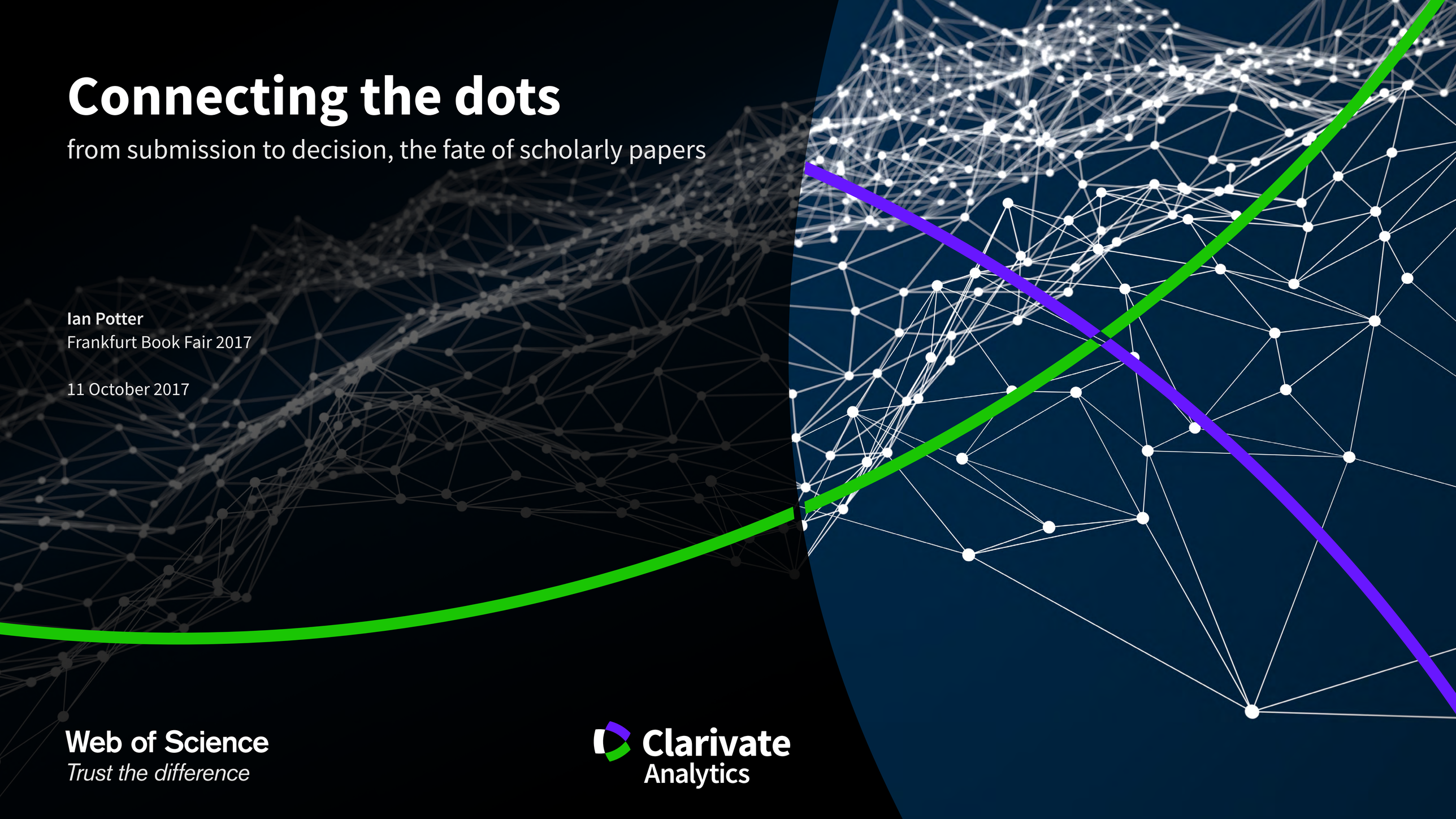
Connecting the dots

from submission to decision, the fate of scholarly papers

Ian Potter

Frankfurt Book Fair 2017

11 October 2017



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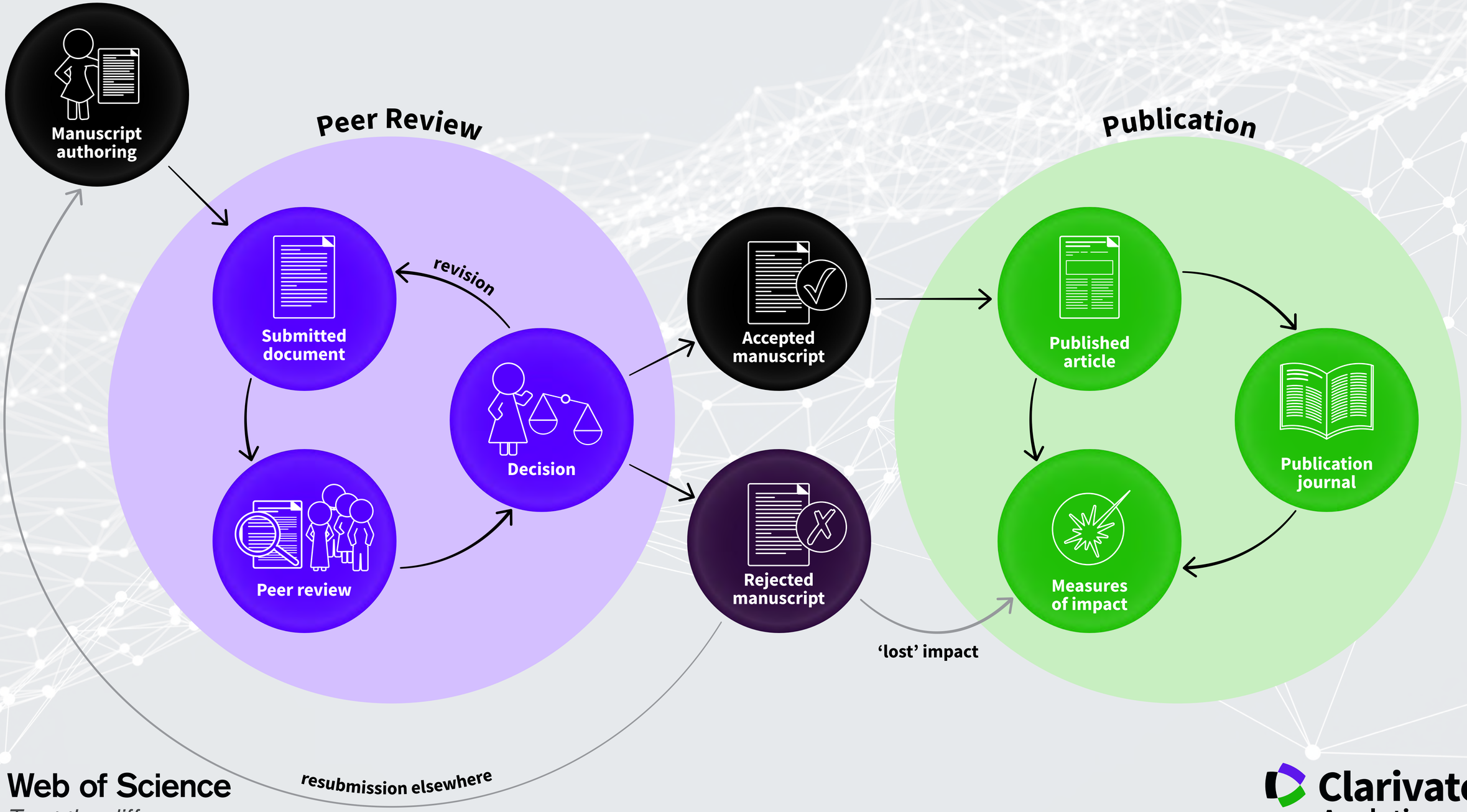
Clarivate Analytics



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Some assumptions

- This on an ongoing update of our Scholarly Publishing Insights data
- Based on aggregated data from our submission and review platform
- No publisher-level details are disclosed
- Mapping to the Web of Science is to SCI-E and SSCI (for impact quartiles)
- Data is based on submission year. Accept, reject rates are for manuscripts in that submission year cohort
- Country is the country of the submitting author
- WoS Category (of 252) and ESI Research Field (of 22) for any journal is the one in which it has the highest Impact Factor rank percentile (journals may be in more than one category)

A story of growth

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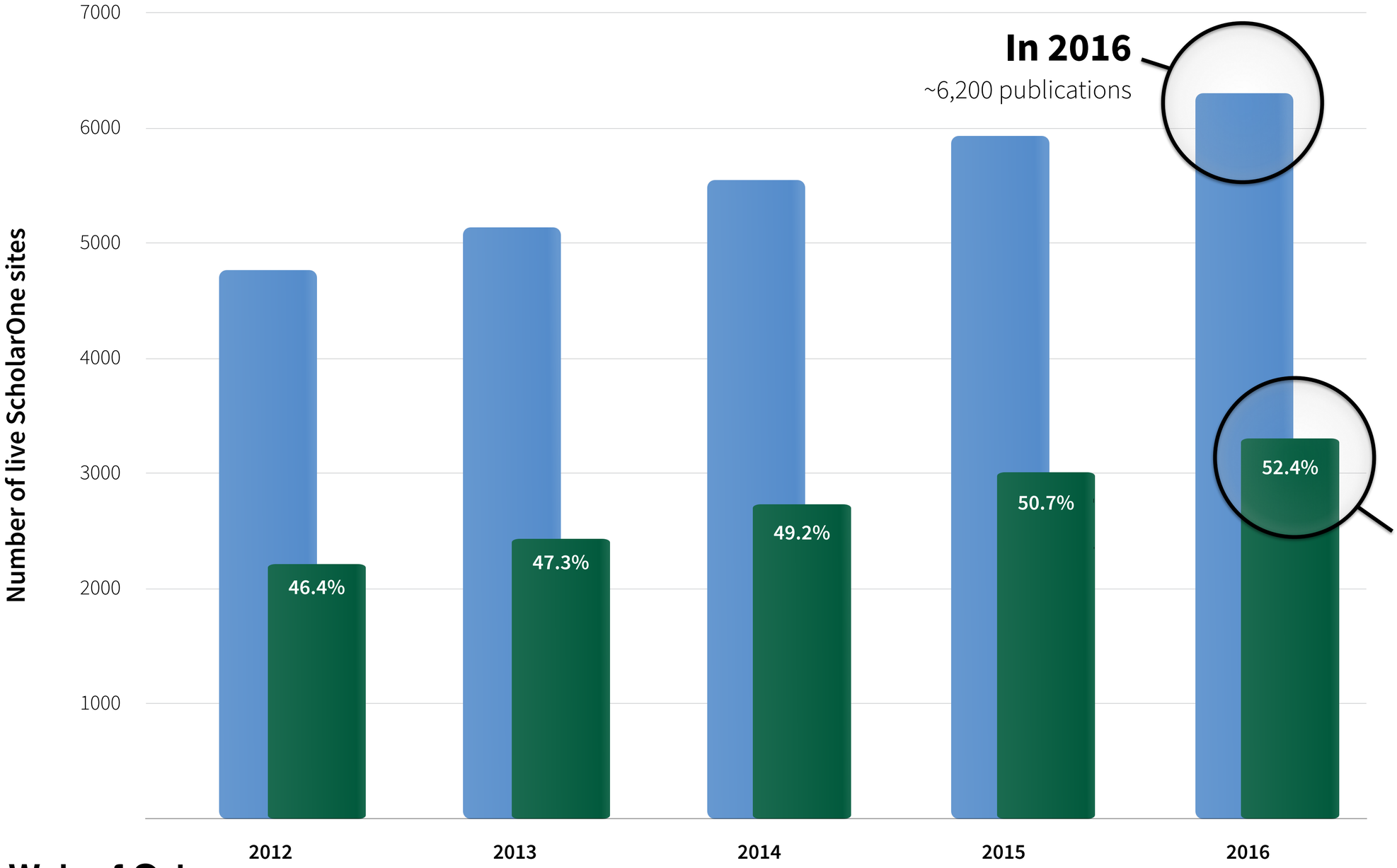
Number of live ScholarOne sites
7000
6000
5000
4000
3000
2000
1000
2012
2013
2014
2015
2016
46.4%
47.3%
49.2%
50.7%
52.4%
In 2016
~6,200 publications
and
52% are in the two main WoS editors
ScholarOne Sites
S1M sites indexed in the Web of Science*
*SCI-E and SSCI only.

Manuscript submissions

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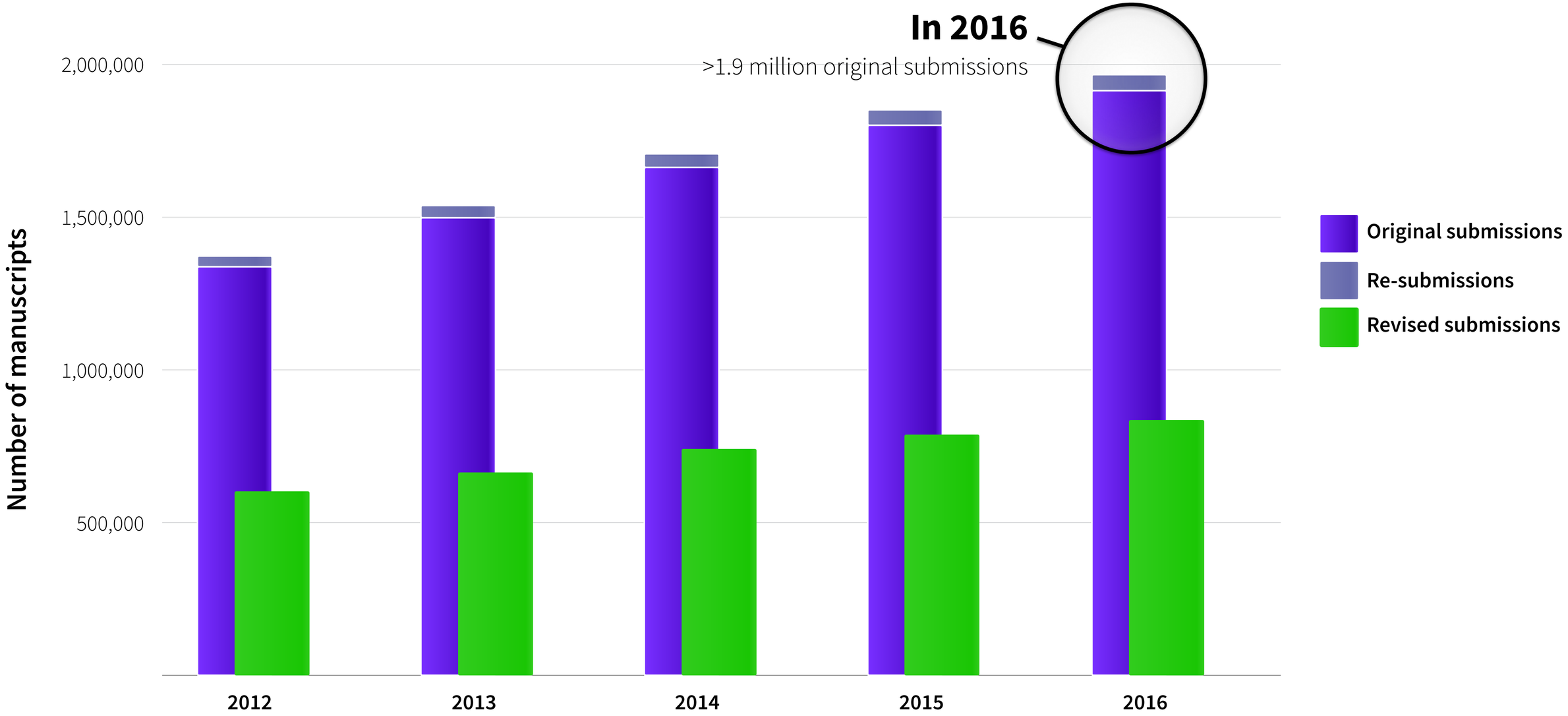
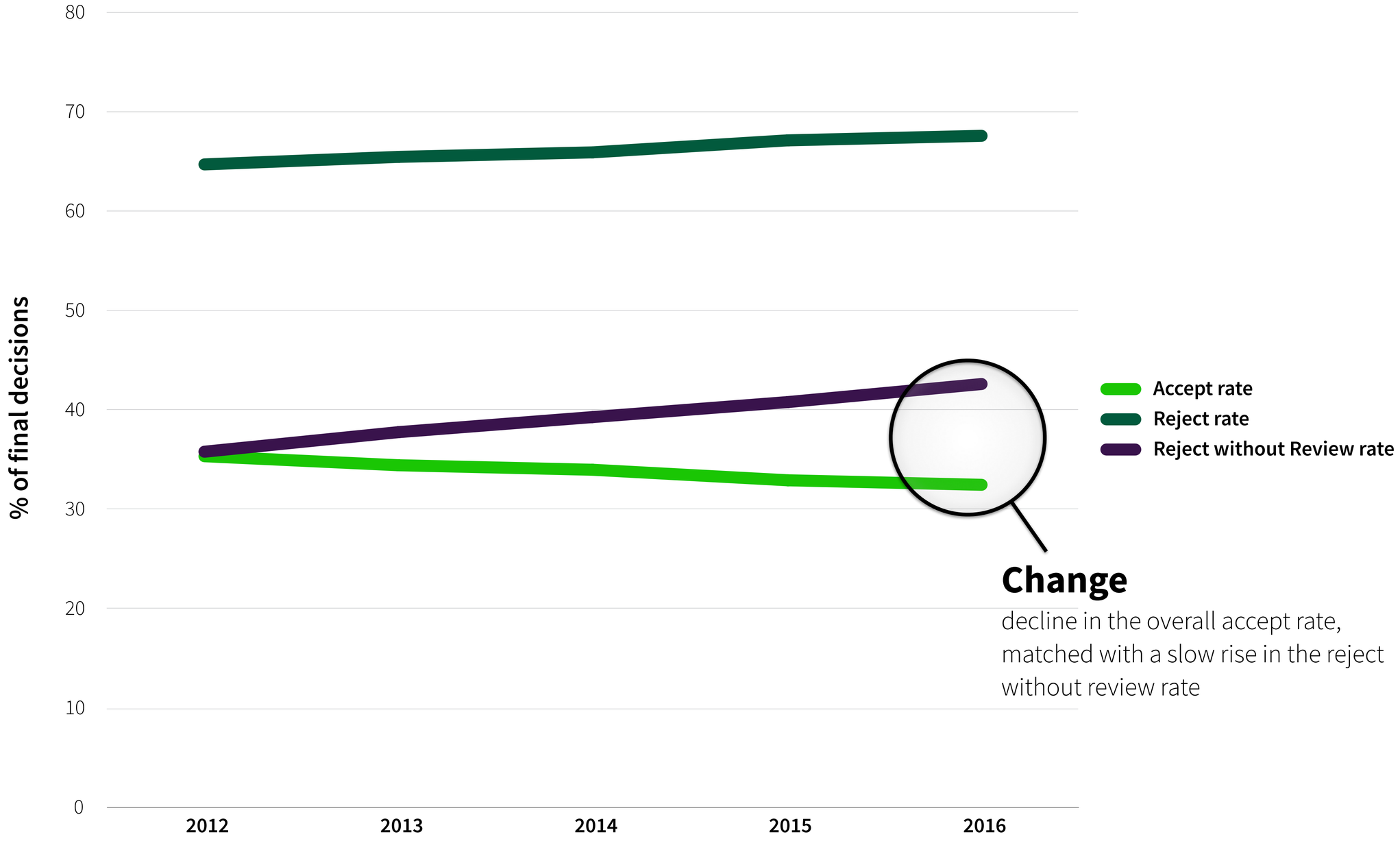

In 2016
>1.9 million original submissions
2,000,000
1,500,000
1,000,000
500,000
Number of manuscripts
2012
2013
2014
2015
2016
Original submissions
Re-submissions
Revised submissions



Change

decline in the overall accept rate, matched with a slow rise in the reject without review rate

