Evaluating the societal relevance of academic research: A guide
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Introduction to the English edition

A number of Dutch organisations involved in quality assurance in research are collaborating on a project entitled Evaluating Research in Context, or ‘ERiC’. One of the aims of the project is to develop methods for evaluating the societal relevance of research. This guide has been written to supplement two Dutch protocols for the ex post evaluation of research groups and research institutes.

ERiC is a partnership between the Netherlands Association of Universities of Applied Sciences (HBO-raad), the Royal Netherlands Academy of Arts and Sciences (KNAW), the Netherlands Organisation for Scientific Research (NWO), the Association of Universities in the Netherlands (VSNU) and the Rathenau Institute’s Science System Assessment department.

Since the early 1990s, academic research in the Netherlands has been evaluated every few years. Evaluations cover research at universities and at research institutes overseen by KNAW and NWO. Since 2003 VSNU, KNAW and NWO have used a common protocol, known as the Standard Evaluation Protocol. The latest version in English, SEP 2009-2015, can be downloaded at http://www.knaw.nl/sep. Regular evaluation of research at Universities of Applied Sciences (Hogescholen) was introduced recently, and is based on a protocol entitled ‘Quality Assurance System for Research at Universities of Applied Sciences’ developed by the HBO-raad, which is available at http://www.vkohogescholen.nl/documents.

The assessment of societal relevance has been given a more prominent role in these recent protocols. This guide supplements these protocols, presenting a method for assessing societal relevance.

The English version differs in several respects from the Dutch. In the description of the method in the section ‘Societal relevance: evaluation method’, references to the specific protocols have been moved to Appendix 1. The section on ‘Evaluating research in the Netherlands’ has been edited to include more background information on the context in which the guide has been developed.

The organisations behind the Dutch ERiC project coordinate the international SIAMPI project, which is funded under the European Commission’s 7th Framework Programme. The aim of SIAMPI is to develop methods for assessing the ‘societal impact’ of research, focusing on the process by which this impact comes about – the productive interaction between researchers and stakeholders. For more information on SIAMPI, see www.siampi.eu.
Introduction

Evaluation of the societal relevance of research is developing rapidly. In response to the development of the most recent protocols, a number of organisations involved in quality assurance have launched the Evaluating Research in Context or ERiC project. ERiC is a partnership between the Netherlands Association of Universities of Applied Sciences (HBO-raad), the Royal Netherlands Academy of Arts and Sciences (KNAW), the Netherlands Organisation for Scientific Research (NWO), the Association of Universities in the Netherlands (VSNU) and the Rathenau Institute’s Science System Assessment department.

This guide is based on ERiC pilot studies conducted at TU Delft’s Faculty of Architecture, the law faculties of Vrije Universiteit Amsterdam and other universities, the Faculty of Electrical Engineering at Eindhoven University of Technology, and the Faculty of Engineering Technology at the University of Twente. Input has also been drawn from the evaluation of a number of lectorates at University of Applied Sciences Utrecht, and the experiences of the Netherlands Institute for Social Research (SCP). The guide replaces a number of earlier ERiC publications (Zichtbaar maken van maatschappelijke relevantie van kennis and De maatschappelijke kwaliteit van onderzoek in kaart, available only in Dutch).

In research, societal relevance is important in both research assessment and in other assessment situations. Examples include the selection of research proposals and the evaluation of major research programmes. These situations require adaptations of the methodology, which ERiC will be working on over the coming period.

This guide is intended first and foremost for those who are responsible for arranging research assessment, and for those producing self-evaluations.
Evaluating research in the Netherlands

The majority of the research performed by higher education institutions and research institutes in the Netherlands is publicly funded. These institutions enjoy a relatively large degree of autonomy when it comes to how they spend these resources. They must however be able to show that the research meets the required standards. A system of research assessment was developed for this purpose. Over time, this system has developed into a way of meeting accountability obligations, both external, towards the public and politicians, and internal, towards governing boards.

Since the early 1990s, academic research in the Netherlands has been evaluated once every few years. Since 2003 VSNU, KNAW and NWO have used a common protocol – the Standard Evaluation Protocol. The latest version in English, SEP 2009-2015, was published in 2009. Since 2009 the HBO-raad has been using the Quality Assurance System for Research at Universities of Applied Sciences, BKO 2009-2015, which is similar to SEP.

