## Unit of Assessment X:

# NAME OF UNIT

REF

2014

A review of REF 2014 statistics and impact case studies for Unit of Assessment X: Name of Unit

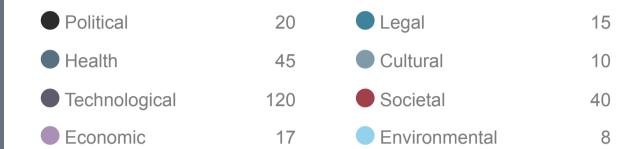
# Unit of Assessment X: NAME OF UNIT

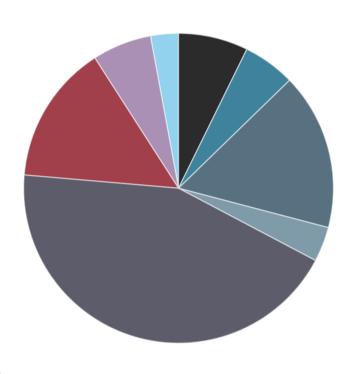






# No. of Impact Case Studies by Impact Type in UOA X



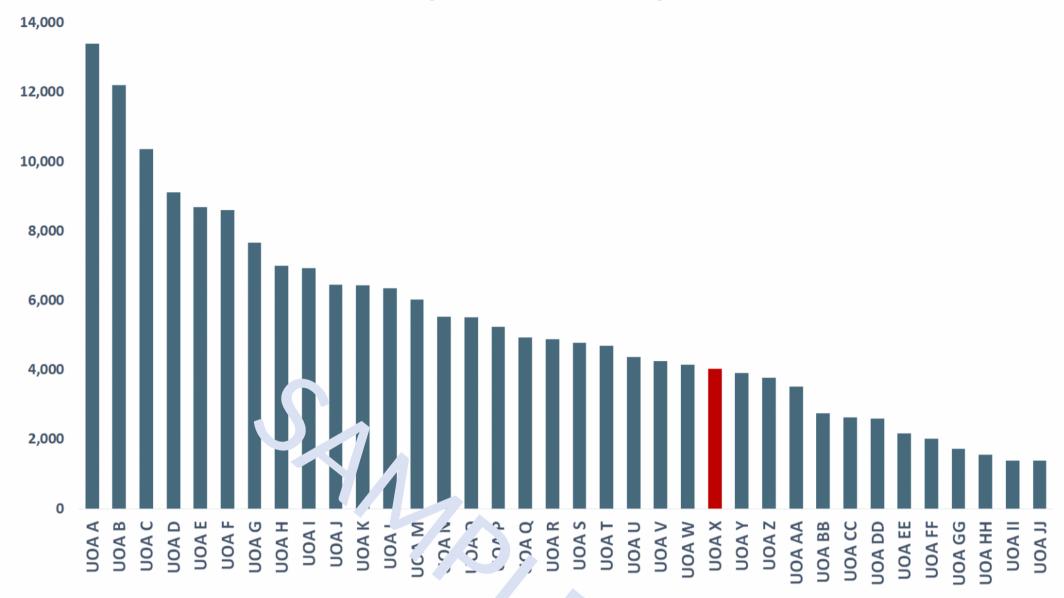


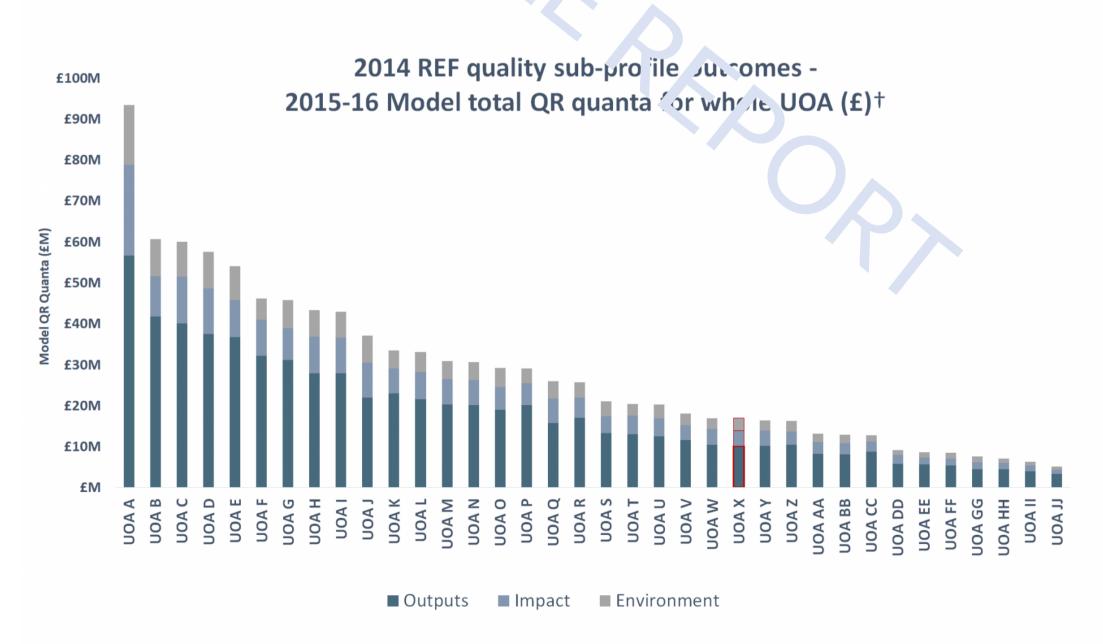
Total No. of Category A FTE staff submitted by Unit of Assessment\*



