

Altmetrics and science policies

OECD Workshop 25 March 2014, Paris

Paul Wouters, Centre for Science and Technology Studies (CWTS)



**Universiteit
Leiden**

Evaluation Gap

- ➔ discrepancy between evaluation criteria and the social and economic functions of science
- ➔ evaluation methods have not adapted to increased scale of research
- ➔ available quantitative measures are often not applicable at the individual level
- ➔ lack of recognition for new types of work that researchers need to perform
- ➔ Evaluation has become standardized institutional practice

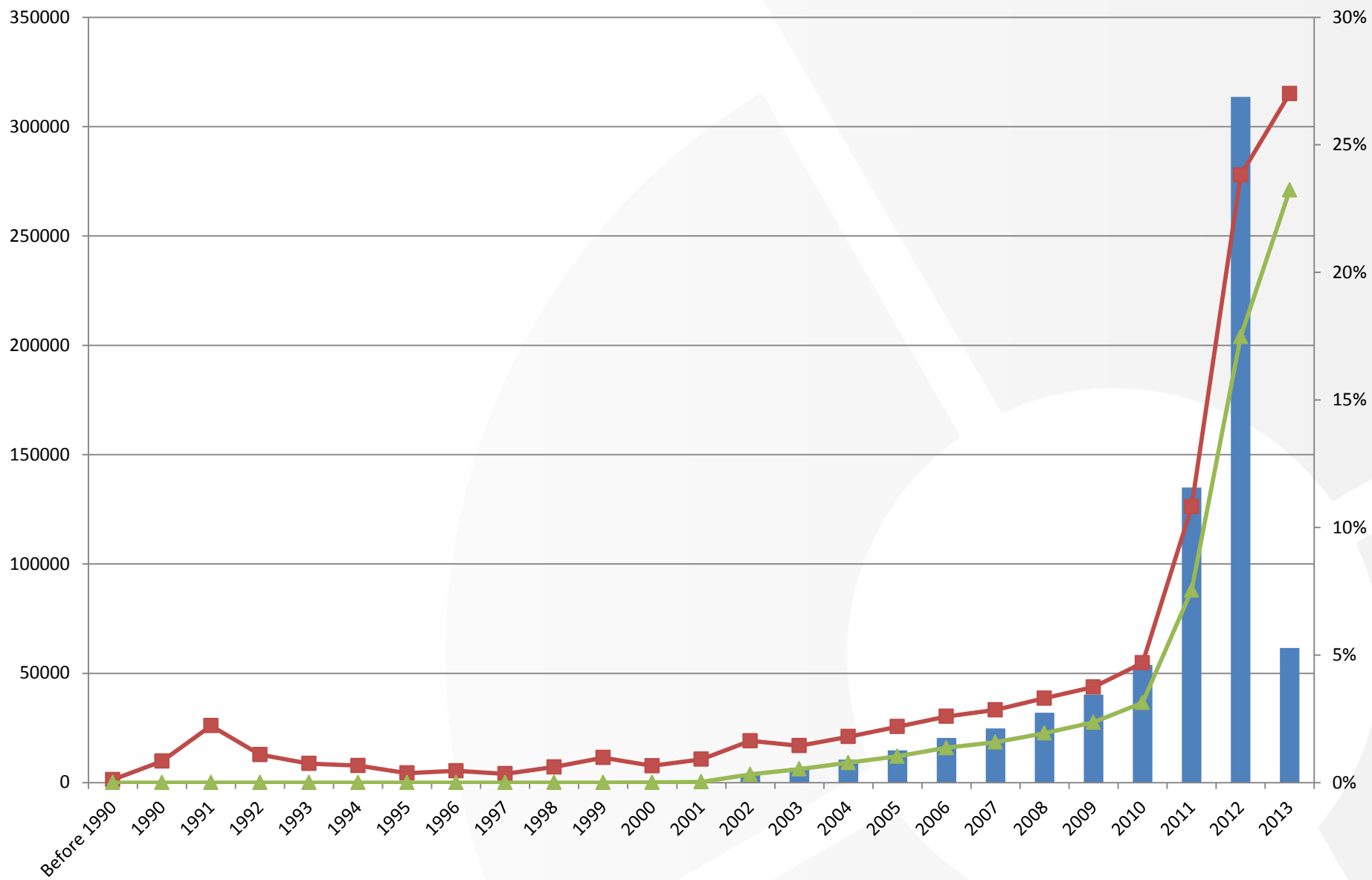
Altmetrics projects

Promise and potential

- Overcome limitations peer review
- Be faster than citation analysis (“real-time”)
- Be able to capture non-traditional influence and activity
- Various projects at CWTS:
 - Open Access Laboratory (eg editorial board membership indicators)
 - Usage, readership, and download analysis (eg Mendeley)
 - What do altmetrics indicators signify or represent?
 - Google Scholar for SSH