Mapping to the Web of Science

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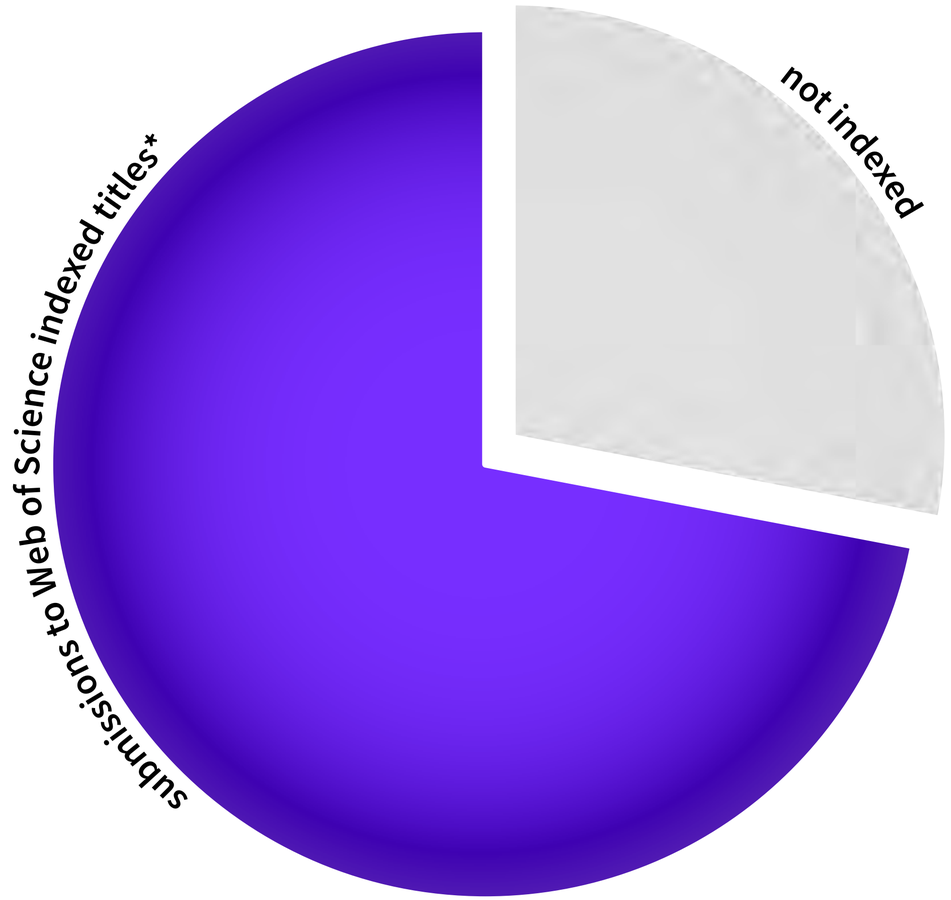
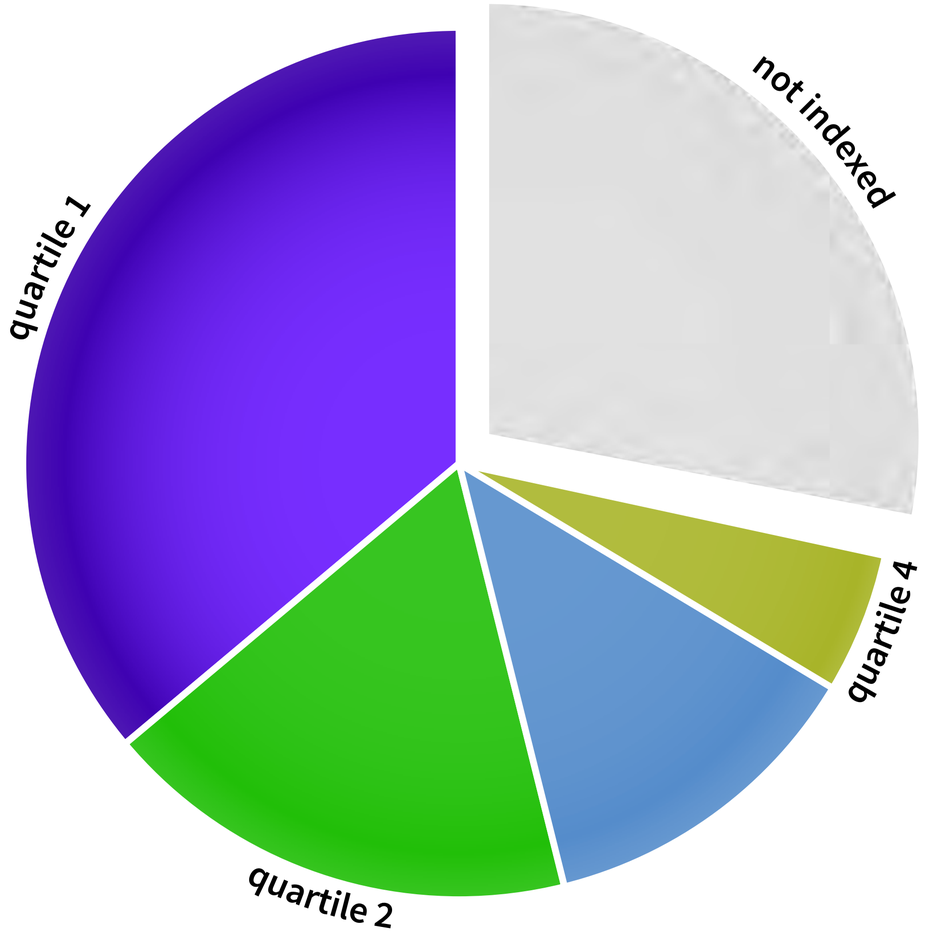
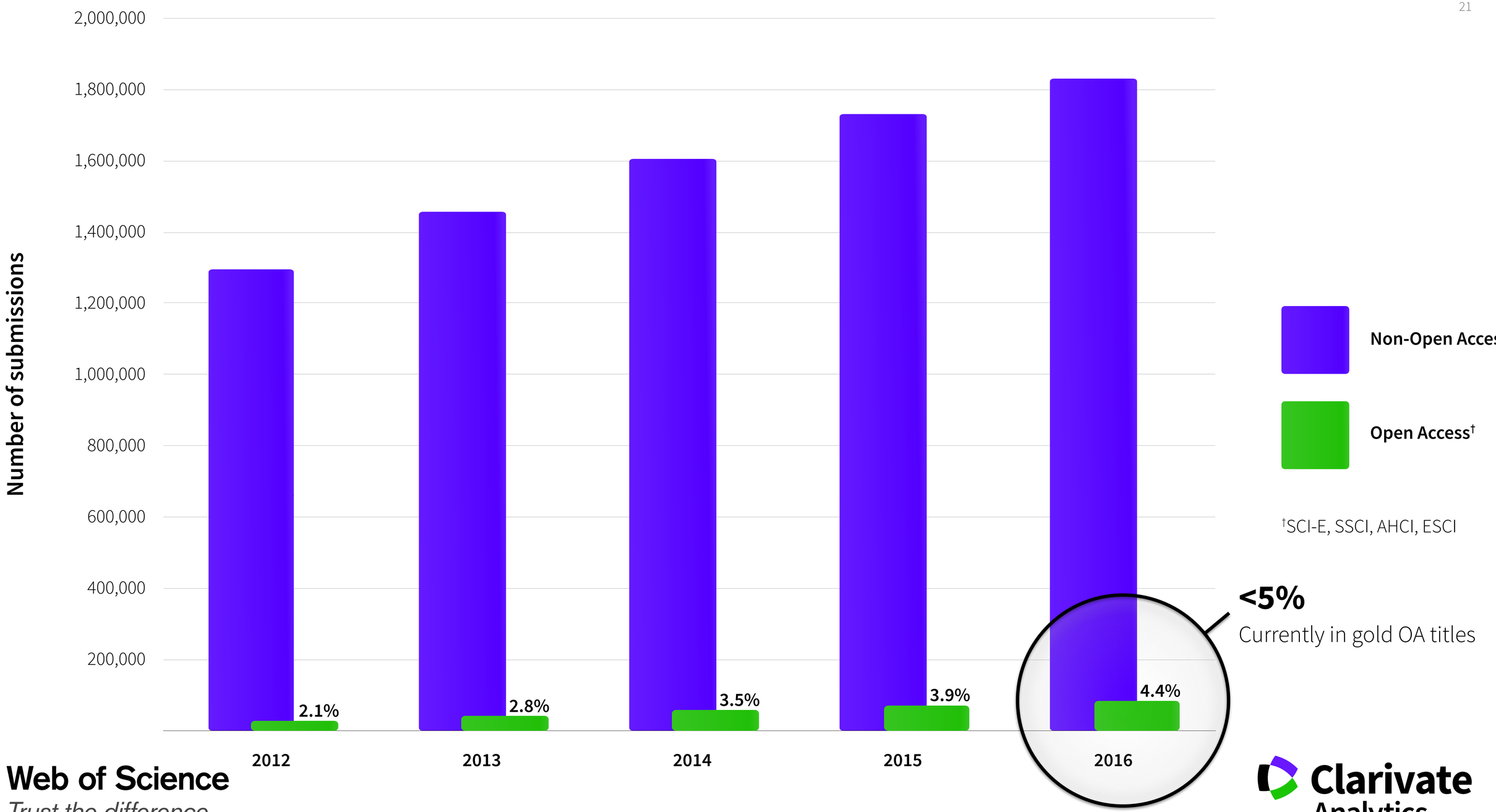
72%
of submissions to ScholarOne Manuscripts are to WoS indexed title



>35%
in top quartile journals





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The scope of current research

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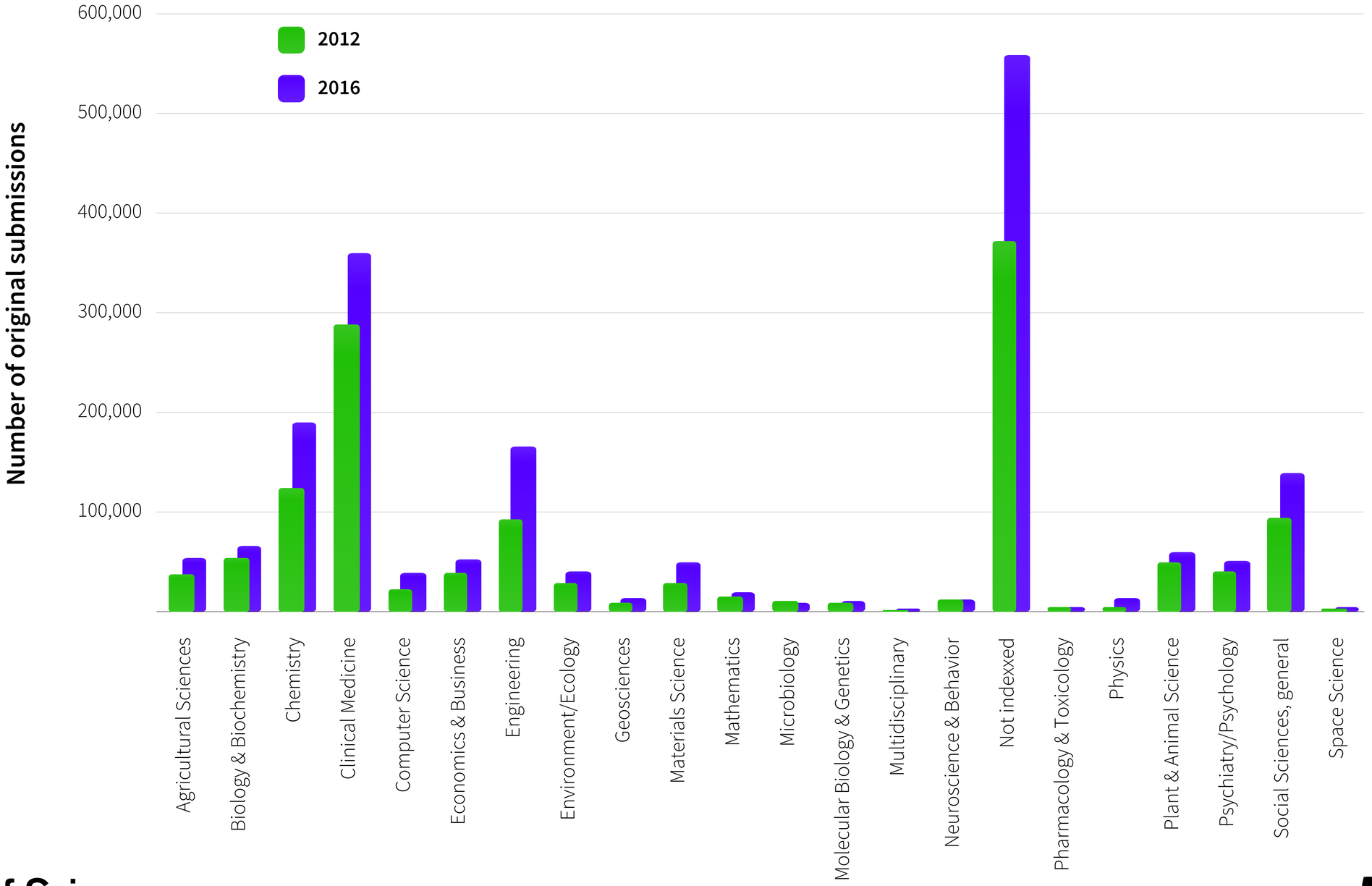
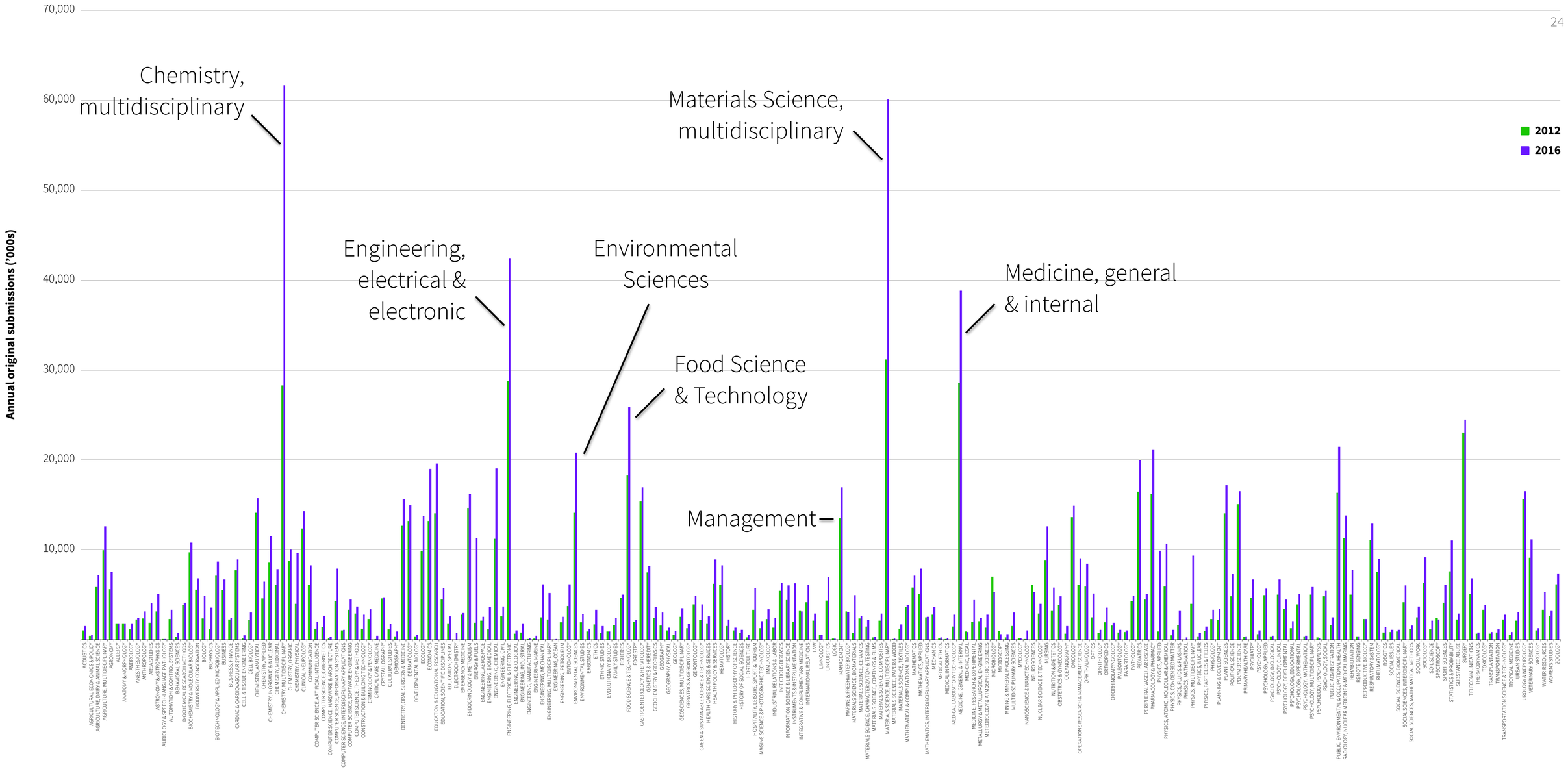
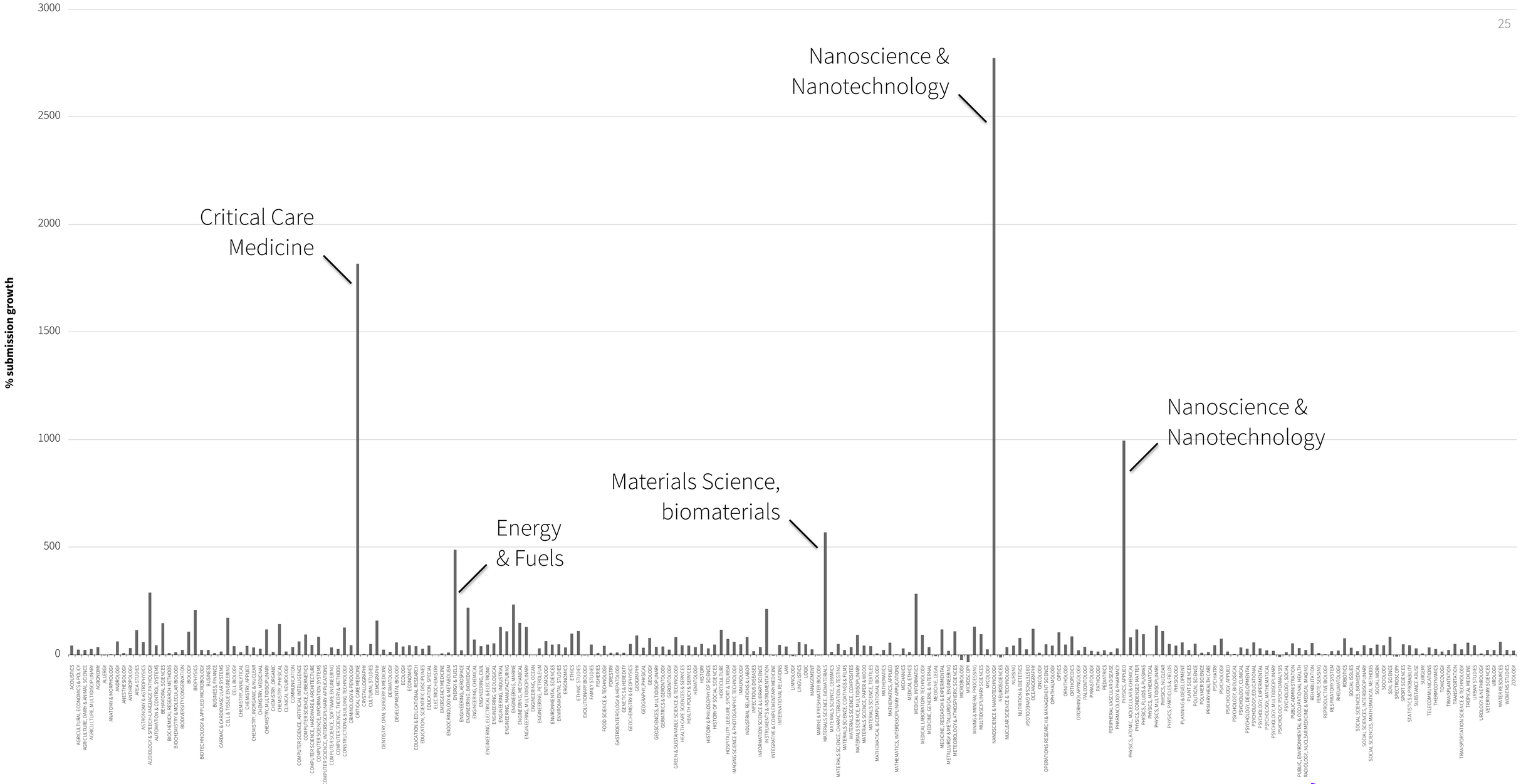
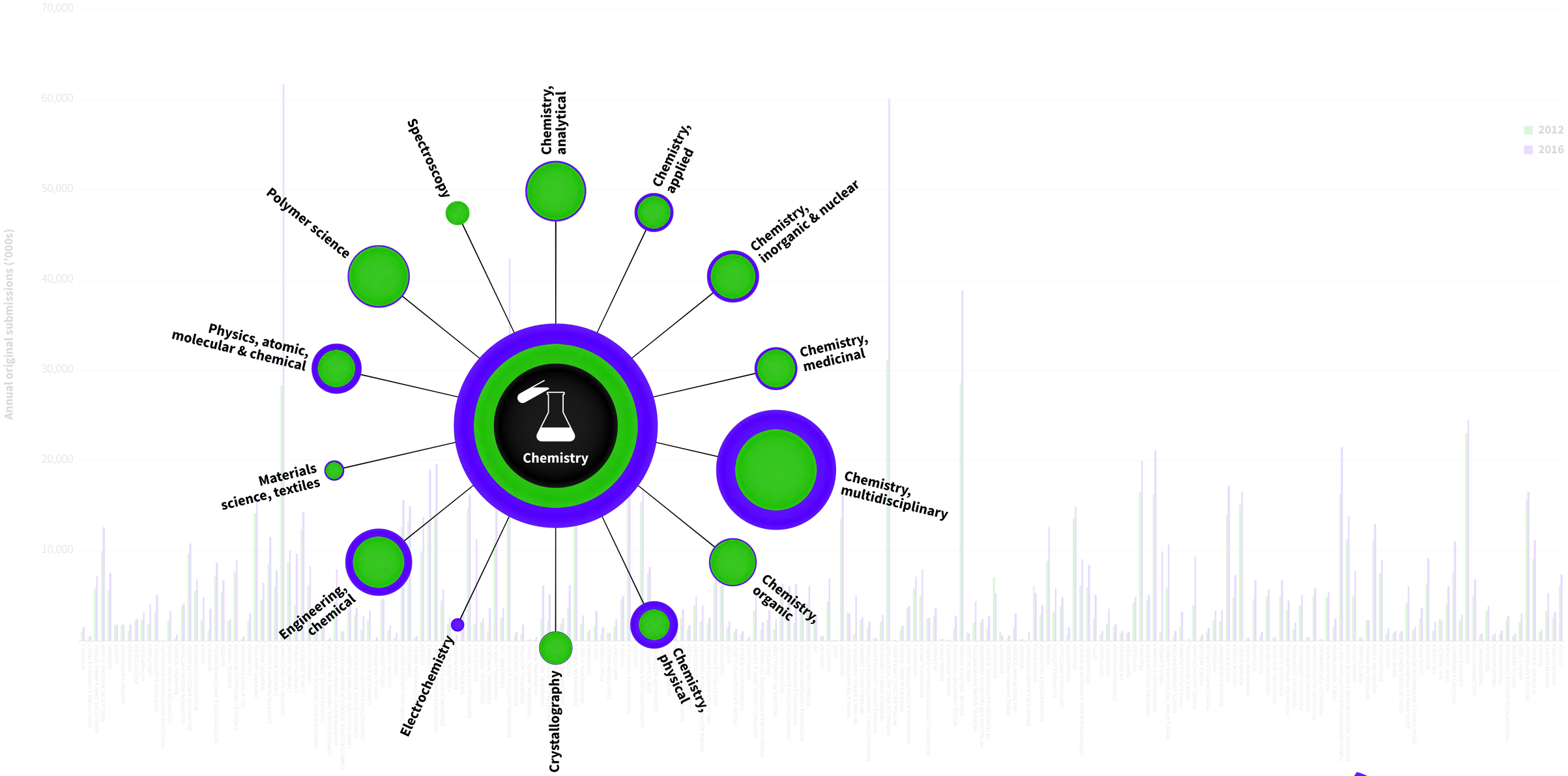
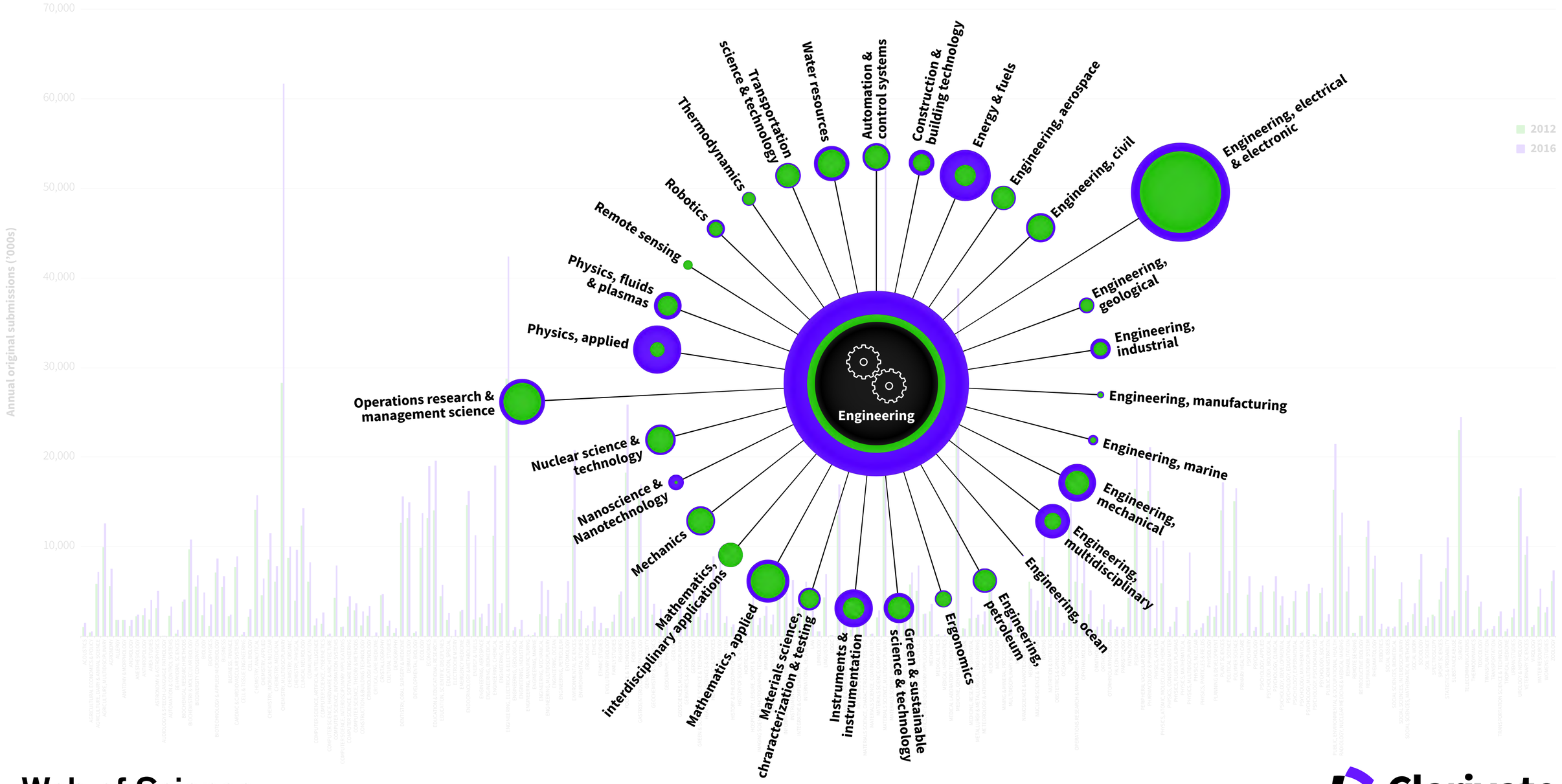

