Frameworks for sustainable procurement at TU/e

Eindhoven University of Technology
Contents

1 Introduction................................................................................................................................ 3
2 Procurement organization at TU/e............................................................................................... 3
3 Procurement process and sustainability....................................................................................... 3
3.1 Opportunities by procurement category ....................................................................................... 4
4 Sustainable procurement in practice: Procurement with impact ................................................... 5
4.1 Themes ................................................................................................................................................... 5
4.2 Ambition Web........................................................................................................................................ 6
4.3 Concrete approach by project/tender ............................................................................................. 7
5 Contract Management ................................................................................................................ 8
6 Reports....................................................................................................................................... 8
Appendix Opportunities by Product Group ............................................................................................... 9
Appendix R-Ladder ................................................................................................................................ 10
Appendix Ambition Web.................................................................................................................... 10
1 Introduction

In its Strategy 2030, TU/e states that sustainability is one of the three biggest challenges for the world of today and tomorrow and TU/e wants to play a leading role in this challenge. TU/e wants to intertwine sustainability with education and research and within business operations. Its motto is ‘Practice what you teach’. Sustainability has been named as one of the university’s strategic priorities.

The impact of sustainable and social public procurement is significant. 18% of the Dutch climate footprint is in government procurement (RIVM 2021). Suppliers are often primarily selected for their contribution to one goal, namely the delivery of a particular service or product. However, they can also contribute to sustainable and social goals if this is encouraged. Ultimately, this has a real impact on supply.

Sustainable and social procurement, or simply sustainable procurement, can thus be an effective tool to help reduce CO₂ emissions, the environmental impact and resource use, to stimulate a circular economy, to realize an inclusive labor market and to address human and environmental abuses in international chains. Sustainable and social procurement focuses on the entire production and supply chain. The following themes are usually distinguished:

Clockwise: Climate; Circular (including biobased); Chain Responsibility (International Social Conditions, ISC); Diversity and inclusion; Social Return; Environment (including biodiversity).

For its operational management, TU/e has established a vision statement that identifies its ambitions and strategic goals for sustainability: “Sustainability Vision for Operational Management”. The "Frameworks for Sustainable Procurement" details the contribution of the procurement of goods and services in achieving this vision.

2 Procurement organization at TU/e

It is important to understand that TU/e has a coordinated procurement model. This means that procurement at TU/e is a joint responsibility: Central policy and direction, decentralized decision-making and ordering, where:

- Budget holder → responsible for the content
- Procurement → responsible for the procurement process and procedure

So procurement at TU/e has a very important decentralized component. Therefore, it is important that the management, procurement officer and budget holder work together to achieve results in the area of sustainable procurement and embed plans firmly in the organization. The Procurement department can play a driving role, but can accomplish little without support and backing from the board and the organization.

3 Procurement process and sustainability

Sustainable procurement should be the standard, not the exception. It is a topic that must be addressed in every procurement process. TU/e wants to be a forerunner in this field, an example for other organizations and aims to play a stimulating role in encouraging and challenging suppliers to offer sustainable and innovative solutions and adopt sustainable operational management. This often requires an innovative
procurement process and procurement techniques other than only applying minimum requirements. TU/e aims to increase the effectiveness of sustainable procurement by, among other things:

- Tendering based on ambitions. Translating policy principles and requirements into objectives for procurement processes.
- Making greater use of market exploration and dialogue with the market. This dialogue can take place by budget holder and procurement officer together well before the call for proposals. Dialogue can also take place during the tender procedure by using specific tendering procedures.
- Where TU/e can make a choice which suppliers are invited to submit a quotation, the sustainability performance of the supplier is also taken into account.
- Making greater use of award and selection criteria in the field of sustainability and also assign a greater value to these. This allows companies to differentiate themselves.
- More often taking the life cycle costs of a product or service into account rather than just the purchase price.
- More often (preferably always) opting for a functional description and/or description of the purpose rather than a detailed technical description of the product, service or work to be provided.
- Making the method of assessing the sustainability promises made in tenders for the services, goods and works to be delivered more concrete, for example, by including KPIs in contract management.

TU/e chooses an approach per project or category of similar goods/services, always seeking the right balance of all factors. Given the diversity in procurement categories at TU/e, the belief is that a generic approach is not appropriate and more results can be achieved with a customized approach.

