university of groningen

Responsible research performance analysis University of Groningen

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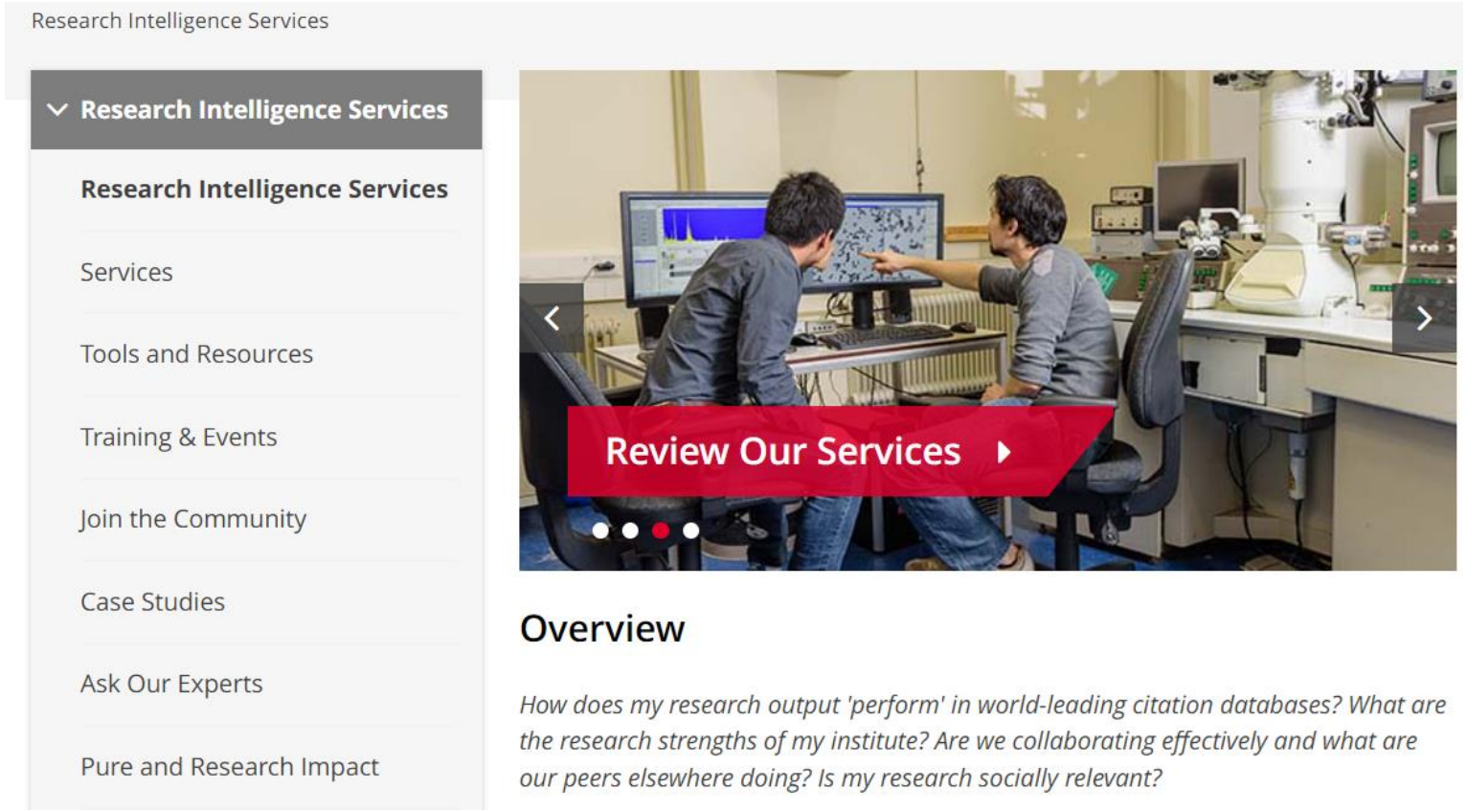
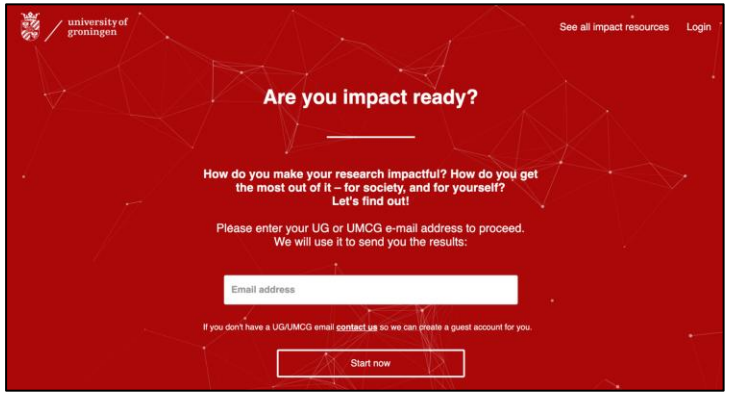
Research Intelligence Services: Who are we?





SciVal

Virtual helpdesk

http://rug.nl/rise

rise@rug.nl

Impact Learning portal

http://learnimpact.rug.nl

Altmetric

Pure

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What do we offer?