# No. of Outputs Submitted by UOA QR Quanta by UOA

Total No. of Outputs Submitted by Unit of Assessment\*





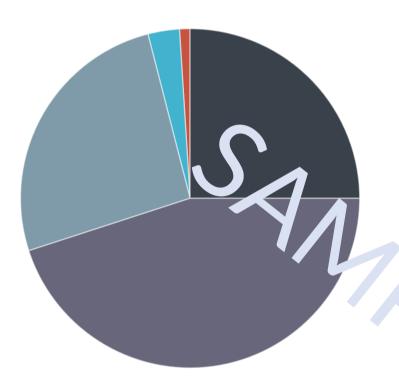
## **Star Classification UOA X**

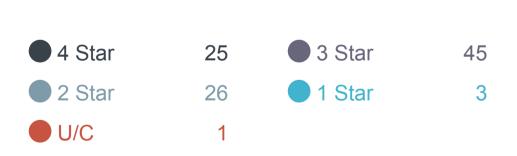
## Average Overall Quality Profile UOA X All Submissions\*\*

	4*	3*	2*	1*	Unclassified
Overall	25	45	26	3	1
Outputs	22.1	47.1	25.8	4.8	0.2
Impact	36.9	38	15	7.8	2.3
Environment	27.4	42.5	23.5	6.5	0.1

### **OVERALL QUALITY PROFILE UOA X**

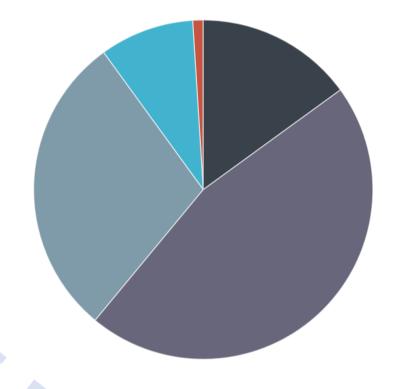
Average Overall Quality Profile UOA X All Submissions\*\*

