Administrative Assessment Exercise (AAE) 2014

AAE Innovation and Collaboration, 8b
Self-evaluation report

Contents

Executive summary

This report is a self-evaluation analysis of KTH Business Liaison's strategic partnership process. In 2010 a decision was made to create a structure at KTH for working with strategic collaboration through, among other things, strategic partnerships. This report constitutes supporting information for the Administrative Assessment Exercise (AAE). Based on the assessment criteria, *service, competence* and *cost*, the goal is to create a sound basis for decisions that will promote the efficient and strategic allocation of administrative support for KTH Business Liaison's processes. The self-evaluation method consists of three parts: a description of the process, a SWOT analysis based on roles and responsibilities, and a stakeholder analysis.

The objective of KTH's strategic partnership programme is to increase the quality of education and research at KTH and strengthen the innovative capacity of our students, educators, researchers and partners.

Strategic partnerships are entered into with large organisations, companies or public sector bodies that have specific significance for KTH's activities. Partnerships are to be broad based and involve several schools within KTH as well as elements of the following types of cooperation: individual exchanges, recruitment, research collaboration, education collaboration, product and service placement, and financing of research and education. The partnering process involves a number of annual meetings to optimise partnership development.

The results from the stakeholder analysis show that the stakeholders have high expectations for the process. The analysis also shows that strategic partnerships are regarded as an important complement to ad hoc constellations, e.g. as a means of being better prepared

when forming teams to perform specific tasks or when reacting to research calls. The partnerships also provide greater opportunities for working across boundaries. It should, however, be pointed out that the processes studied are so new that it is too soon to be able to present a full evaluation. One difference in expectations that emerged was that companies emphasise contact with students and undergraduate education, while at KTH, as mentioned above, the expectations to a greater extent relate to revitalising research – both in terms of ideas and monetary resources. Many interviewees emphasised the long-term nature of the work involved, and that this should factor into the expectations. Partnerships, unlike other forms of cooperation, are about preparing and establishing structures for a long-term process. It is important to first create numerous interfaces and identify common issues; the resources will then follow in the form of various activities.

A recurring theme in the interviews was the need for communication and coordination in both of the processes. This applies to all channels – both within KTH and at the partner companies. The report's authors noted that the interviewees indicated that issues such as who should do what and in which time frame are not always clearly defined. The expectations that the parties have of each other are simply not communicated clearly enough.

The expertise of the partner coordinators was mentioned as a crucial factor for the partnerships. The stakeholder analysis shows that this role requires a unique combination of skills: knowledge about universities in general and KTH in particular, a deep understanding of business and industry and a full range of project manager capabilities, including communication skills.

Estimated costs are explicitly for the Faculty representatives, roughly 5-10 % of a full time, and the Partner coordinators, budgeted 20% of a full time position per strategic partnership. Others are within ordinary operations within KTH.

The work process for strategic partnerships is new – for both KTH faculty and KTH Business Liaison – and requires close cooperation over a period of time. It is already evident that the management groups and steering committees established for the partnerships are putting more pressure on KTH; pressure to drive positive change at the university in line with Vision 2027. More needs to be known about how to develop the role of the partner coordinators and how closer relationships between university administration and faculty can be achieved.

KTH's strategic partnership programme requires sustainable structures that function at different levels, where simplicity is key to ensuring that new people can be brought into the process at different levels in the strategic partnerships as time goes by. It is through engagement between people that partnerships develop. Having a strategy for ensuring a supply of talent and a career path for the three identified key roles for this process at KTH – the partnership owners, faculty representatives and partner coordinators – will be important going forward.

Faculty members who are used to representing the whole of KTH provide an overview and a holistic approach, which is helpful in the recruitment process for future leadership roles. This applies both to partner coordinators from the faculty and selected faculty representatives. Similarly, KTH's administration benefits from people with a good overview and knowledge of KTH's core activities, namely education and research.

1 Introduction

KTH has on two occasions (RAE 2008 and RAE 2012) evaluated its research and on one occasion (EAE 2011) evaluated its education. In these projects, although administrative support was addressed, it was not done systematically. Since effective administrative support is essential for high quality in education and research, KTH's President decided in May 2013 that an assessment of KTH's administration should be conducted as well, in an Administrative Assessment Exercise (AAE 2014).

Fourteen areas were selected by the President and the Dean of Faculty, one of which was Innovation and Collaboration (area 8). Two departments within KTH's University Administration – KTH Innovation and KTH Business Liaison – are involved in this part of the evaluation. KTH Innovation offers commercial support to students and researchers for innovation projects through all of the phases – from research results or ideas to marketing products or services. KTH Business Liaison has three focus areas for its work, one of which, strategic partnerships, is covered in this evaluation. The department offers resources (project managers/partner coordinators), etc. who work with the operational side of KTH's strategic partnerships and with adjunct faculty, but also focus on other types of cooperation, alumni relations and fundraising.

In the area of innovation and collaboration, there are two separate sub-projects: innovation support processes (8a) and the partnering processes (8b). Since the two processes have different goals, they each have their own project, reference and assessment groups.

The purpose of this self-evaluation process is to help create a body of knowledge for further development of the administrative support function for KTH's strategic partnerships for KTH's faculty. Based on the assessment criteria, *service, competence* and *cost*, the goal is to create a sound basis for decisions that will promote the efficient and strategic allocation of the partner coordinator resources within KTH Business Liaison.