Analysis of academic and societal impact for:

- Annual reviews at individual, faculty and institutional level
- Grant applications
- Recruiting top talent & promotion of individuals
- Research strategy for research groups, faculties and the university
- National research assessments (SEP)

Training and workshops on:

- Visibility and Research Impact Strategy
- Tracking academic and societal impact
- Research communication strategy
- Responsible metrics and responsible assessment

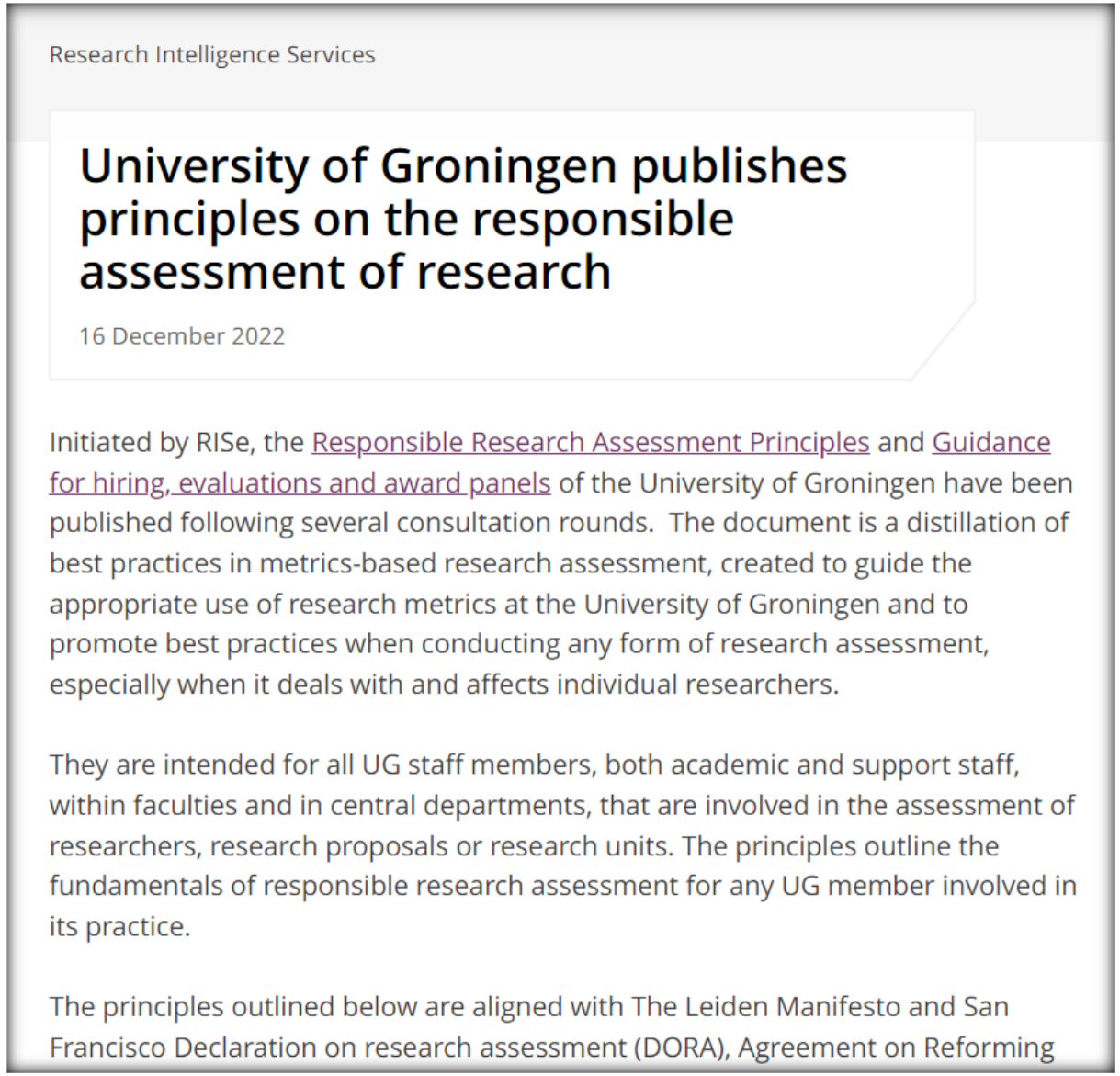
Main users:

Research administrators

Departments heads

Researchers

Responsible Research Assessment Principles
Guidance for hiring, evaluations and award panels



Research Intelligence Services

University of Groningen publishes principles on the responsible assessment of research

16 December 2022

Initiated by RISe, the Responsible Research Assessment Principles and Guidance for hiring, evaluations and award panels of the University of Groningen have been published following several consultation rounds. The document is a distillation of best practices in metrics-based research assessment, created to guide the appropriate use of research metrics at the University of Groningen and to promote best practices when conducting any form of research assessment, especially when it deals with and affects individual researchers.

They are intended for all UG staff members, both academic and support staff, within faculties and in central departments, that are involved in the assessment of researchers, research proposals or research units. The principles outline the fundamentals of responsible research assessment for any UG member involved in its practice.

The principles outlined below are aligned with The Leiden Manifesto and San Francisco Declaration on research assessment (DORA), Agreement on Reforming

- The Leiden Manifesto,
- San Francisco Declaration on research assessment (DORA),
- Agreement on Reforming Research Assessment (CoARA),
- Position paper of the national program for Recognition & Rewards.
- Strategy Evaluation Protocol (SEP) 2021-2027
- University of Groningen Strategic Plan 2021-2026

Practices to avoid

- Do not use metrics designed to evaluate journals as a surrogate measure of article quality or in hiring and promotion decisions, such as:
  - journal name, ranking or Journal Impact Factor,
  - h-index, or
  - number of publications and raw citation counts.
- Do not take a lack of available quantitative data as an indicator of performance.

Responsible practices

- When assessing researchers, consider individual differences and highlights from their entire portfolio of activities and contributions.
  - Ensure a more balanced assessment of researchers by taking into account the diverse contributions they can make in domains from education to research, societal impact, leadership, and patient care.
- When using metrics, make sure to:
  - balance quantitative assessment with expert peer-review,
  - use more than one metric to ensure robustness,
  - use normalized metrics to account for field, date and output type,
  - account for years active in academia when assessing Early Career Researchers.
- If research metrics are used in recruitment, promotion, nominations or other processes, clearly outline this in application documents.

