Evaluation of KTH Sustainability: Report from the external evaluation panel

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Panel members

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Summary of conclusions and recommendations

1. The role of the university in society
   KTH needs to be able to respond proactively to challenges and to shape society in a more sustainable direction. A sustainability function that can channel a discussion on the role of the university in society is needed.

2. KTH Sustainability
   KTH-S has played a crucial role in advancing the sustainability agenda at KTH. Support from top management has been critical. KTH-S, including the Vice-Presidency, should continue for some time until sustainability has become mainstream throughout KTH. It needs to have more open and more inclusive enabling role, to avoid lock-in effects. A shift in focus and operation from evaluation to dialogue, from communication to engagement and towards more student involvement is needed.

3. Education
   KTH-S should continue its successful educational development work e.g. through toolboxes and the coaching of teachers. A shift away from evaluations to active dialogue with all schools, with the goal of enabling faculty and schools to better deliver sustainability programming, is imperative. Greater engagement with students is recommended, e.g. by connecting students with external partners and by supporting student-driven sustainability activities.

4. Research
   KTH, as a whole, needs to become more strategic and proactive in relation to research calls, and broader societal needs in this area. This could be done by fostering cross-cutting research activities, and developing stronger links to society, through a continuation of the seed funding scheme, and, potentially, via the research platforms.

5. Collaboration
   Collaboration with society is intrinsic to sustainability work. KTH-S should move beyond its current focus on one-way communication to active engagement with external parties. This could be done e.g. through strategic partnership agreements and student projects.
6. **Campus as a Living Lab**
   The activities of KTH-S and Sustainable Campus should be integrated. One way of doing this would be to transform the KTH campus into a Living Lab. This is an opportunity to implement, study and teach sustainability in practice. The Memorandum of Understanding with Akademiska Hus could be a starting point.

7. **Social Sustainability**
   KTH-S should facilitate the integration of human and behavioural dimensions of sustainability into teaching and research. The realities of engineering practice motivate such a broadening of the perspective.

8. **Governance**
   The KTH-S council should be disbanded. Instead, the future focus should lie on strengthening the Vice-Presidency and its representative leadership role, and on consolidating the support organisation by forming a sustainability office. The relationship with the Faculty Council should be strengthened though improved dialogue, e.g. by KTH-S holding annual workshops on strategic topics.
Introduction

We have been asked by KTH to perform an evaluation of the KTH Sustainability (KTH-S) initiative which has been in place since 2011. The initiative marks a significant upscaling of the sustainability profile and efforts of KTH in line with ambitions expressed in its long-term vision and medium-term strategic plan. At this point, KTH is at a crossroads with regard to its sustainability work. After an initial 3-4 years of activity, the question has arisen whether KTH-S should continue in its present form or undergo some kind of change. We agree that this is a good time to evaluate past performance and to consider possible new paths.

Our conclusions are based on a site visit to KTH on 10-11 February, 2015, and on documentation made available to us in advance of our visit. During the site visit, we met with the Vice-President for sustainable development, administrative staff, central management (President, Dean and Vice-Dean), faculty, students and external stakeholders. We also had an opportunity to discuss amongst ourselves and to draft our report. The two main pieces of background reading consisted of a self-evaluation report compiled by Vice-President Göran Finnveden and his team, and a report from an interview study undertaken by Sara Karlsson, both of which were very helpful. We also had access to a range of other documents. The interviews during the site visit further clarified matters and, by and large, there was little variation in how interviewees perceived the situation. This made the job of the panel a smooth and stimulating task, and we had no difficulty in arriving at a unanimous conclusion.

Findings

The role of the university in society

In order to remain relevant and valuable to society, universities are increasingly being asked to aid in the formulation of proactive responses to social, economic and ecological challenges. In this regard, sustainability offers a strategic opportunity for universities. In our view, a university committed to sustainable development equates to a university committed to contributing to the transformation of society at large.

Against this background, we see the need at KTH for a more active discussion on the role of the university in society. Sustainability should be seen as a strategic endeavour that involves everyone, rather than simply as another field of study within the university. We understand that there has been some internal discussion about defining sustainability and that there are different views on this matter. Rather than focusing on definitions, which runs the risk of including some while excluding others, we recommend a more procedural approach. In our experience, it is easier to discuss the transformation of society and what everyone can contribute to this, than to ask faculty to define and commit to an abstract concept. If such a transformation is the focus, most academics can easily and readily identify their own, subject-specific contribution.

We believe that a strategic sustainability function at KTH that is able to channel such a discussion is needed. This would also link to other on-going collaboration and transdisciplinary initiatives such as strategic partnerships and research platforms. Such activities represent a logical extension and development of the important work of KTH-S to date.

