Data-Driven Approaches to Enhance Research Strategy and Partnerships

- an Elsevier Perspective

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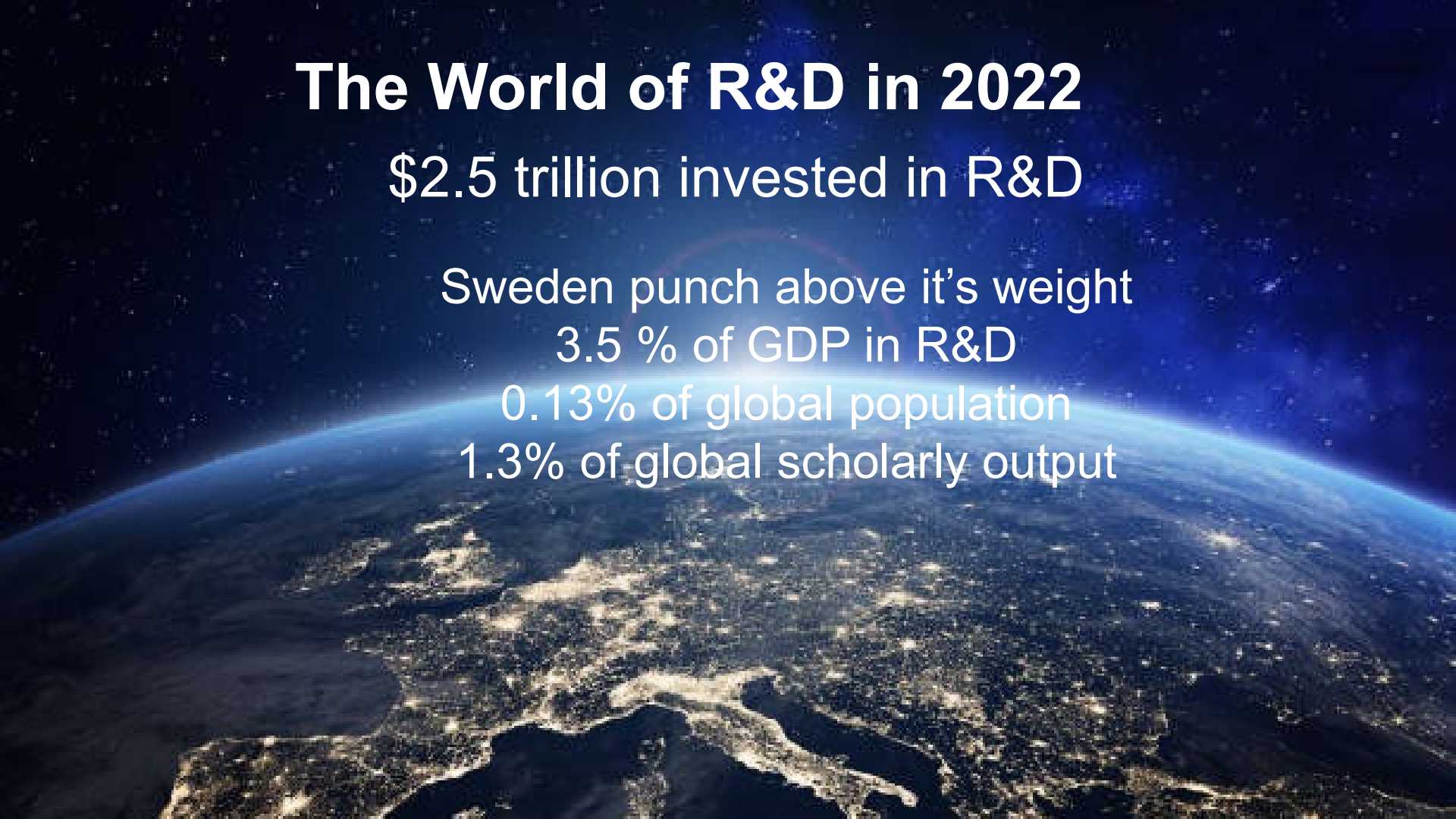
with support from
Yuhri Ishizaki, Global Strategic Networks