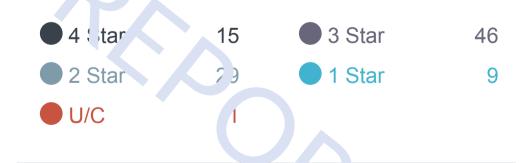






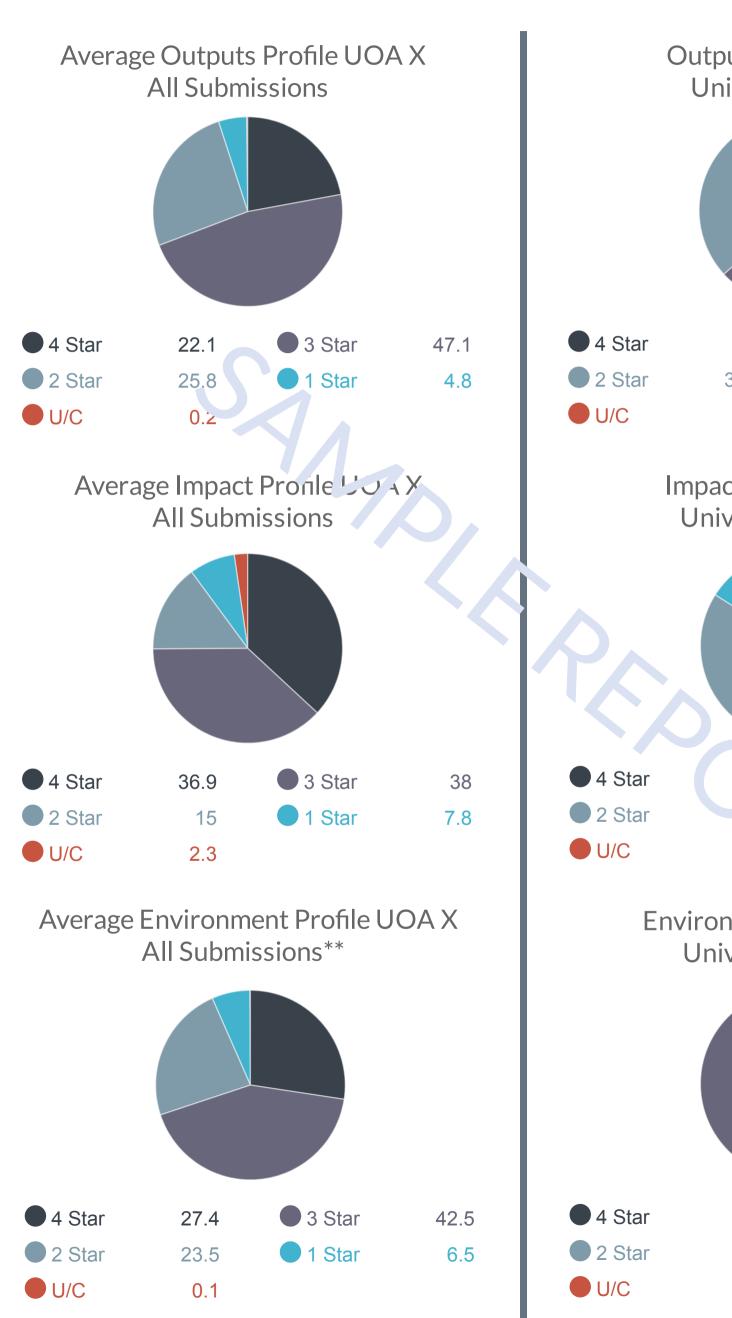
Overall Quality Profile UOA X University of Name