KTH Sustainability

From our interviews and background reading, it is quite clear to us that the KTH-S initiative has played a crucial role in advancing the sustainability agenda at KTH. We are impressed by the activities and coordination efforts that have been undertaken in a relatively short time period. They give a professional and dedicated impression. In particular, we note that support from top management has
been critical. This appears to be a significant difference between previous initiatives and the on-going one. The Vice-Presidency plays a particularly important role.

Overall, we get the sense that a lot of progress has been made, but that much work remains to be done in order to mainstream sustainability throughout KTH. We therefore recommend that KTH-S and the Vice-Presidency should continue for some time until this aim has been achieved. This is also in line with what all our interviewees have suggested (albeit with varying time frames).

Importantly, a new version of KTH-S will need to take the current situation into consideration and shift its focus and operations accordingly. This means, above all, to enter into a more open and more inclusive enabling role. It is important to be aware of and to avert the risk of lock-in effects - i.e. that sustainability comes to be viewed as a specialist domain rather that a concern for all. We therefore recommend a shift in focus and operation

- from evaluation/control to enabling/coaching based on dialogue and listening
- from an external communication focus to external engagement with stakeholders, which calls for coordination
- stronger focus on/involvement of students to utilise the energy and power of student activities and engagement

The rationale for these suggestions is further explained in the thematic sections below.

**Education**

KTH-S has been very active in the area of educational development. We find that its outreach course development work aimed at assisting programme directors has been particularly appreciated. Concrete aids, such as the tool box for education for sustainable development, are well utilised and helpful. Our impression, however, is that the greatest need at this point is for continuous dialogue with individual teachers at a local level. There is a willingness to engage in education for sustainable development and transdisciplinarity, but in order to build on this, coaching and active listening are necessary. The role of KTH-S is not to deliver sustainability education, but to enable those faculty and programmes that are doing so to accomplish these goals in a more effective and integrated manner. When KTH-S has taken such an approach and reached out to the schools in this way, it has been successful.

We therefore recommend that this important work continues and becomes a backbone of a new version of KTH-S. However, because resources will always be limited (no matter how competent and ambitious, there is only so much one or two educational developers can do) some innovation is needed in order to maximise impact. We suggest building a network of “champions”, i.e. key faculty members who in turn can inspire and coach colleagues at local level. One model that has been used with success in some universities is to identify individuals with knowledge and legitimacy within the different fields of research and education at the university and also with knowledge about education for sustainable development. These individuals can then, by personal interaction, support course and programme directors in their task of integrating sustainable development.

By the same token, we recommend that KTH-S moves away completely from its previous focus on evaluation. This may have been called for at an earlier stage, given the then upcoming external evaluation and the internal need to map the territory. At the same time, it has meant that to some extent, KTH-S is still associated with a top-down, controlling approach. It will probably take considerable effort to get away from this perception, and it can only be done by fully entering into the coaching, listening mode described above.
Another fruitful way to do this, we believe, is to build on student engagement. Clearly, many KTH students have an interest in sustainability and an ambition to take part in the transformation of society. We find it noteworthy that much of this enthusiasm is channelled into tracks that are disconnected from their education. They do it in their spare time rather than as educational change agents. In sum, students are a potentially significant but largely untapped resource in sustainability work at KTH. We suggest that KTH-S starts engaging with students in a strategic manner, e.g. by connecting them with external parties, by supporting student-driven activities and by organising transdisciplinary activities of relevance to students.

In our experience, connecting students with external parties has many positive side effects. Students (including doctoral students) are often better placed than their professors to bridge the gap between industry and academia. They can be more risk-taking as they do not have an academic reputation to protect. Students also make excellent ambassadors for the university, which contributes to its reputation and, by extension, its ranking position. For students too, this type of work is rewarding as it provides relevance and tangible impact on practice.

**Research**

The challenges facing society are growing increasingly complex, and many research funding calls reflect this. As we understand it, one of the major driving forces behind the establishment of KTH-S was the ambition to coordinate applications so as to access new funding opportunities. To some extent, this purpose has been served. There has been an increase in this type of funding. Our impression, however, is that KTH could be even more successful in the future if it shifts to a more proactive approach that identifies opportunities for KTH to take a leadership role in sustainability research and partnerships with society. From an external perspective, KTH research competence currently comes across as strong, but located in uncoordinated silos. This reduces the overall strategic capacity of KTH.

In order to gain such capacity, KTH needs to foster more cross-cutting research activities. This could be done by continuing to provide seed money to broad research networks. Potentially, it could also be done through the existing transdisciplinary research platforms. The advantage of using the platforms would be that they provide a ready structure for research calls and cross-cutting research. However, as they stand, the platforms lack an education dimension. In our view, the latter is important, as is a collaboration perspective and associated connection to the private, public and NGO sectors.