These two protocols cover the ex post evaluation of research performed by a group or institute. In both cases, the evaluation consists of a self-evaluation drawn up by the group or institute itself, and assessment of the research by an evaluation committee, based on the self-evaluation and interviews with those involved. Evaluations generally cover research performed over the previous six years.

Self-evaluation and evaluation committee reports encourage organisations to improve their research and their management of research. They also allow guidance of their research function. SEP 2009-2015 emphasises the learning experience element of the research assessment, inviting research groups to use it to develop their strategy. BKO 2009-2015 underlines the importance of research assessment for the development of the research function at Universities of Applied Sciences.

The specific goal will differ from one case to another. Sometimes a simple accountability evaluation will suffice. Sometimes a manager, dean, lector or research group will use the research assessment as input for their own policy. The assessment should not only, therefore, provide an insight into the quality of the research. It should also, for example, provide information on the effectiveness of policy and policy choices, provide opportunities for the valorisation of the research or support acquisition of research funding. If an assessment is to provide input for strategic policy, the evaluation committee will generally need more information than if it is only required to assess quality and societal relevance. In dialogue with the party that officially commissions the research assessment – the management of the institution – the research group or institute can explore what these extra goals imply for the self-evaluation and the formal task and membership of the evaluation committee.

Evaluation = robust data + the evaluation committee's assessment
The robust data must include relevant quantitative information, whose significance will be defined by the assessment of the evaluation committee.
Evaluation is not the same as measuring.
Evaluating societal relevance

Assessment of societal relevance has been given a more prominent role in recent protocols for the evaluation of research. In SEP 2009-2015 relevance is one of the four criteria listed, alongside quality, productivity and vitality & feasibility. In BKO 2009-2015 the relevance and applicability of the research in professional practice are key criteria.

The focus on the societal relevance of research is part of a general trend towards underlining the importance of academic research to the private and public sectors (industry, education, policymakers, health care etc.), to efforts to tackle societal issues (such as innovation, climate change, social cohesion, globalisation, health care) and to education and training.

What is societal relevance?
The definition of societal relevance used in this guide is in line with the definitions in SEP and BKO. SEP uses the term ‘societal relevance’, distinguishing between ‘societal quality’, ‘societal impact’ and valorisation. BKO focuses on the relevance of research in professional practice, either directly, or indirectly via education.

For the purposes of this guide, societal relevance is defined by:
- the degree to which research contributes to and creates an understanding of the development of societal sectors and practice (such as industry, education, policymaking, health care) and the goals they aim to achieve, and to resolving problems and issues (such as climate change and social cohesion)
- a well-founded expectation that the research will provide such a contribution in the short or long term

The first part of this definition refers to what the research has yielded in terms of specific contributions and effects. Evidence of this may take the form of use by stakeholders. This is a retrospective assessment.

The second part refers to the expectation that the research will eventually be able to yield such contributions. Actual effects might not immediately become visible. Evidence may be apparent in interaction between research groups and stakeholders. This is a prospective assessment.

Productive interaction
If research is to have an impact in society, there must be some interaction between a research group and societal stakeholders. Such interaction can take place when the research agenda is defined, during the research itself, or afterwards, when the results are communicated to stakeholders. Such ‘productive interaction’ is vital. A summary of instances of such interaction is therefore an essential element of the information on a research group’s performance. If productive interaction exists between research groups and stakeholders, there is more reason to expect that the research will sooner or later have a societal impact.
The role of societal stakeholders in research evaluation

A good assessment of societal relevance requires experts with an understanding of the societal context. These may be academic peers, or stakeholder practitioners who understand the importance of the research in question. In many fields, the stakeholder perspective is crucial for the assessment of societal relevance. However, the stakeholder’s assessment must transcend individual experience and individual benefit, and genuinely be based on the relevance of the research for the targeted sector.

There are various ways of involving stakeholders in an evaluation, and various moments at which this is appropriate. In the self-evaluation phase, stakeholder interviews can be held to ascertain their opinion. The evaluation committee can meet with stakeholders (in interviews or focus groups) to ask their opinion. Stakeholders might also be included in the evaluation committee.

Bear in mind that the societal relevance of research can extend beyond its immediate importance for primary stakeholders. It is wise to explicitly consider whether there are also secondary stakeholders and/or whether the research has a broader relevance that is not reflected by the primary stakeholders. Besides interviewing stakeholders, the Netherlands Institute for Social Research (SCP) has also analysed the societal adoption of its publications, by investigating their online visibility.

