

# Research evaluation in the Netherlands : a library perspective

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# Introduction

- Research evaluation in the Netherlands
- Bibliometric evaluation
- Impact factors
- Citation analysis

# Research evaluation in the Netherlands

- Based on a 6 year cycle
  - Supervised by Quality Assurance Netherlands Universities (QANU).
  - Standard Evaluation Protocol (SEP) (<http://www.vsnu.nl/web/show/id=53923/langid=43/>; in English)
  - Self assessments and external reviews

# SEP criteria

- Quality
- Productivity
- Relevance
- Vitality

# Procedures

- External reviews are internally prepared
  - Productivity is extracted from publication databases (repositories play an important role)
  - Relevance, bibliometric analyses do play a role
  - Vitality, SWOT analyses are popular.

# Bibliometrics analyses

- Bibliometric analysis is not stipulated by the SEP
- It is valued by the preparing committee
  - Used internally to judge researchers and research groups
  - Not always used by the peer review committee

# Bibliometric analysis



# A word of warning : Impact factors

- Measure for the quality of journals

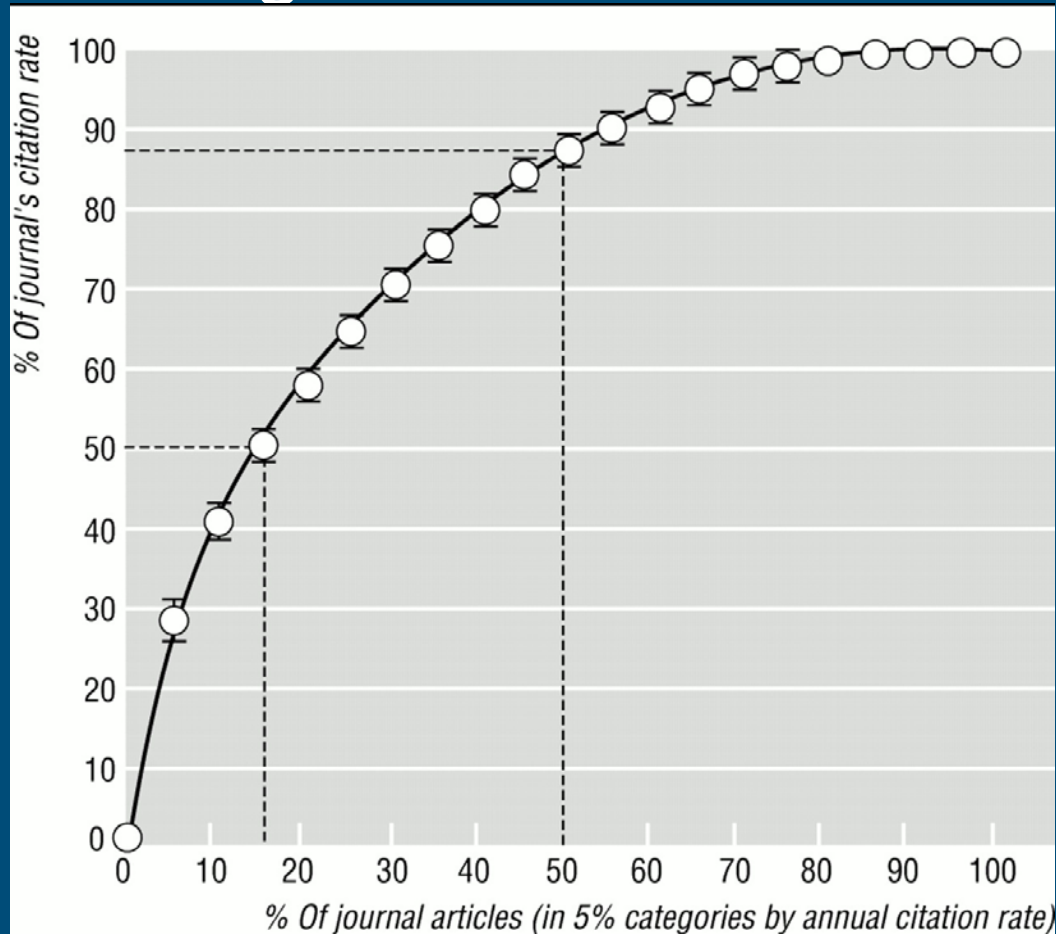
“... it is also used for assessment of the quality of individual papers, scientists and departments. For the latter a scientific basis is lacking, as we will demonstrate in this contribution” (Opthof, 1997)

Opthof, T. (1997). Sense and nonsense about the impact factor. *Cardiovascular Research* 33(1): 1-7.

