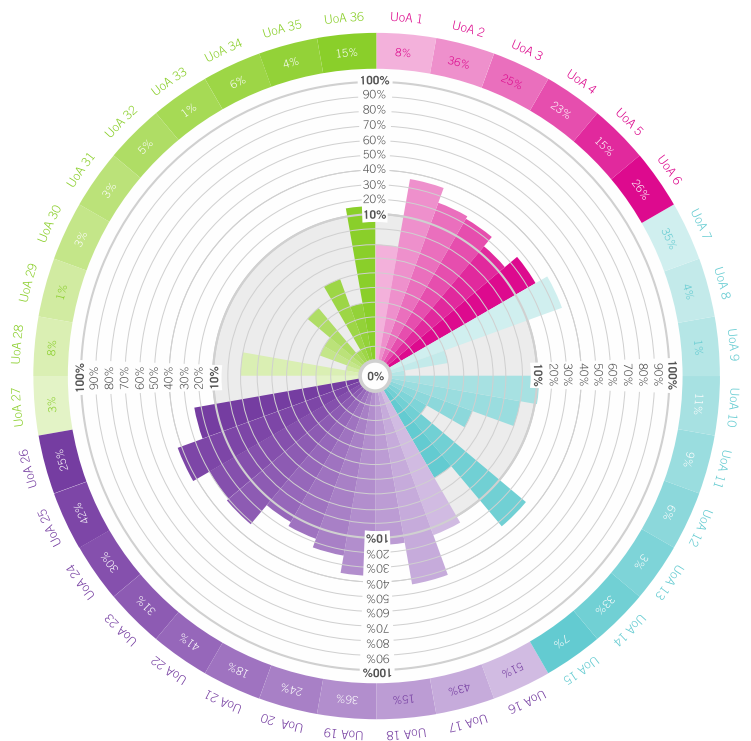


“licenses”

n = 654

c10% of case studies

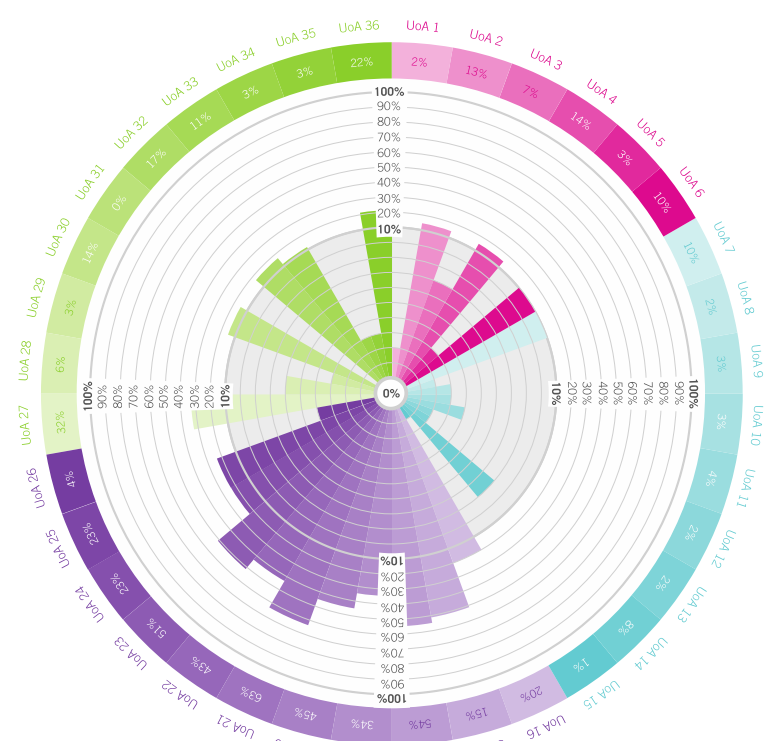
The most frequent impacts where on public policy and parliamentary debate



‘Informing government policy’

(develop polici nation plan govern inform work strategi assess)

(n=1233)



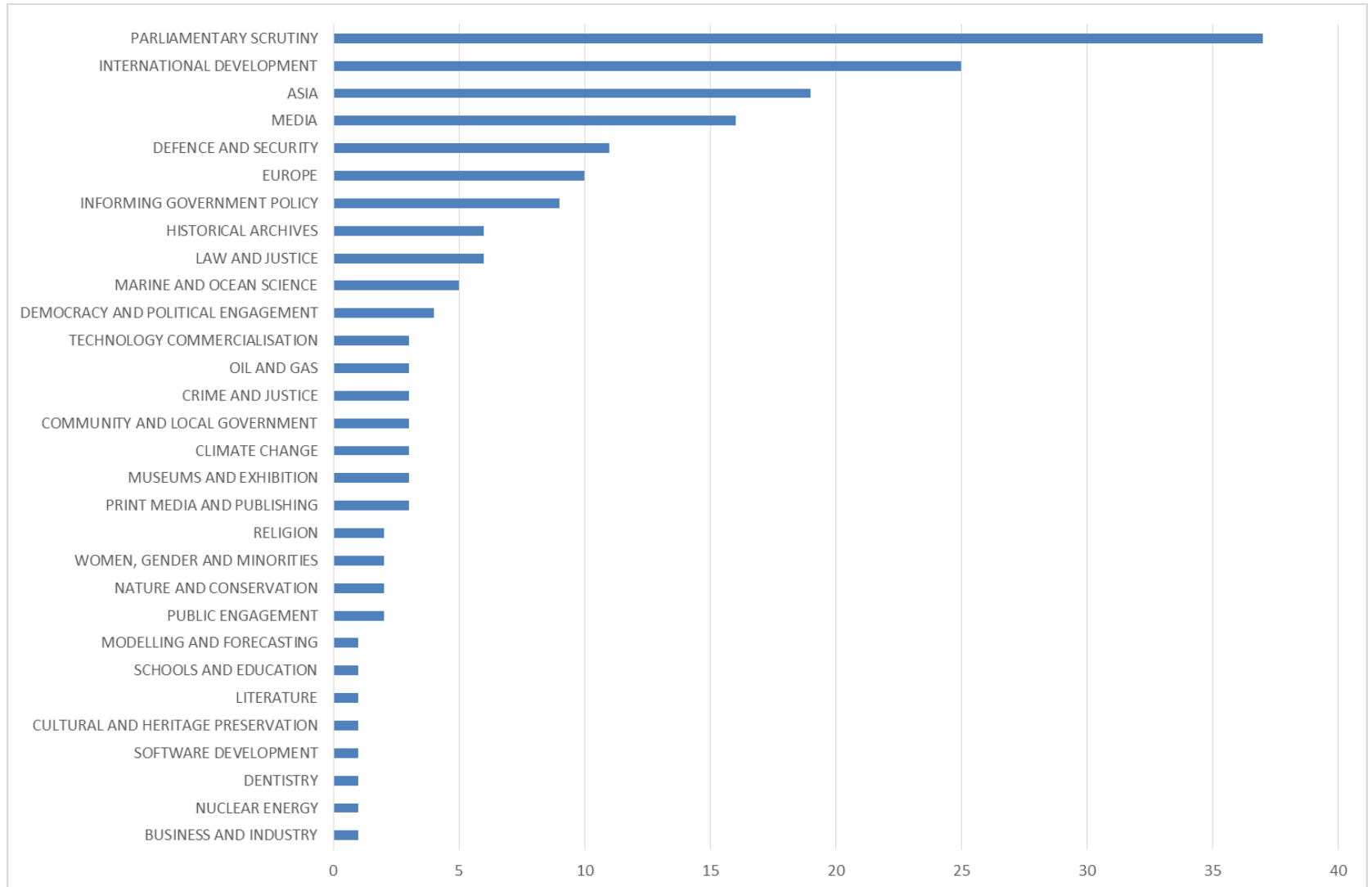
‘Parliamentary scrutiny’