Responsible Research Assessment Principles
Guidance for hiring, evaluations and award panels

We help our clients inform and support their strategic choices with data

Some of the key questions we can help answer:

1. How can we use our strengths to stay a top research organisation in national/global context?
2. How can we strengthen our scientific profile by making connections?
3. How do we recognize and identify top talent?

1. How can we use our strengths to stay a top research institute/university in national/global context?

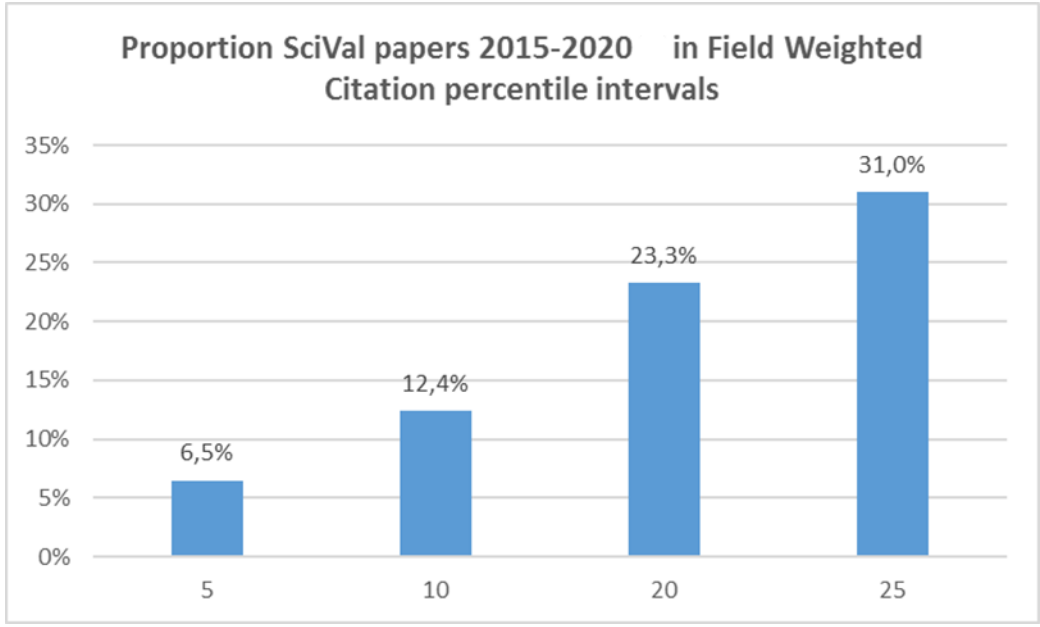
- **Request**: Provide data to support one of our Institute visitation
- **Goal**: Self-evaluation and International benchmark
- **Key findings:**
  - Get visibility into the research activities of the institute
    - Proportion of research in top citation percentiles worldwide
  - Impact and results of OA policy
  - Understand how Institute research contributes to the SDGs
  - Identify research areas where the institute is well positioned compared to national and international key players

Comparison SciVal of closed and four types of OA papers

All papers 2015-2020

OAtype	P	%P	FWCI	NrAuth	FWCI/ Auth	Nr Insts	FWCI/ Inst
Green	749	56.2%	1.26	4.3	0.362	2.8	0.641
none	318	23.9%	1.08	3.7	0.330	2.0	0.663
Hybr gold	145	10.9%	1.10	6.6	0.333	2.8	0.622
Gold	107	8.0%	1.21	6.5	0.200	2.8	0.486
Bronze	13	1.0%	1.24	3.5	0.385	2.1	0.972
Total	**1332**	**100.0%**	**1.20**	**4.6**	**0.338**	**2.6**	**0.635**

% publications belonging to the Top-X% globally most cited papers



1. How can we use our strengths to stay a top research university in national/global context? (cont.)

- **Request**: Provide data to support one of our Institute visitation
- **Goal**: Self-evaluation and International benchmark
- **Key findings:**
  - Get visibility into the research activities of the institute
    - Proportion of research in top citation percentiles worldwide
  - Impact and results of OA policy
  - Understand how Institute research contributes to the SDGs
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Comparison of normalized citation impact
Total publication set vs subsets: 1. OA papers, 2. SDG papers, and 3. co-publications between _. core disciplines

Year	2015	2016	2017	2018	2019	2020	2015-20	Subset / All BI
All _. papers	213	215	226	246	231	201	**1332**	
FWCI	**1.34**	**1.19**	**1.41**	**1.23**	**1.11**	**0.86**	**1.20**	
FWCI/ Auth	*0.385*	*0.372*	*0.392*	*0.328*	*0.301*	*0.248*	*0.338*	
FWCI/ Inst	*0.862*	*0.620*	*0.751*	*0.578*	*0.540*	*0.457*	*0.635*	
OA _. papers	121	169	151	195	203	175	**1014**	**76.1%**
FWCI	**1.37**	**1.26**	**1.67**	**1.19**	**1.16**	**0.87**	**1.23**	**103.1%**
FWCI/ Auth	0.409	0.367	0.451	0.305	0.310	0.249	**0.341**	**100.8%**
FWCI/ Inst	0.898	0.632	0.878	0.462	0.571	0.463	**0.626**	**98.6%**
papers in a SDG	13	19	17	17	25	28	**119**	**8.9%**
FWCI	**1.51**	**1.55**	**3.87**	**0.96**	**1.19**	**1.04**	**1.60**	**133.6%**
FWCI/ Auth	*0.423*	*0.648*	*0.717*	*0.272*	*0.255*	*0.242*	*0.403*	*119.0%*
FWCI/ Inst	*1.167*	*1.033*	*2.108*	*0.649*	*0.594*	*0.379*	*0.902*	*142.1%*
: Copubs	2	3	2	2	1	1	11	0.8%
FWCI	**1.02**	**1.29**	**2.31**	**0.22**	**0.12**	**0.99**	**1.10**	**91.6%**
FWCI/ Auth	*0.208*	*0.322*	*0.329*	*0.073*	*0.017*	*0.330*	*0.230*	*68.1%*
FWCI/ Inst	*0.508*	*0.429*	*1.153*	*0.147*	*0.060*	*0.990*	*0.541*	*85.2%*

Comparison SciVal metrics Global, European and German Top-5 largest Institutions in their core area.