Number of original submissions
600,000
500,000
400,000
300,000
200,000
100,000
2012
2016
Agricultural Sciences
Biology & Biochemistry
Chemistry
Clinical Medicine
Computer Science
Economics & Business
Engineering
Environment/Ecology
Geosciences
Materials Science
Mathematics
Microbiology
Molecular Biology & Genetics
Multidisciplinary
Neuroscience & Behavior
Not indexxed
Pharmacology & Toxicology
Physics
Plant & Animal Science
Psychiatry/Psychology
Social Sciences, general
Space Science


Annual original submissions ('000s)
70,000
60,000
50,000
40,000
30,000
20,000
10,000
2012
2016
Chemistry, multidisciplinary
Materials Science, multidisciplinary
Engineering, electrical & electronic
Environmental Sciences
Medicine, general & internal
Food Science & Technology
Management


% submission growth
3000
2500
2000
1500
1000
500
0
Critical Care Medicine
Energy & Fuels
Materials Science, biomaterials
Nanoscience & Nanotechnology
Nanoscience & Nanotechnology


70,000
60,000
50,000
40,000
30,000
20,000
10,000
Annual original submissions ('000s)
2012
2016
Chemistry
Chemistry, analytical
Chemistry, applied
Chemistry, inorganic & nuclear
Chemistry, medicinal
Chemistry, multidisciplinary
Chemistry, organic
Chemistry, physical
Crystallography
Electrochemistry
Engineering, chemical
Materials science, textiles
Physics, atomic, molecular & chemical
Polymer science
Spectroscopy


Annual original submissions ('000s)
70,000
60,000
50,000
40,000
30,000
20,000
10,000
2012
2016
Engineering
Engineering, electrical & electronic
Engineering, civil
Engineering, aerospace
Energy & fuels
Construction & building technology
Automation & control systems
Water resources
Transportation science & technology
Thermodynamics
Robotics
Remote sensing
Physics, fluids & plasmas
Physics, applied
Operations research & management science
Nuclear science & technology
Nanoscience & Nanotechnology
Mechanics
Mathematics, interdisciplinary applications
Mathematics, applied
Materials science, characterization & testing
Instruments & instrumentation
Green & sustainable science & technology
Ergonomics
Engineering, petroleum
Engineering, ocean
Engineering, multidisciplinary
Engineering, mechanical
Engineering, marine
Engineering, manufacturing
Engineering, industrial
Engineering, geological

Making decisions

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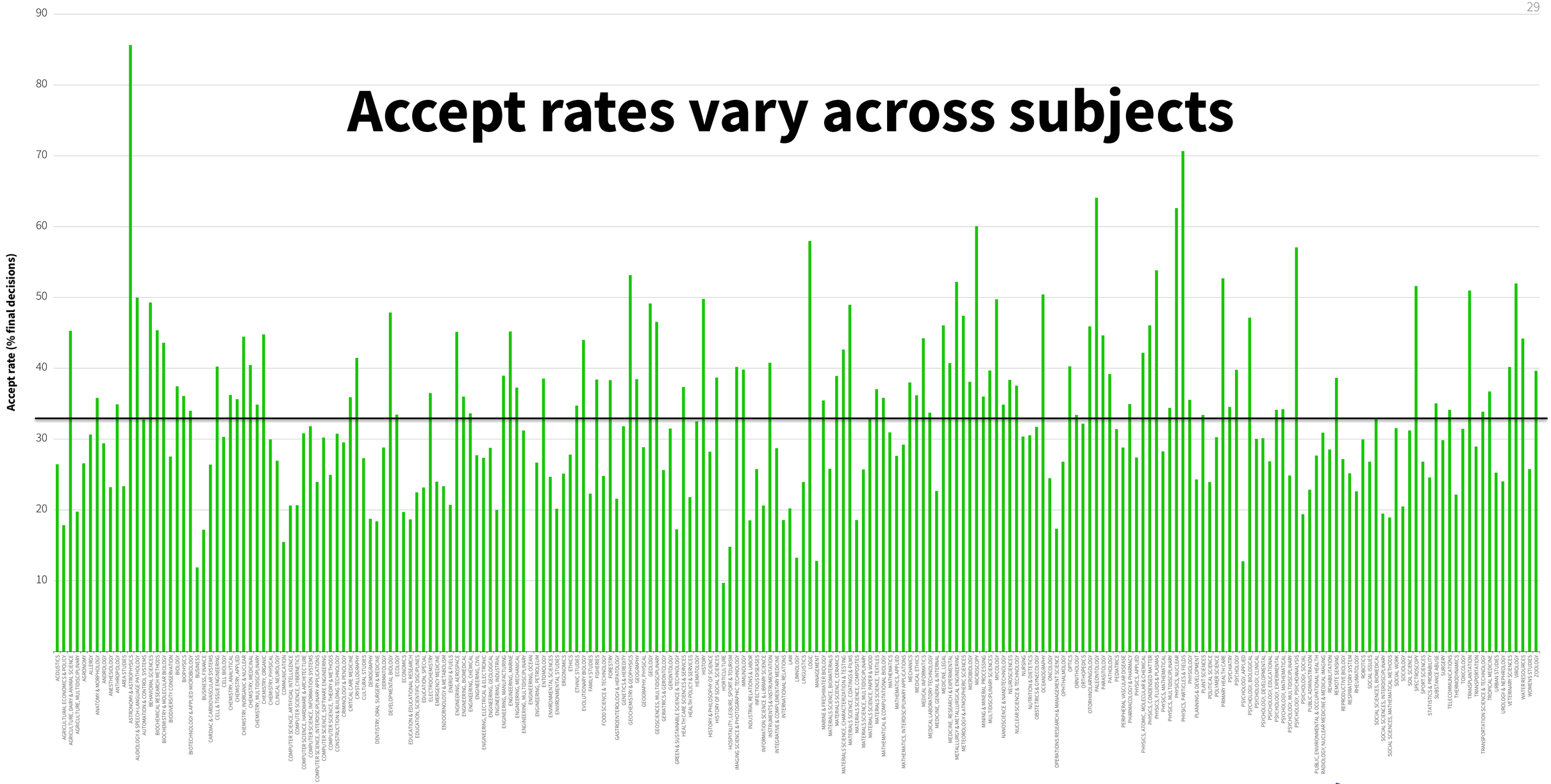
Accept rates vary across subjects



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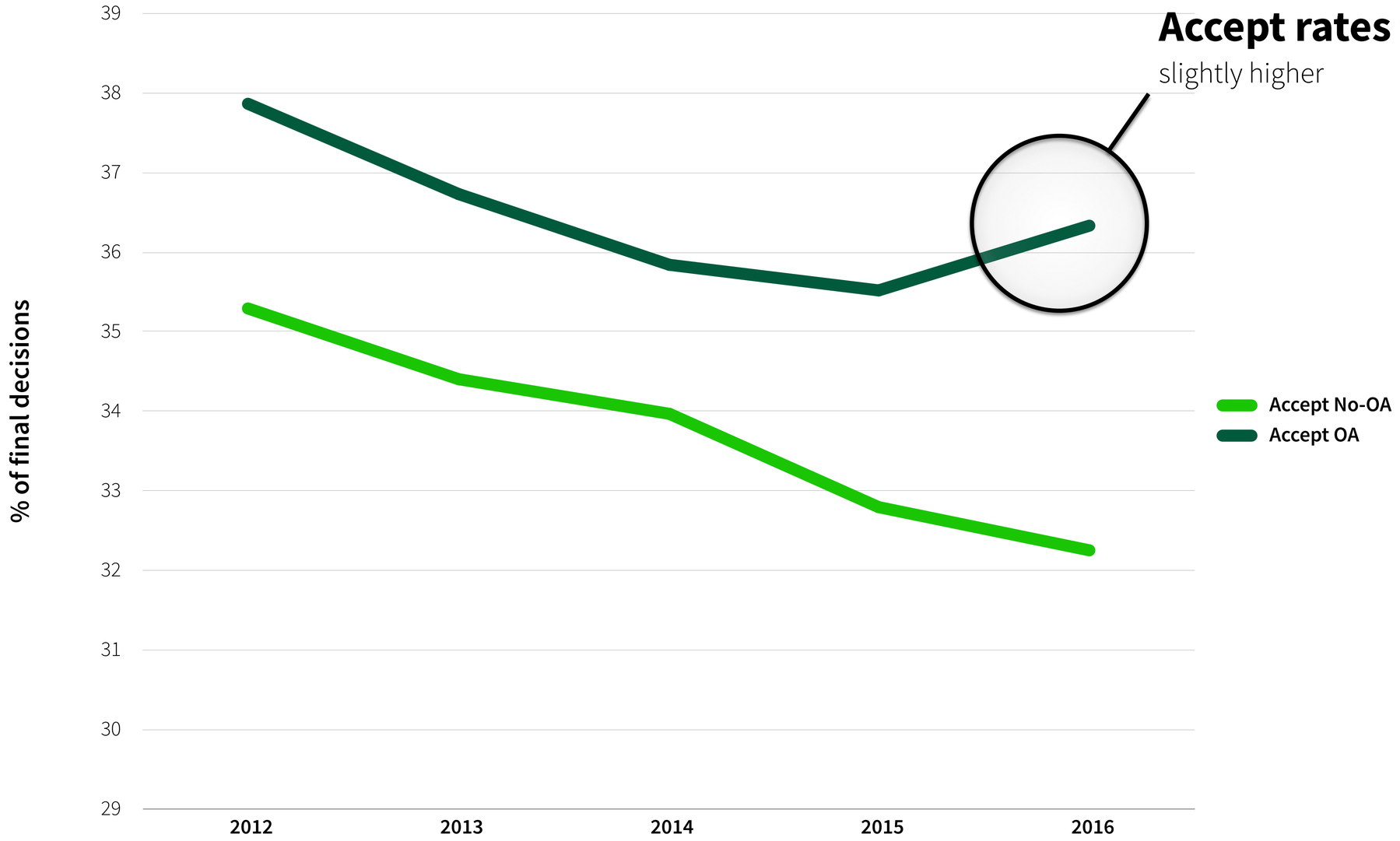
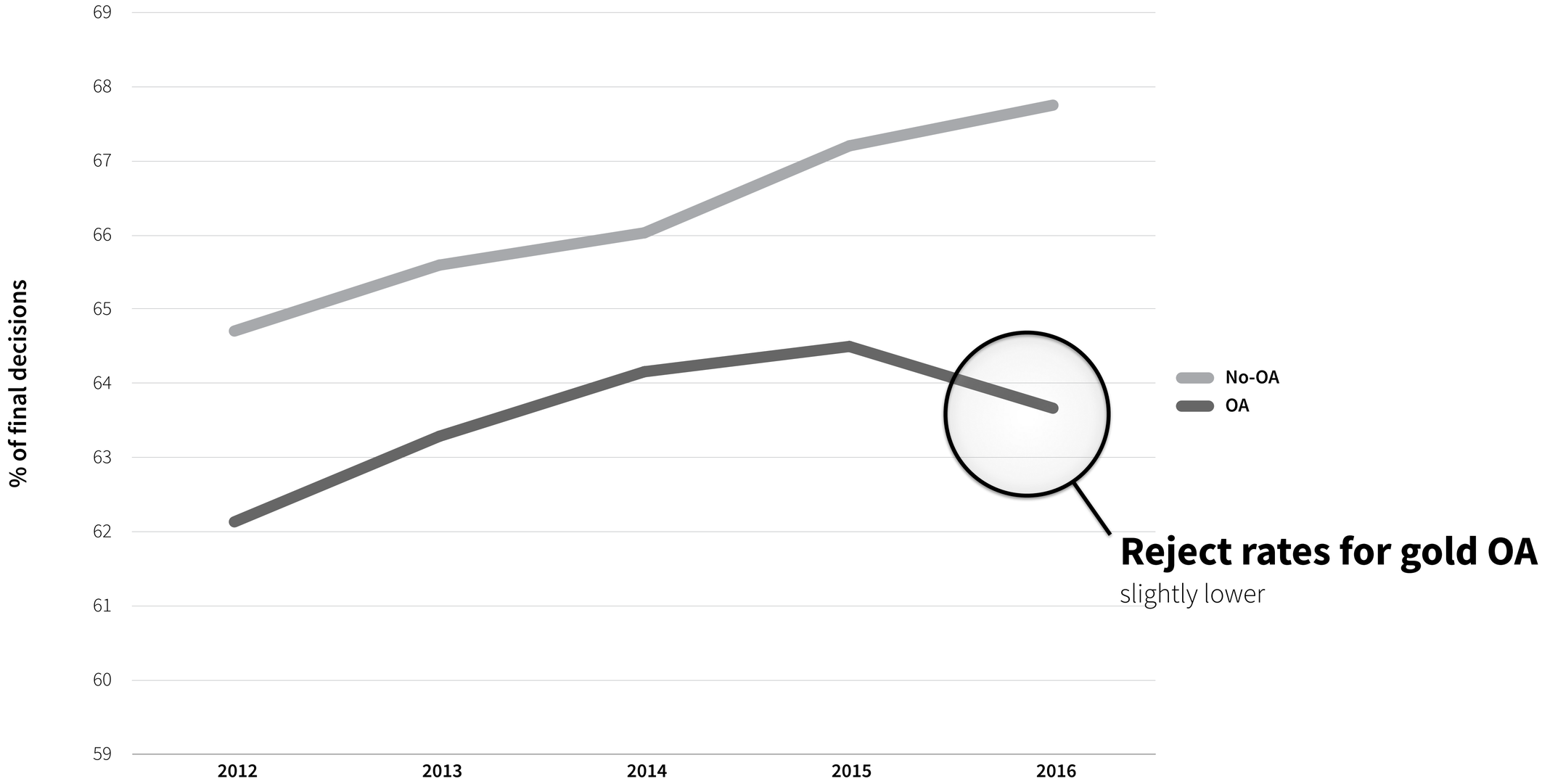
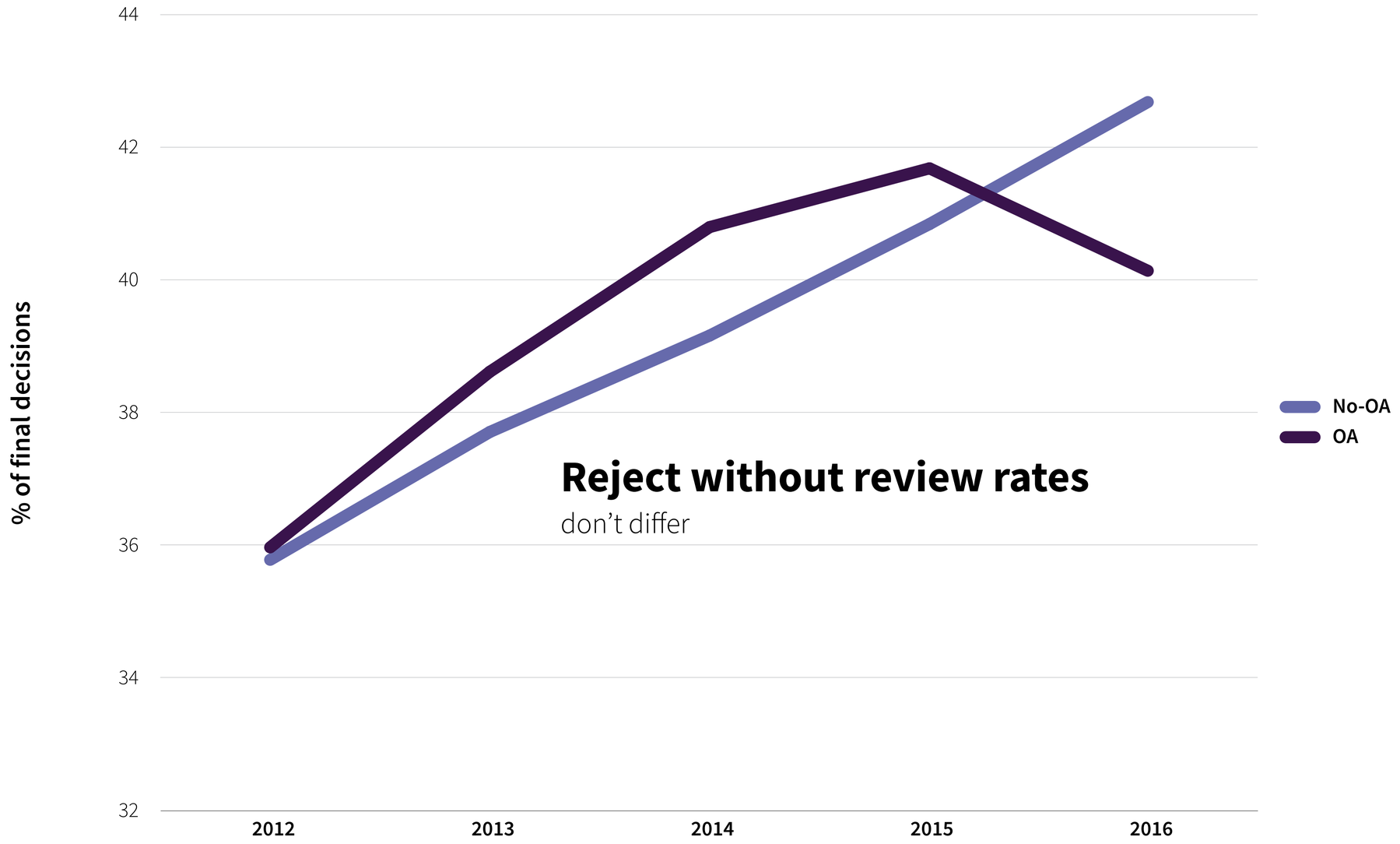
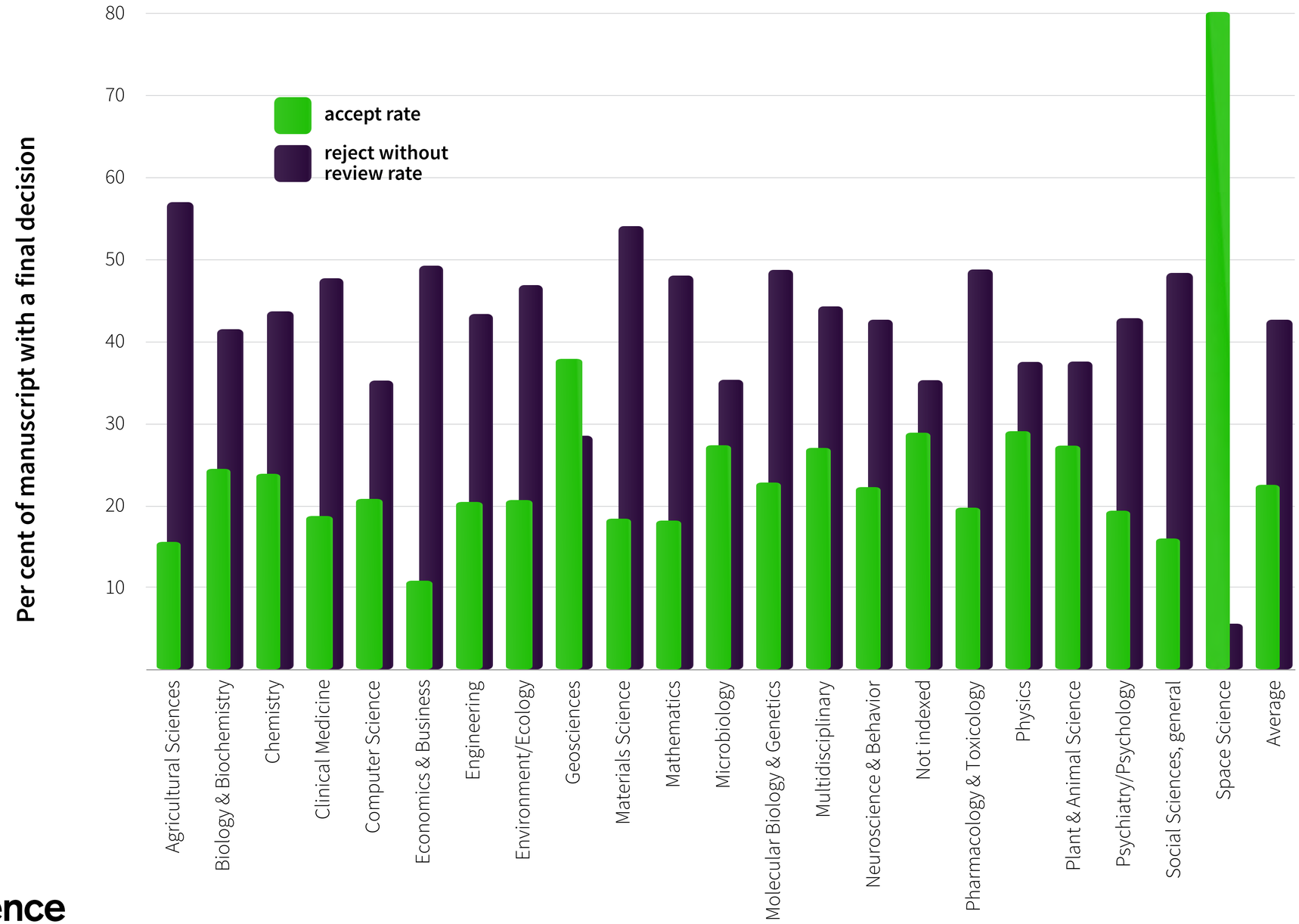
Accept rates for gold OA