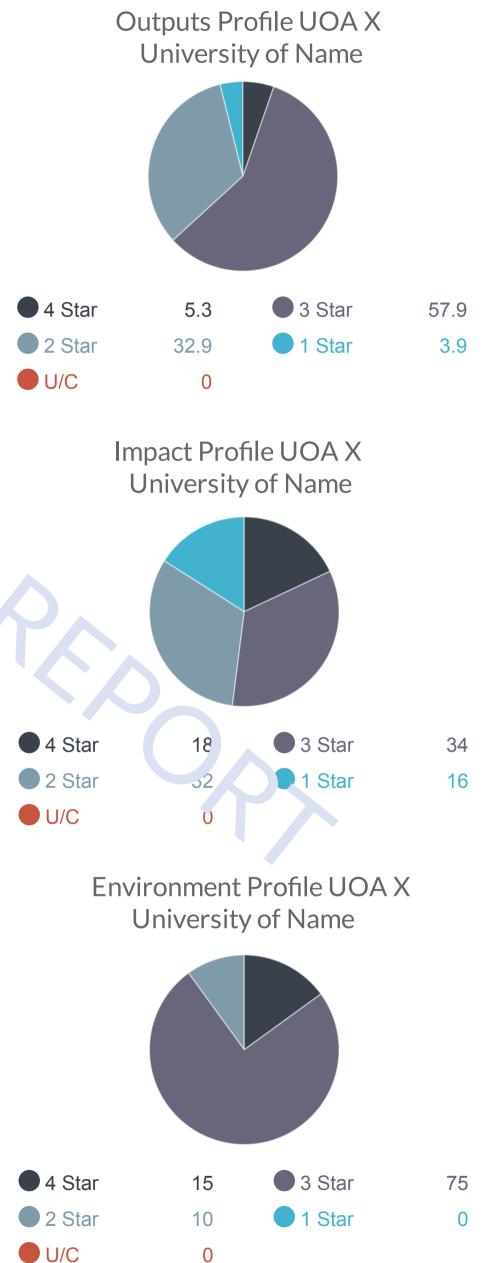




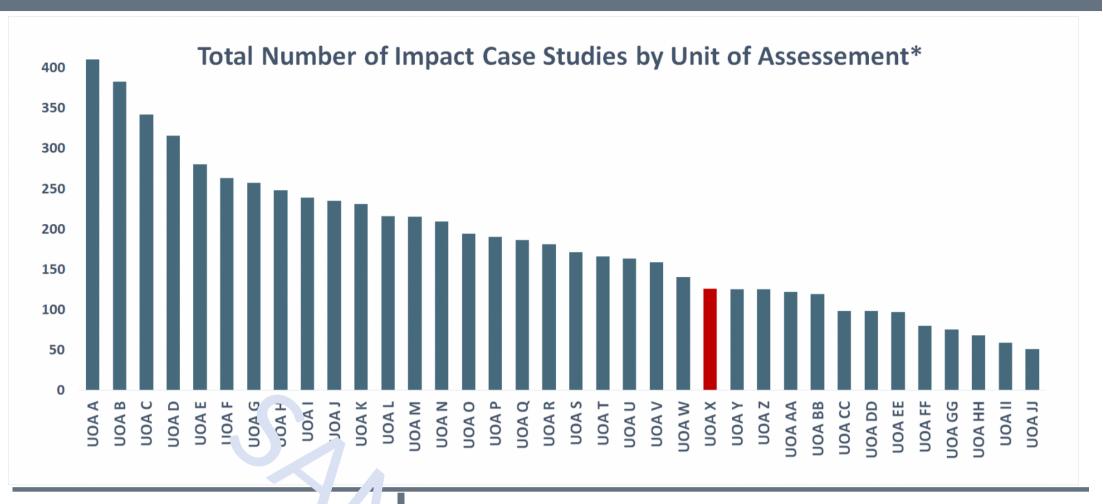


# \* Star Classification Quality Profile UOA X by Outputs/Impact/Environment





## No. of Impact Case Studies UOA X





No. of UOA X case studies

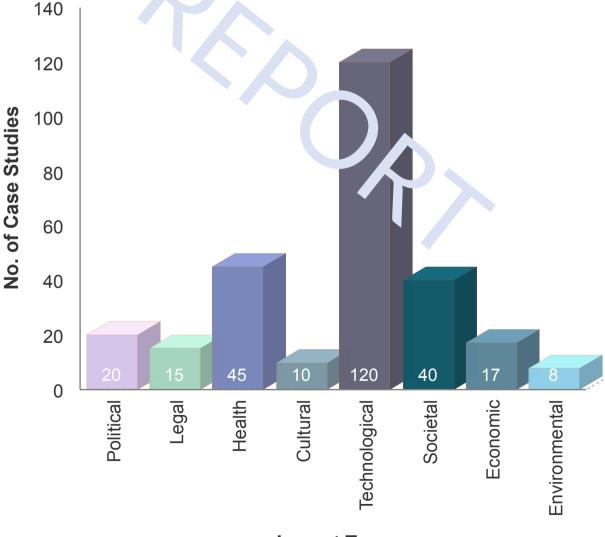


Percentage UOA X is below the average no. of case studies.



Percentage of UOA X case studies for impact type Technological





**Impact Type** 

## Impact Case Study Topics UOA X

The following is a summary of the topic areas covered in Unit of Assessment X impact case studies. With this UOA it has been possible to identify key recurring sectors or areas and so the topics have been summarised and presented here under those sectors:

#### Health

- 2D-3D image registration
- abnormal blood clotting
- biological and cell therapies in orthopaedics
- bipolar resection devices in cancer surgery
- cancer diagnosis and treatment modelling
- detecting oxygen levels in organs and tissues
- diagnosing malaria
- 2D-3D image registration
- abnormal blood clotting
- biological and cell therapies in orthopaedics
- bipolar resection devices in cancer surgery cancer diagnosis and treatment modelling
- detecting oxygen levels in organs and tissues directing malaria
- pion cal d cell therapies in orthopaedics
- bipo' ir ruse ction devices in cancer surgery
- cancer diagnosis and treatment
- modelling ueter ing x, gen levels in organs and tissues
- diagnosing mala. 1a
- cancer diagnosis and treatment readelling
- detecting oxygen level, in organs and tissues
- · diagnosing malaria

- abnormal blood clotting
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- detecting oxygen levels in organs and tissues
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- 2D-3D image registration
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- biological and cell therapies in orthopaedics
- bipolar resection devices in cancer surgery
- cancer diagnosis and treatment
- modelling detecting oxygen levels in organs and tissues
- diagnosing malaria
- cancer diagnosis and treatment modelling
- detecting oxygen levels in organs and tissues
- diagnosing malaria
- 2D-3D image registration