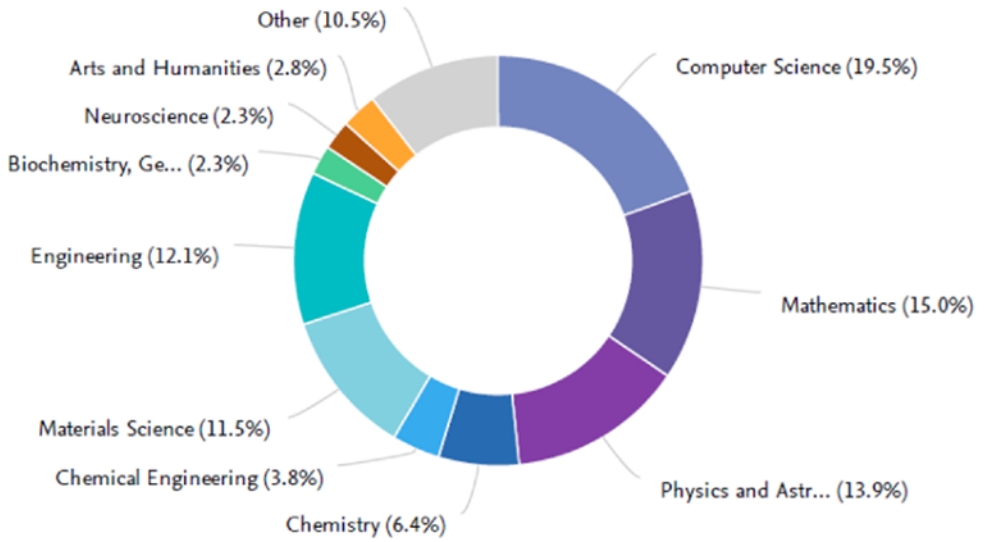
Instit	Country	#Pubs	Rnk P	#Cites	Rnk C	avg FWCI	Rnk FWCI	avg FWCI / Auth	Rnk FWCI /Auth
Top-5 World (Academic sector)									
Southeast University, Nanjing	China	435	2	7003	2	1,61	4	0,425	8
Beihang University	China	434	3	8550	1	1,85	1	0,542	3
University of Groningen	**NL**	**308**	**4**	**2285**	**8**	**1,07**	**10**	**0,382**	**9**
Northeastern University China	China	262	6	3329	4	1,44	5	0,518	4
Shanghai Jiao Tong University	China	254	7	2631	5	1,01	12	0,304	13
Top-5 Europe (All sectors)									
CNRS (Governmental)	France	739	1	5047	3	0,98	13	0,330	12
University of Groningen	**NL**	**308**	**4**	**2285**	**8**	**1,07**	**10**	**0,382**	**9**
KTH Royal Institute of Technology	Sweden	231	8	2319	6	1,38	6	0,433	7
Université Paris-Saclay	France	184	9	1335	10	1,1	9	0,370	11
Delft University of Technology	NL	173	10	2305	7	1,75	3	0,563	2
Top-5 Germany (All sectors)									
Technical University of Munich	D	148	11	1215	11	1,8	2	0,651	1
Ludwig Maximilian University of Munich	**D**	**58**	**12**	**259**	**14**	**1,32**	**7**	**0,499**	**5**
Max Planck Institute for Dynamics of Complex Technical Systems	D	55	13	434	12	1,21	8	0,466	6
Technical University of Berlin	D	46	14	249	15	0,78	14	0,280	14
University of Freiburg	D	37	15	380	13	0,78	14	0,149	15

2. How can we strengthen our scientific profile by making connections?

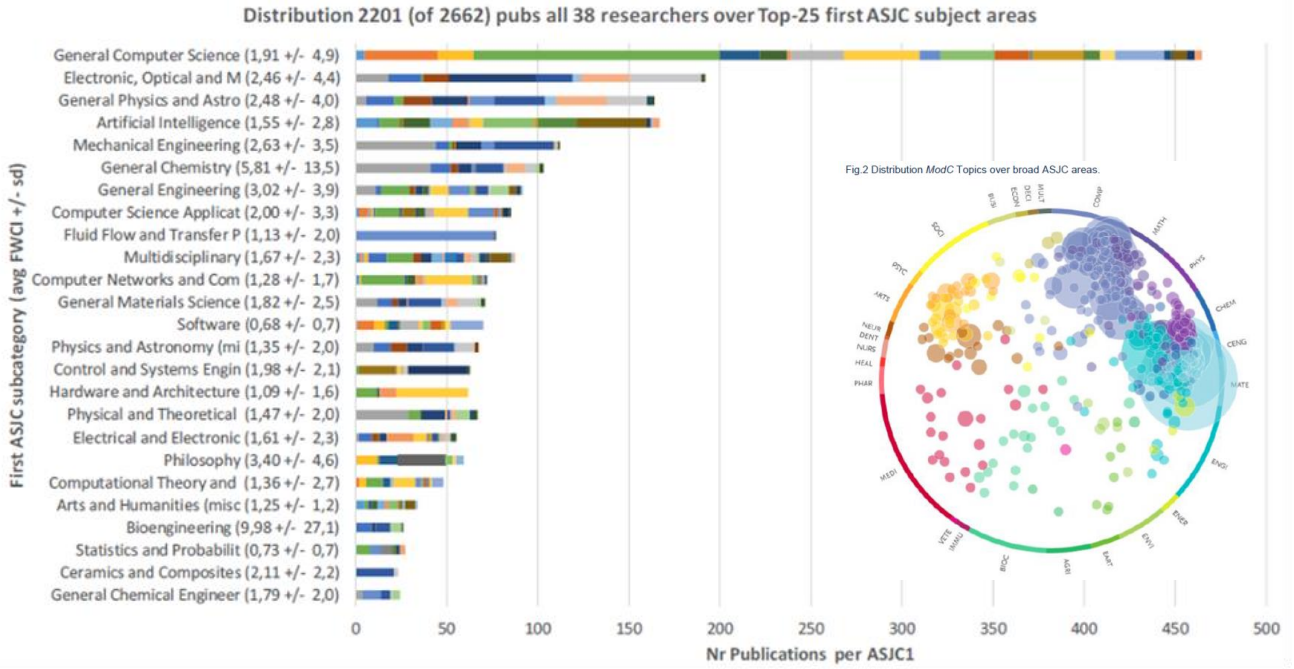
- **Request:** Provide evidence to support a grant proposal
- **Goal:** Evaluating interdisciplinarity and complementarity of a research consortium
- **Key findings:**
  - Level of interdisciplinarity and complementarity of the consortium members
  - Showcase greater academic impact of the consortium vs national average