[http://dx.doi.org/10.1016/S0008-6363\(96\)00215-5](http://dx.doi.org/10.1016/S0008-6363(96)00215-5)



# 50 % of articles generate 90% of citations



Seglen, P. O. (1997). Why the impact factor of journals should not be used for evaluating research. *BMJ* **314**(7079): 497-502. <http://bmj.bmjournals.com/cgi/content/full/314/7079/497>

# Bibliometric analysis

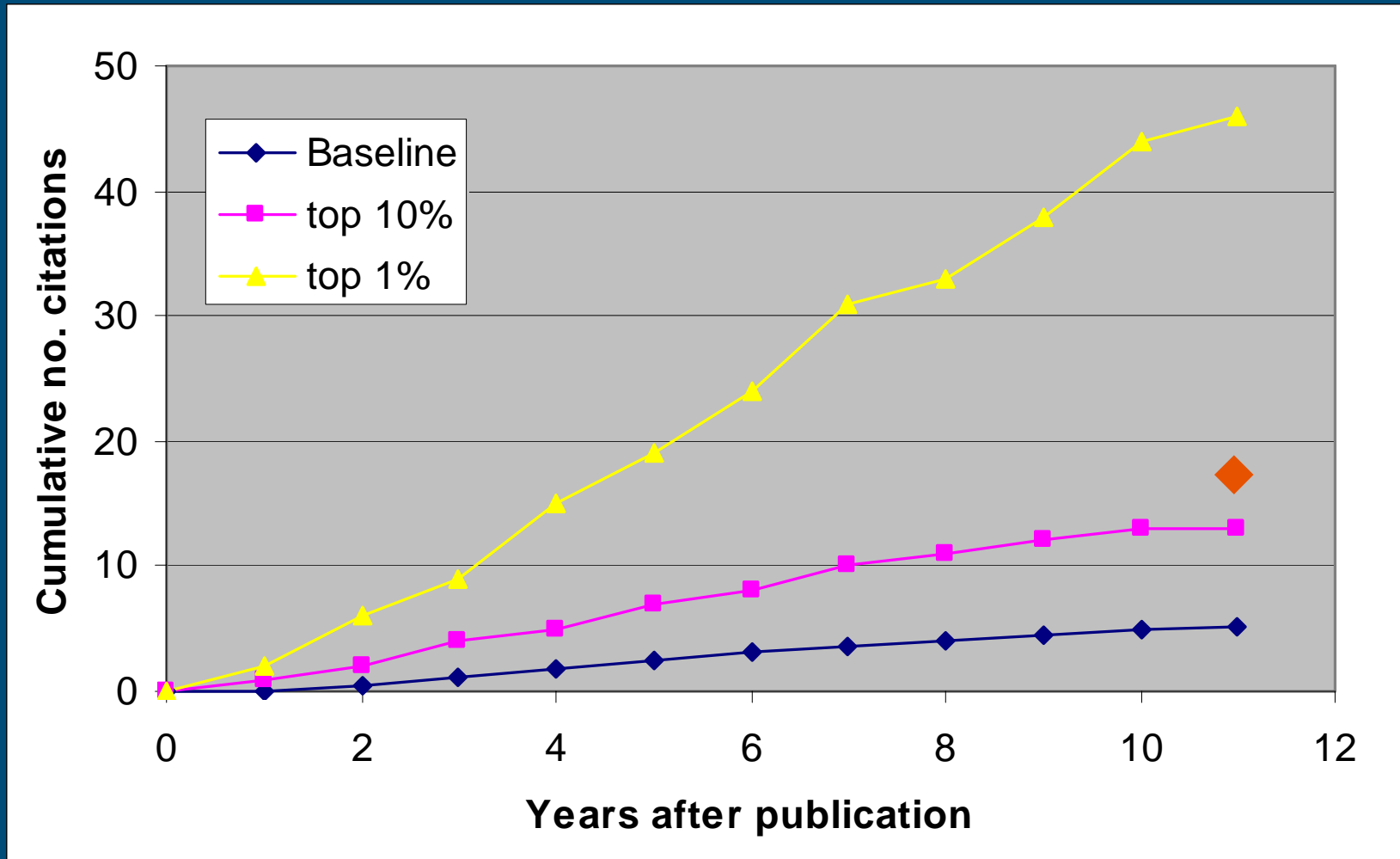
Citation data can be derived from many resources

The main question is:

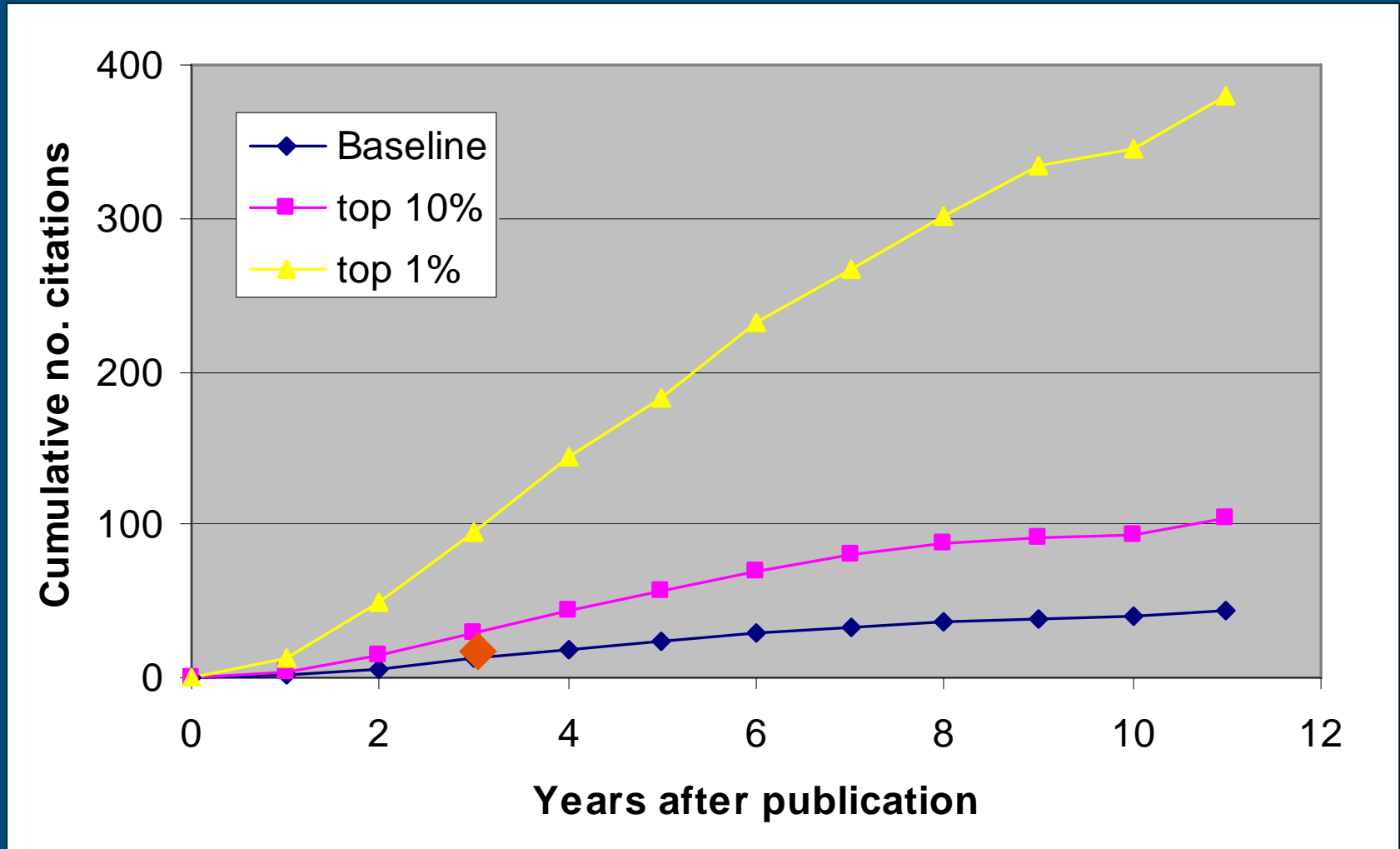
How do we compare numbers?

- Scientist Z. Math has a publication from 1996 with 17 citations
- Scientist M. Biology has a publication from 2003 with 24 citations