#### Manufacturing, Industry, Retail

- advanced manufacturing process for nanomaterials
- advanced simulation technology in mining
- agility strategies
- environmental cost of steel framed buildings
- abrasive machining fluid delivery
- advanced manufacturing process for nanomaterials
- environmental cost of steel framed buildings
- advanced manufacturing process for nanomaterials
- environmental cost of steel framed buildings
- advanced simulation technology in mining
- · abrasive machining fluid delivery
- advanced manufacturing process for nanomaterials
- reduced manufacturing material and time to production

- advanced simulation technology in mining
- gn ty strategies
- envi onmental cost of steel framed buildings
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- adv nced m inufacturing process for nan imater; als
- environment cos of steel framed buildings
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- environmental cost of steel framed buildings
- advanced simulation technology in mining
- abrasive machining fluid delivery
- advanced manufacturing process for nanomaterials
- reduced manufacturing material and time to production
- advanced manufacturing process for nanomaterials

#### Policy, Government

- mortality and life expectancy estimation
- occupational segregation
- process reengineering
- procurement practices of local authorities
- forecasting and costing work based learning
- minimum income requirement level
- occupational segregation
- process reengineering
- procurement practices of local authorities
- forecasting and costing work based learning
- provision of public services
- mortality and life expectancy estimation

- · occupational segregation
- process reengineering
- procurement practices of local authorities
- forecasting and costing work based learning
- minimum income requirement level
- occupational segregation
- mortality and life expectancy estimation
- process reengineering
- procurement practices of local authorities
- forecasting and costing work based learning
- provision of public services
- mortality and life expectancy estimation

#### Impact Case Study Topics UOA X (continued)

#### Energy, Environment

- anaerobic process technology optimisation
- computer-controlled wavemaker
- eco-friendly optimisation of ceramic membrane reactor
- electricity capacity assessment and design
- energy efficiency of gas compressors and expanders
- anaerobic process technology optimisation
- computer-controlled wavemaker
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- eco-friendly optimisation of ceramic membrane reactor
- electricity capacity assessment and design
- energy efficiency of gas compressors and expanders
- anaerobic process technology optimisation

# Digital Technology

- empowering childre : to : ese rch and publish own reports
- pupils designing their own tigital same.
- reading for pleasure and using now media
- implications of new media on young people
- using digital video in transforming teaching and learning
- empowering children to research and publish own reports
- pupils designing their own digital games
- · reading for pleasure and using new media
- implications of new media on young people
- using digital video in transforming teaching and learning
- pupils designing their own digital games
- reading for pleasure and using new media
- using digital video in transforming teaching and learning
- implications of new media on young people

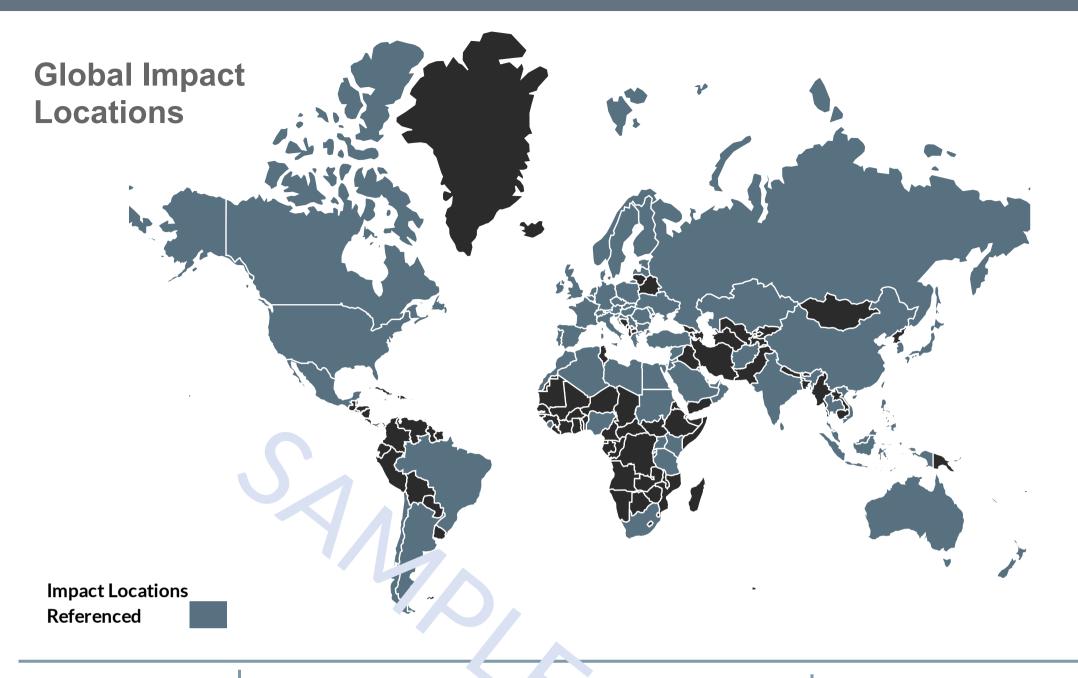
- pupils designing their own digital games
- reading for pleasure and using new media
- implications of new media on young people
- using digital video in transforming teaching and learning
- empowering children to research and publish own reports
- pupils designing their own digital games
- re diag for pleasure and using new media
- i volic tions of new media on young people
- using digital video in transforming teaching and learning
- pupils designing times
- reading it. pler ure indusing new media
- using digital de intranforming teaching and learning
- implications of new madia on young people
- empowering children to research and publish own reports