(polit elect parti democraci elector vote candid poll pd)

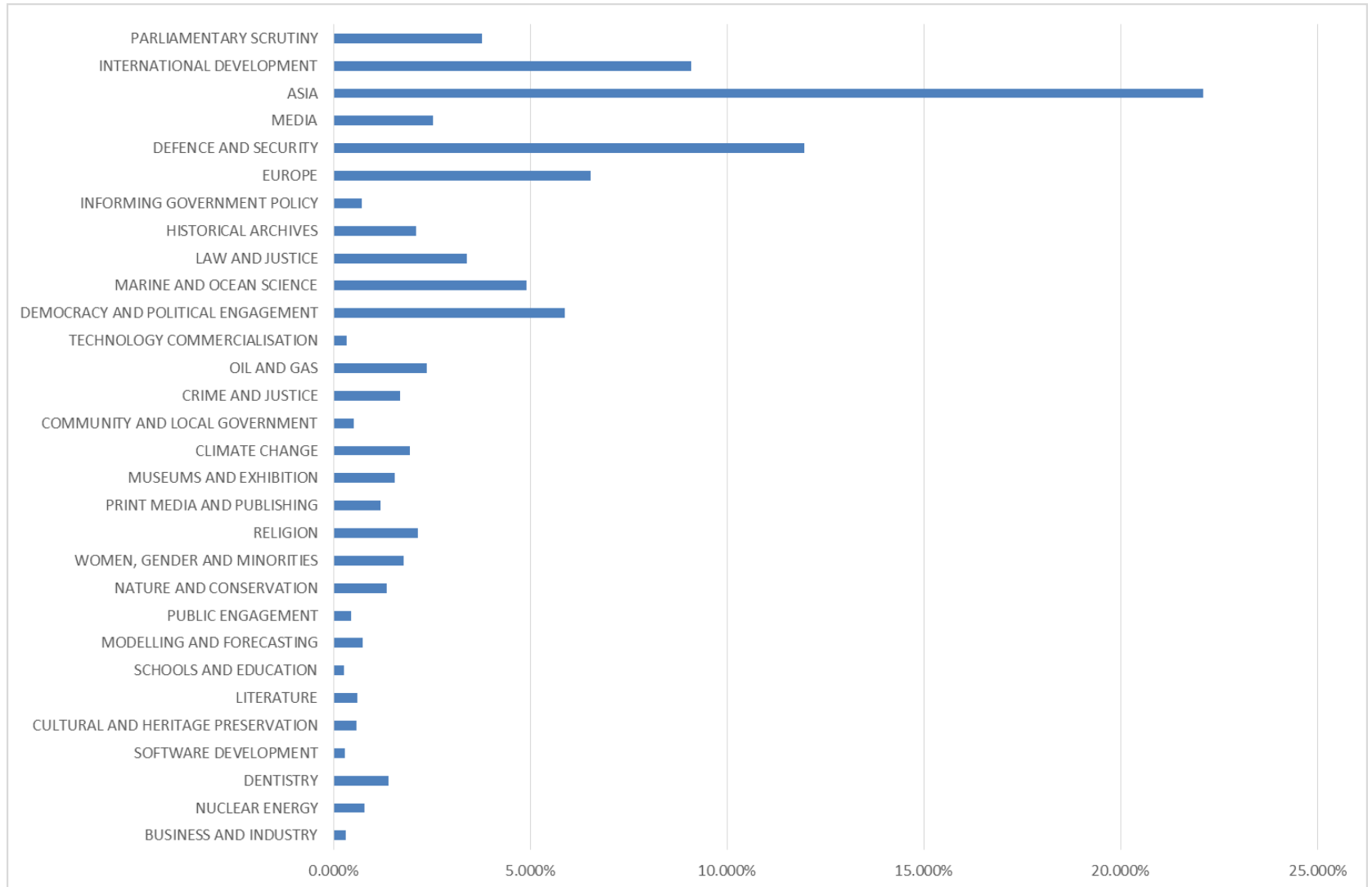
(n= 983)

Overlap between these two topics was 192 case studies (small in number, but this is largest overlap overall)