3.1 Opportunities by procurement category

TU/e's total procurement needs are highly diverse: from office supplies to highly specialized scientific equipment and from hiring an IT specialist to constructing an entire building. TU/e chooses to initially focus primarily on those categories and product groups where the most and greatest opportunities lie. Specifically, this means per (main) category:

**ICT software (ICT applications)**

There is impact here, especially in terms of energy consumption. However, the impact in other categories is estimated to be (much) greater. For the time being, no priority will be given to this category.

**ICT hardware (laptops, I-phones, AV equipment, servers, etc.)**

Many opportunities with great impact. The fact that this market consists of a relatively small number of major players on which TU/e sometimes depends makes it difficult to achieve results. Products are often made throughout the world and overviewing the entire chain is very difficult. TU/e needs to partner with others (perhaps the whole of the Netherlands) to achieve results in this chain. There are also other great opportunities, such as longer use, reuse, prevention of e-waste, etc.

**Housing (new construction, renovation, maintenance, campus grounds)**

Many opportunities with great impact. Typically, a number of choices with a major sustainability impact must be made long before the actual start of a procurement process and the financial implications of choices can be large.

**Facilities (everything related to facility services)**

Many opportunities with great impact. Here too, a number of (policy) choices have to be made up front because they affect how services are provided. A further characteristic is that in a number of areas (e.g., cleaning, catering, reception services) the services are performed by personnel of the supplier on the TU/e campus.

**Scientific equipment (specialized equipment for scientific research)**

Due to the very small market and specific requirements, it is expected that results will be extremely difficult to achieve in this category. For the time being, no priority will be given to this category.
Research and education supplies (chemicals, laboratory supplies, technical materials, literature and content, miscellaneous)
Because of the specific requirements, the possibilities for the products themselves are often limited. However, results can be achieved in transport movements (how often deliveries should be made and mode of transport) and packaging. For this category, attention will be focused on these points.

Hiring and consultancy (business operations and technically scientific)
This category involves the deployment of individuals. The options here are limited to reducing transport movements as much as possible and encouraging sustainable transport. Limited attention will be paid to this category.

General (anything that does not fit into one of the other categories)
To be considered by subject.

See also as an example the Appendix Opportunities by Product Group.

4 Sustainable procurement in practice: Procurement with impact
‘Procurement with Impact’ is the new strategy. Sustainable, social and innovative procurement is a matter of course. Taking into account the priorities indicated in Section 3.1, we want to include Impact as an extra award criterion besides Price and Quality wherever possible (“comply or explain”). So Impact is not a part of the quality criteria, but a separate, third award criterion, to which a significant value is assigned. This will vary from tender to tender, but where opportunities exist at least 20-30% of the total is envisioned.

4.1 Themes
To actually achieve Impact, we have formulated the following themes, which are based on TU/e's Sustainability Vision for Operational Management:
1. Climate (climate control)
2.Circularity
3. Environment (environmental impact)
4. Chain responsibility
5. Social sustainability
6. Innovative strength

Climate
Climate-conscious procurement involves preventing or minimizing emissions of CO2 and other greenhouse gases and making a positive contribution to energy saving and the transition to renewable energy resources. A helpful tool for this theme can be the use of the CO2 performance ladder.

Circularity
Encouraging a circular economy. This entails limiting the use of primary, non-renewable resources and keeping resources circulating (infinitely) in our economic system. We do this by opting for minimal use of new materials and fossil raw materials when purchasing products and services, both in the production process and in the use of the products and services, and/or by maximally focusing on a long service life and subsequently high-quality recyclability of the goods or materials in it. Value destruction must be avoided as much as possible and material cycles must be closed. Thus, in a fully circular economy, there is no waste. The R-ladder is a helpful tool for this theme (see Appendix).

Environment
Combating environmental pollution (nitrogen emissions), air pollution and the use of harmful substances and pesticides in order to protect biodiversity and the living environment. This theme also includes avoiding food waste and reducing water and energy use.
Chain responsibility
Encouraging chain responsibility of companies. This means preventing or tackling abuses in the field of working conditions, human rights and the environment (international social conditions).

Innovative strength
Using our own purchasing power for the development and application of innovations needed to solve societal challenges. In this, TU/e challenges entrepreneurs to come up with innovative products and services that help solve social issues, with TU/e acting as one of the first or even as a launching customer.