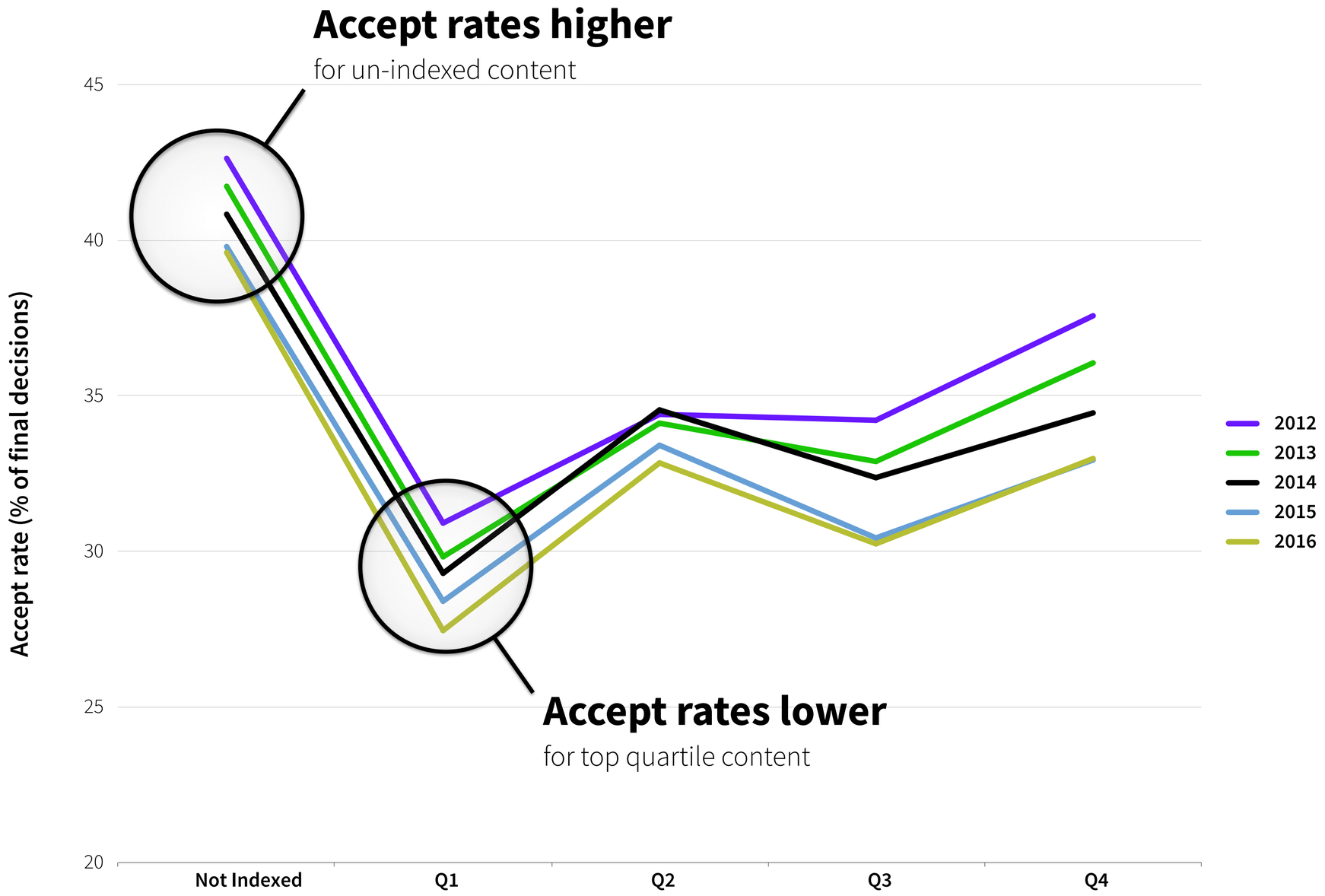
slightly higher

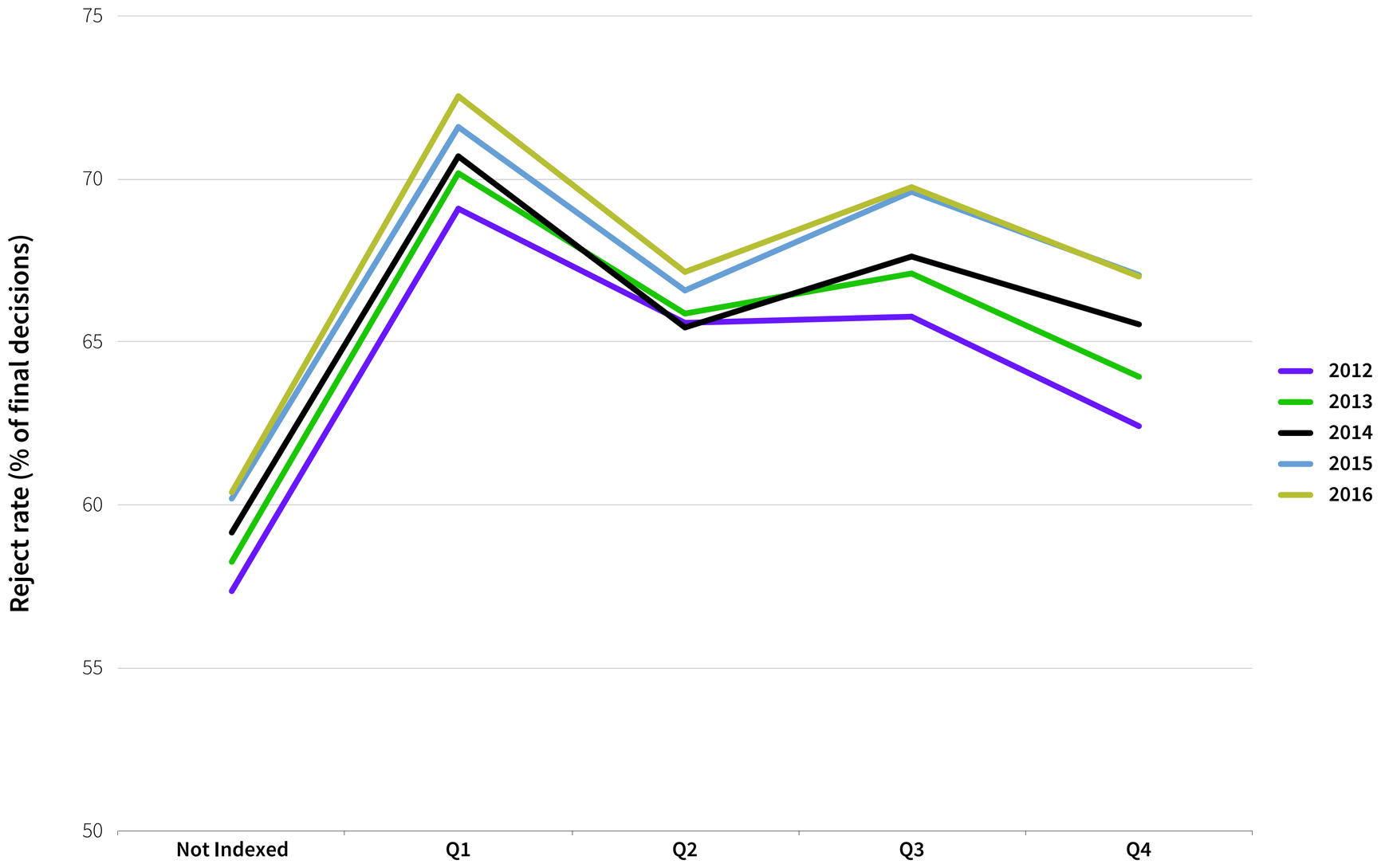


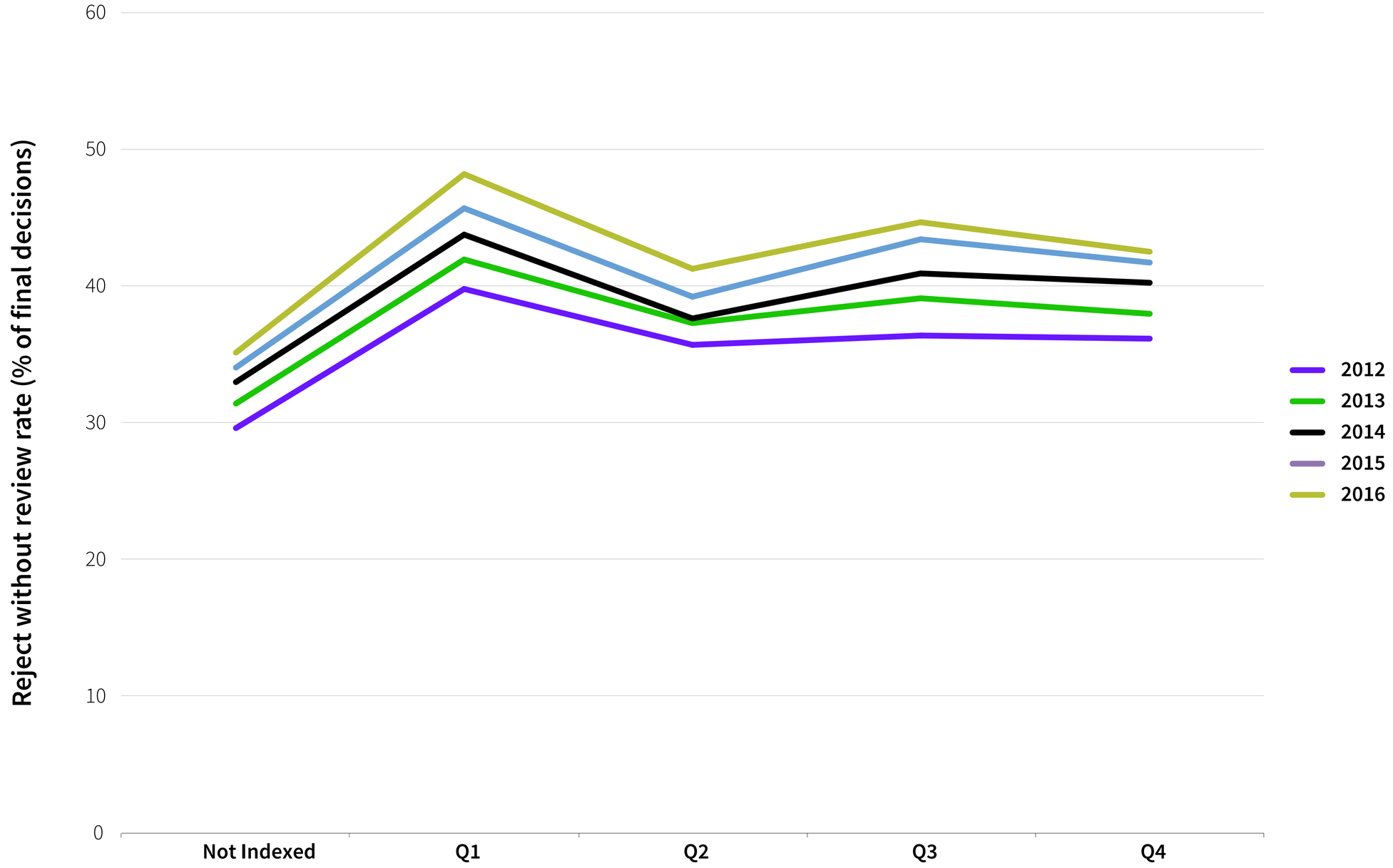

69
68
67
66
65
64
63
62
61
60
59
% of final decisions
2012
2013
2014
2015
2016
No-OA
OA
Reject rates for gold OA
slightly lower


44
42
40
38
36
34
32
% of final decisions
2012
2013
2014
2015
2016
No-OA
OA
Reject without review rates
don’t differ


Per cent of manuscript with a final decision
80
70
60
50
40
30
20
10
accept rate
reject without review rate
Agricultural Sciences
Biology & Biochemistry
Chemistry
Clinical Medicine
Computer Science
Economics & Business
Engineering
Environment/Ecology
Geosciences
Materials Science
Mathematics
Microbiology
Molecular Biology & Genetics
Multidisciplinary
Neuroscience & Behavior
Not indexed
Pharmacology & Toxicology
Physics
Plant & Animal Science
Psychiatry/Psychology
Social Sciences, general
Space Science
Average


Accept rates higher
for un-indexed content
Accept rate (% of final decisions)
45
40
35
30
25
20
Not Indexed
Q1
Q2
Q3
Q4
2012
2013
2014
2015
2016
Accept rates lower
for top quartile content


75
70
65
60
55
50
Reject rate (% of final decisions)
Not Indexed
Q1
Q2
Q3
Q4
2012
2013
2014
2015
2016


60
50
40
30
20
10
0
Reject without review rate (% of final decisions)
Not Indexed
Q1
Q2
Q3
Q4
2012
2013
2014
2015
2016

Decision times

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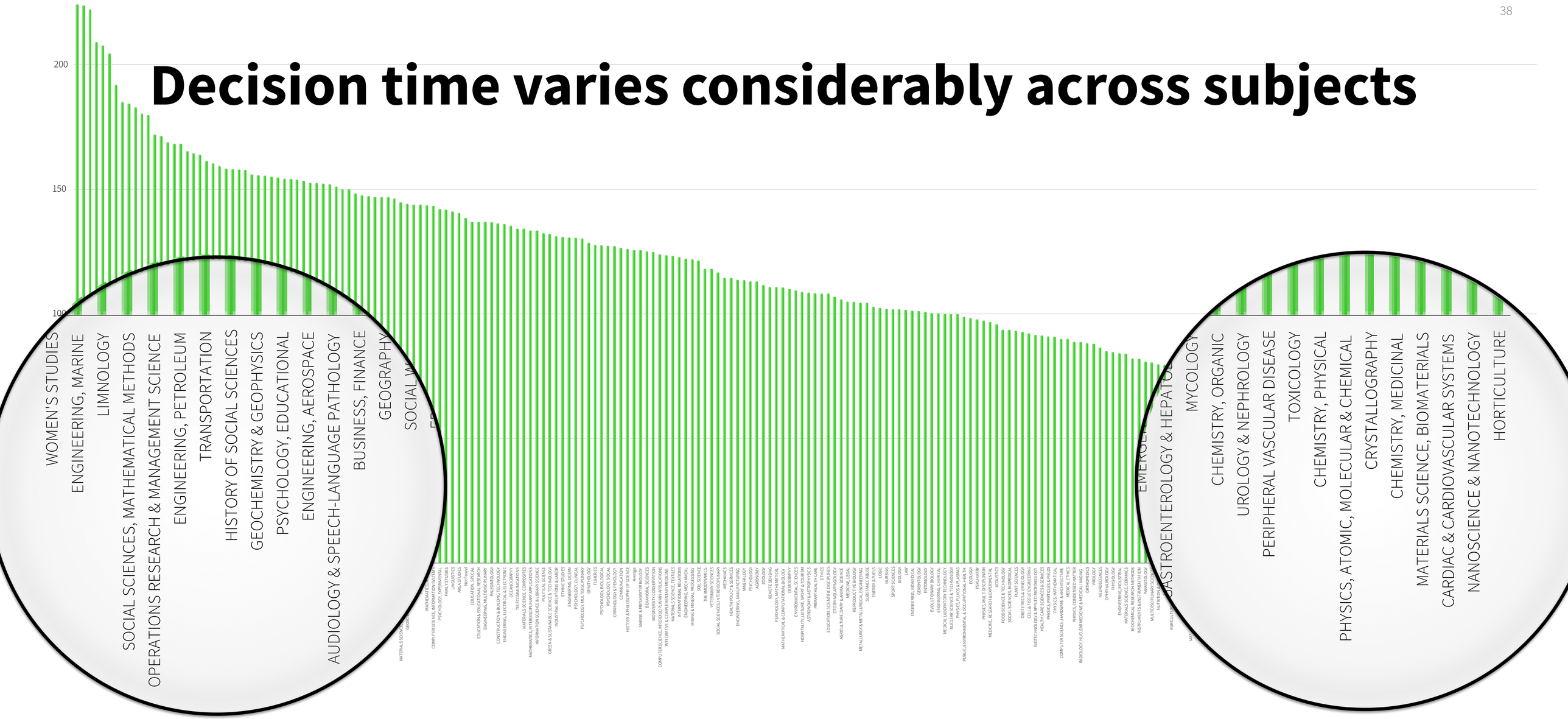
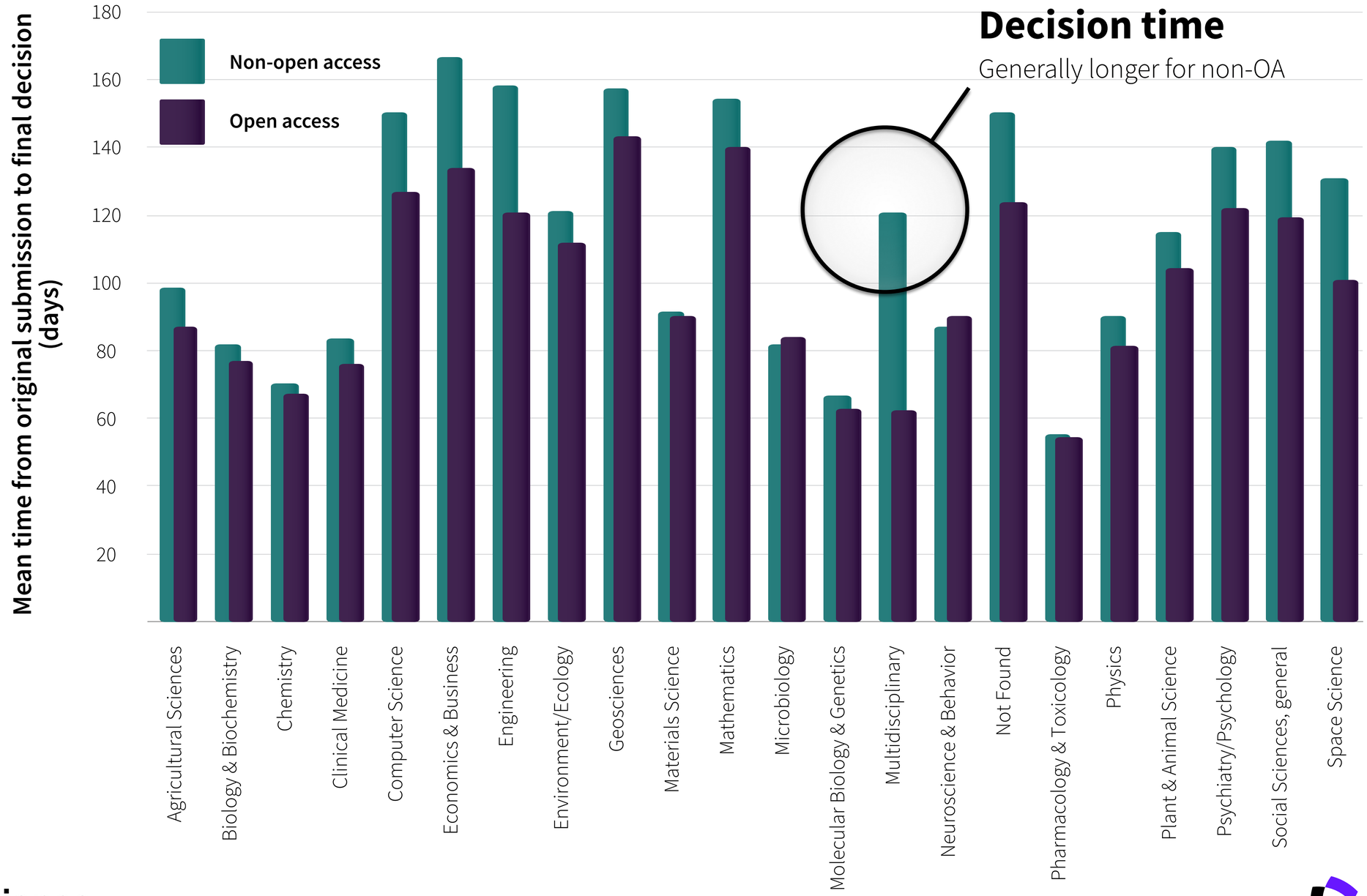
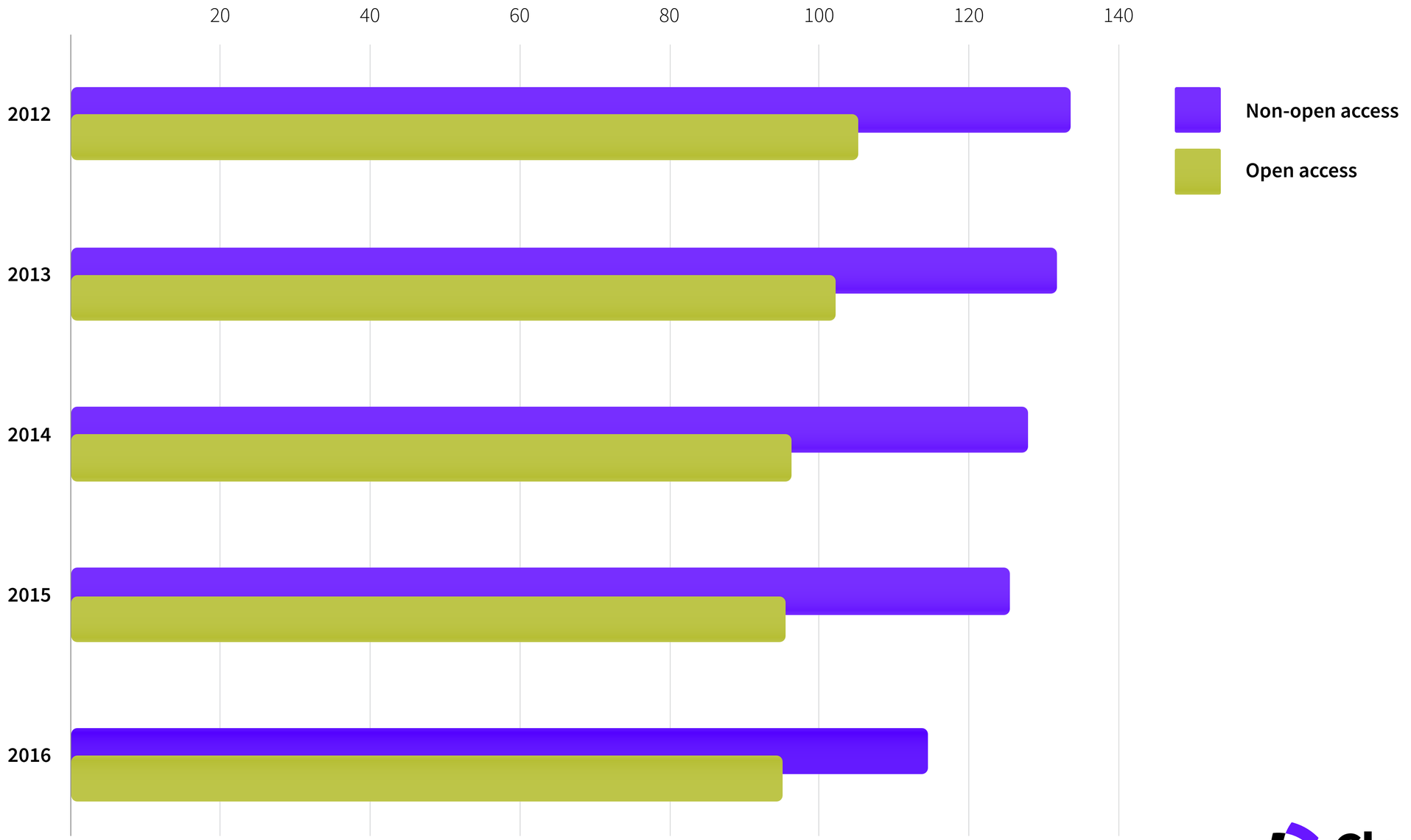
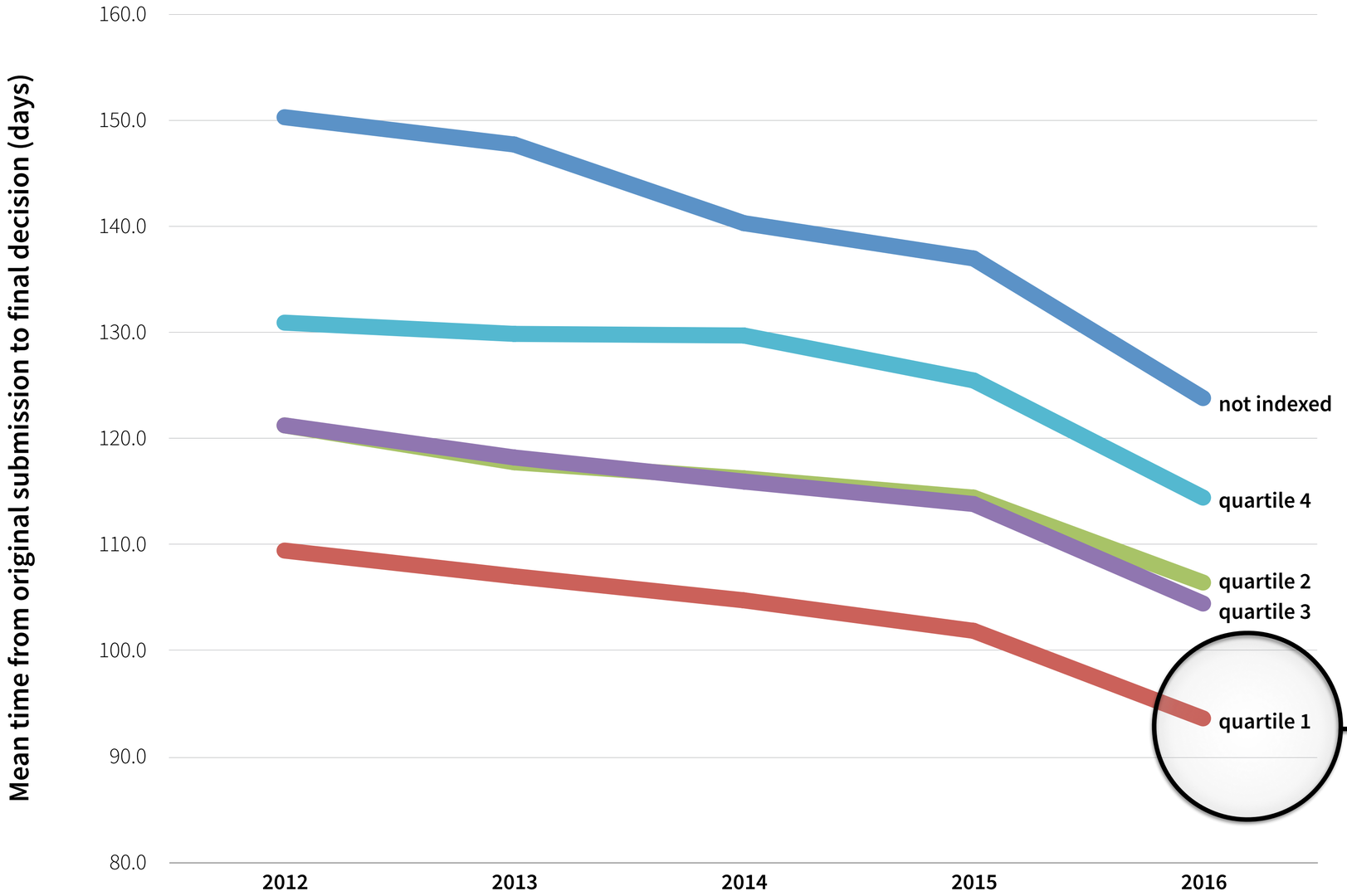
Decision time varies considerably across subjects