# Baseline mathematics



# Baseline Molecular Biology



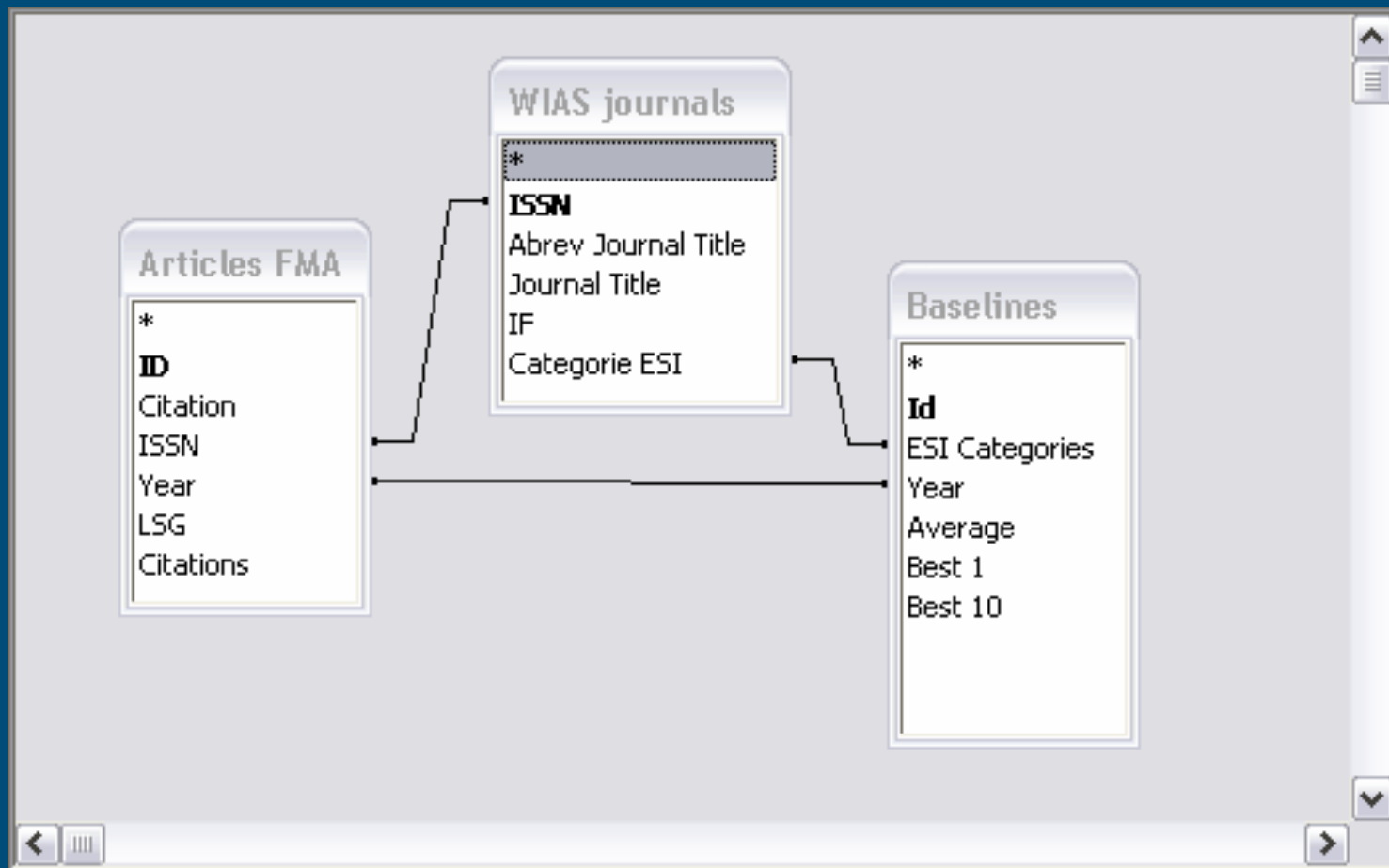
# Essential Science Indicators (ESI)

- Database that presents analyses of the most recent (10 years + year building) data from SCI
- Comparisons between countries, institutes, researchers en journals
- Hot papers
- Research fronts
- **Baselines**