Social sustainability
Fostering a diverse and inclusive society where all are treated and judged on what they can do and not on who they are, who they love, where they come from or what they believe.
Also encouraging labor participation of people who are at a disadvantage on the job market (social return) in line with the pursuit of a diverse and inclusive society.

4.2 Ambition Web
A tool that we will use during the entire (procurement) process is the ambition web. The ambition web is a simple and useful tool to determine the level of ambition with a group of stakeholders on the most important themes. The input becomes immediately and clearly visible, making the ambition web a powerful communication tool as well. The themes as listed in section 4.1 are the starting point; for each project these can be adapted, refined and explained in more detail.

The ambition web has four levels of ambition:
0. No sustainability ambitions or not relevant
1. Basis
2. Significant
3. Ambitious

Below a randomly completed example:

![Ambition Web Diagram]
See the Appendix Ambition Web for further explanation.

4.3 Concrete approach by project/tender
The way in which procurement with Impact takes shape in concrete purchasing processes in the categories where there are opportunities is detailed below.

Preliminary phase
A project normally starts with a phase of developing a vision and a plan. This phase involves thinking about needs, objectives, business case and/or required budget. It is important that Procurement is engaged early because most results can be achieved on the front end. An initial rough idea of how a project can be put on the market is also part of this phase, and a market exploration can provide valuable information. In this phase, in addition to the other objectives, the ambition for sustainability must be determined. To this end, an ambition web is completed in a joint session with the most important stakeholders. In this phase, it is also considered if there are opportunities to make use of existing knowledge and capacities of the university, such as ongoing or completed research, living labs, etc. Procurement will regularly discuss the upcoming tendering processes in the Sustainability Control Group to ensure that the appropriate individuals from this group are engaged. Some sustainable ambitions require the university to make choices and establish policies before a procurement process can start. Not infrequently, this is where the biggest difference can be made. Other sustainable ambitions can be included as part of the procurement process.

Procurement strategy
The procurement strategy details the goals to be achieved and how the procurement process will take shape. In every Procurement Strategy, sustainability (Impact) is one of the topics that is addressed and developed. The established ambition web will also be included in the Procurement Strategy. In any case, the procurement strategy is approved by the director of the management and the manager Procurement.

Demand specification or program of requirements
The ambitions shown in the ambition web are elaborated in the demand specification or program of requirements and in the selection and award criteria. For the demand specification and program of requirements, it is important that the minimum sustainability requirements are included and/or that there is room for the tenderer to offer sustainable solutions. Sustainability must therefore explicitly be a point of attention when drawing up these documents, considering which goals can best be achieved by setting requirements and for which goals space should be given to the tenderers to contribute their knowledge and expertise with respect to sustainable solutions.

Selection criteria
If there is a tender with 2 phases (a selection phase and an award phase), the selection criteria should be such that parties who have embedded sustainability in their own business operations and have experience with sustainable solutions have an advantage. In a single-phase tender, the selection criteria only look at fairly basic matters, such as ISO certification or the presence of a sustainability policy. Other matters will be covered in the award criteria.

Award criteria
The award criteria are always two-fold:
• What does the tenderer do to shape its own business operations sustainably.
• What does the tenderer do when delivering or providing products or services to TU/e.

Impact as an award criterion:
• The applicable themes are described in the tender documents and, as far as possible, specific objectives are indicated in relation to the subject of the tender
• Measures are requested that contribute to the goals and specific objectives described in the themes for the subject in question. It is requested that the measures are set out as concretely as possible in a growth plan, in which it is clear what will be accomplished and when. Measurable KPIs (key performance indicators) and how they will be reported should also be part of this plan.
• A substantiation (evidence) of feasibility and effect of the measures on the goals will be requested.

An assessment is made based on how well the tenderer:
• Provides clear and concrete insight into its measures and the time frame involved;
• With supporting evidence demonstrates that:
  (1) it is feasible to implement the measures as indicated
  (2) the measures contribute to the goals
  (3) this will be reported in a transparent manner

Question Rounds
During the tender there will be one or more rounds of questions. Questions from market parties may lead to adjustments in the original documents. Where this involves sustainability, the response will be evaluated also taking into account the opinion of the relevant Sustainability Control Group member.