Decision time
Generally longer for non-OA
Non-open access
Open access
Mean time from original submission to final decision (days)
180
160
140
120
100
80
60
40
20
Agricultural Sciences
Biology & Biochemistry
Chemistry
Clinical Medicine
Computer Science
Economics & Business
Engineering
Environment/Ecology
Geosciences
Materials Science
Mathematics
Microbiology
Molecular Biology & Genetics
Multidisciplinary
Neuroscience & Behavior
Not Found
Pharmacology & Toxicology
Physics
Plant & Animal Science
Psychiatry/Psychology
Social Sciences, general
Space Science

Mean time from original submission to final decision (days)





Decision times

improve overall — quicker in upper impact quartiles

Submissions by geography

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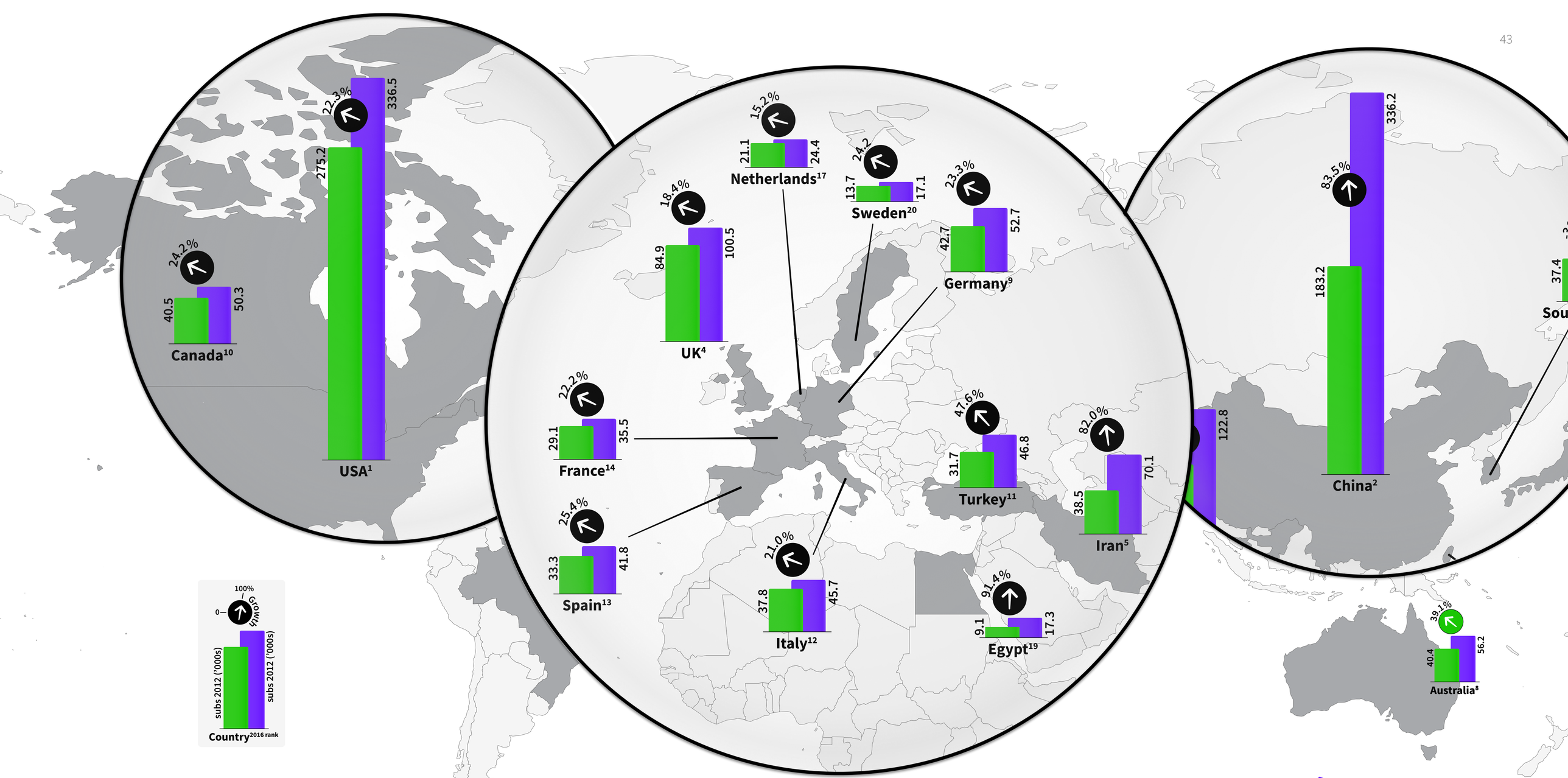

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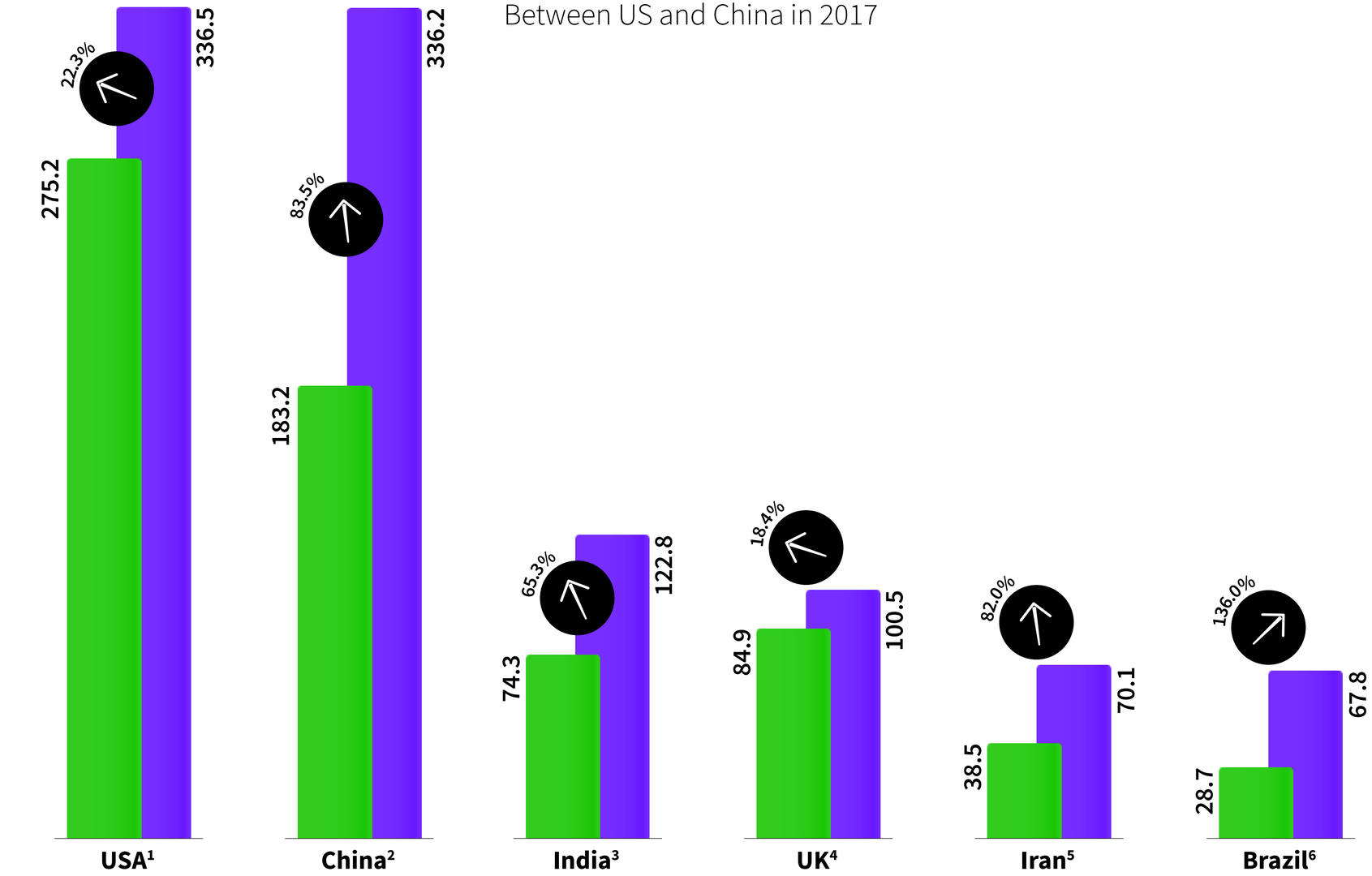
Submission parity

Between US and China in 2017

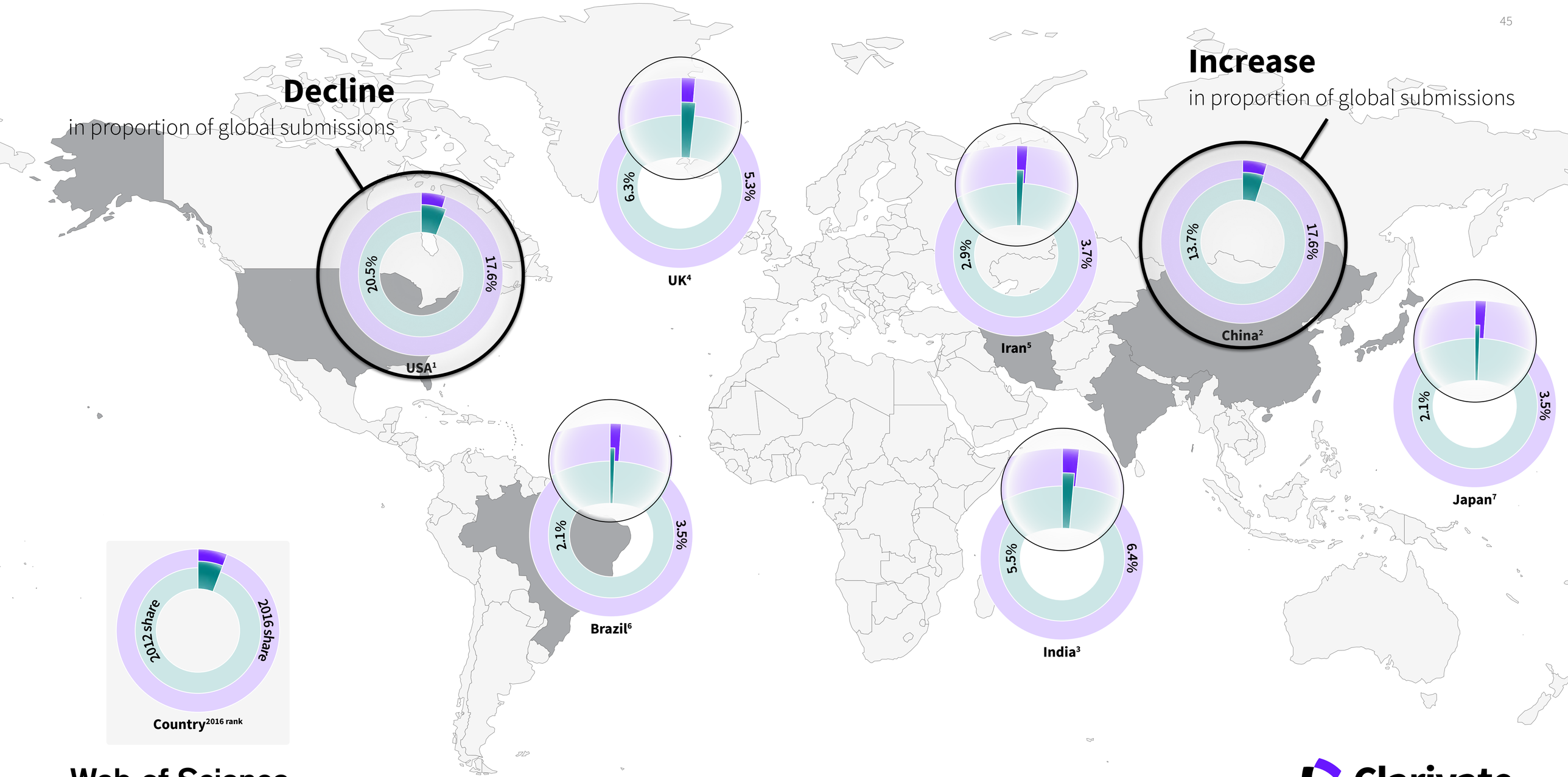


Decline

in proportion of global submissions

Increase

in proportion of global submissions



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Decision rates by country

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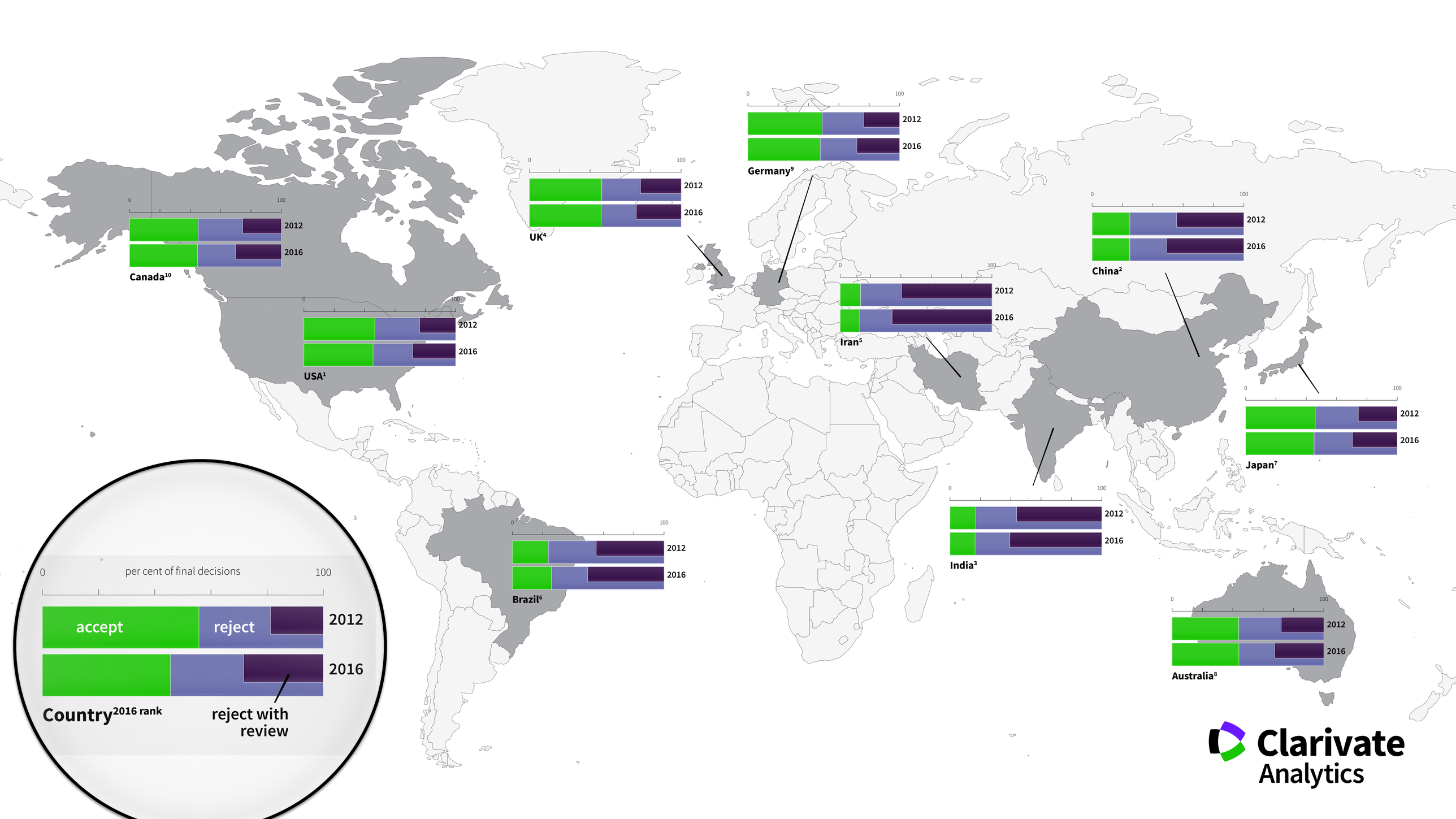
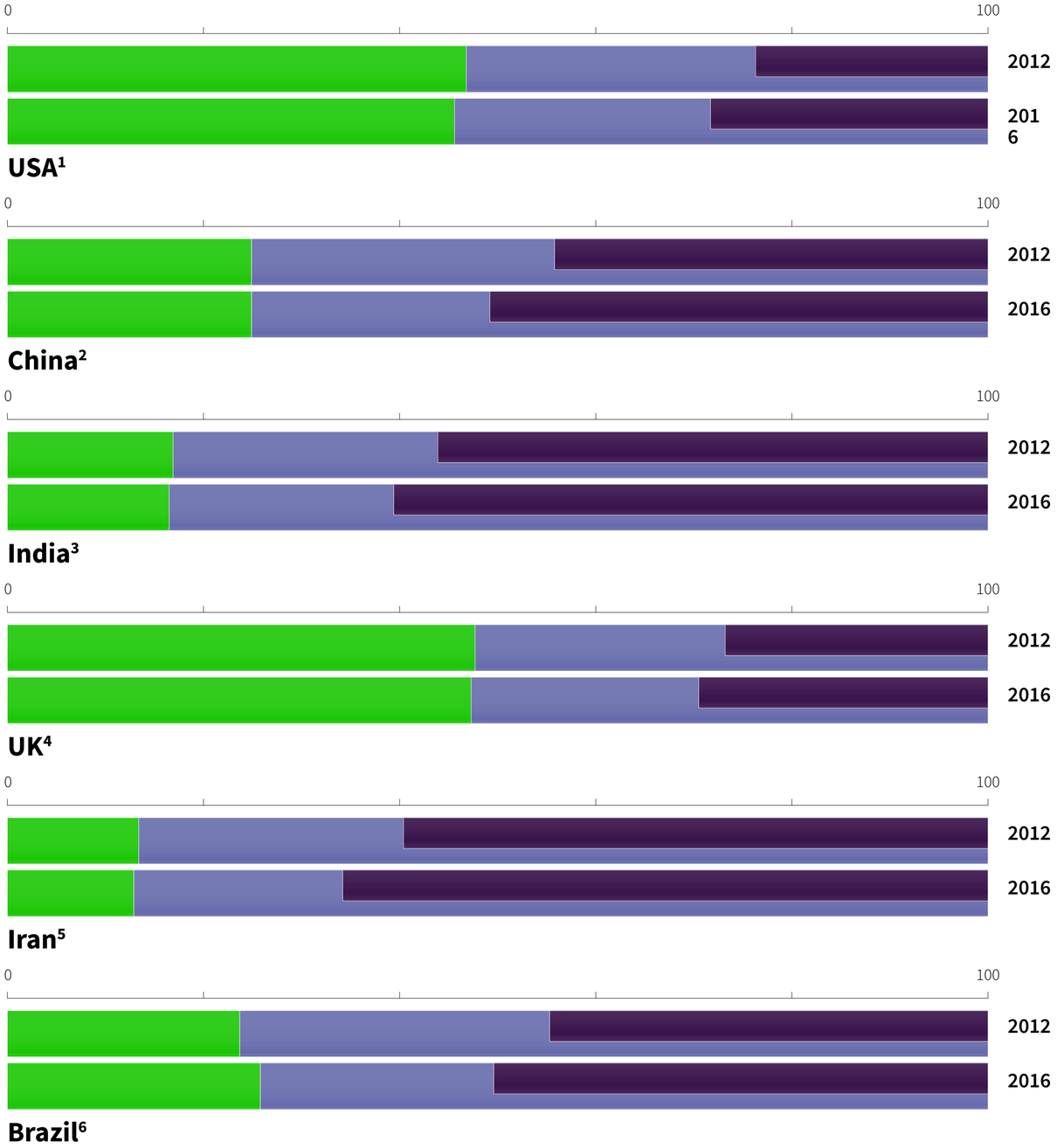