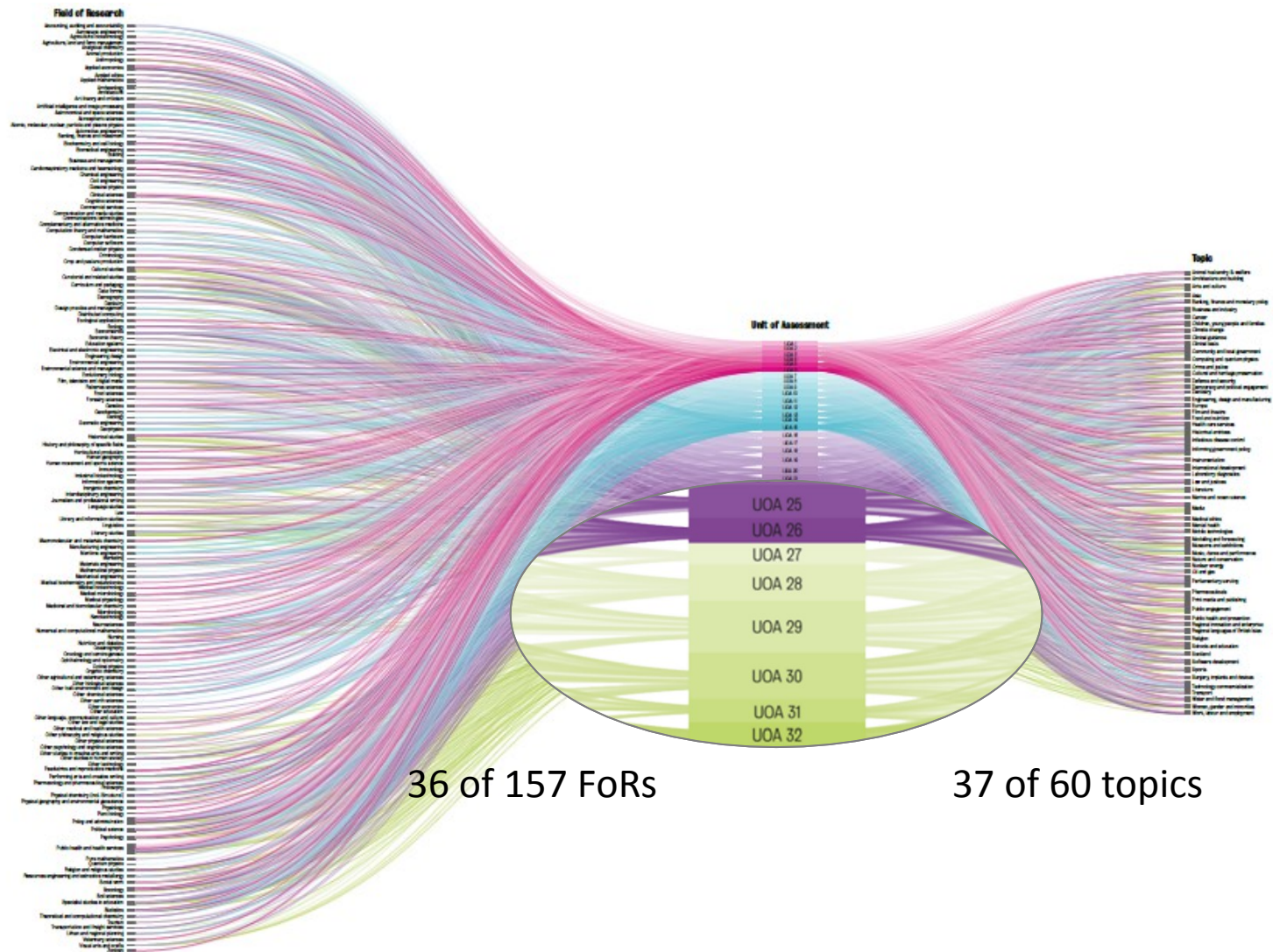
FCO – impact topics (number)



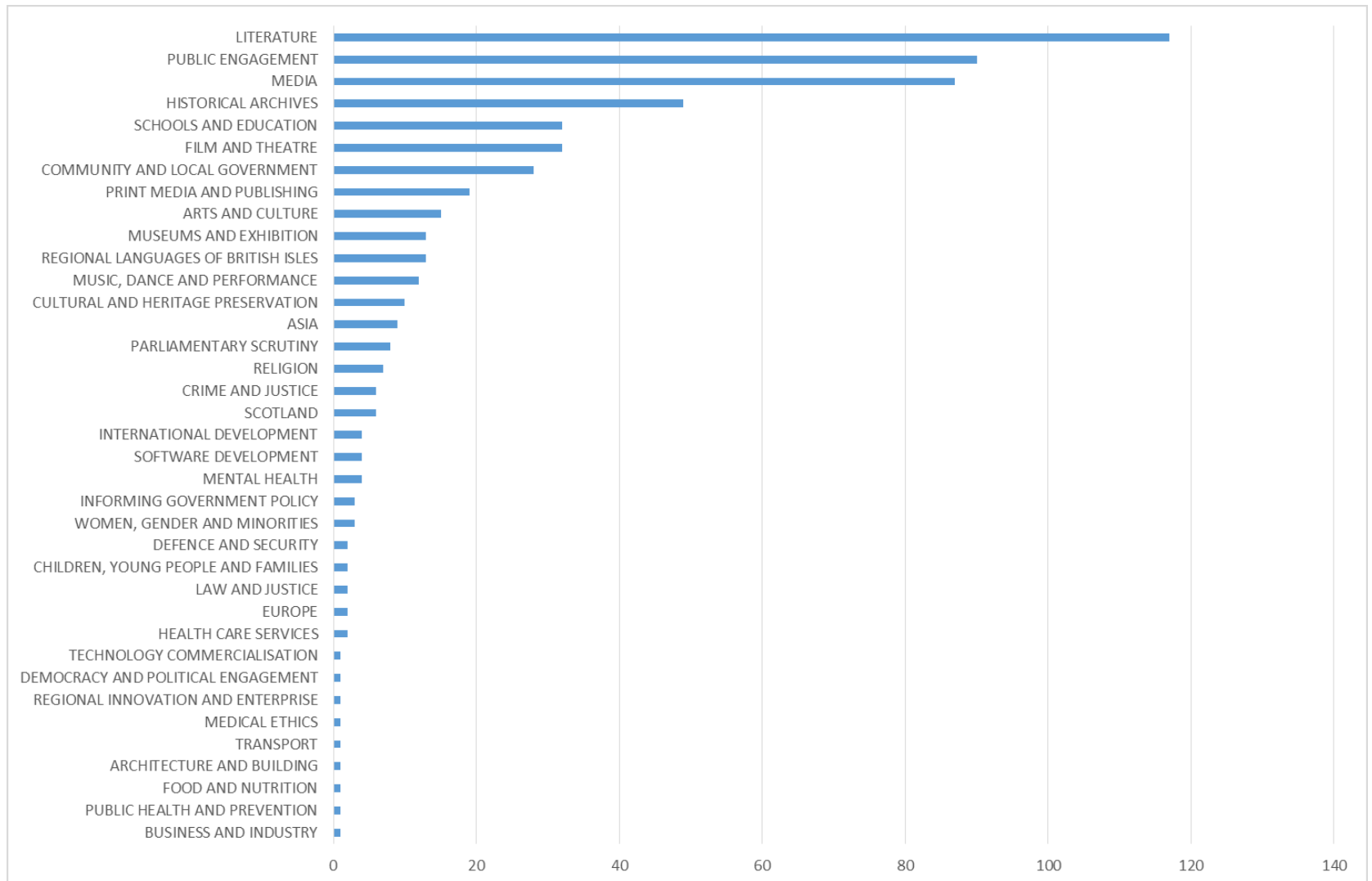
FCO – impact topics (%)