UIDP Europe, June 13, 2023


The World of R&D in 2022
$2.5 trillion invested in R&D
Sweden punch above it's weight
3.5 % of GDP in R&D
0.13% of global population
1.3% of global scholarly output

Content of Talk

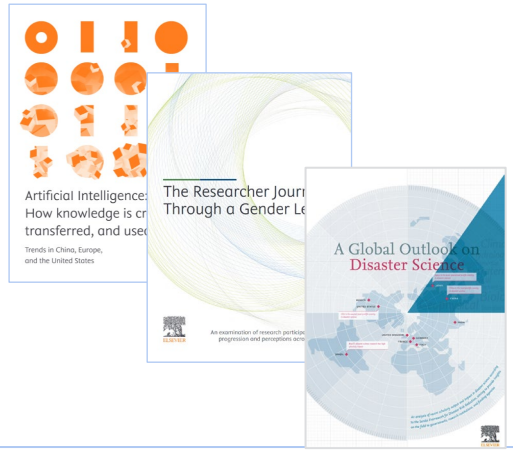
- “Not just a publisher” – introducing Elsevier
- Analytics around Swedish Institutions
- Benchmarking competitiveness of cities

Elsevier at a glance

Elsevier has partnered with the science community for 140 years to curate and verify knowledge. Now, growing from our roots in publishing, we provide analytical solutions to serve the needs of science, technology and health.
As an **information analytics business**, we provide solutions and digital tools for strategic research management, R&D performance, clinical decision support and more.

Primary Publishing

Analytics for decision makers

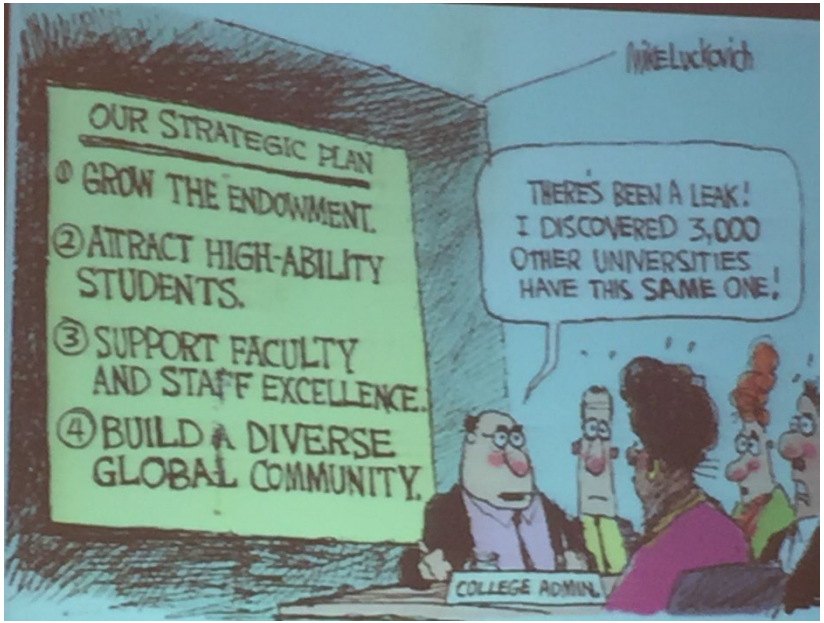


Partnerships for the SDGs

www.elsevier.com/about/partnerships

Research Intelligence for Assessment & Strategy

University Research Strategy



- Know & build your strengths
- Know who to partner with
- Execute and follow-up!

Poll 1:

Do you feel you know all your institutions data with respect to Industry-Academia collaborations?

If Yes, raise your hand!