Clarivate Analytics


0
100
2012
2016
USA[1]
0
100
2012
2016
China[2]
0
100
2012
2016
India[3]
0
100
2012
2016
UK[4]
0
100
2012
2016
Iran[5]
0
100
2012
2016
Brazil[6]

Decision time by country

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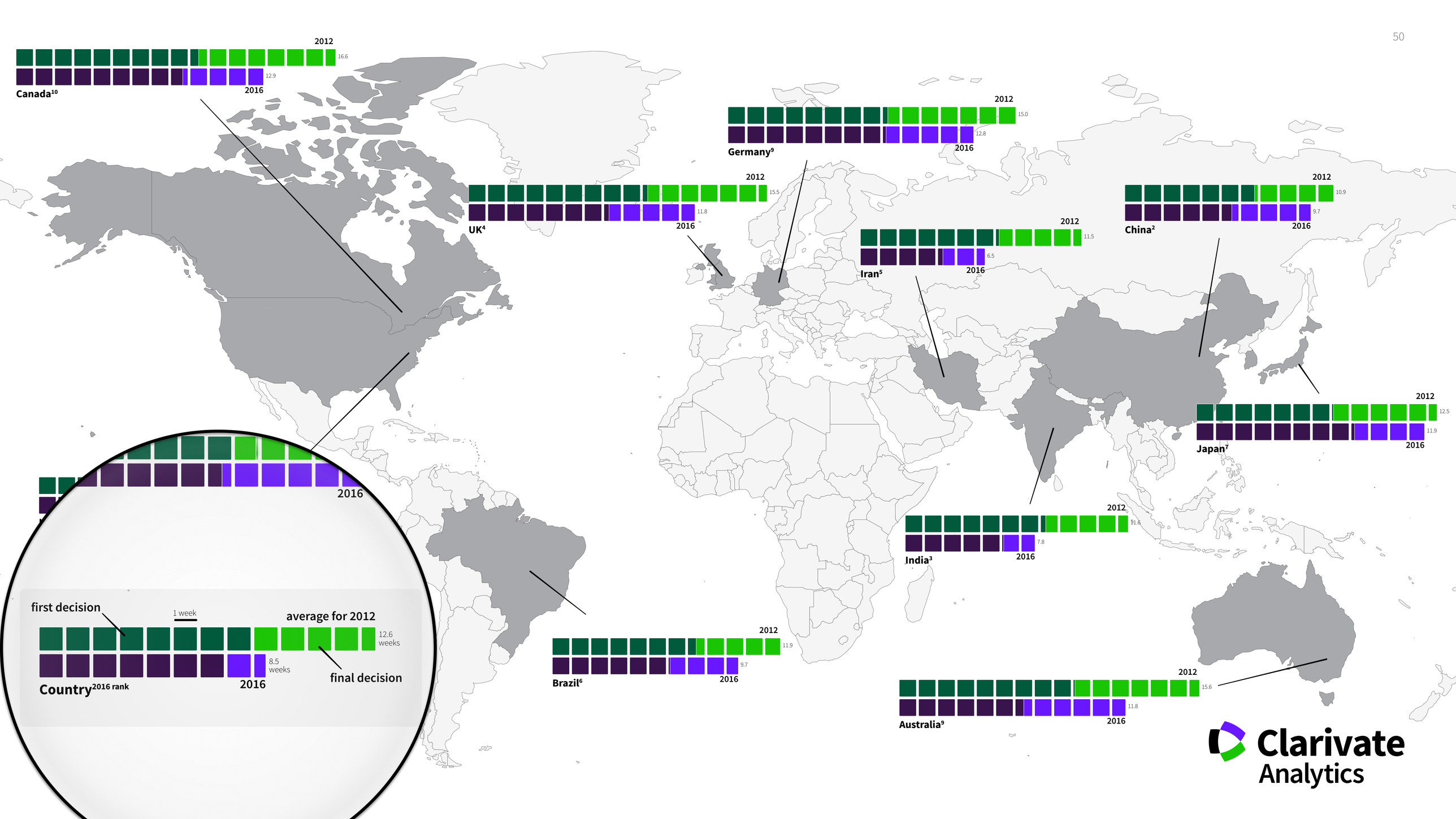
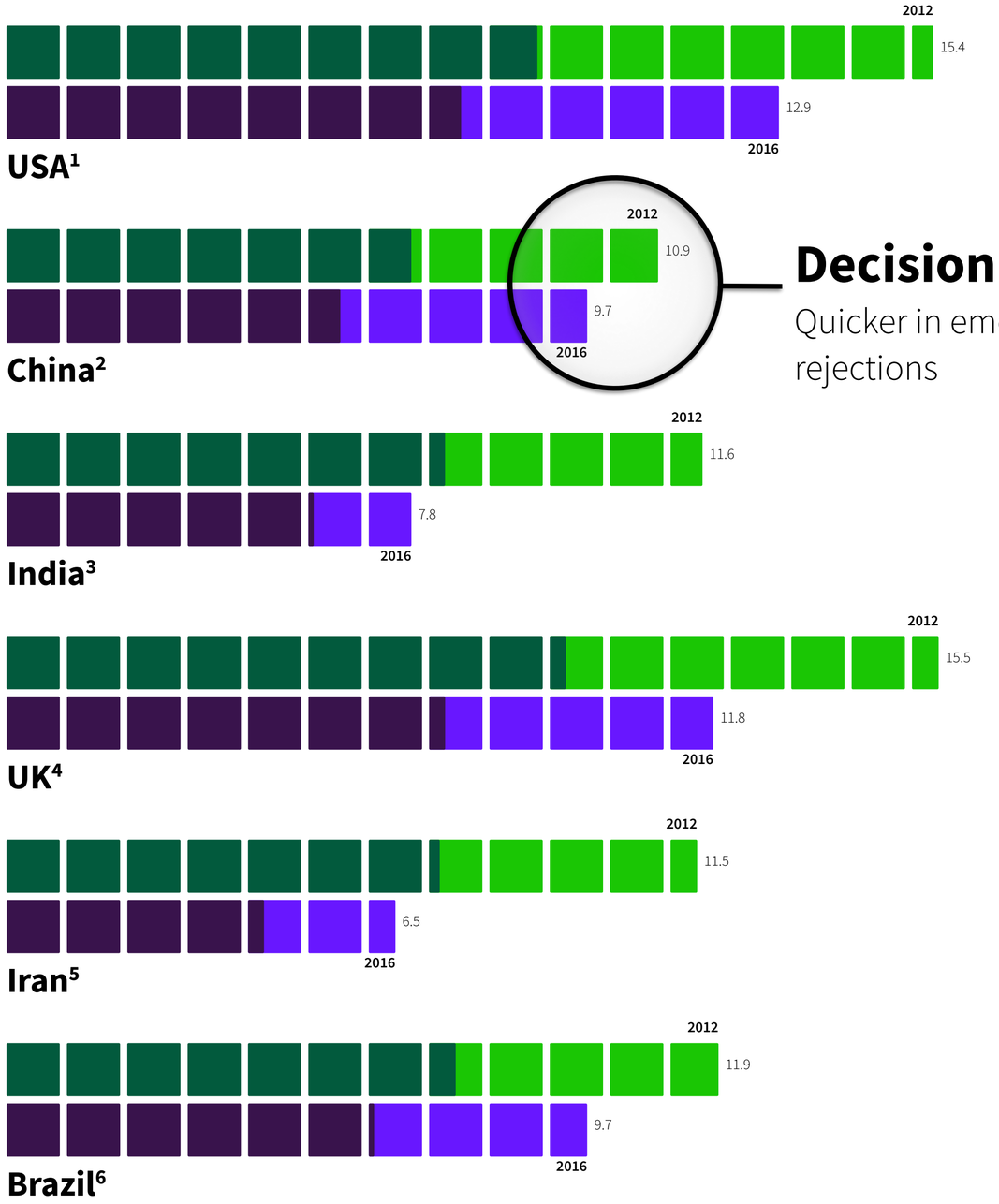
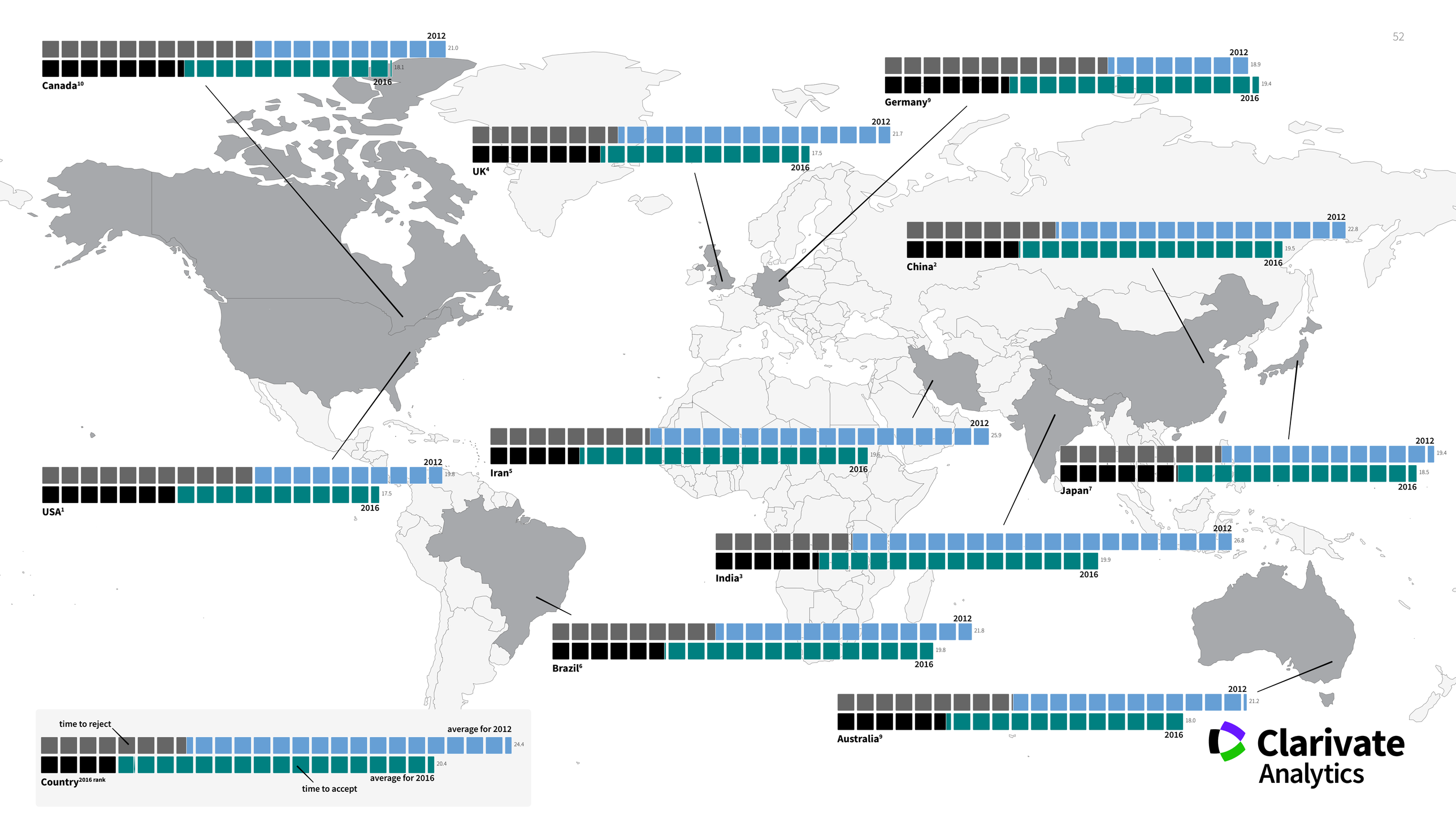


Clarivate Analytics

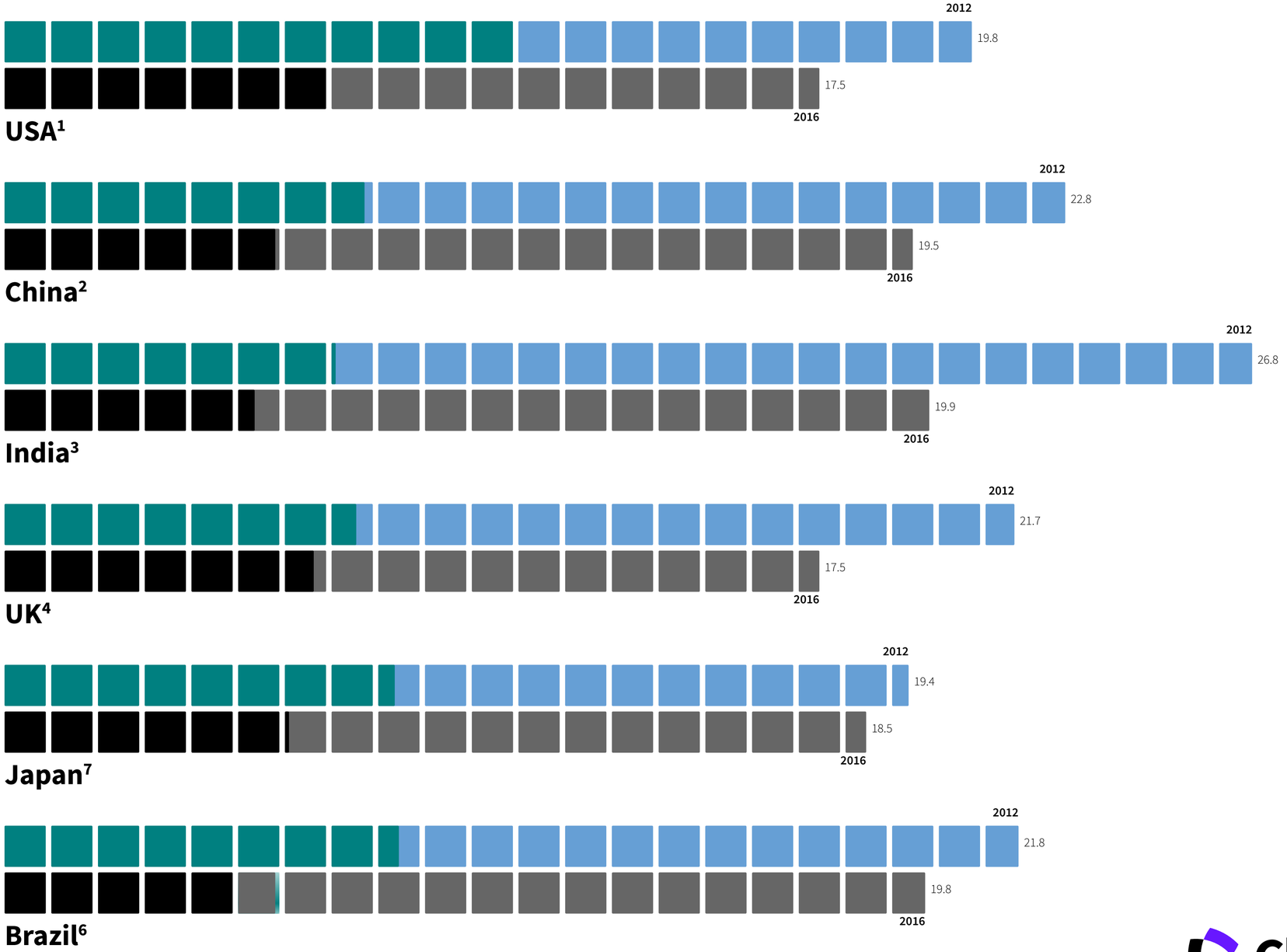


Decision times

Quicker in emerging regions — the effect of immediate rejections



Clarivate Analytics


2012
19.8
17.5
2016
USA[1]
2012
22.8
19.5
2016
China[2]
2012
26.8
19.9
2016
India[3]
2012
21.7
17.5
2016
UK[4]
2012
19.4
18.5
2016
Japan[7]
2012
21.8
19.8
2016
Brazil[6]

Inter-journal transfer

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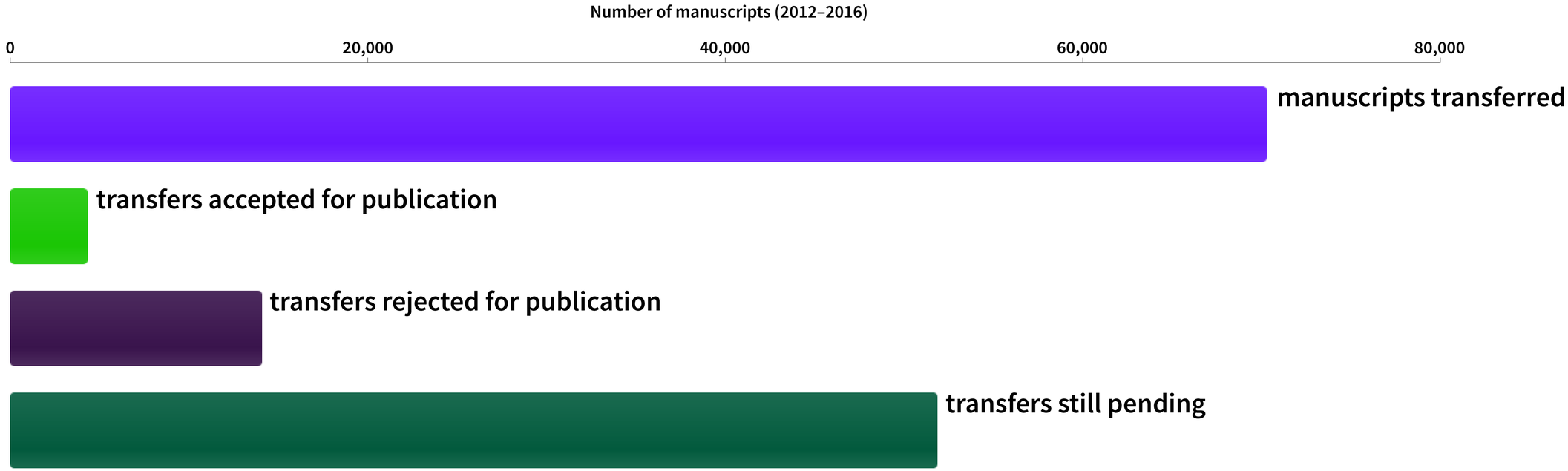
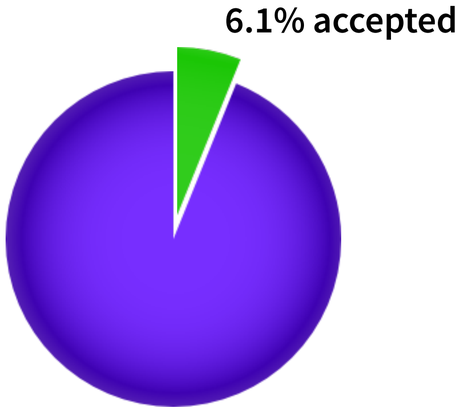
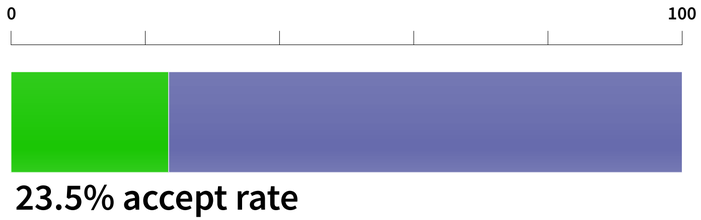

Number of manuscripts (2012–2016)
0
20,000
40,000
60,000
80,000
manuscripts transferred
transfers accepted for publication
transfers rejected for publication
transfers still pending


6.1% accepted


0
100
23.5% accept rate

The fate of rejected manuscripts

Web of Science
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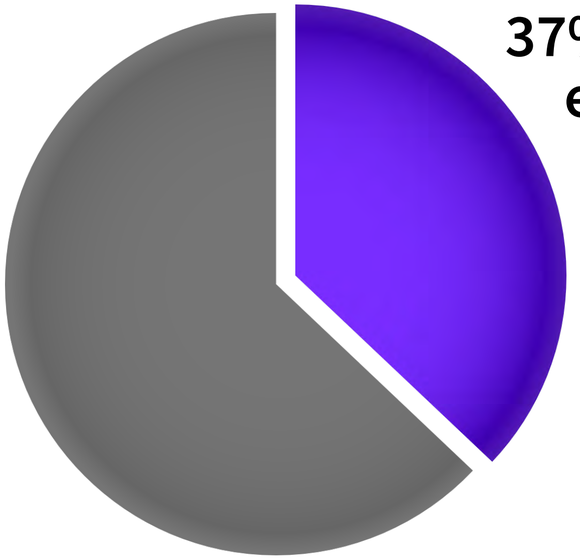
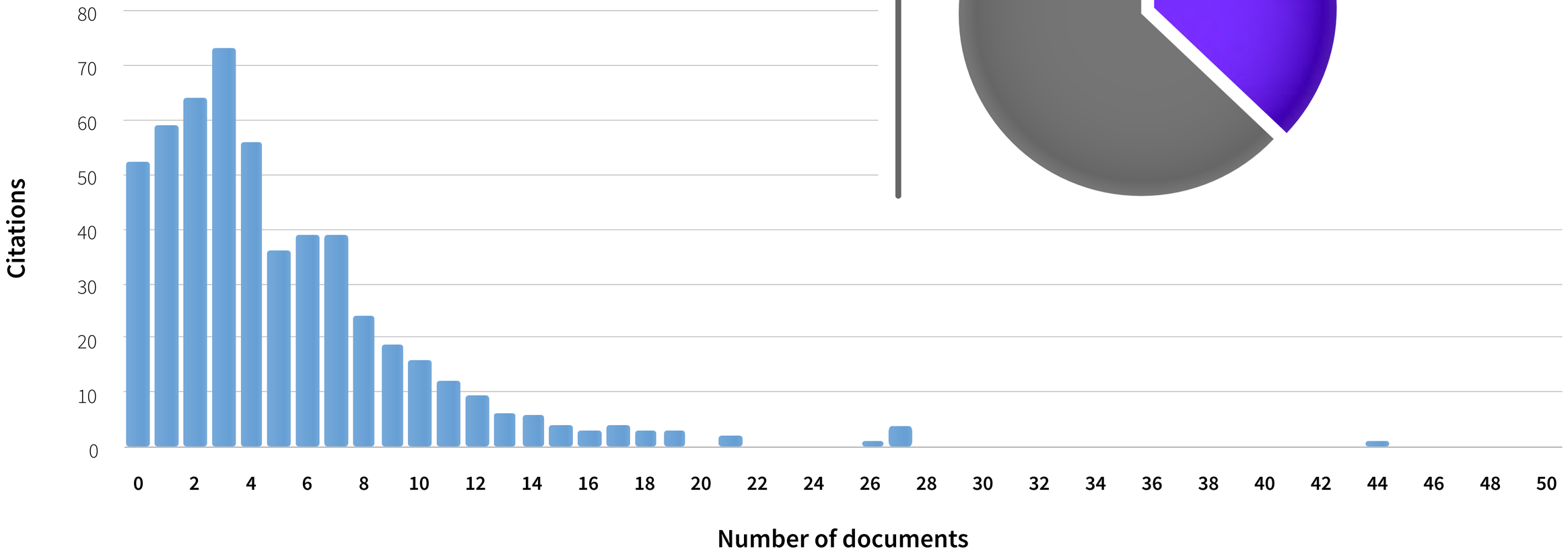
Clarivate
Analytics