#### Culture, Identity, Heritage

- community revitalisation reinterpretation of industrial heritage
- development of eighteenth-century theatrical culture
- historic building architectural paint research
- history and understanding of screen cultures
- how artistic reputation is constructed and sustained
- identifying mercury residues in historic plant collections
- community revitalisation reinterpretation of industrial heritage
- development of eighteenth-century theatrical culture
- historic building architectural paint research
- history and understanding of screen cultures
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- development of eighteenth-century theatrical culture
- historic building architectural paint research
- history and understanding of screen cultures
- how artistic reputation is constructed and sustained
- identifying mercury residues in historic plant collections

# Impact Locations - UOA X Impact Case Studies



#### **Africa**

- Algeria
- Egypt
- Kenya
- Libya
- Morocco
- Nigeria
- Rwanda
- South Africa

Sierra Leone

- Sudan
- Tanzania
- Uganda

#### Asia

- Afghanistan
- China
- India
- Indonesia
- Israel
- Japan
- Jordan
- Kazakhstan
- Kuwait
- Lebanon
- Malaysia
- Oman
- Palestinian Territory
- Philippines
- Qatar
- Saudi Arabia
- South Korea
- Sri Lanka
- Syria
- Taiwan
- Thailand
- Turkey
- United Arab Emirates
- Vietnam

#### Eurche

- · Alsula
- Belgiu
- Bulg ria
- Croatic
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Gibraltar
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Luxembourg
- Moldova
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Russia
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Ukraine
- United Kingdom

#### **North America**

- Canada
- Mexico
- United States

#### **South America**

Argentina

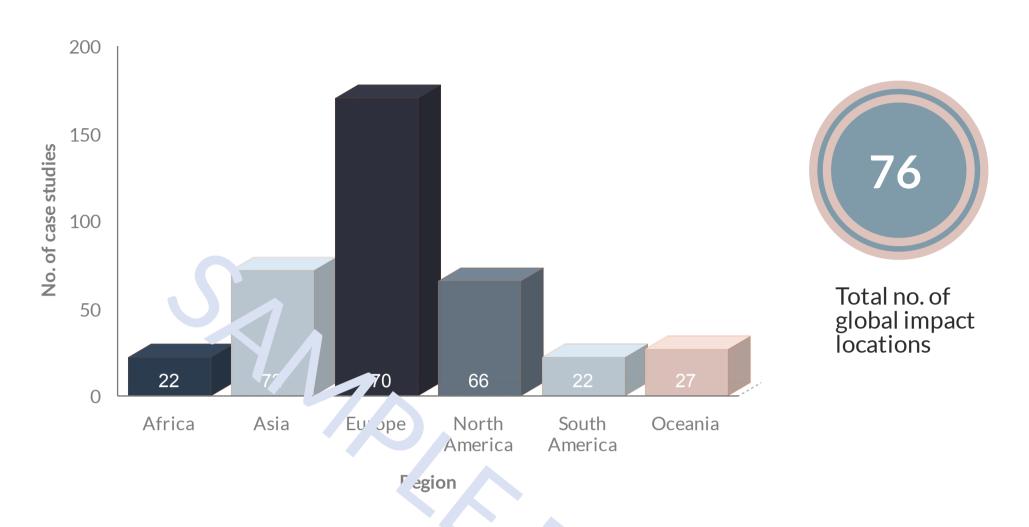
- Erazil
- Ch .