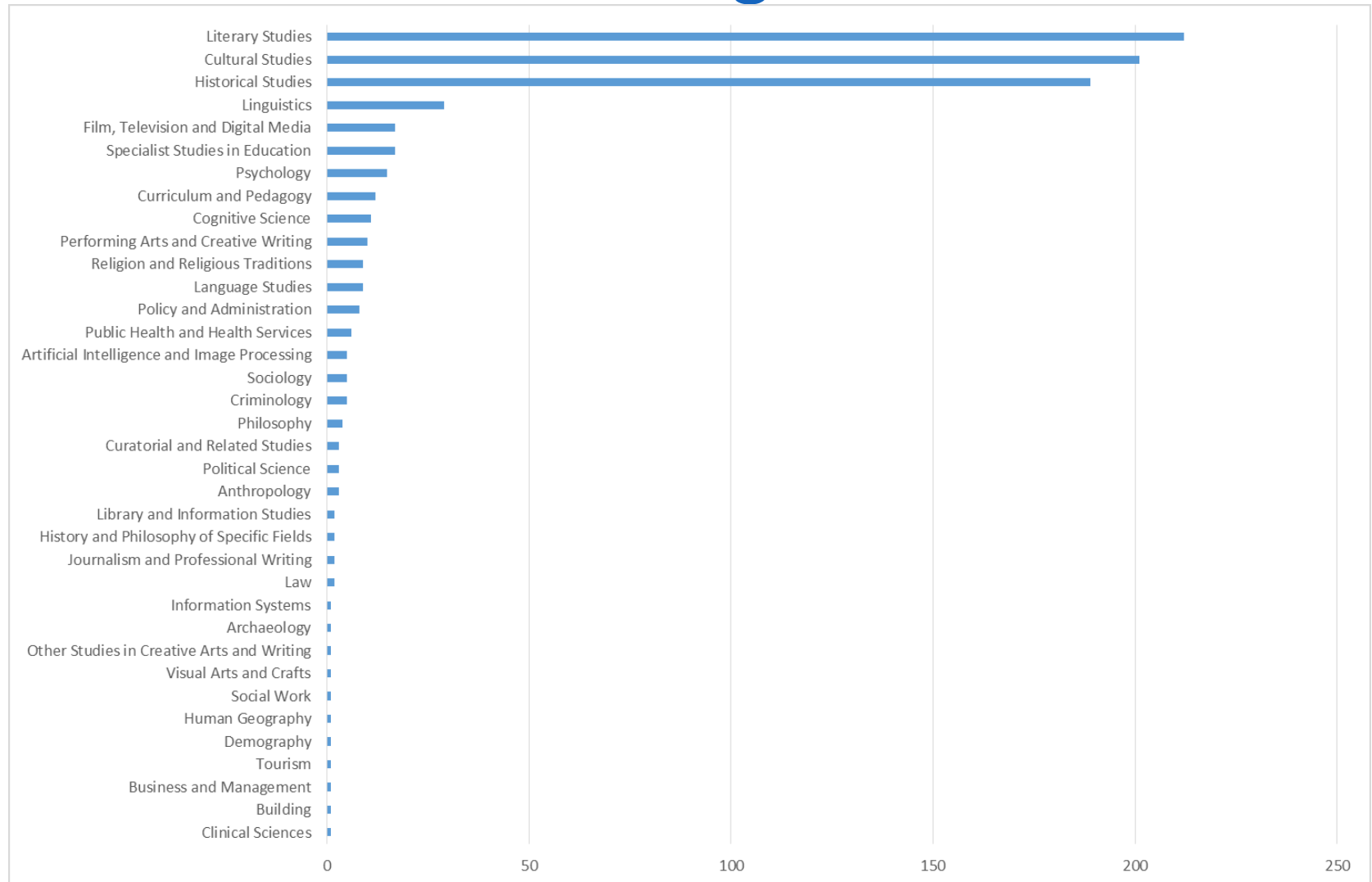
There is a diverse range of impact pathways



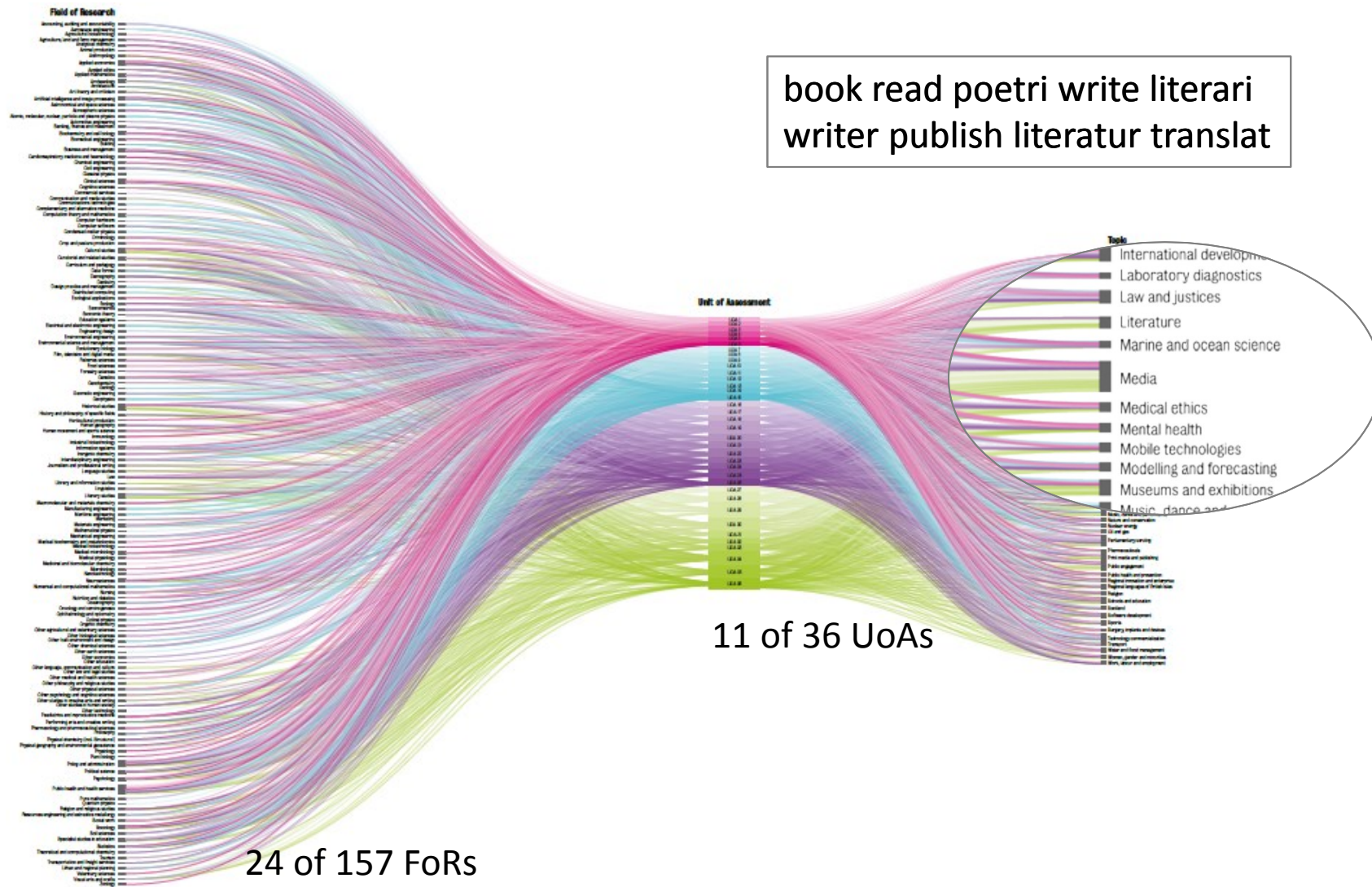
Which impact topics feature in the English UoA?