Interdisciplinarity

Fig.1 Distribution publications over broad ASJC areas.



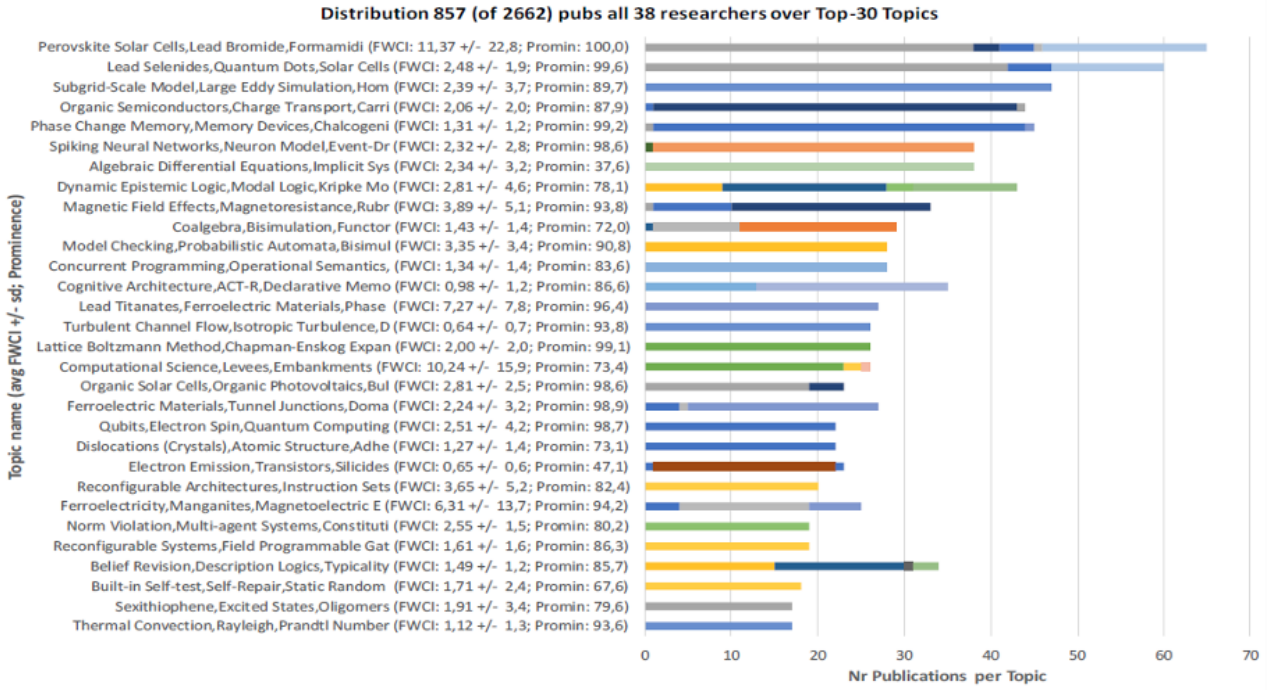
Interdisciplinarity



2. How can we strengthen our scientific profile by making connections? (cont.)

- **Request:** Provide evidence to support a grant proposal
- **Goal:** Evaluating interdisciplinarity and complementarity of a research consortium
- **Key findings:**
  - Level of interdisciplinarity and complementarity of the consortium members
  - Showcase greater academic impact of the consortium vs national average