#### **⊘ceania**

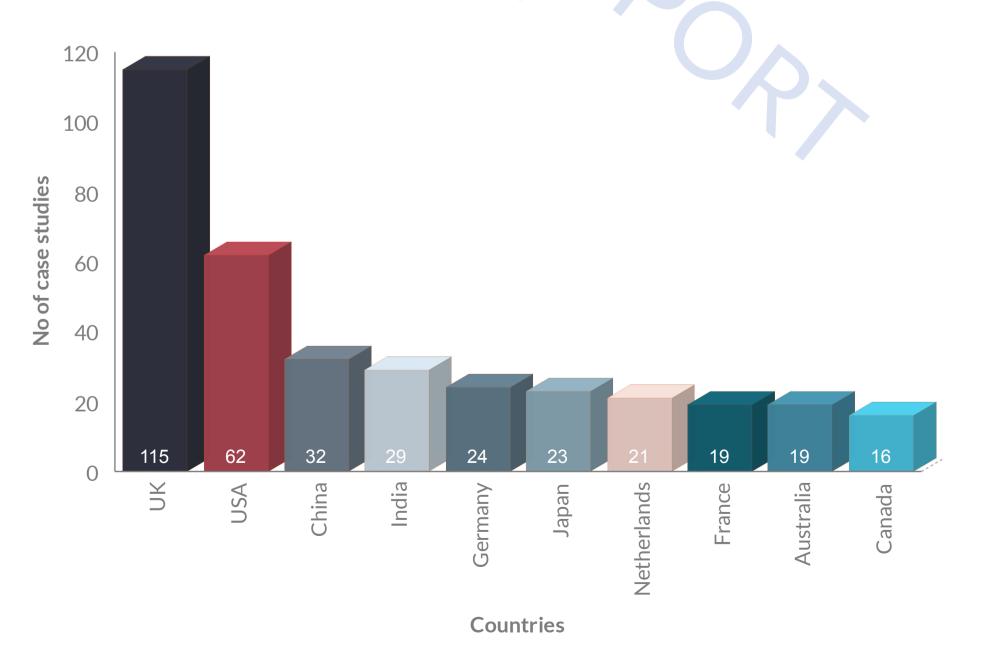
- Australia
- New Zealand

## Global Impact Locations UOA X

No. of Case Studies by Regional Reference\*



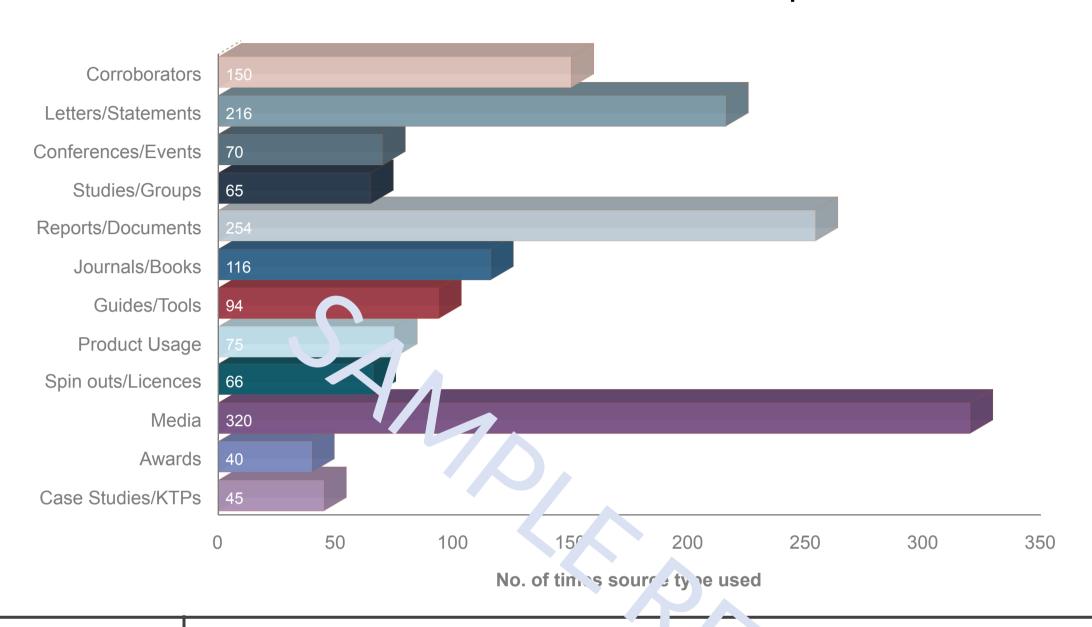
### Countries most cited in impact section of case studies\*



# Sources to Corroborate the Impact UOA X

This section is a review of the 'sources to corroborate the Impact' section of UOAX's impact case studies, and provides a general overview/summary of the types of sources used to corroborate impact. Please NOTE: website numbers not included in chart (due to the high volume) but included in listings following.