All for one, One for all… Stockholm Trio

Overview of Research by Stockholm Trio 2017-2021

Outputs in Top Citation Percentiles

Publications in top 10% most cited worldwide

Show as field-weighted

Stockholm Trio

18.5%

Publications in Top Journal Percentiles

Publications in top 10% journals

by CiteScore Percentile

Stockholm Trio

42.8%

International Collaboration

Publications co-authored with Institutions in other countries/regions

Stockholm Trio

68.3%

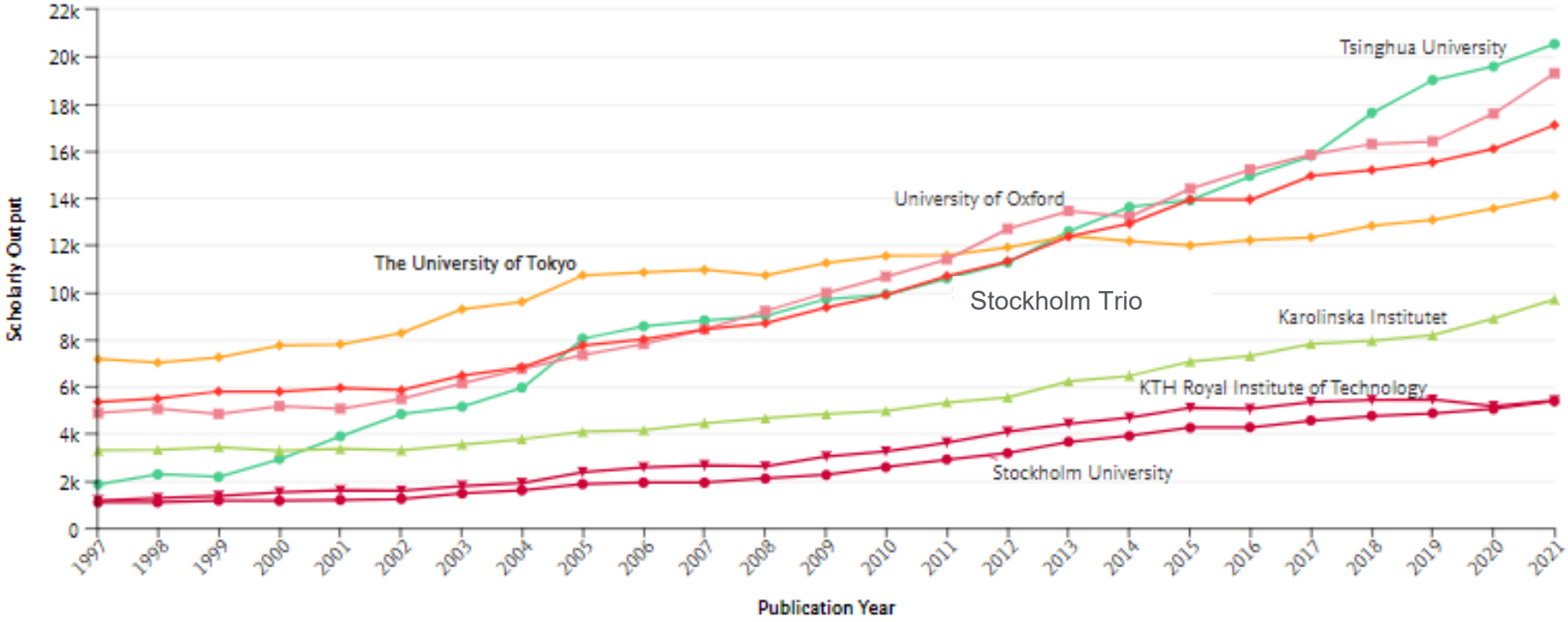
Academic-Corporate Collaboration

Publications with both academic and corporate affiliations

Stockholm Trio

7.4%

Scholarly Output of Some Stockholm Comparators



SciVal *All Types of Publications 2010-2021*

Which are the companies co-publishing with Stockholm Trio Members?