Involve stakeholders in the evaluation of the societal relevance of research, either in the self-evaluation phase, at meetings between stakeholders and the evaluation committee or by including stakeholder members in the evaluation committee.

Context of the research

The likely contributions to societal goals or practice differ from one field of research to another, and from one research programme to another within a single field. In some fields, research is so interwoven with practice that any distinction between academic quality and societal relevance would be false, and would be at odds with accepted views on the quality of research in that field (e.g. in law or architecture). Research at Universities of Applied Sciences is rooted in professional practice, and strongly associated with an application context. Research questions are therefore drawn from practice and the results will generally have to be directly applicable. In other fields, academic quality and societal relevance can be readily distinguished.

This guide assumes that research is assessed ‘in context’. Since the context differs from one area of research, discipline or organisation to another, indicators of societal relevance may also differ.

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Societal relevance: evaluation method

Four steps to evaluate the societal relevance of research are described below. These steps are synchronous with the procedures described in the Dutch protocols SEP 2009-2015 and BKO 2009-2015. The results of steps 1, 2 and 3 are presented in a self-evaluation report; step 4 concerns the assessment of the evaluation committee. The protocols also require a SWOT analysis to identify the strengths and weaknesses of the research group, as well as any opportunities and threats.

Step 1: Describe or take stock of the research group’s mission and objectives

The first question to consider in evaluating societal relevance is what societal contributions the research group is willing and able to make and what strategy it has adopted in order to do so. Some evaluation methods require that a pre-drafted mission statement and set of objectives be used as reference. Evaluation committees will then often use the mission statement as a benchmark. If a research institute has a statutory task, or a task agreed with an umbrella organisation, this can be a useful point of departure. In the case of university research groups and lectorates, assessing their work in terms of such a mission statement – which might be outdated – is more problematic, in view of the dynamics of the field and/or possible organisational changes in the institution. It is then wise to ascertain whether the mission statement needs to be updated. In that case, use existing descriptions of the research programme or sub-programmes, texts published online, and interviews with the dean and researchers in order to draft an amended mission statement.

The mission statement reflects the context of the research. It is a good idea to specify the societal domains and professional practices targeted by the research. For example:

- Training for skilled researchers and professionals in the field of X and/or for sectors Y and Z.
- Improvements to procedures in a particular profession.
- Production of knowledge for industry and the commercial sector, or conversion of knowledge into new economic activity.
- Production of knowledge for public sectors such as health care, education and culture.
- Production of knowledge to support the drafting, implementation and evaluation of policy.

The mission statement should also indicate how the research group intends to achieve the mission by, for example, specifying what type of research the group performs, whether it is involved in partnerships with
stakeholders (and which ones), and what output it plans to produce. Sometimes the mission statement will be more specific, including quantified objectives such as a particular number of professional publications, financial resources to be acquired, or contributions to education and training.

When writing or rewriting the mission statement, bear in mind that the mission and objectives depend not only on the research group, but also on the strategy of the institution, of any statutory task assigned to the organisation, and the quality standards in a particular field of research. An evaluation committee will not only assess whether a research group has fulfilled its mission, but also whether the mission meets the standards of the field in which the research group operates.

**Step 2: Describe the societal contribution of the research**

Research assessment is aimed at assessing the quality of research. Research groups often describe societal relevance in terms of promises and prospects for the future. Looking back over the period under review, it is possible to describe the actual societal contribution made by the research. In this step, you summarise the main societal results and interaction with stakeholders to produce a qualitative description of the societal relevance. The following four questions provide a useful guide:

**Question 1: What substantive results did the research yield that could be of importance to society?**

Just as you can describe academic contributions and insights, you can also describe contributions and insights produced by your research that may be of importance to society. Results can be both academically and societally relevant at the same time.

One example is the compilation of a database on juvenile crime. The academic importance of this lies in the opportunity to perform analyses that help us understand the factors that play a role in juvenile crime; the societal importance lies in the opportunity to use this information to develop an evidence-based prevention policy. Other examples include:

- a new intervention for a health care programme
- a new spatial planning concept for urban areas
- a new electronic device

**Question 2: How has the knowledge been disseminated among societal stakeholders?**

Research results can only have an impact if societal stakeholders are aware of them. This can be achieved by transmitting or sharing results through productive interaction with stakeholders: educational material or reports, artefacts like websites and exhibitions, personal contact through courses or membership of a committee, for example. Media attention can also help.