#### Sources to Corroborate the Impact\*



**150** 

#### **Corroborators**

Number of corroborators by name, title, role, or organisation, w', o are available to be contacted to corroborate impact.

216

#### **Letters / Quotations / Statements**

Number of corroborators that have provided, included, and/or can be made available or request, a quote, testimonial, statement, email, letter or note of corroboration, or direct client / customer/business feedback.

The following items were listed as sources to corroborate the impact. In these items the corroboration can vary from being cited, referenced to, included in, submitted to, presented in, featured in, originated, produced or used.

70

#### **Conferences / Events**

Conferences, festivals, summer schools, launches, events, forums, tutorials, seminars, workshops, speeches, demonstrations, exhibitions, school events, presentations and SlideShare.

65

## **Studies / Working Groups**

Committee papers, minutes, working groups, proposals, surveys, polls, task force, trials, meetings, studies, discussions, test results, groups, statistics and data analysis.

### Sources to Corroborate Impact UOA X (continued)

The following items were listed as sources to corroborate the impact. In these items the corroboration can vary from being cited, referenced to, included in, submitted to, presented in, featured in, originated, produced or used.

254	Reports / Documentation  Reports: final, annual, KTP, market, project, assessment and company reports.  Parliamentary/government reports, policies, papers and bills. Documents: strategy, briefing, information, executive summary, approval and action plans. Financial documents: contracts, profit, sales, revenue and invoices.		
116	<b>Journals / Books</b> Abstracts, referenced, contributed to, cited in, or author of books, thesis, dissertations and articles in journals and publications.		
94	Guides / Tools / Standards  Guides guidanc notes, guidelines, tools, datasheets, manuals, implementation, descriptions, online guides, godical detail, handbooks, scenarios, catalogues, requirements, codes, algorithms, specifications, standards was information, release notes, developer documentation, protocols, improvements, system information, technical guides, brochures, flyers, and leaflets.		
75	Product Usage / Dowr oads  Equipment, software, applications, sy tems, platforms and prototypes used. Visitor and user statistics, purchases, subscriptions and a ownlor as from websites, iTunes, Google Play, Amazon and open access.		
66	Spin outs / Licences  Patents (granted, pending, application), spin outs, material transfir agreements, funding, grants,  NDAs, contracts, memorandum of understanding, intellectual property rice receand technology transfers.		
320	Media / Newsletters  Press releases, press/magazine articles or editorials, broadcast (TV, Radio), YouTube, videos, interviews, profiles, newsletters, e-newsletters, bulletins, Wikipedia, Vimeo, Flickr, blogs, social media and screenshots.		
40	Awards Awards, nominations, finalists, winners, prizes, members, competitions and certificates.		
45	Case Studies / Knowledge Transfer Partnerships Knowledge Transfer Partnership (KTP) projects referenced, and case studies.		
910	Websites Websites referenced, URL listed.		

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\*Data Source: http://impact.ref.ac.uk/CaseStudies/Results.aspx?val=Show%20All and http://results.ref.ac.uk/Results/SelectUoa REF 2014: Unit of assessment summary data. The rounding methodology described in Annex B of REF 02.2011, 'Assessment framework and guidance on submissions', has been used to produce the outcomes shown in the averages table. The average overall quality profile and average sub-profiles have been adjusted for the number of Category A staff in each submission. Submissions with 3 or fewer staff (headcounts) are excluded from the calculation of the average sub-profiles.

†Source: http://www.hefce.ac.uk/funding/annallocns/1516/research/qr1516 spreadsheet. 2014 Research Excellence Framework quality subprofile outcomes. 2015-16 Model total OR quanta for whole UOA (£). HEFCE data for 2015-16 Mainstream quality-related research (QR) funding and London weighting spreadsheet. Notes relating to qr1516 spreadsheet: Submissions are only shown, where the quality sub-profile has some activity at the 3\* or 4\* level. Three Institutions involved in joint submissions at the subject level opted to override the normal formula that determines the split of mainstream QP Conding petween them. The allocations in the spreadsheet reflect their agreed funding splits.

## Sources

http://www.hefce.ac.uk/http://www.ref.ac.uk/2014/

## Created by

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