cohort of rejections 2014–2016

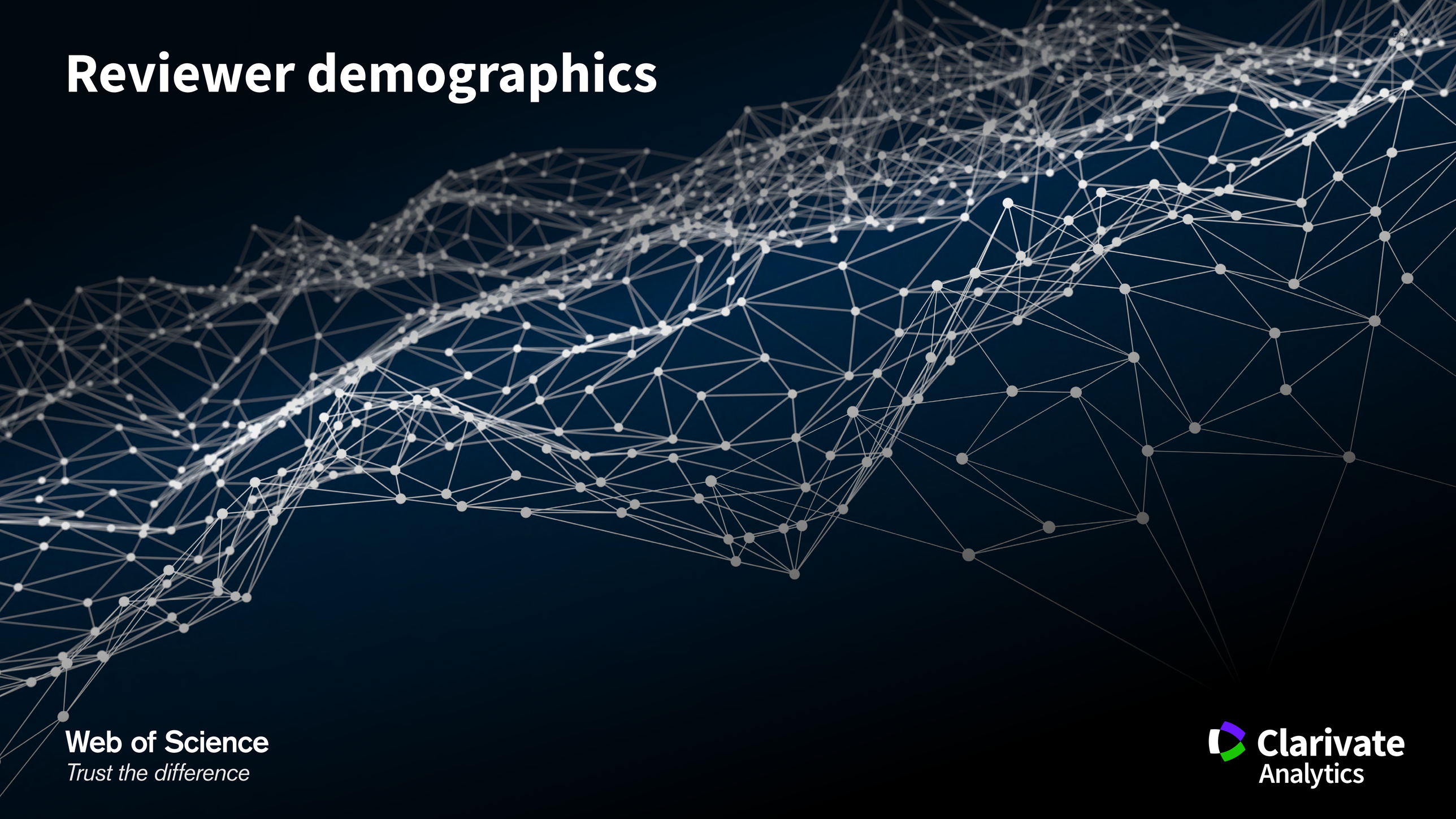


37% published elsewhere

as of April 2017



Reviewer demographics



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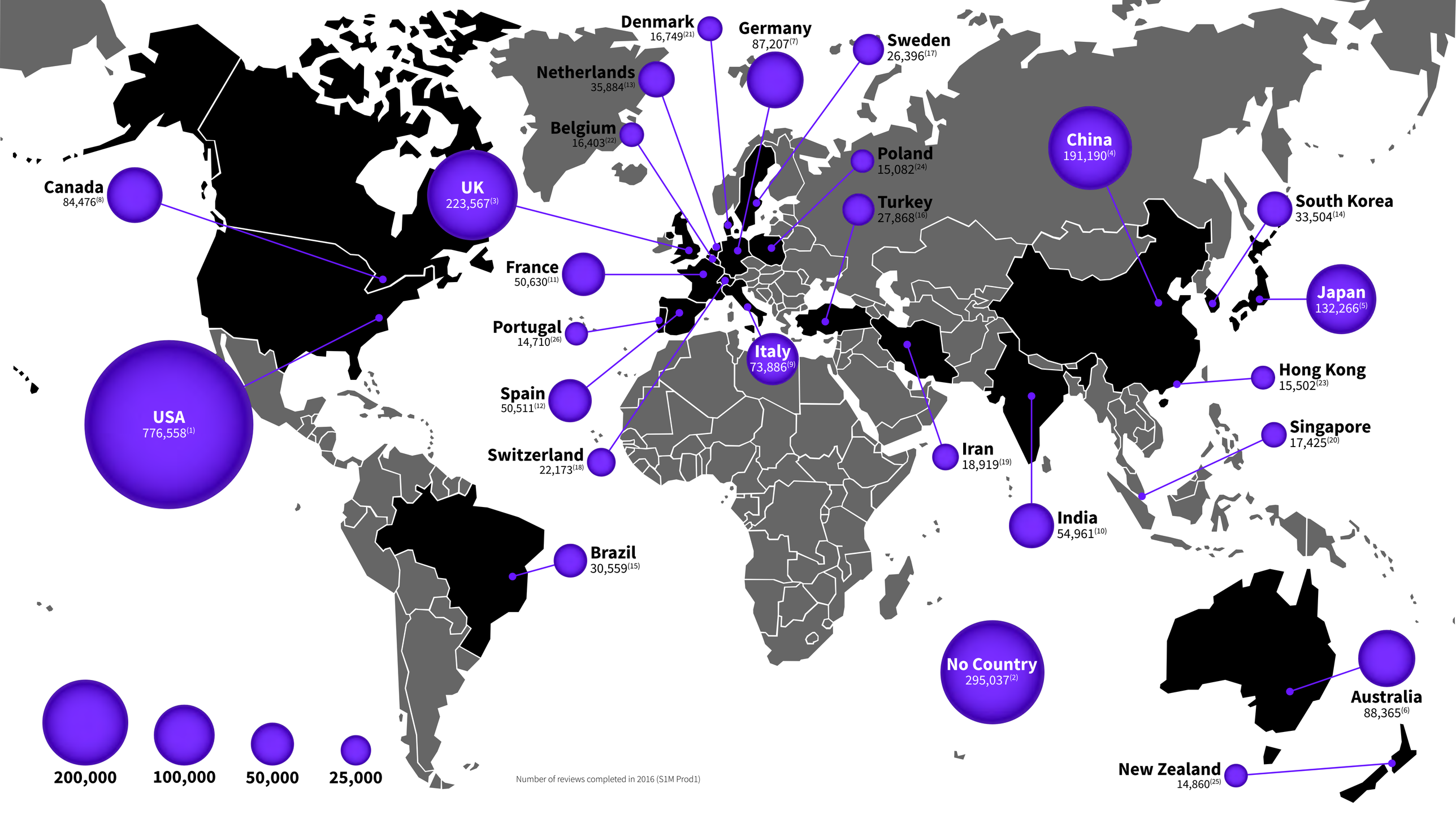

Number of reviews completed in 2016 (S1M Prod1)

How many reviewers are needed?

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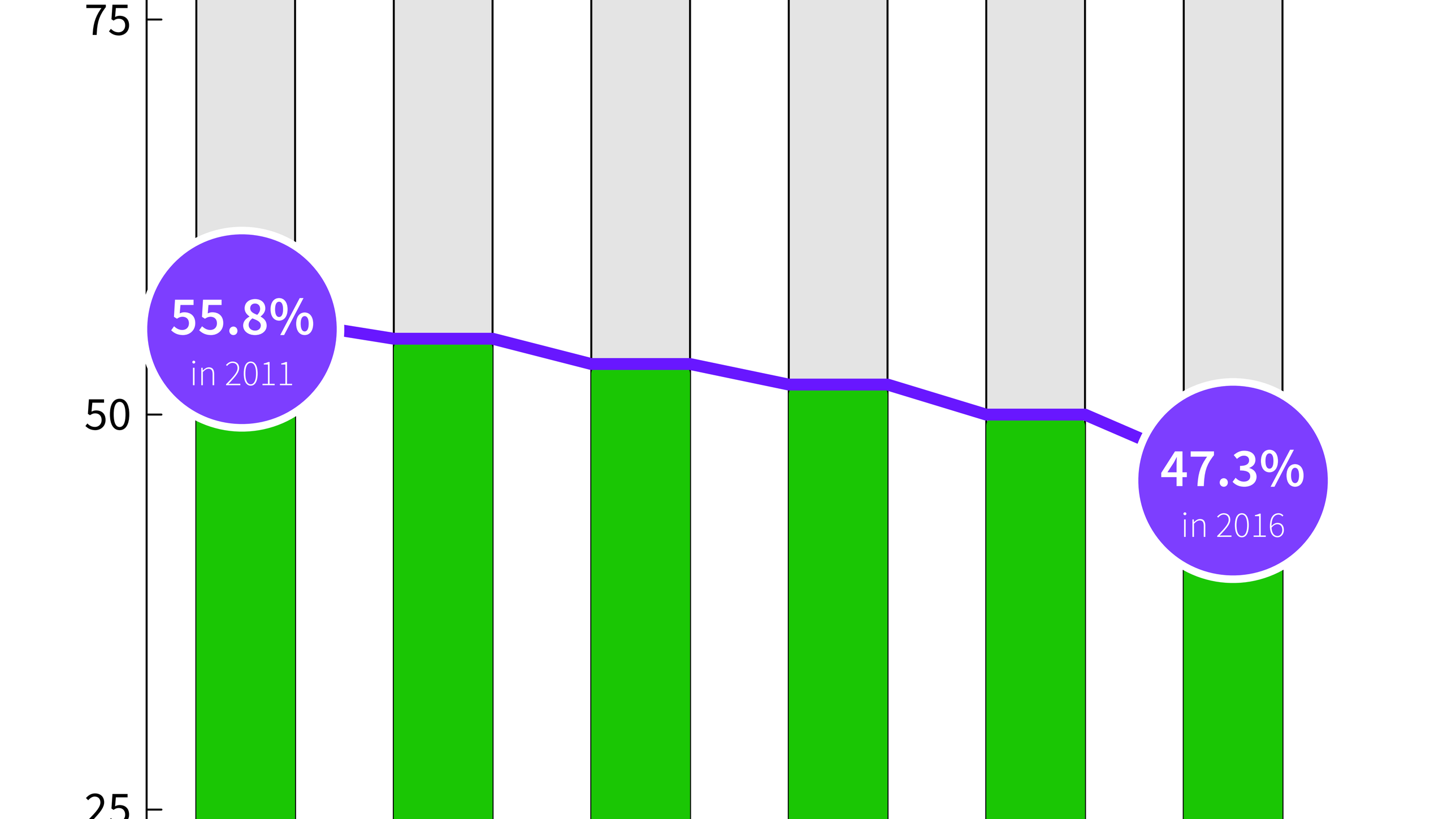
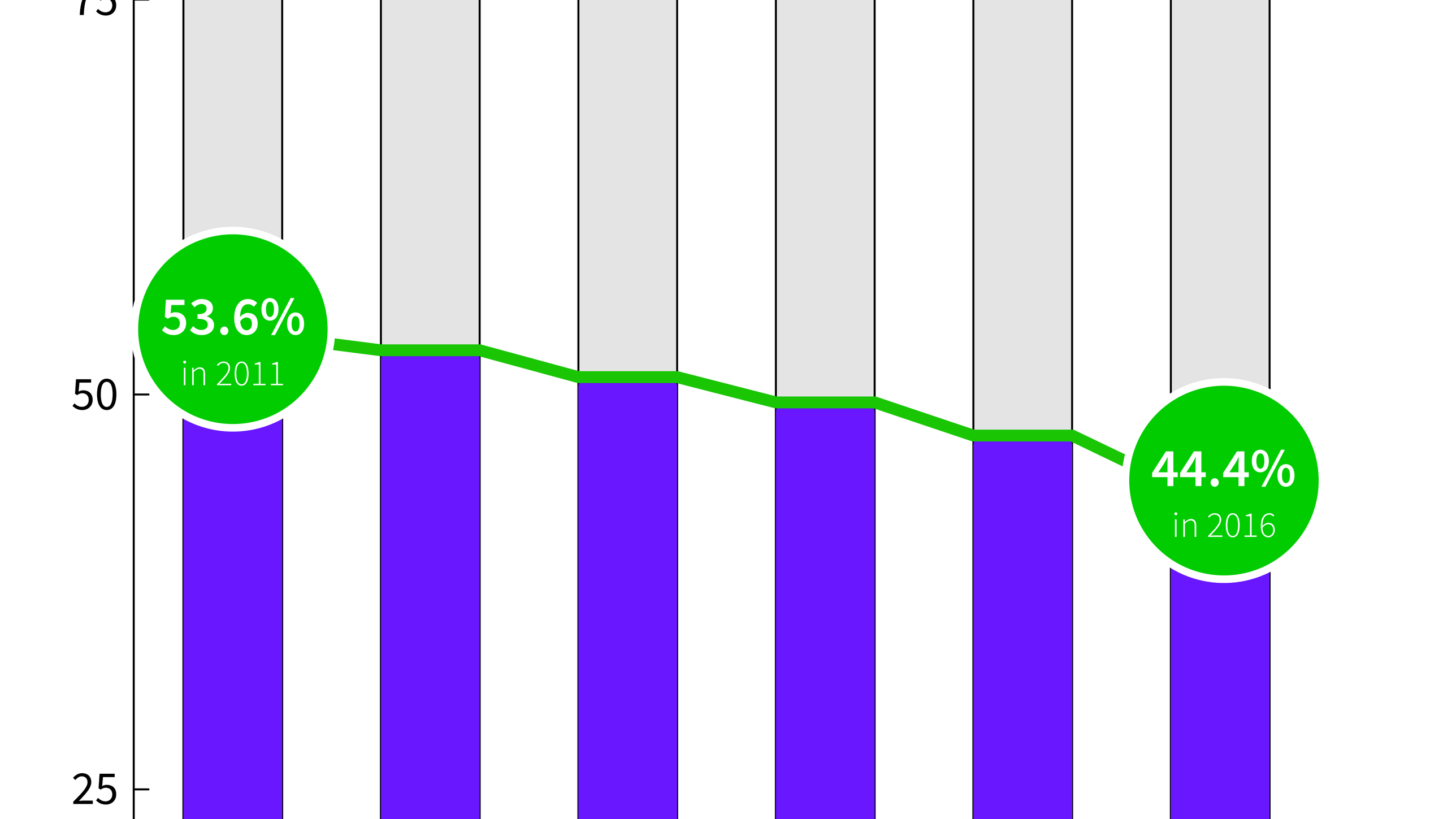
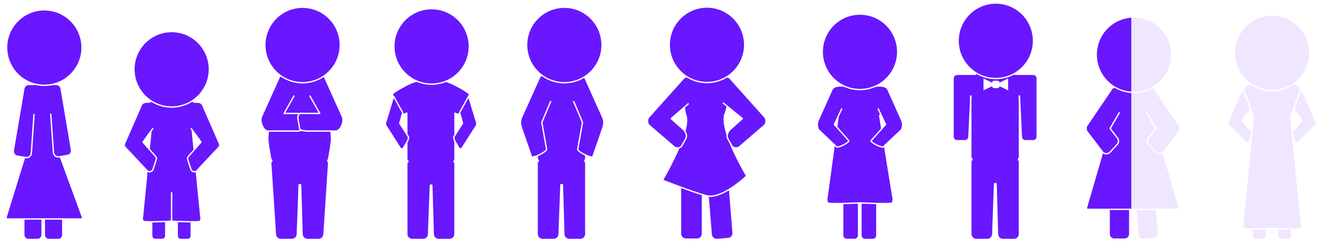

75
50
25
55.8%
in 2011
47.3%
in 2016


75
50
25
53.6%
in 2011
44.4%
in 2016

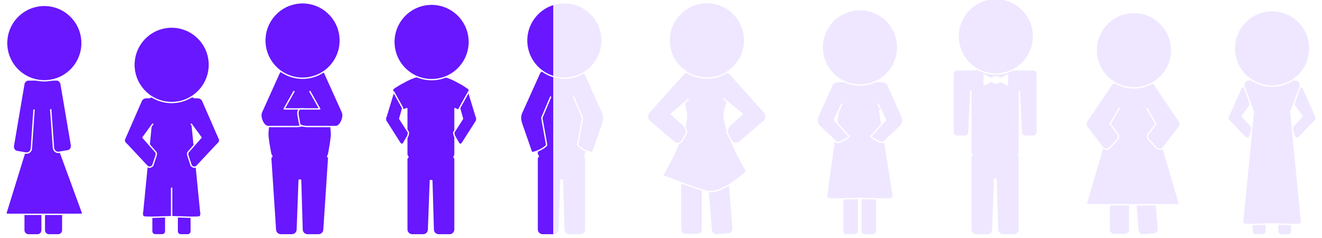
For every 10 reviewers selected...

8.5



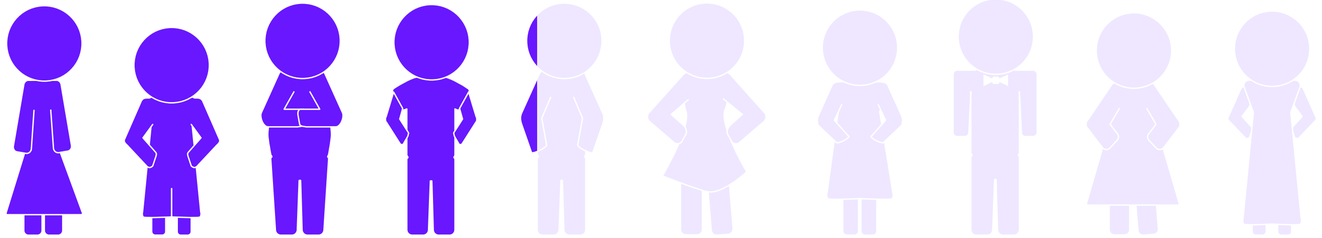
were invited

4.4



agreed to review

4.2



completed their review

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Space Science
5.5

Economics & Business
5.1

Mathematics
4.7

Computer Science
4.5

No Research Field
4.5

Neuroscience & Behavior
4.4

Geosciences
4.4

Physics
4.4

Engineering
4.4

Social Sciences, general
4.3

Plant & Animal Science
4.2

Microbiology
4.1

Psychiatry/Psychology
4.1

Clinical Medicine
4.1

Molecular Biology & Genetics
4.0

Materials Science
3.9

Biology & Biochemistry
3.8

Chemistry
3.8

Pharmacology & Toxicology
3.7

Agricultural Sciences
3.6

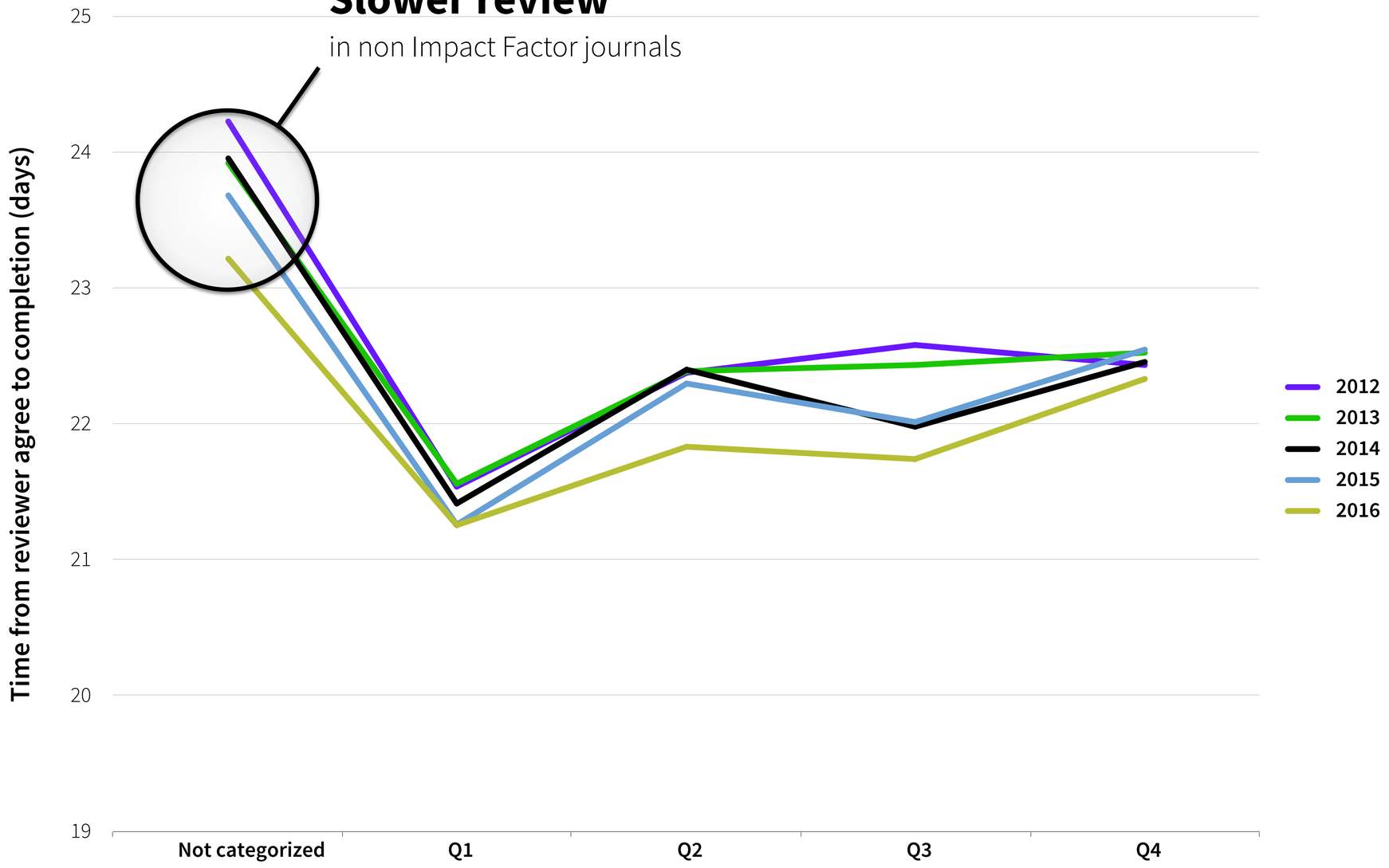
Multidisciplinary
3.5

Environment/Ecology
3.4

All
4.2

Slower review

in non Impact Factor journals



How quickly do they review?