Awarding
The award advice will include the result of the tender in the field of sustainability with the help of an ambition web.

5 Contract Management
After an agreement is in place, the period of contract management begins.

Contract management = the optimal use of a contract throughout the entire term and the creation of added value by optimizing the supplier relationship.

During contract management, it should be a matter of course that the agreements made in the field of sustainable procurement are also monitored. The supplier will have to report on its results in this area and be held accountable if they fall short. The contract manager has a leading and active role in this. Often a growth plan for the future will have been agreed upon. In order to ensure that this plan is actually implemented and results are achieved, it is important that the contract manager (if necessary, with the help of the buyer) actively engages in dialogue with the supplier about the sustainable measures and thereby monitors and checks the supplier's sustainability performance. Here too, the ambition web can be used to compare what the outcome of the tender was and what has (already) become of it. With longer-term relationships, it is also important to let ambitions grow with the new opportunities that have arisen over time; a sustainability plan is not static. The buyer is involved based on his role in contract management.

Sustainability agreements are also often included in already existing agreements. Even if this is not the case, or if the agreements are less concrete, often much can still be achieved in consultation with the supplier. The contract manager and buyer will need to take an active role here together to achieve sustainability improvements.

6 Reports
The ultimate aim is to obtain an overview of:
• Minimum requirements on sustainability in the tender;
• Sustainability performance offered by the supplier in its proposal;
• Sustainability performance delivered during the contract period.
Appendix Opportunities by Product Group

KANSEN PER PRODUCTGROEP

<table>
<thead>
<tr>
<th>Produktgroep*</th>
<th>Klimaat</th>
<th>Circular</th>
<th>Milieu</th>
<th>Sociaal</th>
<th>Kostzuinig - onzielijkheid (OM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dienstauris</td>
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<td>Buitenlandse dienstzaken</td>
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<td>Contractvervoer (voor bijvoorbeeld leerlingen)</td>
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<td>Transportdiensten (taxi’s en post)</td>
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<td>Bedrijfskleding</td>
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<td>Elektriciteit</td>
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<td>Zonnepanelen</td>
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<td>Gas</td>
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<td>Catering</td>
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<td>ICT Information and communication technology</td>
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<td>Meubelair</td>
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<td>Nieuwbouw</td>
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<td>Openbare verlichting</td>
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<td>Renovatie</td>
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<td>Schoonmaak</td>
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</table>

Very high potential impact; High potential impact; Some potential impact; Little/no potential impact

Company cars; Foreign business trips; Contract transportation (for students, for example); Transport services (cabs and mail); Corporate clothing; Electricity; Solar Panels; Gas; Catering; ICT Information and communication technology; Furniture; Roads; New construction; Public lighting; Renovation; Cleaning.
Appendix R-Ladder

Circular economy

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R0 Refuse</td>
<td>Make product redundant by abandoning its function or by offering the same function with a radically different product</td>
</tr>
<tr>
<td>R1 Rethink</td>
<td>Make product use more intensive (e.g., through sharing products, or by putting multi-functional products on the market)</td>
</tr>
<tr>
<td>R2 Reduce</td>
<td>Increase efficiency in product manufacture or use by consuming fewer natural resources and materials</td>
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<tr>
<td>R3 Re-use</td>
<td>Re-use by another consumer of discarded product which is still in good condition and fulfills its original function</td>
</tr>
<tr>
<td>R4 Repair</td>
<td>Repair and maintenance of defective product so it can be used with its original function</td>
</tr>
<tr>
<td>R5 Refurbish</td>
<td>Restore an old product and bring it up to date</td>
</tr>
<tr>
<td>R6 Remanufacture</td>
<td>Use parts of discarded product in a new product with the same function</td>
</tr>
<tr>
<td>R7 Repurpose</td>
<td>Use discarded product or its parts in a new product with a different function</td>
</tr>
<tr>
<td>R8 Recycle</td>
<td>Process materials to obtain the same (high grade) or lower (low grade) quality</td>
</tr>
<tr>
<td>R9 Recover</td>
<td>Incineration of materials with energy recovery</td>
</tr>
</tbody>
</table>

Linear economy

Source: RLI 2015; edited by PBL

Appendix Ambition Web

See separate excel document