**Collaboration**

KTH-S has had a coordinating role regarding collaboration with the wider community in the area of sustainability. Our impression is that this role has been interpreted somewhat narrowly and implemented as one-way communication rather than as mutual cooperation. Again, this may have been necessary in the early stages when a primary aim was to spread the word about KTH and its elevated sustainability profile.

In the future, however, we recommend that the focus is redirected from communication efforts to the substance of collaboration and engagement. By this we mean, for example, developing and implementing strategic partnerships with companies and agencies, encouraging student engagement with external parties, coordinating efforts with funding agencies and facilitating cross-school networks in order to respond to external opportunities. We are convinced that there is a real interest from industry and community actors to engage with KTH in various undertakings to do with the transformation of society. As it is, KTH is not fully able to respond to this interest. In fact, one of our interviewees has made a successful business idea out of linking academics and practitioners, precisely
because this connection is lacking. We therefore see great potential for a future KTH-S to take on such a role.

**Campus as a Living Lab**
The KTH-S initiative was launched in parallel with the Sustainable Campus initiative, aimed at implementing an environmental management system for KTH operations. We note that over time the two initiatives have come to overlap, e.g. because the academic core of the university is also included in the environmental management system. We view this as a natural and welcome development, and recommend that in future, KTH-S and Sustainability Campus activities be integrated. To us, the formal organisational aspects of this integration are of lesser importance than a very active partnership. Several organisational solutions may work. The main point is that core business and operations need to be integrated in practice.

One way of achieving this, and also to build on student engagement, would be to transform the KTH campus into a Living Lab. This is a way of treating the whole campus environment as an opportunity to implement, study and teach sustainability. Areas such as energy systems, water systems, the built environment, food and health are well suited to this type of work. The Living Lab is a format that combines education, research and collaboration and in which expertise from multiple schools is combined. Every person we interviewed spoke in favour of a living lab approach.

We see great potential in the integration of operational and academic (research and teaching) activities, despite the fact that the buildings on campus are not owned by KTH itself. KTH has already signed a Memorandum of Understanding with Akademiska Hus, and we believe that Akademiska Hus would be interested in this type of innovative work. The MoU could form the starting point.

**Social Sustainability**
KTH is a technical university with a history of working with sustainability from an environmental technology point of view. Furthering the social aspects of sustainability can therefore be a challenge. This is where KTH-S, supported by the new sustainability policy, can play an important role. It can facilitate a broadening of the agenda, so that human and behavioural dimensions of sustainability are brought into teaching and research activities. In our experience, one key to doing this is to link it to the realities of engineering practice. Engineers will invariably have to deal with and understand the social dimensions of technology, including human health and well-being. Failing to do so would marginalise the engineering profession into a narrow, instrumental role that is undesirable.

**Governance**
One part of the KTH-S initiative is its academic council. The role of the council, as we understand it, has been to provide academic backing and legitimacy to the Vice-President and the work of KTH-S. The council was also set up to be advisory to the Faculty Council, which is the academic body formally responsible for the quality of education, research and collaboration at KTH. Our interviews indicate that the connection between the Faculty Council and the KTH-S council has been weak. Attempts to achieve membership overlap between the two councils have failed, and it appears that the Faculty Council has neither had the interest nor the time to engage the KTH-S council in a meaningful manner. Our impression is also that the composition of the KTH-S council has been less than ideal as it is based on prior interest rather than school representativeness. It therefore risks creating lock-in effects rather than favouring mainstreaming.

At this point, one option would be to reform the KTH-S council in accordance with a new, more dialogue-based and inclusive approach, and to renew the attempts to create membership overlap with the Faculty Council (which has a new composition as of March 2015). However, a more realistic...
option would probably be to disband the KTH-S council altogether. In its place, we propose a twofold strategy: strengthening the Vice-Presidency and its representative leadership role on the one hand, and a consolidation of the support organisation by developing a sustainability office on the other hand. This way, the Vice-Presidency for Sustainable Development would be more like other Vice-President portfolios within KTH. As KTH-S moves into a new stage, this is likely to be the most effective way forward.

The relationship with the Faculty Council remains crucial, but can be improved through other means than through a formal overlap. One suggestion would be a workshop scheme. KTH-S could facilitate annual workshops with the Faculty Council on strategic topics such as the role of university in society, and on approaches to sustainability teaching, research and collaboration. This type of discussion should be of great interest and relevance to the Faculty Council, as well as benefit the work of KTH-S, and unite the whole of KTH around annual prioritizations on what should be achieved in this field.

**Final remarks**
We would like to thank KTH for the opportunity to undertake the evaluation and we hope that our findings and recommendations can contribute to the further development of the good work that is already underway. It has been a rewarding experience for us.

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