Complementarity



Academic impact

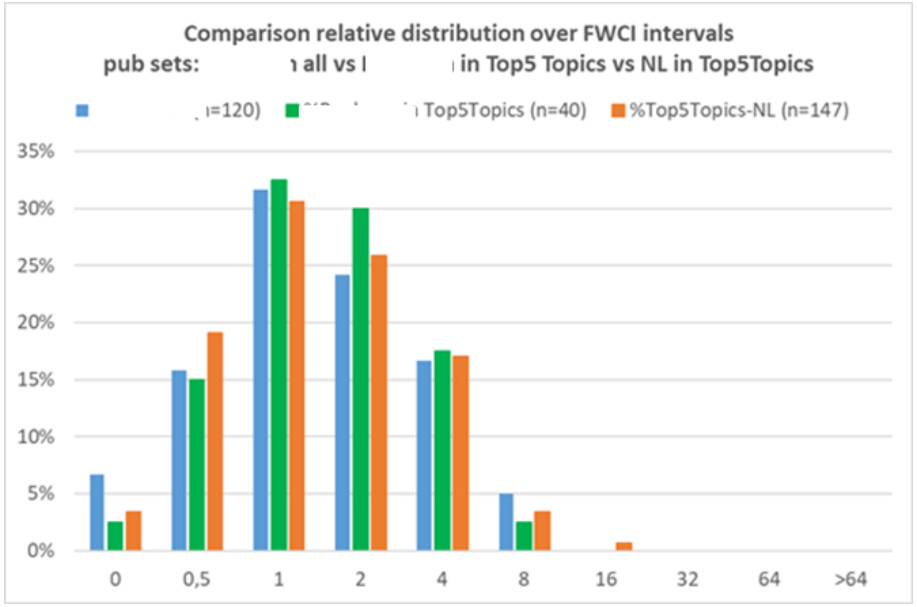
Period	Pubset	avgFWCI	sdFWCI	Nr Pubs	% of Cons Pubs	% of Top26 NL Pubs
1996-2019	Consortium	2,13	5,09	2662	100,0%	
	Top26topics Cons	3,18	8,12	725	27,2%	
2010-2019	Consortium	2,08	5,66	1651	100,0%	128,7%
	Top26topics Cons	3,22	8,76	597	36,2%	46,5%
	Top26topics NL	2,68	5,06	1283	77,7%	100,0%
	of which Cons	2,81	5,40	281		21,9%
	non-Cons	2,64	4,96	1002		78,1%

3. How do we recognize top talent?

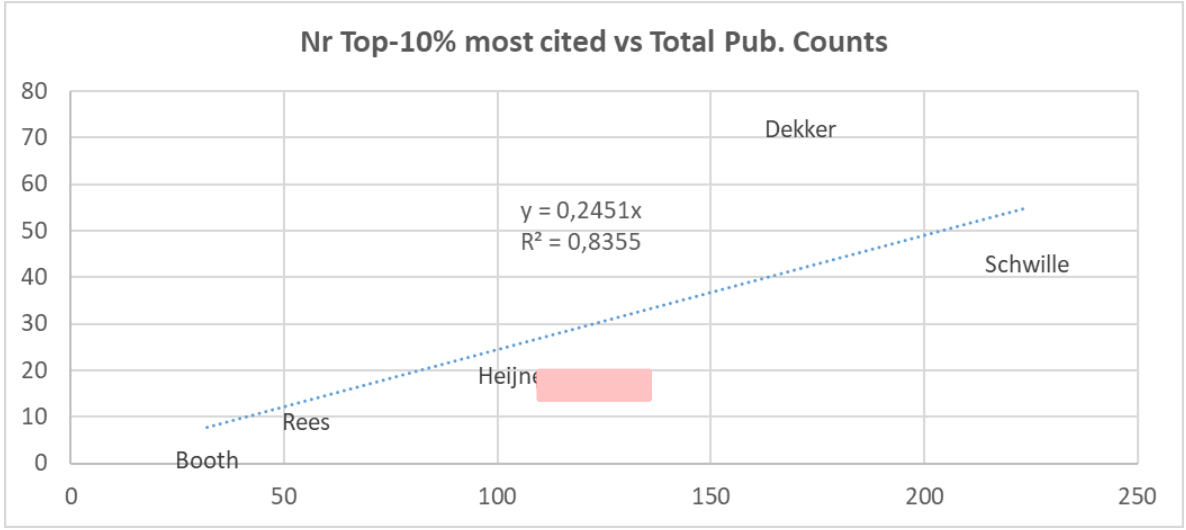
Bibliometric analysis

- **Request**: Analysis of the international 'position' of a senior researcher
- **Goal:** Support nomination of a researcher for the Royal Decoration award.
- **Key findings:**
  - Showcase the expertise of a researcher
  - Multiple quantitative research performance indicators complement and support the qualitative assessment
  - International standing in candidate's core research areas

Unique Topic name	Tnr	NrPub's
Crowding,Proteins,Crowding agent	15139	12
P-Glycoprotein,ATP-Binding Cassette Transporters,Nucleotide binding	925	11
Lactococcus lactis,Bacteria,Recombinant L	11629	6
Betaine,Salts,Compatible solute	11650	6
Nuclear Pore,Nuclear Pore Complex Proteins,Complex NPC	6099	5
N-Acetylneuraminic Acid,Sialic Acids,Carrier Proteins	54726	4
Ion Channels,Membranes,Mechanosensitive channel	18462	4
Membrane Proteins,Escherichia coli,Integral membrane	24465	3
Micronutrients,Thiamine,ATP-binding cassette	76268	3
Proteins,Protein Transport,Membrane insertion	7479	3