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Karolinska Institutet

Institution	Co-authored publications
AstraZeneca	496 ▼
Novo Nordisk Foundation	142 ▲
Johnson & Johnson	136 ▲
Fimlab Laboratories	131 ▲
MOH Holdings Pte Ltd.	130 ▲
GlaxoSmithKline	128 ▲
deCODE Genetics	107 ▲
Pfizer	103 ▲
Novartis	98 ▲
Merck	90 ▼

Kungl Tekniska Högskolan

Institution	Co-authored publications
Ericsson AB	207 ▼
ABB Group	147 ▼
AstraZeneca	123 ▲
Scania AB	112 ▲
Vattenfall	88 ▼
VTT Technical Research Centre of Finland Ltd.	87 ▼
Sandvik AB	84 ▲
SINTEF	58 ▲
Novo Nordisk Foundation	50 ▲
IBM	47 ▼

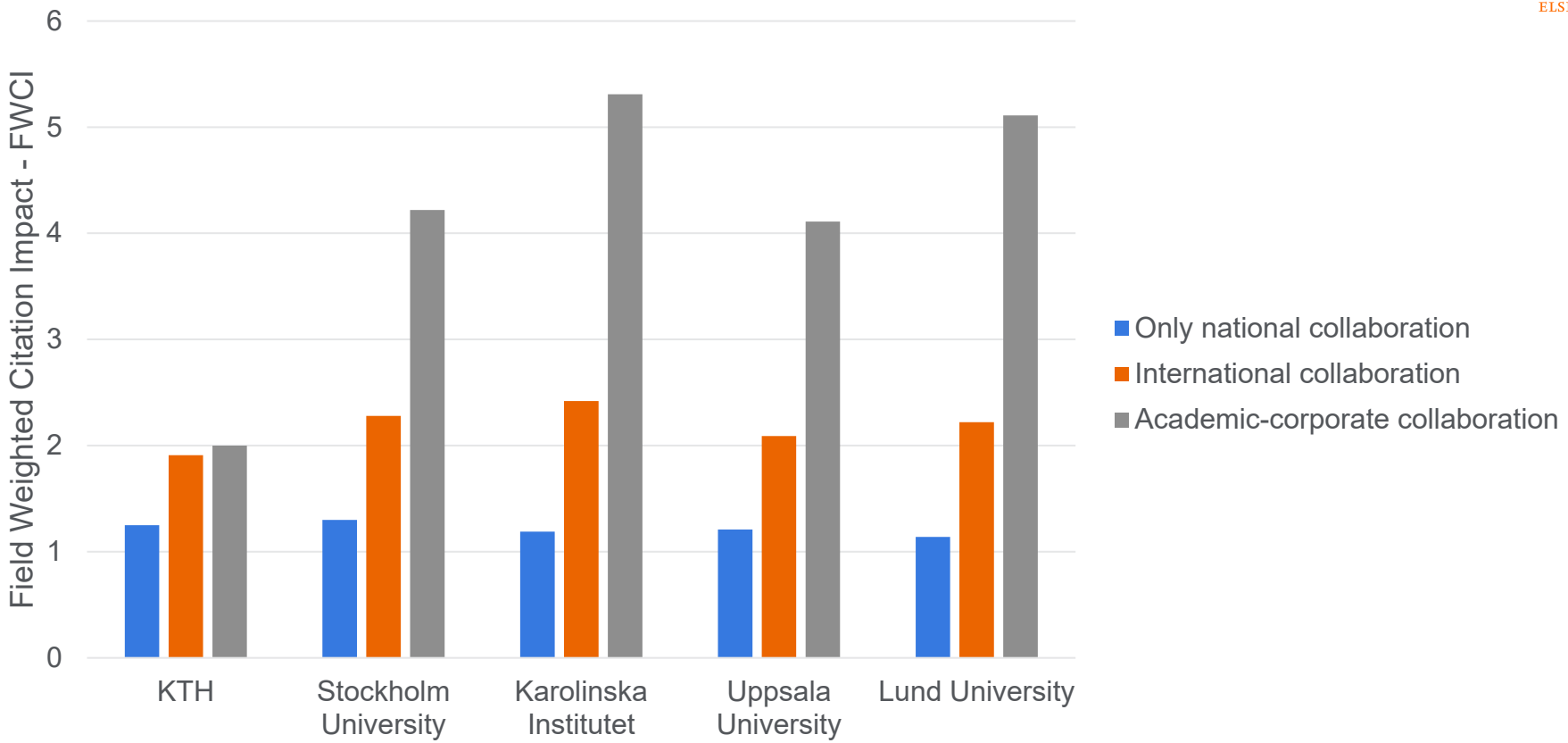
Stockholm University

Institution	Co-authored publications
AstraZeneca	130 ▲
Novo Nordisk Foundation	57 ▲
Fimlab Laboratories	42 ▼
IBM	37 ▼
GlaxoSmithKline	32 ▼
deCODE Genetics	27 ▲
Eureka Scientific, Inc.	25 ▼
Genentech Incorporated	25 ▲
SINTEF	24 ▲
Praxis, Inc.	23 ▼

SciVal *All Types of Publications 2017-2021*

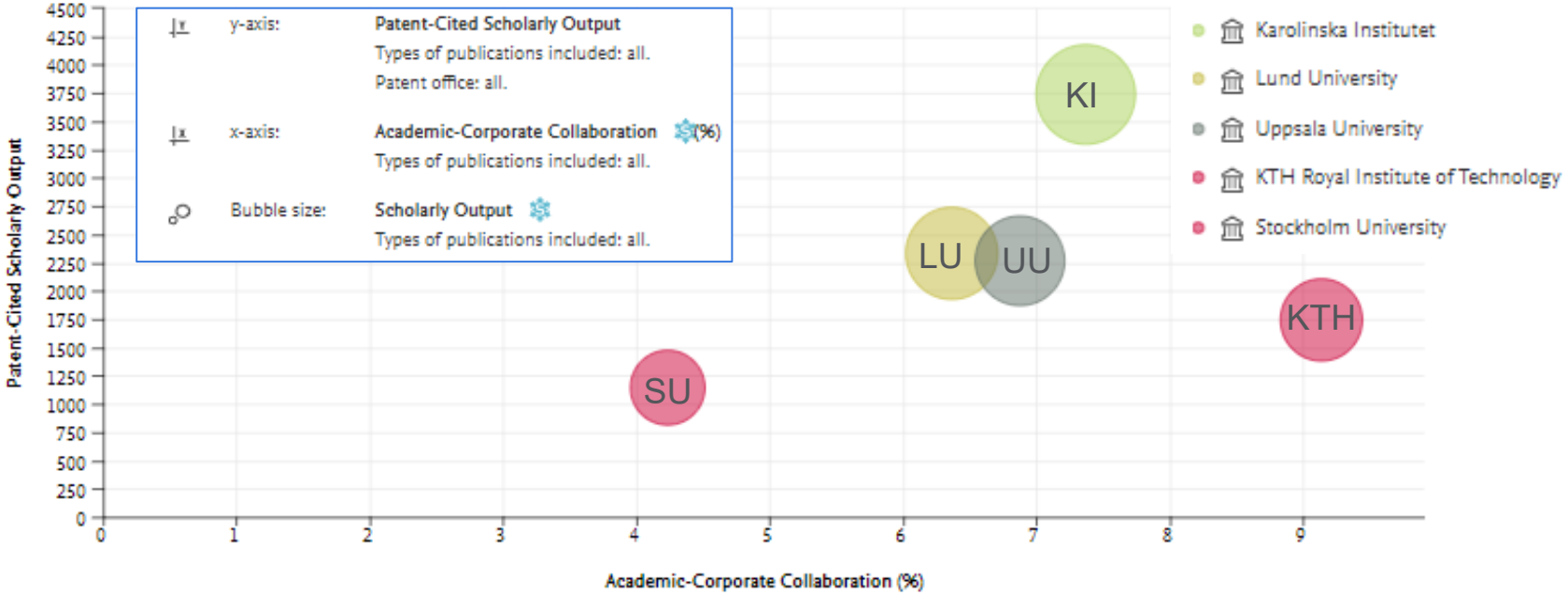
Poll 2:
Raise your hand if you think that co-publishing between Academia and Industry leads to HIGHER Academic Impact (citations)