In some fields there are specific practices that help spread academic knowledge, so there is a good chance that research results will be used in practice. Examples include publications in legal journals, clinical treatment protocols compiled under the auspices of the Royal Dutch Medical Association and professors of architecture who are also practising architects.

**Question 3: What evidence is there of interest and appreciation on the part of societal stakeholders?**

Another prerequisite for societal impact is that stakeholders are interested in your research and/or use and appreciate the results. They may show such interest and appreciation at any phase of the research: in connection with the setting of the research agenda or the definition of a specific project, during the research,
or subsequently. Evidence of interest will come from productive interaction between researchers and stakeholders. This might include personal contacts that lead to agenda setting by the field, joint projects or invitations to present research at decision-making level (boardroom presence). Stakeholders might also be willing to fund the research. Finally, interest can also be gauged by the downloading of publications.

You can ascertain stakeholders’ appreciation of your research through interviews with direct stakeholders. Good preparation for the interviewees and experienced interviewers are vital. In interviews, stakeholders tend to draw on their own experiences. If you opt for this method of data collection, it is important that stakeholders are sufficiently representative of the societal context in which the research group operates.

**Question 4: What effects have the research results had?**

Although the impact of research is sometimes not felt immediately, it is nevertheless wise to identify any impact. In other words, any observable effect of your research. This might include adjustments of specific policies, use of a new therapy that reduces the burden of illness on patients, or income from patents or a successful spin-off.

**Step 3: Compile a list based on indicators of societal relevance**

In the third step, use indicators to compile a list of the research group’s achievements in terms of societal relevance. Any specific results presented in step 2 can be aggregated by using indicators that are universally applicable in your field or discipline. These are similar to indicators of academic quality, such as the number of reviewed publications, citations and grants awarded.

The indicators reflect various aspects of societal relevance:

- the spread of research results
- the degree of interest in and appreciation of the research among societal stakeholders
- actual use of the research results

Experience shows that it is best to limit the set of indicators. Choose indicators that carry weight, and for which data are available or can be collected within the timeframe set. Consider the potential for benchmarking, too.

In some disciplines or fields, there is consensus on a limited set of core indicators, which are used in national reviews to compare research groups and faculties. Even if there is such a consensus in your discipline or field, you might consider presenting additional indicators in your self-evaluation based on the findings from step 2.

It is important to bear in mind that indicators are context-dependent, and can therefore differ from one research group and discipline to another. It is even possible that indicators reflect dissemination of knowledge in one discipline, and stakeholder interest in another. By way of illustration, tables 1 to 3 show examples of indicators from the architecture, electrical engineering and law pilot studies.
### Table 1: Indicators of societal relevance of architectural research

<table>
<thead>
<tr>
<th>Aspect of societal relevance</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination of knowledge</td>
<td>Professional publications, non-academic publications, exhibitions etc. &lt;br&gt; Spread of technology, artefacts, standards &lt;br&gt; Advisory and consultancy activities &lt;br&gt; Popularisation, education and contribution to public debate &lt;br&gt; Professional training, mobility of graduates &lt;br&gt; Master's dissertations and graduation projects that address questions from practitioners</td>
</tr>
<tr>
<td>Interest of stakeholders</td>
<td>Number of researchers with relevant practical experience in the sector(s) that the research programme targets &lt;br&gt; Public funding related to societal issues &lt;br&gt; Funds from contract research commissioned by potential users &lt;br&gt; Collaboration with societal stakeholders on research, tests and evaluations &lt;br&gt; Consortiums with non-academic organisations</td>
</tr>
<tr>
<td>Impact and use of results</td>
<td>Income from use of results &lt;br&gt; Visibility in public debate/public media rankings</td>
</tr>
</tbody>
</table>

### Table 2: Indicators of societal relevance of electrical engineering research

<table>
<thead>
<tr>
<th>Aspect of societal relevance</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination of knowledge</td>
<td>PhDs in industry &lt;br&gt; Master’s graduates in industry &lt;br&gt; Proofs of concept &lt;br&gt; Presentations at specialist conferences</td>
</tr>
<tr>
<td>Interest of stakeholders</td>
<td>Joint road maps &lt;br&gt; Presentations by invitation &lt;br&gt; Valorisation grants &lt;br&gt; Industry funding &lt;br&gt; Staff exchanges &lt;br&gt; Part-time professors from/in industry &lt;br&gt; Consortiums with industry</td>
</tr>
<tr>
<td>Impact and use of results</td>
<td>Market launch and new products in industry &lt;br&gt; Spin-offs with industry contacts &lt;br&gt; Patents</td>
</tr>
</tbody>
</table>
From self-evaluation to evaluation committee