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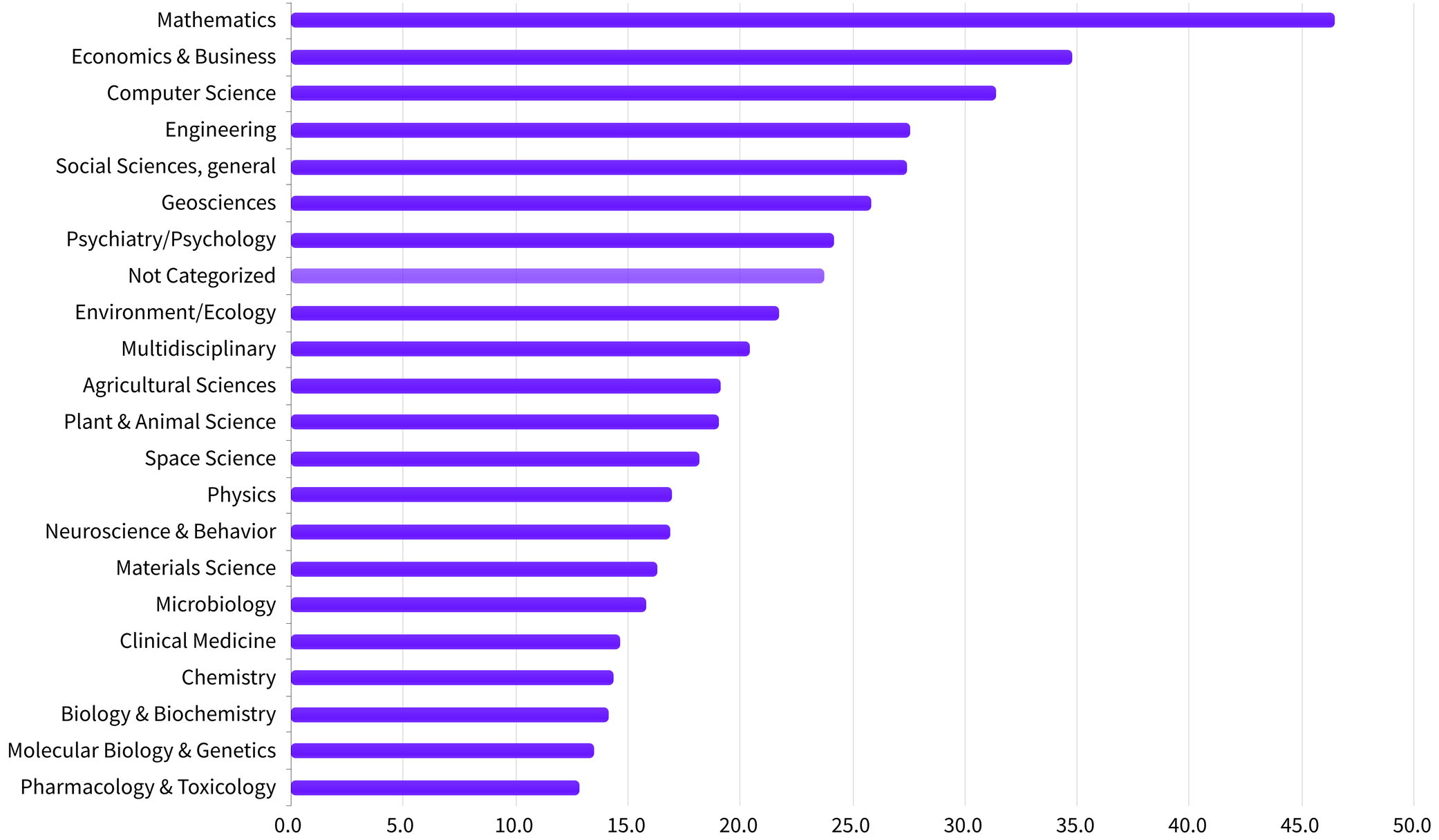
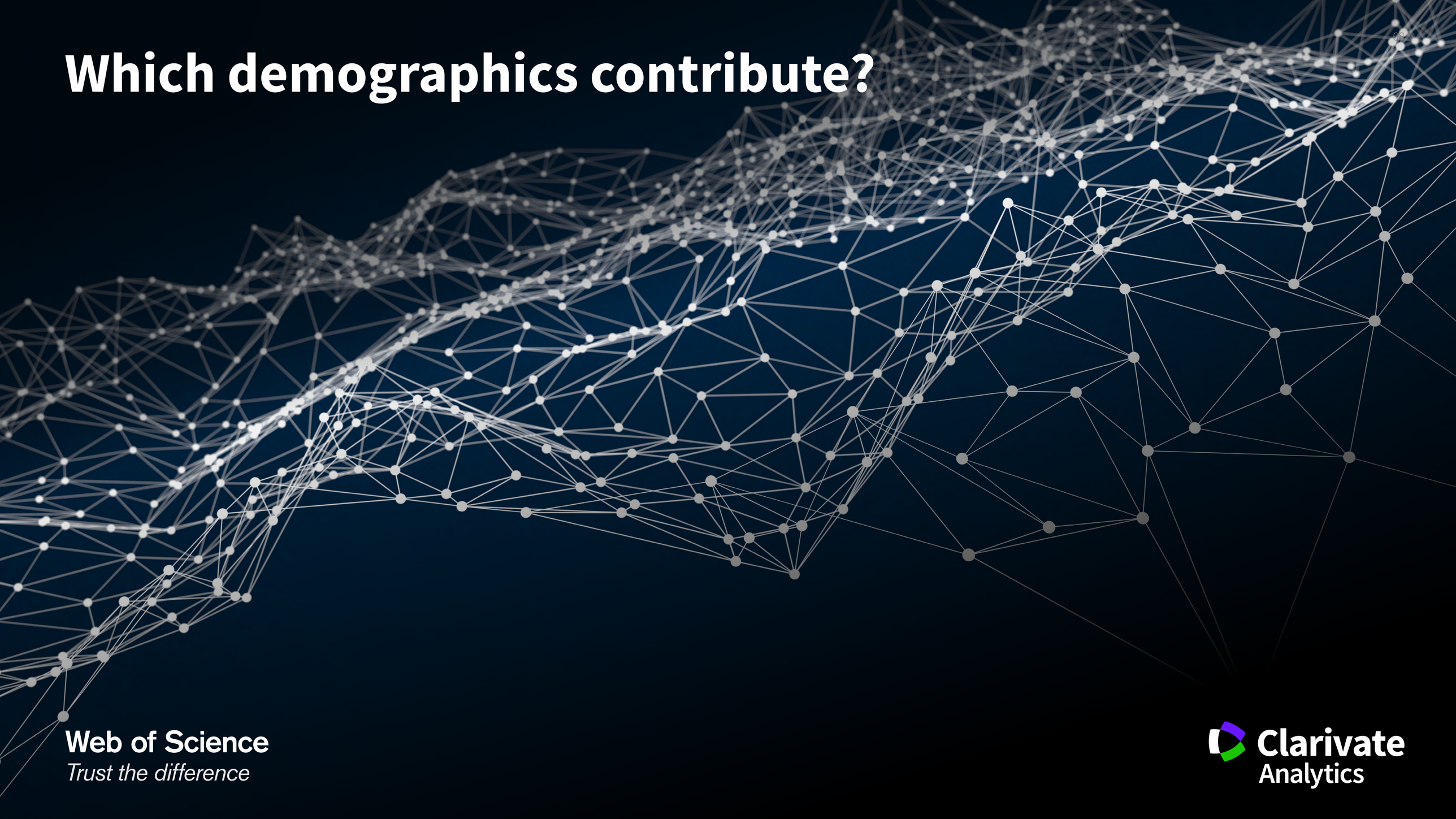

Mathematics
Economics & Business
Computer Science
Engineering
Social Sciences, general
Geosciences
Psychiatry/Psychology
Not Categorized
Environment/Ecology
Multidisciplinary
Agricultural Sciences
Plant & Animal Science
Space Science
Physics
Neuroscience & Behavior
Materials Science
Microbiology
Clinical Medicine
Chemistry
Biology & Biochemistry
Molecular Biology & Genetics
Pharmacology & Toxicology
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0

Which demographics contribute?



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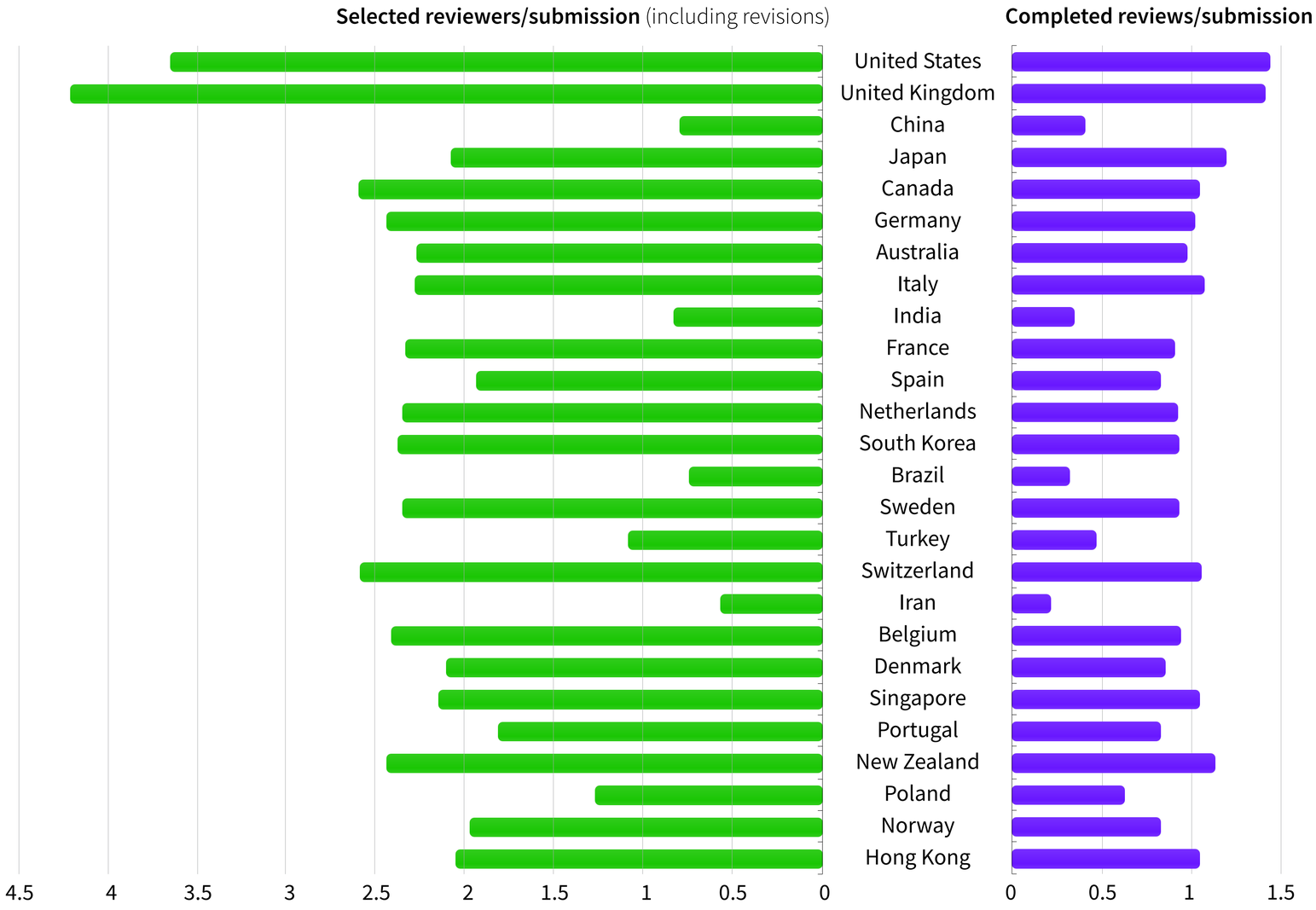
Selected reviewers/submission (including revisions)
Completed reviews/submission
United States
United Kingdom
China
Japan
Canada
Germany
Australia
Italy
India
France
Spain
Netherlands
South Korea
Brazil
Sweden
Turkey
Switzerland
Iran
Belgium
Denmark
Singapore
Portugal
New Zealand
Poland
Norway
Hong Kong
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
0.5
1
1.5

The story so far…

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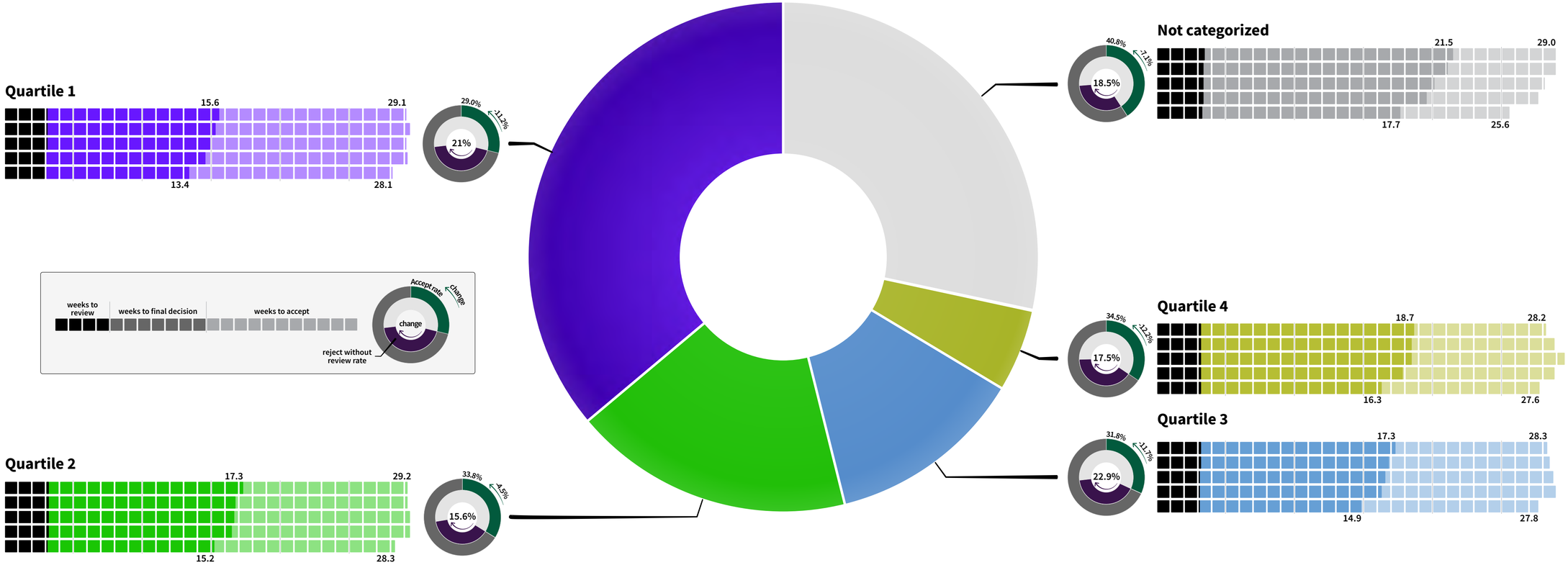
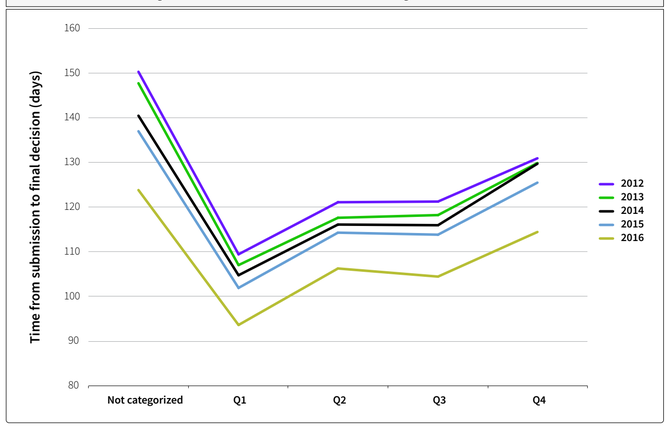
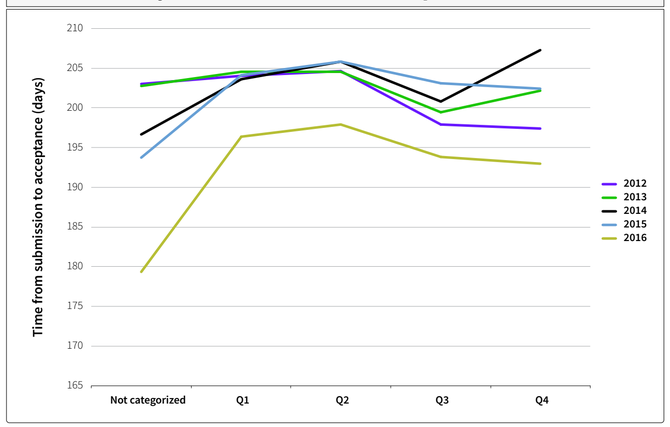
Canada[10]
24.2%
50.3
40.5
44.7%
Submissions
Decision rates
12.9
18.1
Decision times
United Kingdom[4]
18.4%
100.5
84.9
47.3%
Submissions
Decision rates
11.8
17.5
Decision times
Germany[9]
23.3%
52.7
42.7
47.8%
Submissions
Decision rates
12.8
19.4
Decision times
Iran[5]
82.0%
70.1
38.5
12.9%
Submissions
Decision rates
6.5
19.6
Decision times
China[2]
83.5%
336.2
183.2
24.8%
Submissions
Decision rates
9.7
19.5
Decision times
Country
submission rank
submission growth
2016
2012
Submissions ('000s)
accept rate
reject without review rate
Decision rates (%)
first decision to reject
weeks to final decision
to accept
Decision times
USA[1]
22.3%
336.5
275.2
46.5%
Submissions
Decision rates
12.9
17.5
Decision times
Brazil[6]
136.0%
67.8
28.7
25.8%
Submissions
Decision rates
9.7
19.8
Decision times
India[3]
65.3%
122.8
74.3
16.5%
Submissions
Decision rates
7.8
19.9
Decision times
Japan[7]
16.9%
67.4
57.6
45.2%
Submissions
Decision rates
11.9
18.5
Decision times
Australia[8]
39.1%
56.2
40.4
43.6%
Submissions
Decision rates
11.8
18.0
Decision times



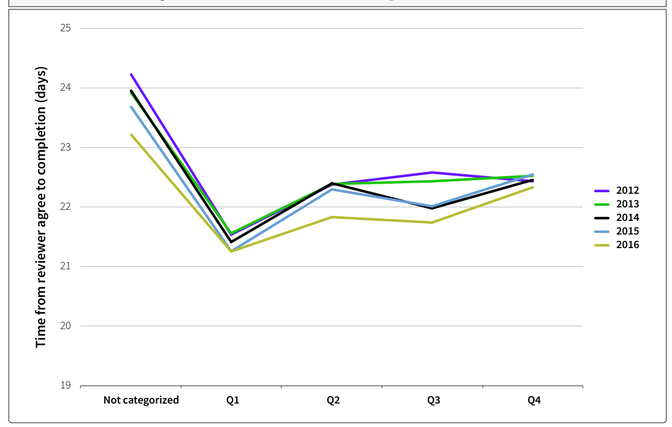
Number of days from submission to any final decision



Number of days from submission to acceptance



Number of days for reviewers to complete their reviews



Submission growth

across the board — concentrated in emerging regions and subjects — but they don't contribute reviewers

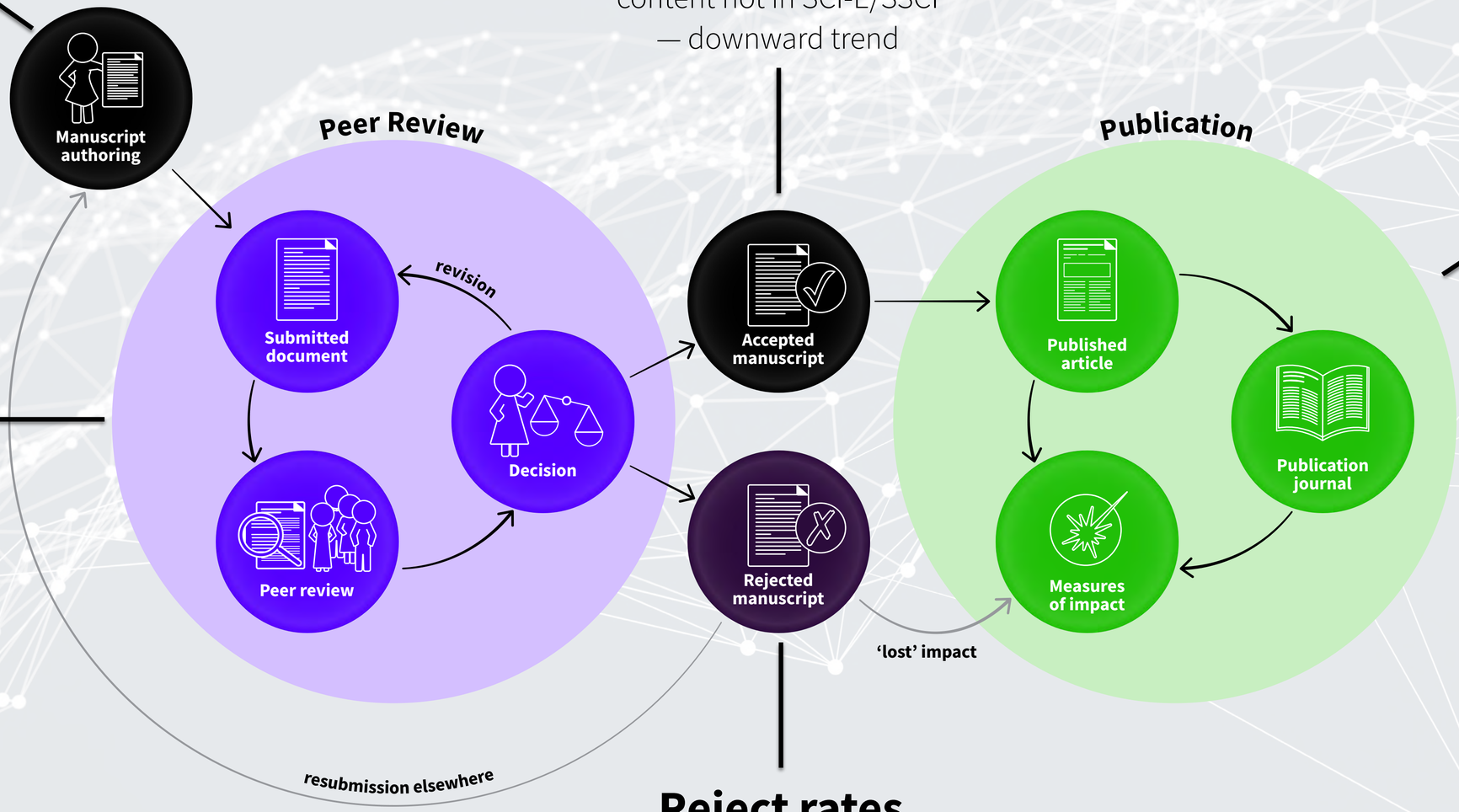
Decision times

vary by subject and faster in upper impact quartiles

Time to accept consistent

Accept rates

higher for gold OA and content not in SCI-E/SSCI — downward trend



Impact

time to final decision quicker in higher quartiles

Accept rates lower in higher quartiles — reject without review rates higher

review quicker in higher quartiles

Rejects

~37% appeared in another title

Reject rates

lower for gold OA and content not in SCI-E/SSCI — upward trend

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