Academic Impact of Collaborations



SciVal *All Types of Publications 2017-2021*

Comparing Five Swedish Institutions



Global Innovation Competition of Cities
“新型科技信息服务支撑国家科技创新和产业发展”战略研究论坛
Elsevier Research Intelligence
for every step of the research lifecycle
Scopus
SciVal
Pure
Digital Commons
Funding Institutional
Data Monitor
Expert Lookup
Analytical Services
Science-Metrix
Enabling technologies
Scopus Abstract and citation data
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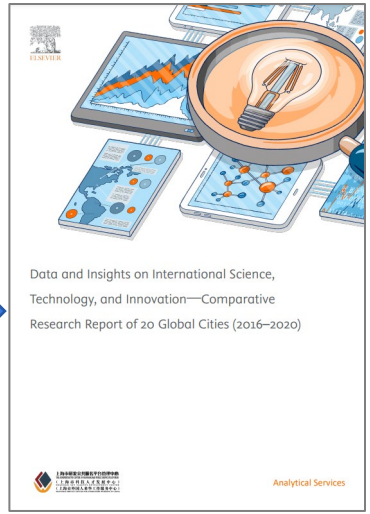
PlumX Metrics
PatentSight Patent data
Research datasets
Datasets
3rd party datasets
Crossref
Unpaywall
Pubmed
ORCID
Policy
Newsflo
Media
Overton
ScienceDirect Full-text articles
光明科学城论坛·2023
GUANGMING SCIENCE CITY FORUM 2023

Poll 3:
Do you think it is IMPORTANT to know how competitive your city is on an aggregated bases (all knowledge producing actors)

If YES, raise your hand!

