



The use of indicators to evaluate research institutions: How to make the link between an institution's strategy and the indicators?

NARMA workshop april 2016



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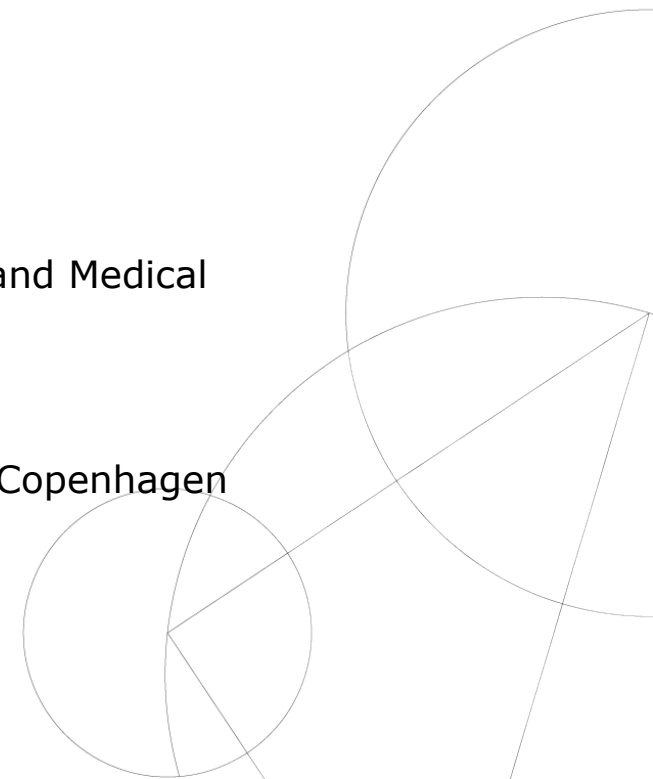
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Agenda

My experiences TRYING to make the link between an institution's strategy and the indicators

Three small cases for group discussions



Case 1

You are working as research adviser at a university.

The university management asks for a bibliometric analysis of the departments' research impact. The purpose is to give the management a general overview.