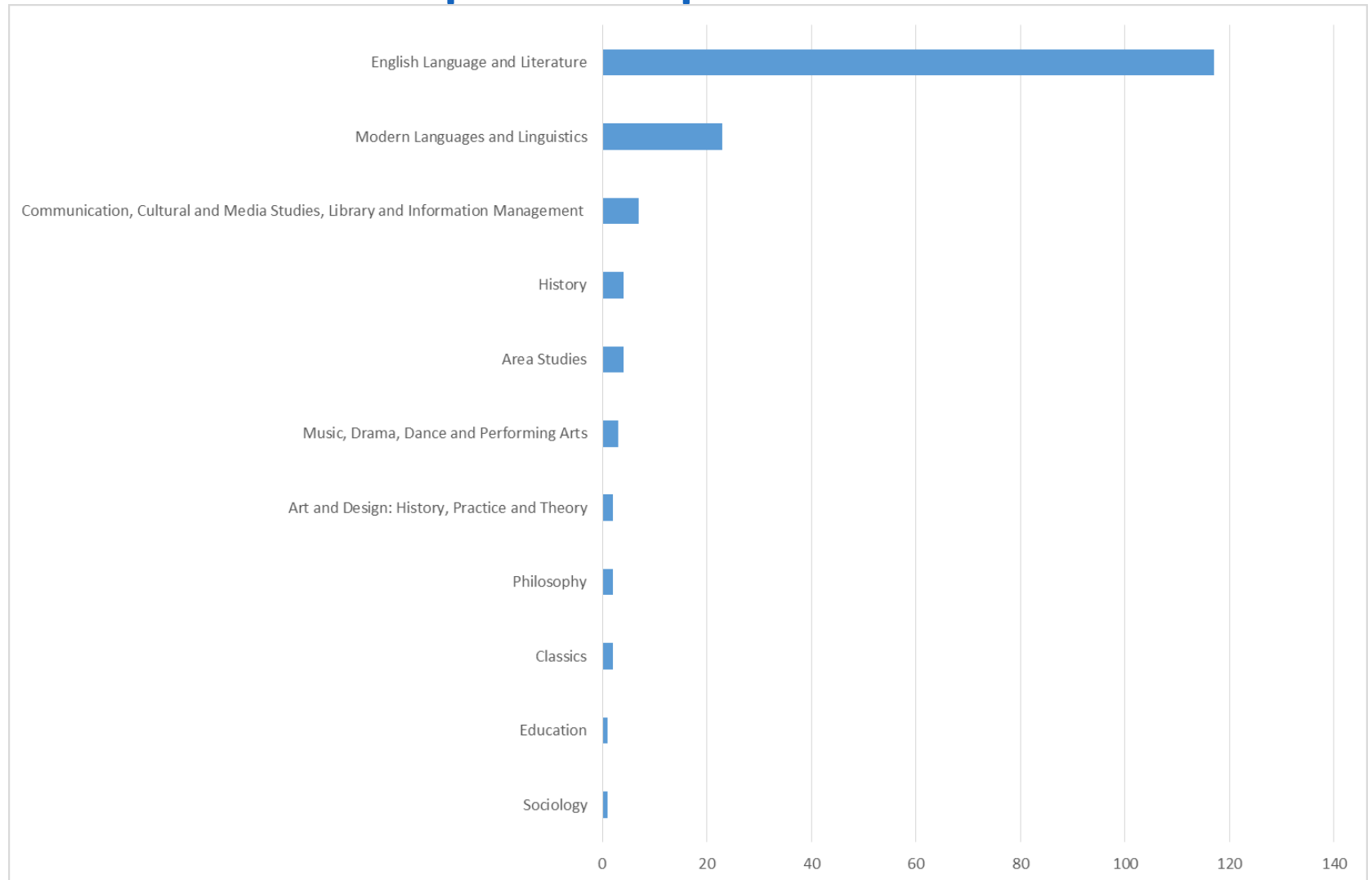
Which fields of research underpin impact case studies in the English UoA?



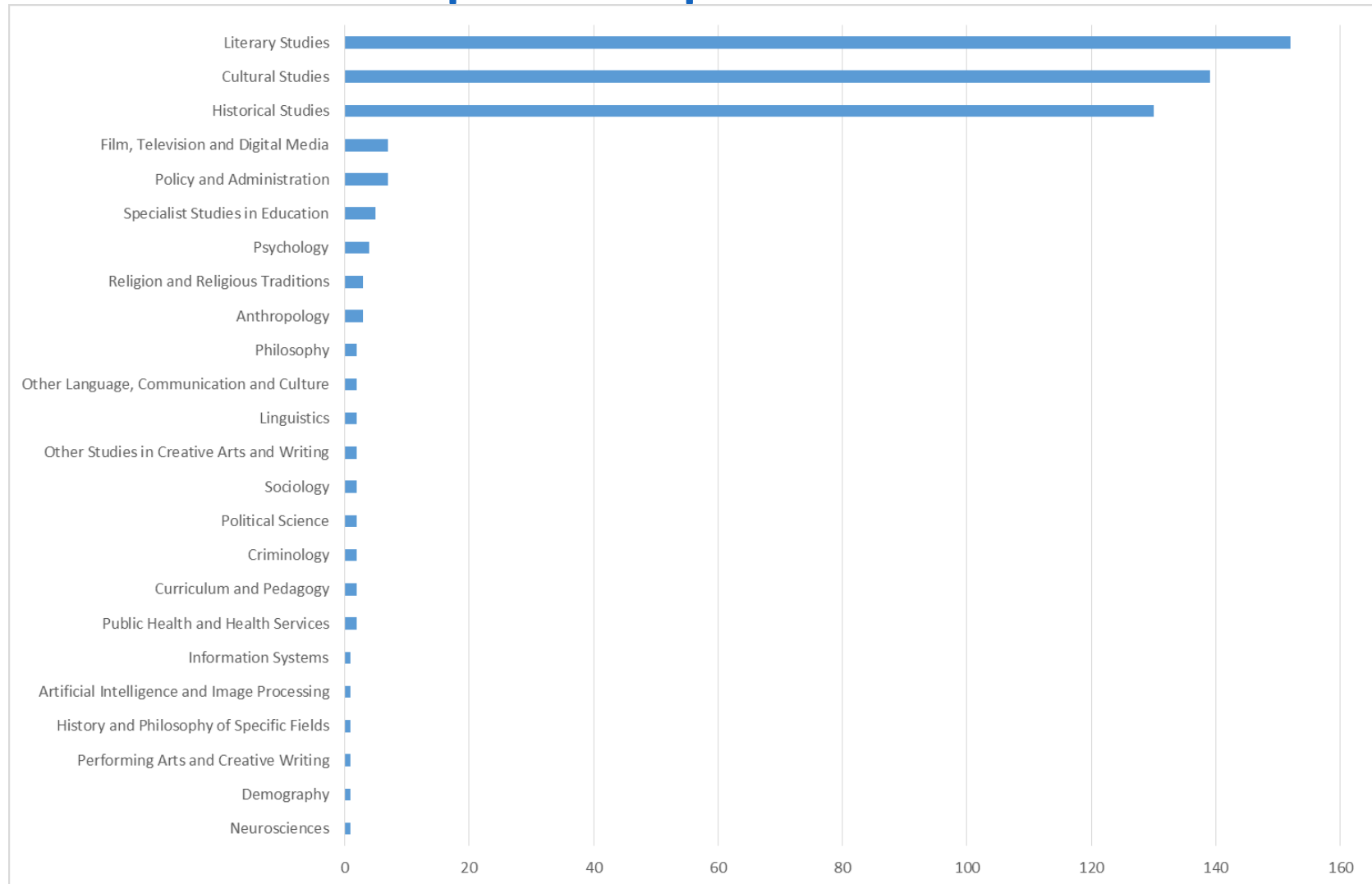
There is a diverse range of impact pathways