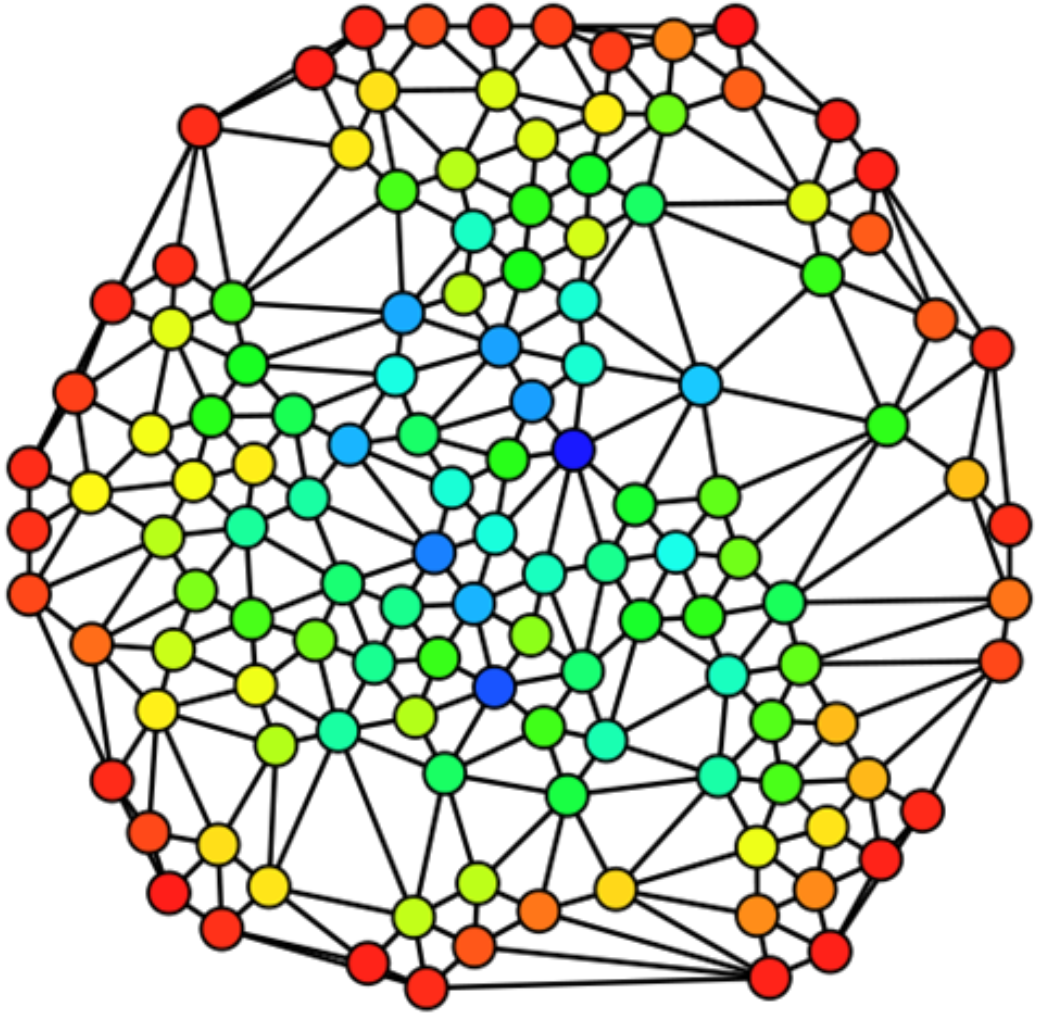


Comparison of our researcher with his closest peers



ALTMETRICS

Indicators of attention research gets outside of academic publications



https://www.slu.se/en/subweb/library/publish-and-analyse/bibliometrics/altmetrics/

How do we identify top talent?

Societal attention analysis

- **Request**: An analysis of job candidate's wider scholarly profile
- **Goal:** Provide additional evidence on candidate's impact in and outside of academia.
- **Key findings:**
  - If and how candidate utilizes their specialization in research to address a topics that are societally relevant
  - To what extent the candidate is active in and strategic about scholarly communication.
  - Whether the candidate engages with policy-makers, inventors, members of the press or wider audiences.

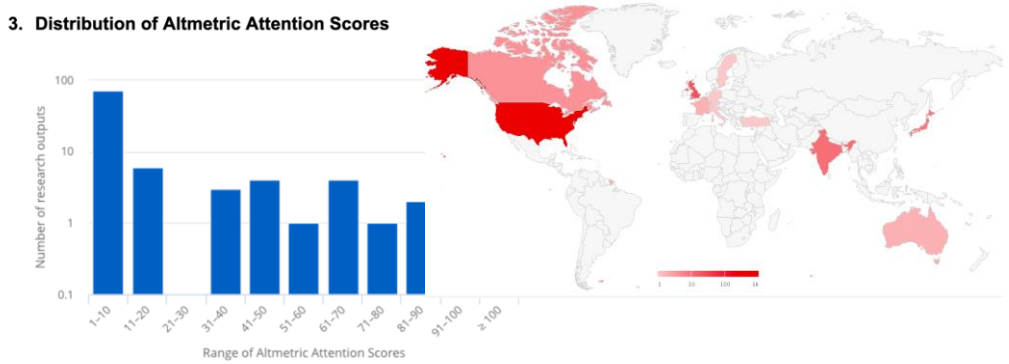
1. Coverage

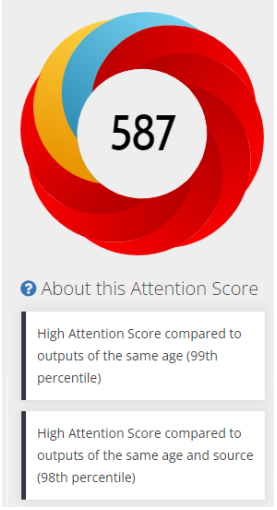
	n	%
Total outputs associated with ORCID	**472**	
Of which journal articles	338	
Total outputs tracked by Altmetric	**152**	32% of total in ORCID
Total outputs with societal mentions	**104**	68% of total tracked