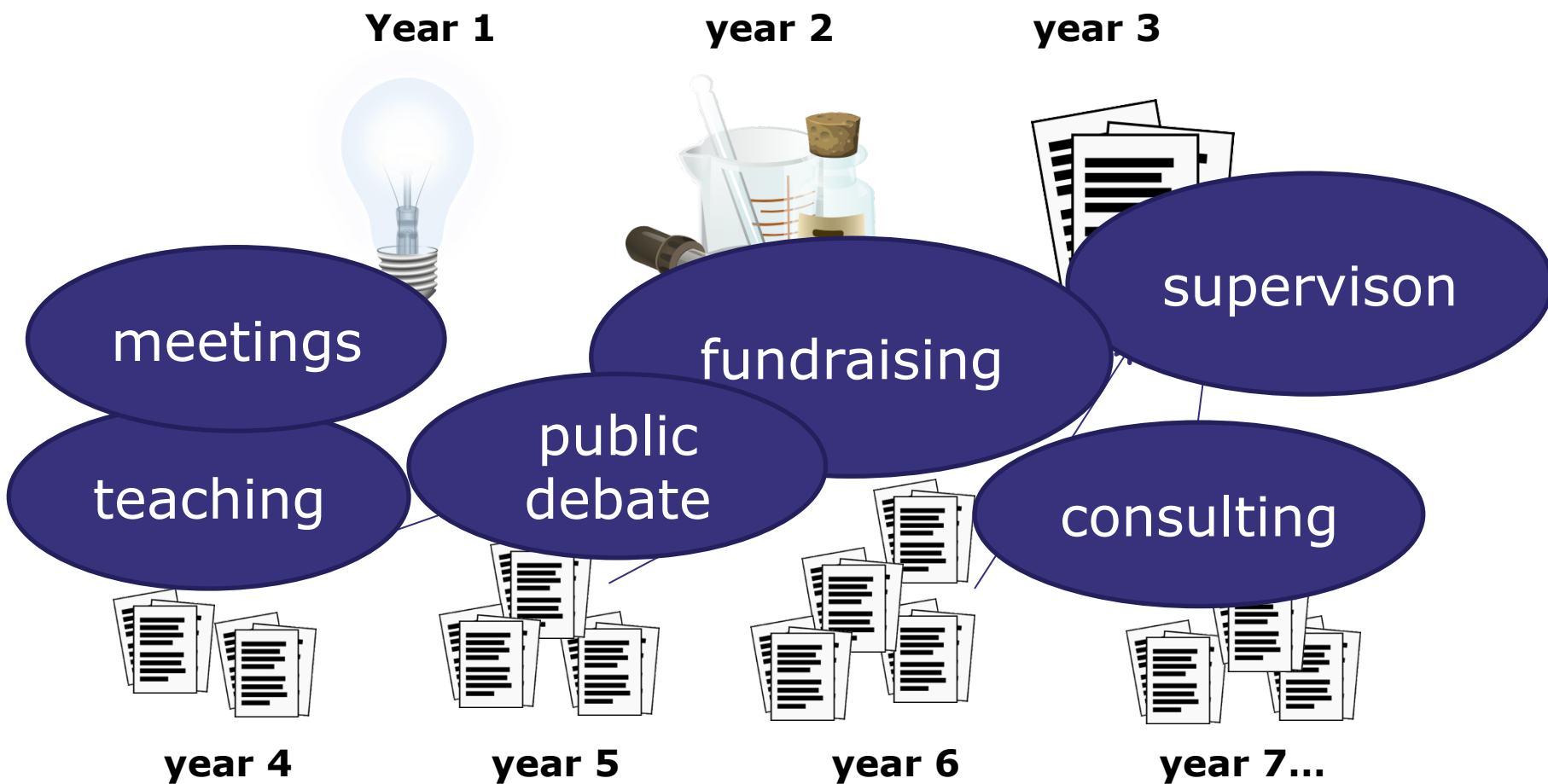
Discuss in groups of 2-3 persons

- Which indicators would you suggest for departments at the faculties of natural sciences and health?
- Which indicators would you suggest for departments at the faculties of humanities and social sciences?

You have 3 minutes.



Bibliometrics: Quantitative analysis of publications and citations



Popular indicators

| H-index | | |
|------------|----|----|
| Researcher | A | |
| Rank | | |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | 40 | |
| 10 | 11 | 12 |
| 11 | 9 | 8 |
| 12 | 4 | 5 |
| ... | | |

H-index

Are the h-index
and JIF the best
indicators for
what we want to
know?



from 2012 or 2013
for 2013

to
al

Leiden Manifesto - Principle 2

2) Measure performance against the research missions of the institution, group or researcher.

Programme goals should be stated at the start, and the indicators used to evaluate performance should relate clearly to those goals. The choice of indicators, and the ways in which they are used, should take into account the wider socio-economic and cultural contexts. Scientists have diverse research missions. Research that advances the frontiers of academic knowledge differs from research that is focused on delivering solutions to societal problems. Review may be based on merits relevant to policy, industry or the public rather than on academic ideas of excellence. No single evaluation model applies to all contexts.

Source:

<http://www.nature.com/news/bibliometrics-the-leiden-manifesto-for-research-metrics-1.17351>



Make a link between the strategy and the indicators

Model 1:

(Mapping via general indicators →) create strategy →
monitoring of strategy via specific indicators

Model 2:

Existing strategy → monitoring of strategy via specific
indicators

Precondition:

- No standard indicators – e.g. h-index or JIF
- No quick fixes
- Include different kinds of expertise: management, research field, bibliometrician



Case 2

You are working as research adviser at a department.

The head of department asks for a bibliometric analysis to follow up on the department's research strategy.

Research strategy

- Our results are published in high quality research publications.
- PhDs from our graduate school should be able to compete for positions in the leading research groups in the Nordic countries and the rest of the world.
- Our research is useful for relevant stakeholders from other sectors than the research sector.

Discuss in groups of 2-3 persons

- Which indicators would you suggest to follow up on the strategy?

You have 3 minutes.



How are the indicators used to implement the strategy?

Indicators are used to monitor the strategy (basis for discussion)

- Monitoring: What works? What does not work?
- Can use very specific indicators
- Can change indicators often