Which disciplines contribute to the Literature impact topic? UoA



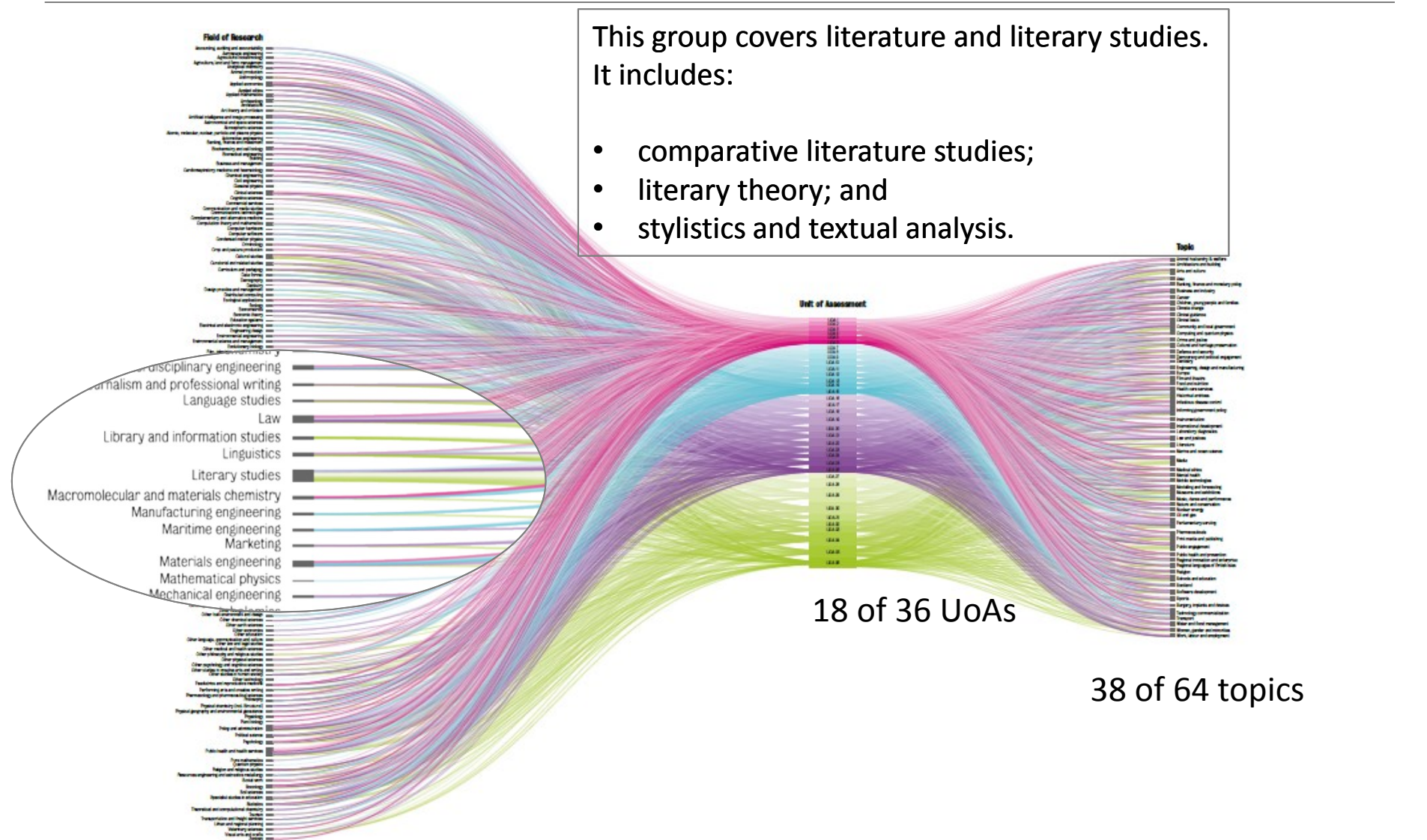
Which disciplines contribute to the Literature impact topic? FoR



