



# Evaluating Research in Context

Presentatie: prof. dr. Henriette Maassen van den Brink (ERIC, WAR SIG)

## Participants:

- **Royal Netherlands Academy of Arts and Sciences (KNAW)**
- **National research council (NWO)**
- **Association of Dutch universities (VSNU)**
- **Council of universities of applied sciences (HBO-raad)**
- **Rathenau Institute (Science System Assessment)**
- **Quality Assurance Netherlands Universities (QANU)**
- **Ministry of Education and Science (observer)**

## Changing contexts

- ❑ Research context : mode 1 / mode 2 ; academic, disciplinary / application oriented, transdisciplinary, problem solving, Focus on productive networks, socially robust knowledge
- ❑ Policy context : Lisbon ambitions, knowledge gap, national economies, valorization
- ❑ Evaluation context : broader demands, not only scientific quality, but also socio-economic value (ranking and classification, peer review under pressure, goals of evaluation (improve or rank)

# Standard Evaluation Procedure – SEP

all publicly funded research in the Netherlands

- **Self evaluation report is a vital element**  
each institute reviews its past performance and looks ahead to its future mission
- **4 criteria for comprehensive evaluation:**
  - Quality (position internationally)
  - Productivity (focus on scientific production)
  - **Relevance (for policy, industry and society)**
  - Vitality and feasibility (management)
- **Assessment is both retrospective and prospective**  
the accent is on the latter
- **External site visits every 6 years, (extended) peer review**  
every three years there will be a mid term evaluation

## Societal relevance in SEP

- ❑ ***Societal quality of the work.*** This aspect refers primarily to the policy and efforts of the institute and/or research groups to interact in a productive way with stakeholders in society who are interested in input from scientific research. It may also refer to the contribution of research to important issues and debates in society.
- ❑ ***Societal impact of the work.*** This aspect refers to how research affects specific stakeholders or specific procedures in society (for example protocols, laws and regulations, curricula). This can be measured, for example, via charting behavioural changes of actors or institutions.
- ❑ ***Valorisation of the work.*** This aspect refers to the activities aimed at making research results available and suitable for application in product, processes and services. This includes activities regarding the availability of results and interaction with public and private organisations, as well as direct contributions such as commercial or non-profit use of research results and expertise.

## Tensions in evaluation procedures

- ❑ Scientific quality vs? societal relevance
- ❑ Judgement (jury) vs? Improvement (coach)
- ❑ Ranking (allocation) vs? classification (policy/strategy)
  - Individual, group, program, institute
  - Ex post, ex ante
- ❖ Evaluation procedures often try to mix a lot of these things
- ❖ Instruments are lacking to evaluate comprehensively in a robust way, still relying on traditional indicators and classic peer review

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# Search for new methods\*

- + Societal impact of health research [MRC 2002]
- + National Health Research Council report [2007]
- + Judging research on its merits [2005]
- + AWT: alfa en gamma stralen (humanities & social sciences shine) [2007]
- + Evaluating research in context [2005, 2007]
  
- + France : lab profiles [Callon, Laredo a.o.]
- + UK : pay back, ESRC, AHRC
- + Denmark : Radar Graph [research policy council]
  
- + USA, Canada, Australia

## **ERiC goals:**

- 1. Stimulate debate about evaluating research**
  - 2. Development of alternative evaluation methods**
- Methods to assess the relevance of research for policy, society and industry**
  - Discipline specific methods : to help research areas that are not happy with dominant evaluation approaches**

## 4 principles of ERiC approach:

### 1. Mission oriented:

the evaluation starts with analysis of the mission of a group or program or faculty or institute

### 2. Early stakeholder / user involvement:

(i) stakeholder environment is divided in various social domains

(ii) stakeholders are actively engaged in the development of field specific indicators

### 3. Mix of quantitative and qualitative data, gathered through reports, interviews, focus groups, quantitative methods

### 4. Feed back is formative (future oriented) more than summative (backward looking)

**A: Conceptual phase:** Focus on knowledge production and circulation, and interaction with stakeholders

1. Review of mission(s) and research goals
2. Chart stakeholder environment (social domains)
3. Graphical representation of knowledge circulation between research and relevant social domains
4. Propose a set of potential indicators