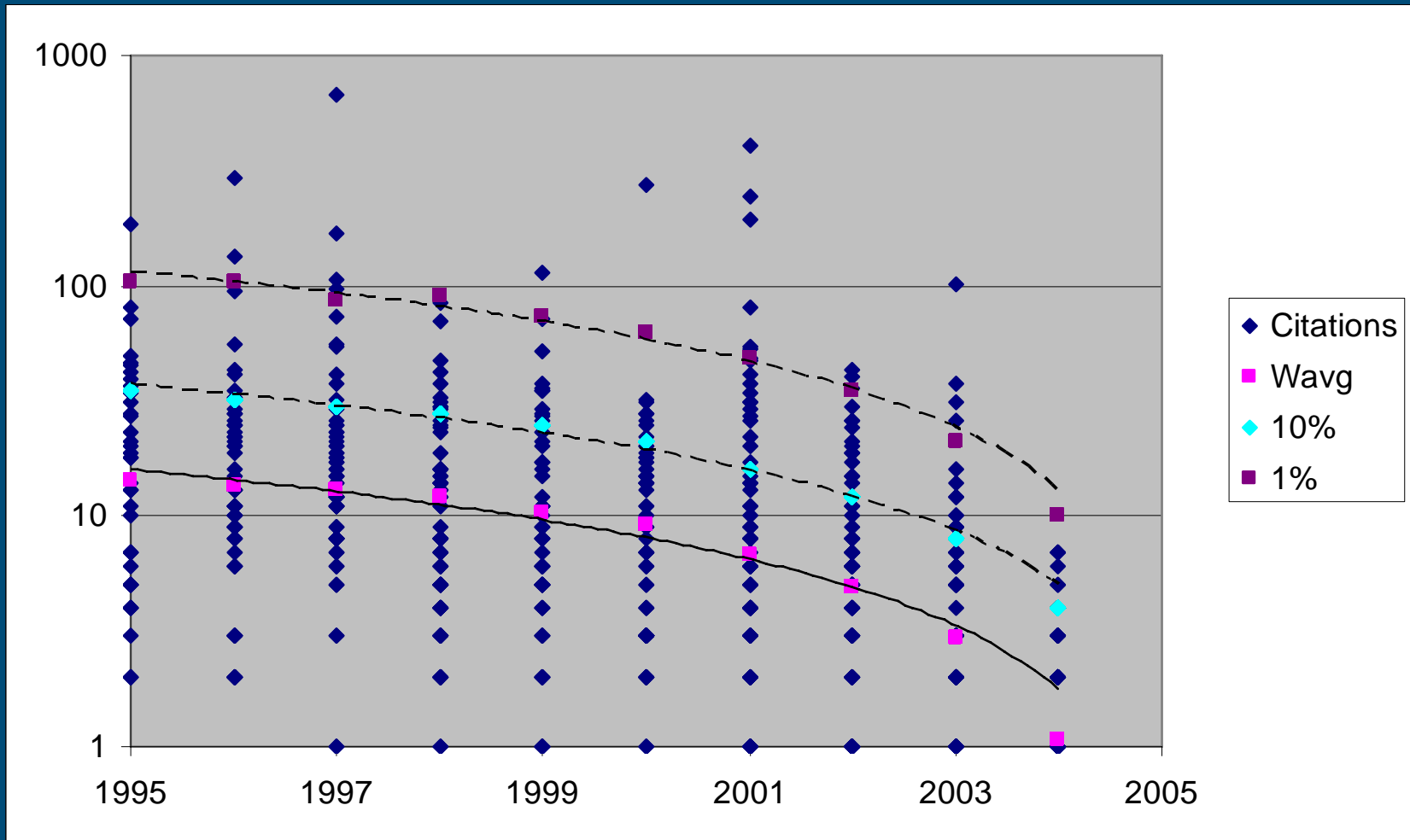
# Steps in citation analysis

- On the basis of authors names, all publications are checked for citations in WoS, downloaded to EndNote, subsequently to Access
- Baselines are retrieved from ESI
- Journals categories are checked in ESI
- The three tables are linked by ISSN and category names
- Analyses are made for authors, research groups and Institutes

# Relations in Access



# Graduate School in Environment/Ecology





# Evaluation of a research institute

	All groups	Group 1	Group 2	Group 3
<b>Agricultural Sciences</b>	3,82	3,86	3,87	3,60
<b>Biology &amp; biochemistry</b>	0,91	1,55	0,44	1,09
<b>Chemistry</b>	1,76		1,76	
<b>Clinical medicine</b>	1,73	1,81	1,11	
<b>Microbiology</b>	1,70	0,57		1,73
<b>Overall impact</b>	2,06	2,08	2,26	1,84

# Evaluation of candidates

Author	# Papers 1994-2003	#Citations	Relative Impact	RI 1994- 1998	RI 1999- 2003	#papers top 10%	#papers top 1%
a	80	1565	1,64	1,76	1,52	4	2
b	65	498	1,93	1,84	1,95	17	1
c	93	972	1,15	1,39	0,9	8	0
d	88	1886	1,86	1,69	1,94	16	3
e	57	346	0,75	0,58	0,83	3	0

# Tools at hand

- Subscription citation products
  - Web of Science (WOS) (= Science Citation Index)
  - Essential Science Indicators (ESI)
  - Scopus (new, Elsevier product)
- Free available Web services
  - Google Scholar <http://scholar.google.com/>
  - Citeseer <http://citeseer.ist.psu.edu/>
  - Smealsearch <http://smealsearch2.psu.edu/>

# Scopus

- Scopus has some important advantages
  - Comprehensive citation reports
  - Substantially larger journal base
  - Author disambiguation
  - Cooperation with third parties
  - Institute disambiguation

# Thank you for your attention

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