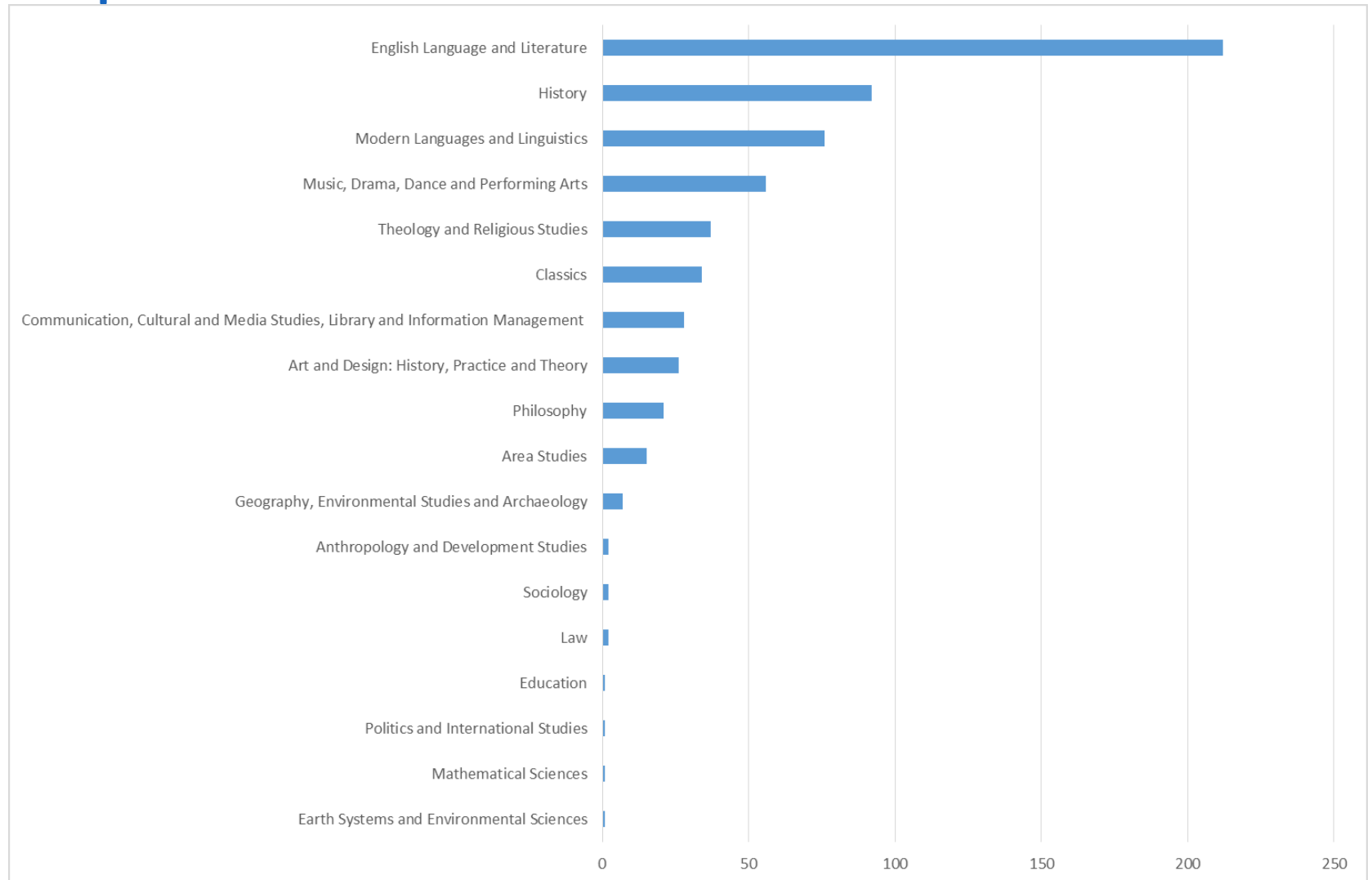
There is a diverse range of impact pathways

This group covers literature and literary studies. It includes:

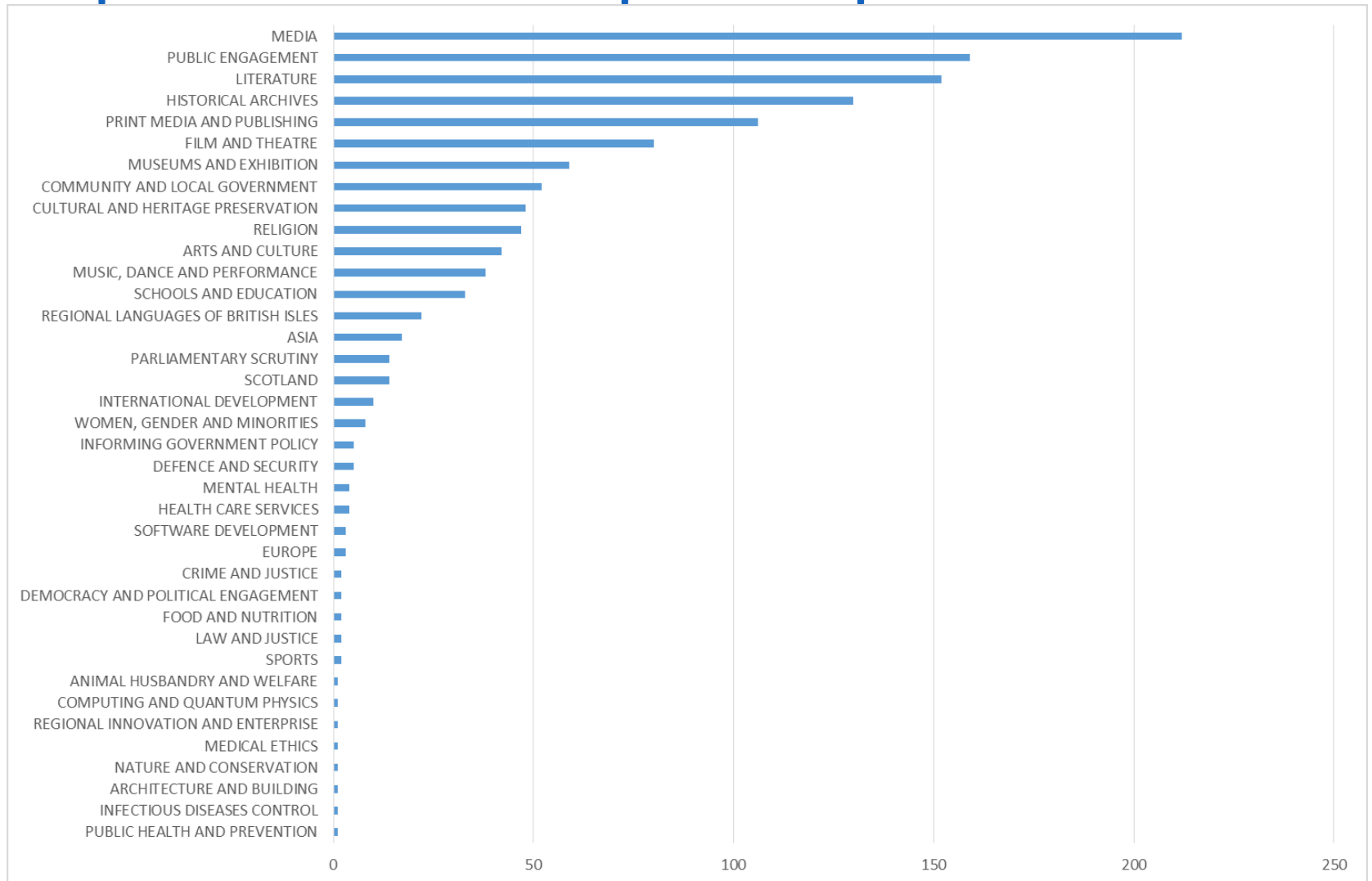
- comparative literature studies;
- literary theory; and
- stylistics and textual analysis.