**B: Test phase:** Criteria and indicators are developed and a tentative model is suggested

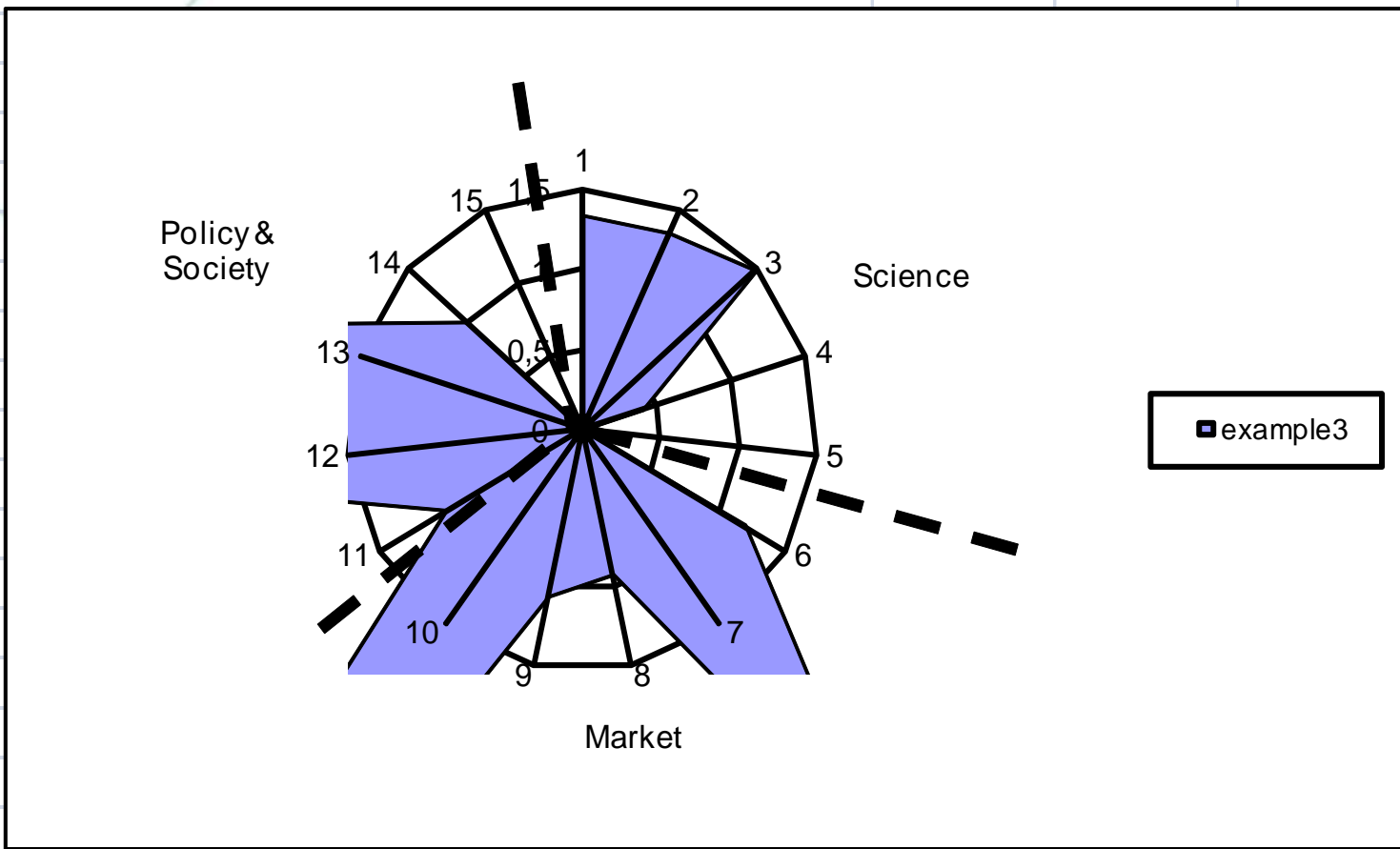
1. Specify mission of the research group (or program, theme, institute) and of relevant social domains
2. Data gathering, both quantitative and qualitative
3. Construction of ERiC evaluation model
4. Feed back phase: results are discussed with researchers and stakeholders