Global Innovation Competition of Cities

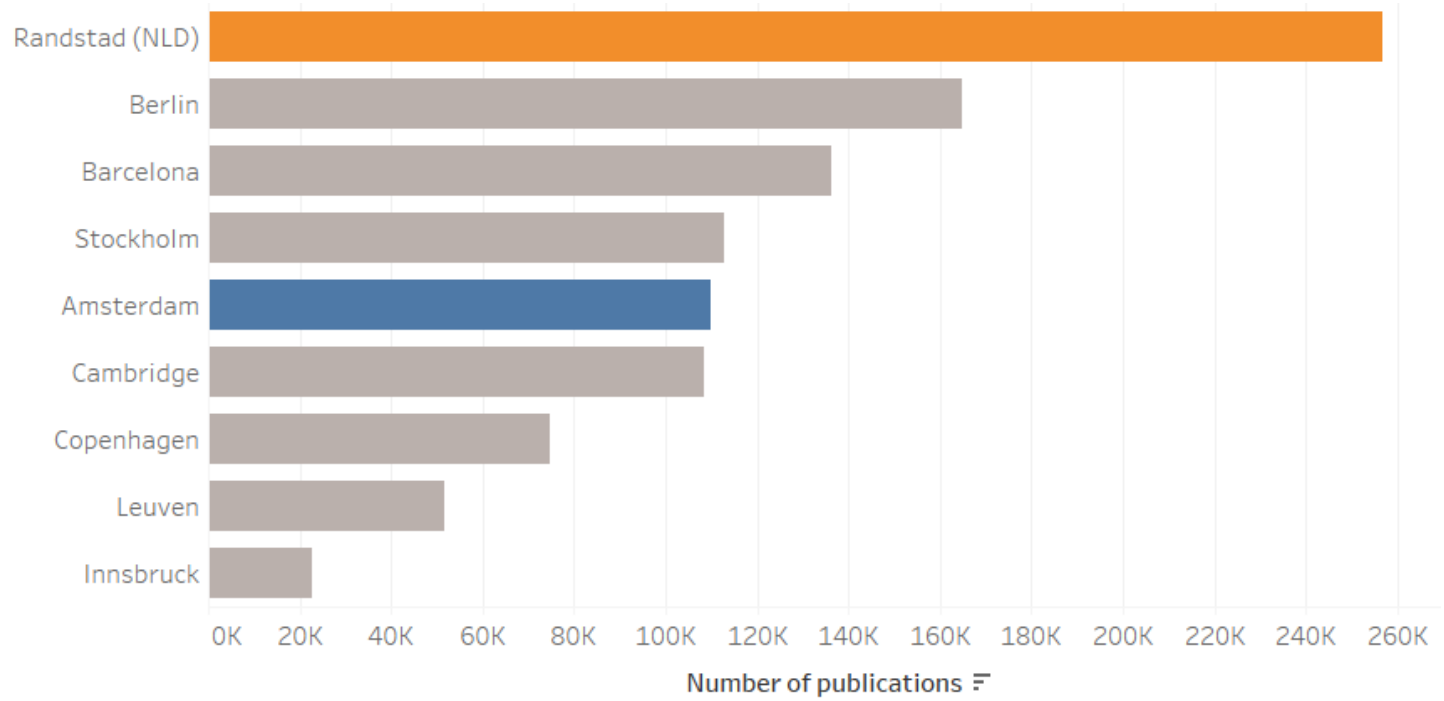


2015 → 2023

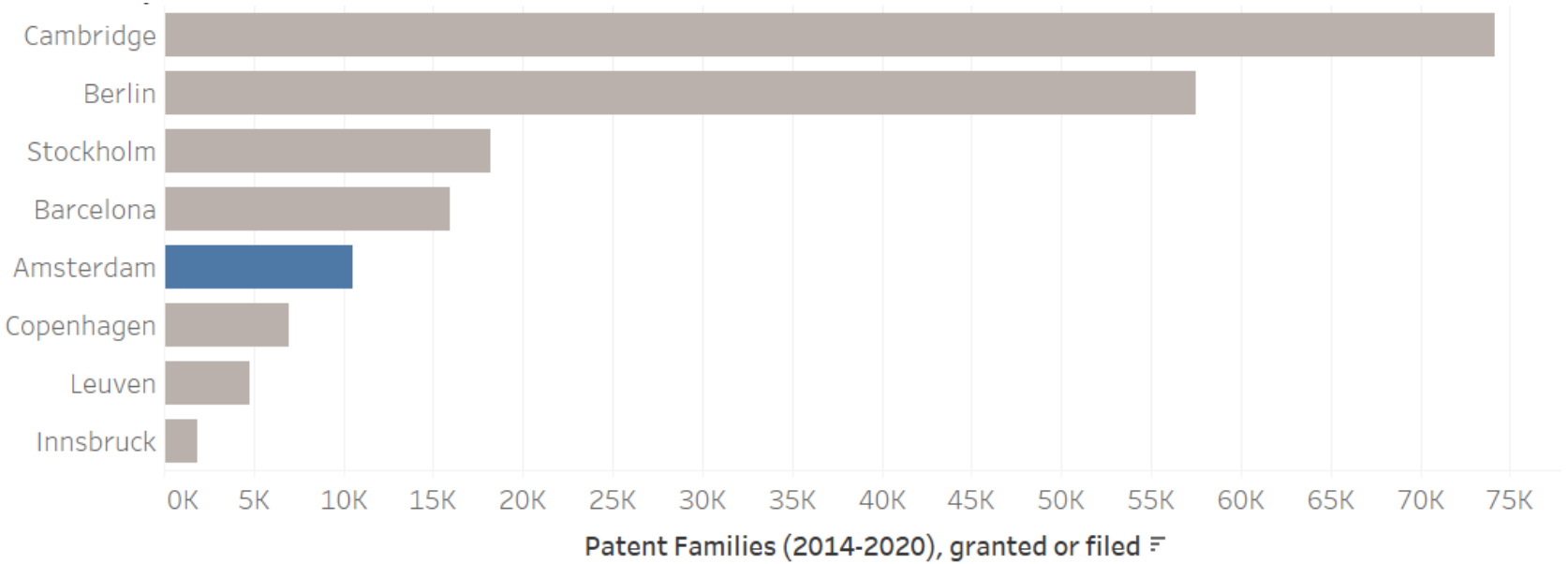
The data in this report are extremely valuable for the city of Amsterdam and our university. It is crucial to be able to support our strategy with data.