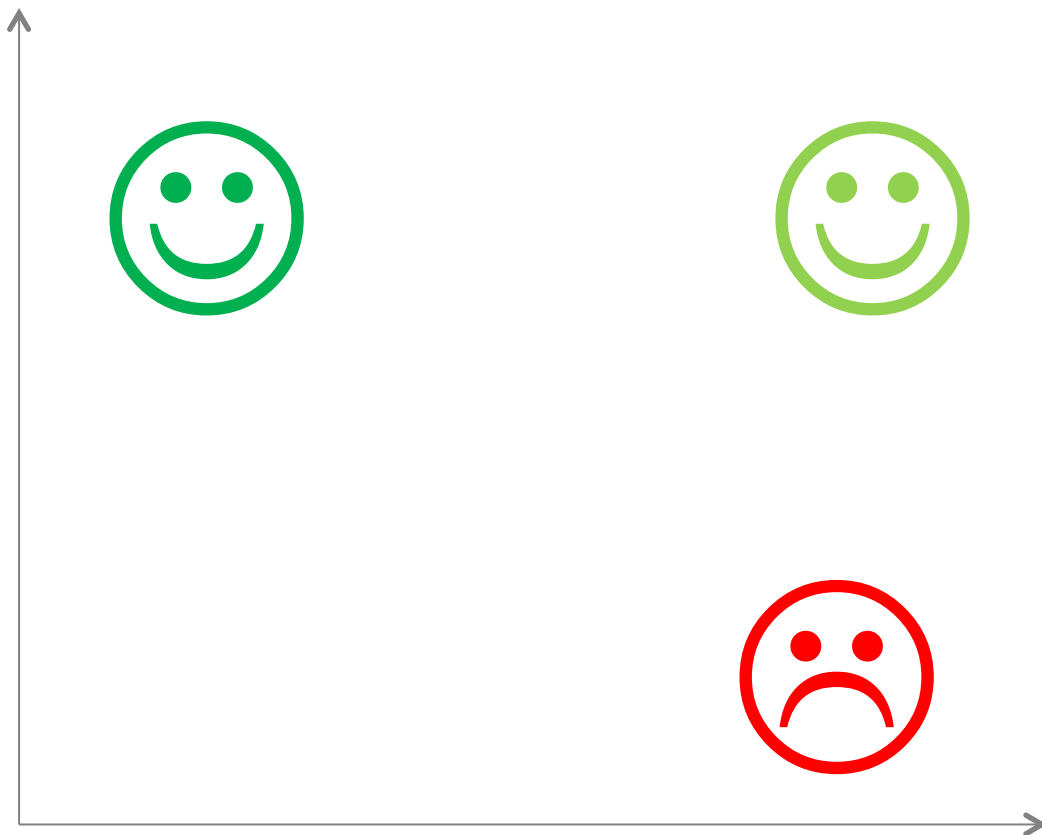
Indicators are used for a budget model (basis for decisions)

- Control: Resources are allocated based on indicators! You get what you pay for (e.g. salami slicing, least publishable unit - LPU)
- Avoid:
 - A model based on a single indicator (e.g. number of publications)
 - Very complex indicators (e.g. share of top 10% highly cited publications)
 - Changing indicators often
 - Indicators with no link to the strategy



Relevance and resources

Relevance



Resources



Case 3

You are working as research adviser at a department.

The head of department asks for an analysis based on other indicators than bibliometric indicators to follow up on the department's research strategy.

Research strategy

- Our results are published in high quality research publications.
- PhDs from our graduate school should be able to compete for positions in the leading research groups in the Nordic countries and the rest of the world.
- Our research is useful for relevant stakeholders from other sectors than the research sector.

Discuss in groups of 2-3 persons

- Which indicators would you suggest to follow up on the strategy?

You have 3 minutes.



10 principles – Leiden Manifesto

- 1) Quantitative evaluation should support qualitative, expert assessment
- 2) Measure performance against the research missions of the institution, group or researcher
- 3) Protect excellence in locally relevant research
- 4) Keep data collection and analytical processes open, transparent and simple
- 5) Allow those evaluated to verify data and analysis
- 6) Account for variation by field in publication and citation practices
- 7) Base assessment of individual researchers on a qualitative judgement of their portfolio
- 8) Avoid misplaced concreteness and false precision
- 9) Recognize the systemic effects of assessment and indicators
- 10) Scrutinize indicators regularly and update them

Source:

<http://www.nature.com/news/bibliometrics-the-leiden-manifesto-for-research-metrics-1.17351>



Leiden Manifesto in practice

Can we implement the Leiden Manifesto principles in our daily work with research indicators?

Report from the fifth meeting of the Danish Research Indicator Network (FIN) January 21st , 2016, at Copenhagen University Library – Frederiksberg

2) Measure performance against the research missions of the institution, group or researcher

It is the experience of the participants that a mission is not available or can not be formulated. The user just asks for evaluations of everything or requests the traditional, known indicators (for example the h-index). A link to a mission is never made.

Source:

http://www.leidenmanifesto.org/uploads/4/1/6/0/41603901/fin_meeting_on_leiden_manifesto_-_report_march_7_2016.pdf



Thank you for
your attention

Questions?