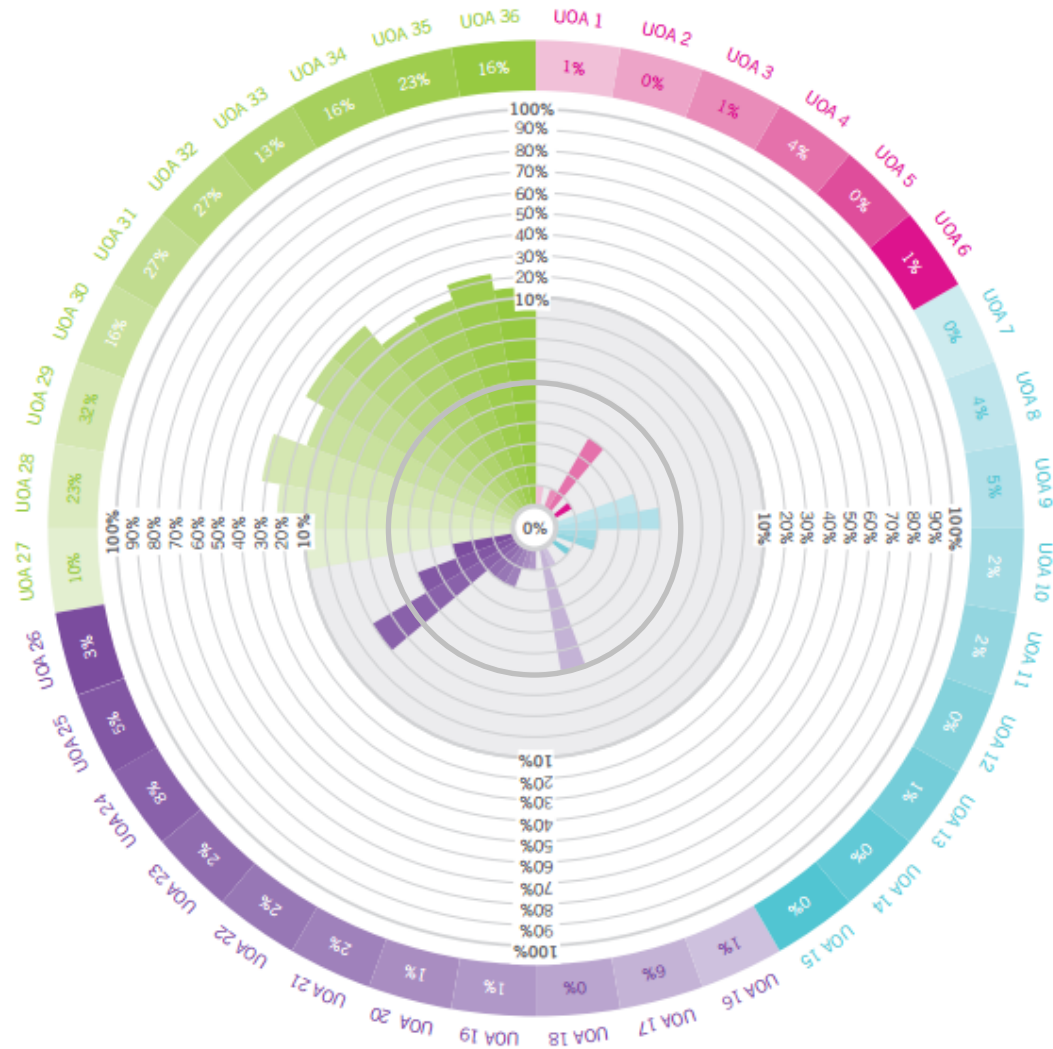
How do Literary Studies contribute to impact? Which UoAs?



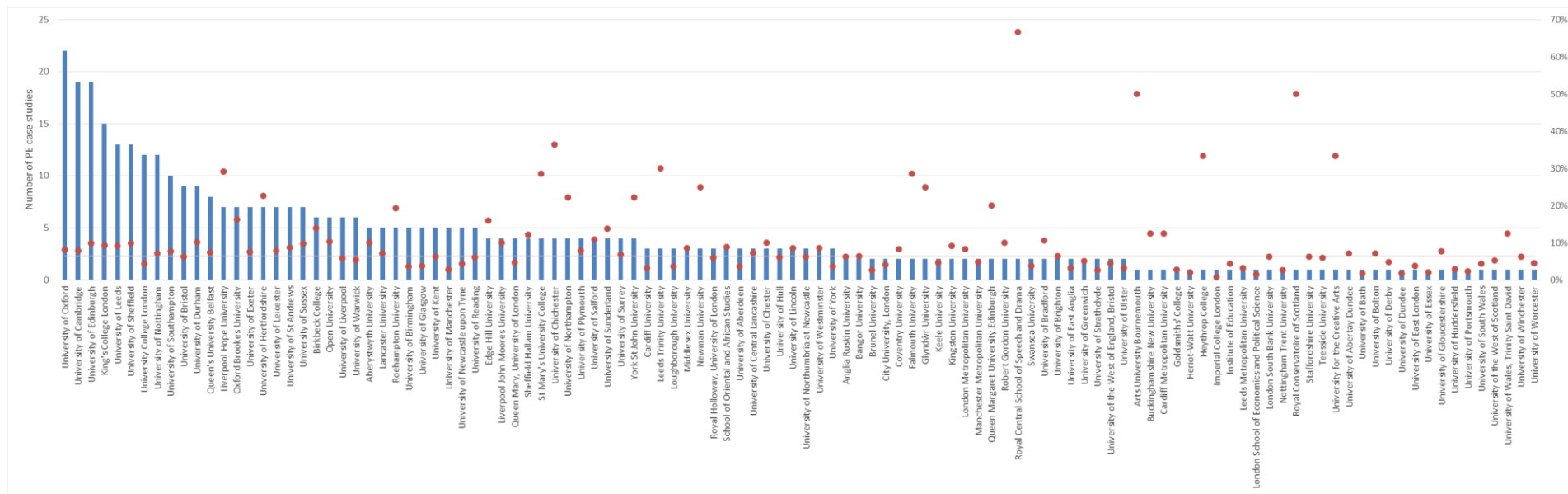
How do Literary Studies contribute to impact? Which impact topics?



Public engagement [c. 6%]



Which HEIs submitted PE case studies?



Conclusions

- Diversity of impacts
- Diversity of disciplines
- Impact is not a threat...
- ...but an overly narrow definition is

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