Prof Mirjam van Praag, PhD
President of the Executive Board and Professor of Entrepreneurship
Vrije Universiteit Amsterdam

Amsterdam's publication output vs other European cities



Patent families by Amsterdam versus other European cities.



A *patent family* represents a set of related patents associated with a single invention filed in multiple locations

Advanced Oxford

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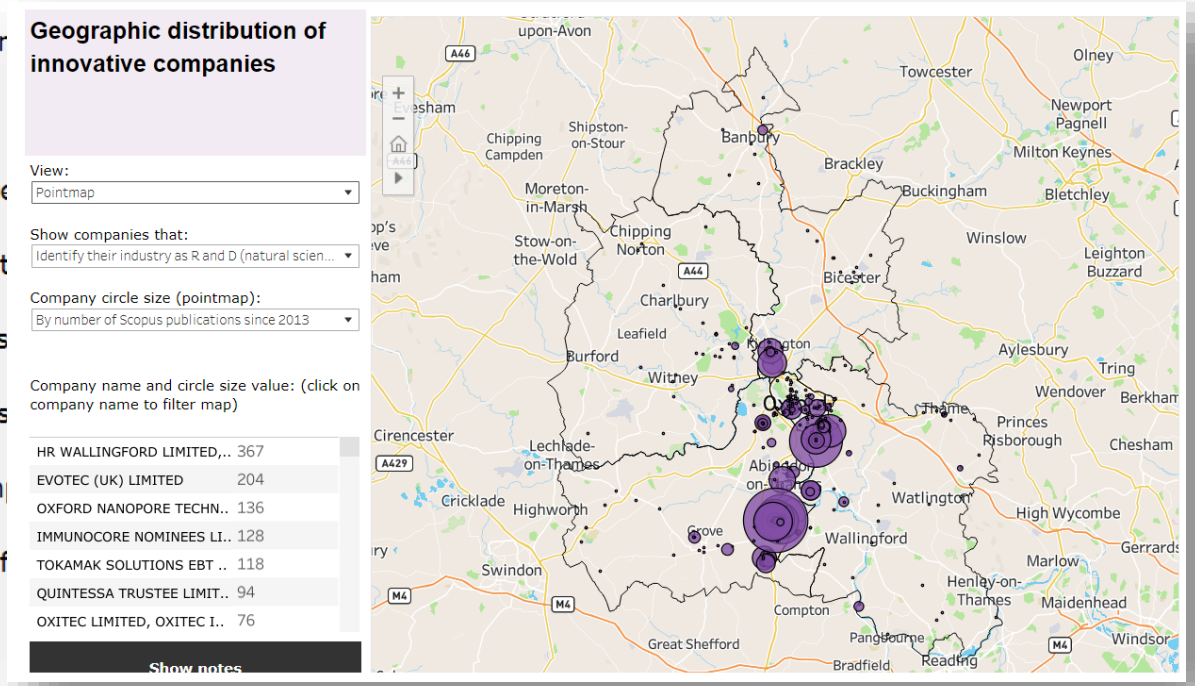

More questions than answers..

- Are the type of data discussed useful (hopefully) to support strategy?
- What is the most challenging data to gather?
- What is best combination of Quantitative/Qualitative metrics?

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