Having performed the first three steps, you are now in a position to draft a reliable self-evaluation of the societal relevance of your research. Use the information gathered in steps 1, 2 and 3. You might opt at this stage to incorporate stakeholders’ opinions (see step 2, question 3).

This is also the time to produce a SWOT analysis, identifying the strengths and weaknesses of the research group, and its opportunities and threats.

The next step is to seek the opinion of an evaluation committee. A number of relevant issues that the evaluation committee might consider are explored in brief below.

**Step 4: The evaluation committee gives its opinion of the societal relevance of the research**

The evaluation committee assesses the societal relevance of the research, based on the self-evaluation, interviews with those involved and the opinion of stakeholders.

The stakeholders’ opinion may be included in the self-evaluation. Other options include:

- Inviting experts with an understanding of the societal issue or sector to sit on the evaluation committee. Such an expert should be in a position to assess what role university research and lectorates should be able to play vis-à-vis the societal sector in question, and the relevance of the particular group in that respect.
- A meeting between stakeholders and evaluation committee as part of the assessment process. The committee can use the meeting to assess the relevance claimed in the self-evaluation. It is a good idea to send stakeholders a copy of the self-evaluation report (or the relevant parts of it) prior to the meeting, so that they can prepare themselves properly.

An evaluation committee assesses not only whether the mission has been fulfilled, but also whether the mission is appropriate for the field in which the research group operates.

Appendix 1 gives specific instructions for evaluation committees, giving further details of the societal relevance assessment criterion in terms of BKO 2009-2015 and SEP 2009-2015.

<table>
<thead>
<tr>
<th>Aspect of societal relevance</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>In this pilot study the indicators were not linked to specific aspects of societal relevance</td>
<td>Papers in leading professional journals for fellow researchers and law professionals</td>
</tr>
<tr>
<td>Membership of advisory committees on legal practice and policy</td>
<td></td>
</tr>
<tr>
<td>Outside work in legal practice</td>
<td></td>
</tr>
<tr>
<td>Post-academic education</td>
<td></td>
</tr>
</tbody>
</table>
In this section we will briefly discuss a number of issues that have arisen in the practice of evaluation of the societal relevance of research.

**Contribution to education**
Academic research is important for the quality of higher education. This guide has touched only briefly upon the relationship between research and education. The four-step plan can however be readily applied to this aspect, too, as productive interaction can of course also be identified between research and education. This includes:
- student involvement in research
- improvements to curricula and working methods based on research
- professionalisation of teaching staff by the research unit

**Ethical aspects of research**
The societal impact of research can have a major ethical dimension. Research into stem cells, genomics, ICT development, nanotechnology, research into modern history and societal science research on immigration issues can give rise to normative debate in society. Research groups are wise to be aware of such impacts, as in the use of people and animals in testing, or the administration of databases containing personal information. Even though research assessment is not intended to contribute to ethical debate, evaluation committees do consider elements of such debate in assessing the quality of the research. They will examine whether ethical frameworks and procedures have been defined, whether you have considered this aspect in your self-evaluation and whether your procedures and practices comply with common standards.

**Long-term impact**
The societal impact of research can take a long time to become apparent. In fundamental biomedical research, for example, though there might be a relationship between the research and specific medical conditions, it is by no means certain whether the results will ever help improve therapies. In mathematical research, though there may be no such potential application at all at the time of publication, years later the results may unexpectedly help resolve problems in logistics, theoretical physics or ICT.

Research assessment conducted in accordance with SEP or BKO generally looks back over a limited period. The potential long-term impact is therefore very difficult to evaluate. It is always a good idea to mention any unexpected contributions in the self-evaluation, even though this guide does not specifically encompass this aspect.