Extensive comparison of altmetric indicators with citations (Costas, Zahedi, Wouters, 2014 – with Altmetric.com)

- 15%-24% of the publications present some altmetric activity



Extensive comparison of altmetric indicators with citations (Costas, Zahedi, Wouters, 2014 – with Altmetric.com)

- 15%-24% of the publications present some altmetric activity
- Most active: social sciences, humanities and the medical/life sciences
- Positive correlations but relatively weak correlations with citations
- Altmetrics do not reflect the same concept of impact as citations

	Component			
	1	2	3	4
jcs_0510_12	.920	.062	.136	.083
jfis	.914	.047	.154	.112
jfis_0510_12	.904	.041	.119	.110
jcs	.903	.059	.160	.070
Total altmetrics	.088	.933	.047	.249
Twitter	.087	.895	.043	.215
Google+	-.012	.700	-.017	.106
Facebook walls	.041	.697	.043	-.025
ncs	.198	.042	.941	.095
cs	.231	.040	.938	.056
News outlets	.126	.103	.046	.882
blogs	.142	.321	.109	.773

The ACUMEN project

ACUMEN

Academic Careers Understood through Measurements and Norms

*European 7th Framework collaborative project
Capacities, Science in Society 2010
Grant Agreement: 266632*

9 institutional partners, in 7 countries



Universiteit Leiden



Bar-Ilan University
אוניברסיטת בר-אילן



UNIVERSITY OF
WOLVERHAMPTON
KNOWLEDGE • INNOVATION • ENTERPRISE



CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



Eesti Teadusagentuur
Estonian Research Council

HUMBOLDT-UNIVERSITÄT ZU BERLIN



Technische
Hochschule
Wildau (TH)
Technical University
of Applied Sciences



Royal School
of Library and
Information
Science



EUROPEAN
COMMISSION



SEVENTH FRAMEWORK
PROGRAMME



Humanities
Royal Netherlands Academy of Arts and Sciences

Data Archiving and Networked Services

DANS

ACUMEN research

assessment of scientometric
indicators in performance
evaluation

assessment of
webometric (and
altmetric) indicators

comparative analysis of peer
review systems in Europe

analysis of gender
dimension in researcher
evaluation

ethnographic study of
important evaluation
events



Common Data Strategy

15 European countries

Bulgaria	Israel
Czech Republic	Italy
Denmark	Netherlands
Estonia	Poland
Finland	Slovenia
France	Spain
Germany	United Kingdom
Hungary	

4 Academic Disciplines

- (a) astronomy and astrophysics
- (b) public and occupational health
- (c) environmental engineering
- (d) philosophy (including history and philosophy of science)

ACUMEN *portfolio*

aim is to give researchers a voice in evaluation

- ➔ *evidence based arguments*
- ➔ *shift to dialog orientation*
- ➔ *selection of indicators*
- ➔ *narrative component*
- ➔ *Good Evaluation Practices*
- ➔ *envisioned as web service*



ACUMEN Portfolio

Career Narrative

Links expertise, output, and influence together in an evidence-based argument; included content is negotiated with evaluator and tailored to the particular evaluation

Expertise

- scientific/scholarly
- technological
- communication
- organizational
- knowledge transfer
- educational

Output

- publications
- public media
- teaching
- web/social media
- data sets
- software/tools
- infrastructure
- grant proposals

Influence

- on science
- on society
- on economy
- on teaching



Evaluation Guidelines

- aimed at both researchers and evaluators
- development of evidence based arguments (what counts as evidence?)
- expanded list of research output
- establishing provenance
- taxonomy of indicators: bibliometric, webometric, altmetric
- guidance on use of indicators
- contextual considerations, such as: stage of career, discipline, and country of residence

Portfolio & Guidelines

- ➔ Instrument for empowering researchers in the processes of evaluation
- ➔ Taking in to consideration all academic disciplines
- ➔ Suitable for other uses (e.g. career planning)
- ➔ Able to integrate into different evaluation systems