## Data gathering: chart of productive interactions between science and society

- **People** : double functions, mobility, consultation, advisory
- **Texts** : articles, books, catalogues, protocols
- **Artifacts** : instruments, exhibitions, models
- **Money** : contracts, subsidies,

# ERiC model 1 : radar graph

[www.eric-project.nl](http://www.eric-project.nl)



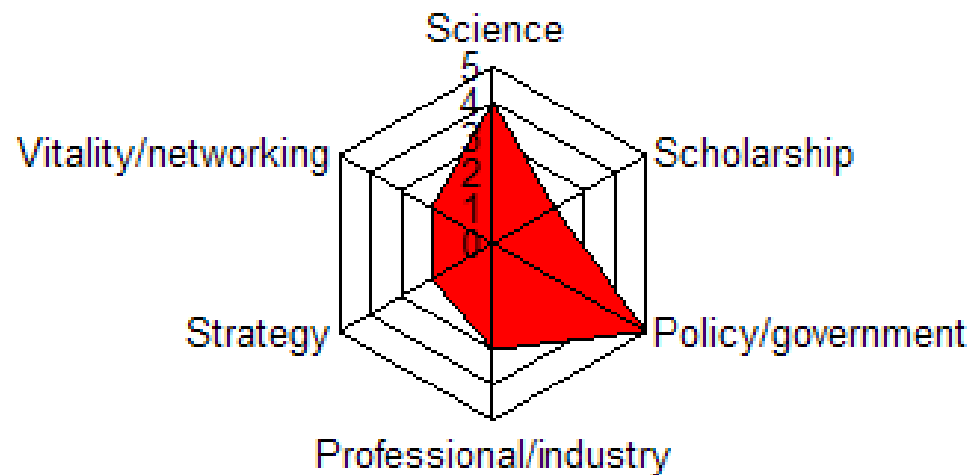
## ERiC model 2: table

www.ERiC-project.nl

<b>Science, certified knowledge</b>		
	relative citation impact	--
	productivity scientific publications	++** (
	international visibility and collaborations	=
	representation in editorial boards	++
	invited lectures	++
<b>Industry, market</b>		
	non-academic/commercial citing environment	++
	productivity professional publications	++*(1)
	involvement in industry/market	-
	advisory and expert roles in commercial domain	--
	editorships professional journal	++**
<b>Policy, societal</b>		
	involvement in policy domain	+
	memberships and expert roles in governmental bodies	++
	memberships of societal organisations: advisory/ education	++*
	production of public goods	+
	additional grants from policy	+

# ERiC model 3: spider web

[www.ERiC-project.nl](http://www.ERiC-project.nl)



## Differences and similarities

### ERiC

- All higher education
- Broad evaluation
- Cases in NL

### SIAMPI

- Universities, national and European programs
- Focus on social impact
- Cases in four EU countries

## 4 step approach

- **Self evaluation**
- **Empirical reconstruction of research group's performance and interaction → REPP**
- **Stakeholder analysis**
- **Feed back and forward look**

→ ***To be implemented in SEP***

## ERiC activities:

- **Publications (book, reports, reviews)**
- **Guidelines (Handreiking 2009)**
- **Workshops, conferences, national and international**
- **Pilot studies : agricultural research, pharmaceutical research, architecture, law, engineering**
- **European project SIAMPI : Health, Nanotechnology, ICT, Social and human sciences (NL, UK, FR, ES)**
- **website: [www.eric-project.nl](http://www.eric-project.nl)**

# Stichting Instituut GAK

**Doelstelling:** Stichting Instituut Gak heeft een wetenschappelijk onderzoeksprogramma op het terrein van sociale zekerheid. Met het programma wil de stichting kennis genereren die bij kan dragen aan de ontwikkeling van de sociale zekerheid in Nederland. De Stichting wil een aantal vooraanstaande onderzoekers in staat stellen gedegen en innovatief onderzoek te verrichten. Om met het onderzoek aan te sluiten bij kernvragen uit de sociale zekerheidspraktijk van de sociale zekerheid in Nederland.

- **Wetenschappelijke kwaliteit, maatschappelijke relevantie en innovatie**
- **Opbrengsten evalueren aan hand van kwalitatieve en kwantitatieve beoordeling**
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