**The inherent value of academic research**
Academic research has an inherent value, and such research is an inherent part of a society that is willing to innovate, take a critical look at itself and build knowledge. This applies to physics research into the behaviour of air bubbles just as much as to social science research on group identity, to anthropological research, philosophical research, and to space research just as much as to research into new materials. This guide does not intend to draw this inherent value into question, nor to pass any judgment on it.
Appendix 1: Societal relevance and the specific protocols

BKO 2009-2015

Self-evaluation
Information on the societal relevance of research is listed as one of the subjects for inclusion in the self-evaluation. The focus is on the following selection in particular (source: Quality Assurance System for Research at Universities of Applied Sciences; basic document 2009-2015):

• The research unit’s mission
• The research themes and portfolio
• Partnerships and academic relationships both within the institution and with external organisations, institutions and companies, at regional, national and international level
• Publications, presentations and other products of the research conducted by the unit during the period under review
• Information on the impact and appreciation of the research in terms of:
  a. Professional practice and society
  b. Education and training

Evaluation committee
A BKO research assessment focuses on five evaluation questions to which the evaluation committee must provide substantiated answers. The following questions concern the societal relevance of the research (numbering in accordance with BKO 2009-2015):

Question 1: Has there been sufficient relevant productivity, impact, appreciation and recognition in terms of:
  • valorisation in professional practice and society
  • significance for education and training?
Question 2: Has this all taken place on the basis of a relevant and challenging mission statement and a clear research profile?
Question 5: Are internal and external partnerships, networks and relationships sufficiently relevant, intensive and sustainable?

The committee will use your self-evaluation, and other sources, to address these questions.

SEP 2009-2015

Self-evaluation
Societal relevance can be reflected in your self-evaluation in two ways.

1. SEP 2009-2015 suggests including ‘societal relevance’ in the self-evaluation (see SEP 2009-2015, pages 15-16; table 5.1, item 8). A simple way of doing this is to follow steps 2 and 3 in this guide.

2. In some disciplines and research groups, academic quality and societal relevance are very closely related (as we found in the architecture pilot study). In such cases, it is much more difficult to present information about societal relevance separately from the other items in the self-evaluation. Table 4 suggests how architecture research groups might present information on societal relevance as an integral part of their self-evaluation. Present the results of step 1 under item 1, objectives and research area. Present the results of step 2 under item 8, on societal relevance. The other sections can be completed using the information gathered in steps 3 and 4.
Table 4: Additional guide for SEP self-evaluation by architecture research groups

<table>
<thead>
<tr>
<th>SEP item</th>
<th>SEP explanation</th>
<th>Results of ERiC pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Objectives and research area</td>
<td>Vision, mission and objective(s) of the institute</td>
<td>Relevance of research agenda for societal issues and stakeholders</td>
</tr>
<tr>
<td></td>
<td>Research area and programmes</td>
<td></td>
</tr>
<tr>
<td>2 Composition</td>
<td>Composition of the research unit to be evaluated, based on two indications</td>
<td>Staff with part time position in external organisations (architecture bureaus, policy bodies, consultancy)</td>
</tr>
<tr>
<td></td>
<td>• total number of employees in each job category (including contract-PhD candidates) and</td>
<td>Specify:</td>
</tr>
<tr>
<td></td>
<td>• overview of the various sources of financing (internal and external)</td>
<td>• Commissioned research by societal actors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Earmarked/structural funding related to societal concerns/issues</td>
</tr>
<tr>
<td>3 Research environment and embedding</td>
<td>• National and international positioning ('soft' benchmarking based on SWOT-analysis),</td>
<td>• Actual collaborations with stakeholders</td>
</tr>
<tr>
<td></td>
<td>• number and affiliation of guest researchers (internally and externally funded)</td>
<td>• Participation in consortia</td>
</tr>
<tr>
<td>4 Quality and scientific relevance</td>
<td>• 3-5 most significant results/highlights relevant to the discipline, per group/subgroup</td>
<td>• 3-5 outputs with major impact on architectural practices and policies</td>
</tr>
<tr>
<td></td>
<td>• 3-5 key publications per group/sub group (references; full text may be published on secluded website)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Number of articles in top 10% of publications relevant to the discipline; ditto for top 25%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 3-5 most important books or chapters of books, insofar as applicable</td>
<td></td>
</tr>
<tr>
<td>5 Output</td>
<td>• Number of publications</td>
<td>• Number of conference papers</td>
</tr>
<tr>
<td></td>
<td>• Number of PhDs (completed and in progress)</td>
<td>• Edited volumes of conference papers</td>
</tr>
<tr>
<td></td>
<td>• Use (number of users) of research facilities (if part of institute's mission)</td>
<td>• Number of major reviews of literature and exhibitions</td>
</tr>
<tr>
<td>7 Academic reputation</td>
<td>Most important signs of recognition for research staff (prizes, awards, invitations to address major conferences, conference organisation activities, editorships, membership of academies)</td>
<td>Include professional reputation, based on roles in professional contexts, policy making etc. If available include stakeholder feed back on quality of the group</td>
</tr>
</tbody>
</table>
This section can be based on four issues:

- Describe the most significant knowledge contributions made in the review period to architectural practices and policies
- Evidence of the appreciation of stakeholders of these contributions
- Strategies of how these contributions have been disseminated (outputs, media)
- Evidence of impacts of these contributions

Table 3.2 of SEP 2009-2015 does not go into any further detail on societal relevance. To ascertain what information (obtained in steps 1 to 3) the evaluation committee can use as a basis for its assessment, table 5 explores the SEP criterion of societal relevance in more detail. The reference framework for the assessment is what similar research groups in this field are doing, and society’s need for knowledge.

### Table 5: Further details on societal relevance for SEP

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Sub-criteria</th>
<th>Aspects</th>
<th>Things to consider*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>C: Societal relevance</td>
<td>C1. Relevance to society of the research group’s mission and research agenda</td>
<td>Does the research help important stakeholders and address major societal, economic and other questions?</td>
</tr>
<tr>
<td></td>
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<td>C2. Dissemination of knowledge</td>
<td>Interaction with stakeholders; participation in consortiums, collaboration on research, staff exchange Professional output (journals, valorisation strategy, spin-offs, patents)</td>
</tr>
<tr>
<td></td>
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<td>C3. Stakeholder interest</td>
<td>Lectures, boardroom presence; appreciation of graduates; membership of advisory committees; stakeholder appreciation expressed to evaluation committee Funding of valorisation projects, contract research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C4. Contribution to and better understanding of societal sectors</td>
<td>Specific examples of impact; spin-offs; follow-up projects by stakeholders</td>
</tr>
</tbody>
</table>

*These can differ from one research area to another; evaluation in context. Tables 1, 2 and 3 illustrate this fact. This is not, incidentally, a comprehensive list.
ERiC: Evaluating Research in Context

ERiC is a partnership involving several organisations that are concerned with quality assurance in research. The following organisations and individuals are involved:

- Professor Henriëtte Maassen van den Brink (chair)
- Marcel de Haas (Netherlands Association of Universities of Applied Sciences)
- Jacco van den Heuvel (Royal Netherlands Academy of Arts and Sciences (KNAW))
- Dr. Jack Spaapen (Royal Netherlands Academy of Arts and Sciences (KNAW))
- Mariken Elsen (Netherlands Organisation for Scientific Research (NWO))
- Renee Westenbrink (Association of Universities in the Netherlands (VSNU))
- Professor Peter van den Besselaar (Rathenau Institute)
- Dr. Barend van der Meulen (Rathenau Institute)
- Leonie van Drooge (secretary)

The guide is based on the ERiC pilot studies. The results of these studies will be presented to the bodies that commissioned them in the first half of 2010. A version for the general public will be published in mid-2010.

The following ERiC pilot studies have been performed:

- ERIC Pilot Study at Faculty of Architecture, TU Delft: Barend van der Meulen, Floortje Daemen, Leonie van Drooge, Stefan de Jong, Jack Spaapen, Frank Wamelink, Peter van den Besselaar.
- ERIC Pilot Study at Faculty of Law, Vrije Universiteit Amsterdam: Pleun van Arensbergen, Mark Pen, Leonie van Drooge, Peter van den Besselaar, Jack Spaapen
- ERIC Pilot Study at Faculty of Electrical Engineering, TU/e: Tilo Propp, Barend van der Meulen
- ERIC Pilot Study on Mechanical Engineering Research at the University of Twente: Ad Prins

For more information on the ERiC project, go to www.eric-project.nl
The following organisations are involved in ERIC:
the Netherlands Association of Universities of Applied Sciences (HBO-raad), the Royal Netherlands Academy of Arts and Sciences (KNAW), the Netherlands Organisation for Scientific Research (NWO), the Association of Universities in the Netherlands (VSNU) and the Rathenau Institute’s Science System Assessment department.

For more information, see www.eric-project.nl