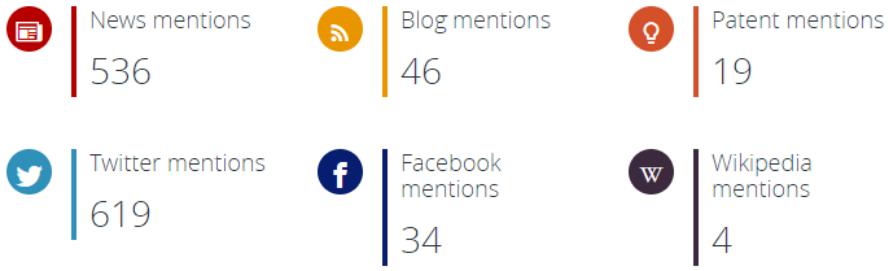
2. Overview of attention

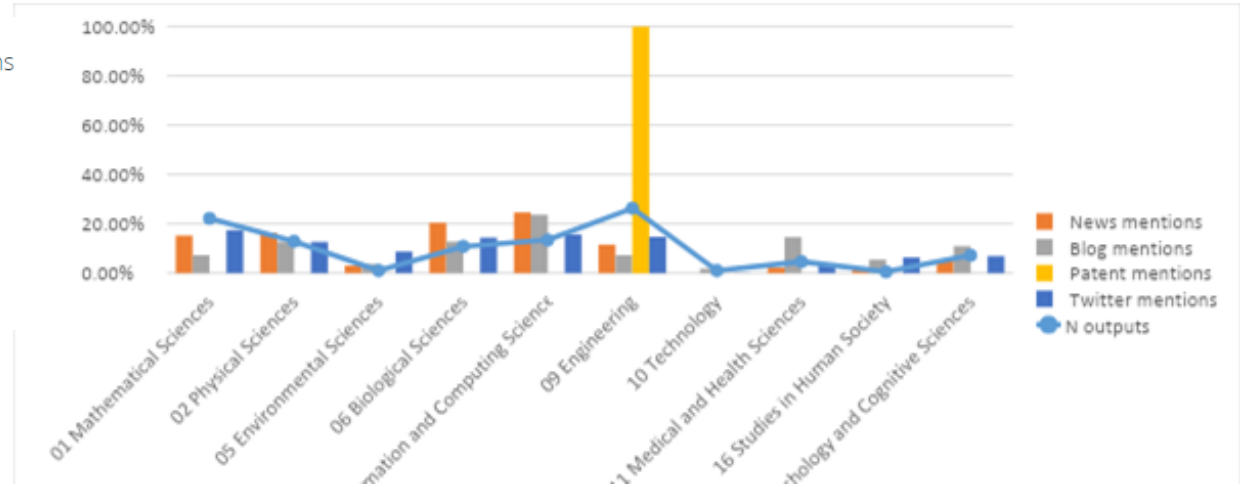
N outputs tracked	% outputs with mentions	% outputs top 5% attention score	% outputs top 25% attention score
152	68%	18%	27%

3. Distribution of Altmetric Attention Scores









Thank you!

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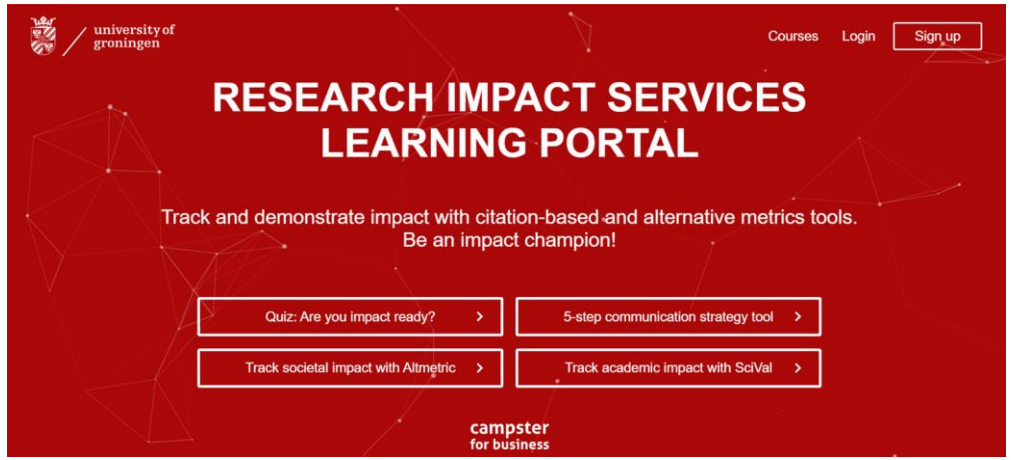

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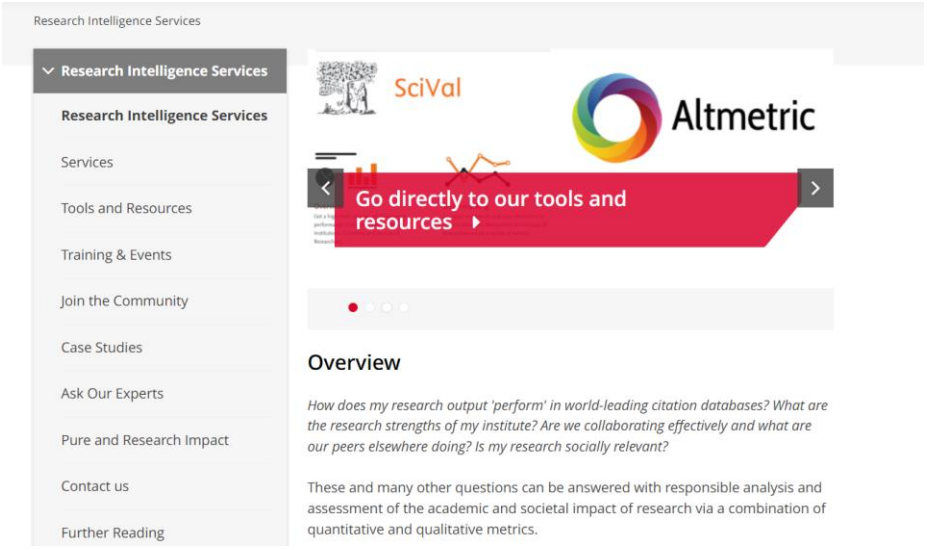
Altmetric