In the self-evaluation process, the different key functions within KTH Business Liaison (partner coordinators and communications officers) have been involved in developing a self-evaluation package that will hopefully help the external assessment group to better understand the Business Liaison department's processes and to reveal both strengths and weaknesses in the evaluation of them. The faculty at all of KTH's schools have been given the opportunity to provide input through designated representatives in the sub-project's internal reference group.

The self-evaluation method consists of three parts: a description of the process, a SWOT analysis based on roles and responsibilities, and a stakeholder analysis. All partner coordinators at KTH Business Liaison have participated in the process.

The separate stakeholder analysis was conducted as an independent assignment within sub-project 8b by a research group at the School of Education and Communication in Engineering Science (ECE). There are two reasons for this: An independent study increases the likelihood of constructive criticism being provided from various sources and knowledge will be gained within KTH on strategic cooperation. This could result in the creation of a research field: knowledge that may lead to better supporting information for decision-making – both at the university and in the surrounding community – on strategic partnerships.

The analysis will evaluate the *service* that KTH Business Liaison provides to KTH's management and faculty, as well as to KTH's strategic partners, and is based on interviews with a selection of individuals from KTH's management and staff at the schools as well as from the partner companies.

2 Internal analysis

There are two things which, above all others, guide KTH's strategic partnership work: the assignment the President has given to the Vice President for Collaboration, and KTH Business Liaison's Strategic Plan 2014 which is based on KTH's Development Plan 2013–2016.

The Vice President's collaboration assignment: to establish a number of strategic partnerships and create the necessary conditions for increased personal mobility between KTH and the community.

KTH Business Liaison has provided project managers to implement the Vice President's assignment. Partner coordinators have also been assigned to develop seven strategic partnerships with Stockholm County Council, Scania, Skanska, Ericsson, Saab, ABB and Vattenfall. The last six in the list were established as part of this assignment. KTH Business Liaison has also provided communication services for the activities as well as printed materials, web pages etc.

All partnerships are represented in both management dialogues and steering committees by high-level individuals. The management dialogues and steering committees follow established routines and processes. These are described in more detail in Chapter 3 Description of the partnering process.

An assessment has been made of the impact on KTH's research, in particular through RAE 2012 which was conducted during the same period. To monitor how strategic partnerships at KTH are developing, a number of indicators have been created in cooperation with some of KTH's strategic partners. The indicators are logged and can therefore be followed up over time. The following indicators are being followed up through KTH's system support:

- Adjunct professors
- Affiliated professors and affiliated faculty
- Externally employed PhD students and licentiates, PLEng (Professional Licentiate of Engineering)
- Co-publishing with industry partners
- Affiliated experts
- Research funding from industry and the public sector
- Contract research
- Contract education
- Patents, licence agreements, start-ups

KTH Business Liaison's mission

In the department's Strategic Plan 2014, the mission is described as follows:

"We will create and develop strategic and sustainable alliances and partnerships with KTH's alumni and other friends of KTH at the request of KTH's management.

By connecting KTH's core activities with external resources, we will strengthen KTH as a whole and our brand. Our work process is dynamic, innovative and action-oriented. Our network grows and strengthens when we invest in and develop existing relationships with companies, organisations and individuals where a mutual desire to collaborate exists.

Our mission involves responsibility for:

- Alumni relations
- Fundraising
- Long-term partnerships, individual exchanges and meetingplaces
- Collaboration with players in the community, SMEs, cities, regions, research institutes and other organisations

KTH Business Liaison focuses its available resources on reaching the goals set in KTH's Development Plan 2013–2016 regarding continuing to build up structures for alumni relations, fundraising and collaboration, including strategic cooperation."

KTH strategic partnership programme

In 2010 a decision was made to create a structure at KTH for working with strategic collaboration through, among other things, strategic partnerships. This is also reflected in KTH's Development Plan 2013–2016 which sets a goal for KTH to have 12 strategic partnerships in place by 2016. This requires KTH Business Liaison to provide personnel resources with the appropriate expertise (project managers/partner coordinators) who work with the operational aspects of KTH's strategic partnerships.

The partenrship process is also dependent of close cooperation with several departments within the University administration, in particular Research Office, the department of Communications and International Relations and Legal department.

3 Description of the partnering process

3.1 How does KTH define a strategic partnership – what does it require?

Strategic partnerships are entered into with large organisations, companies or public sector bodies that have specific significance for KTH's activities. Collaboration is to be broad based and involve several schools within KTH, and include elements of the following types of cooperation: individual exchanges, recruitment, research collaboration, education collaboration, product and service placement, and financing of research and education.

Individual exchanges are where either a specialist from business/industry spends part of his/her work hours at KTH by serving in an adjunct or affiliated position or as an externally employed PhD student, or where a KTH employee spends part of his/her time in business /industry as an industrial post doc or co-opted expert.

Recruitment is where the partner has a strong interest in recruiting engineers or PhDs. This could, for example, manifest itself in a number of degree projects conducted in cooperation with the partner or a number of researchers being attached to an organisation.

Research collaboration involves both financial support for research at KTH, and the joint use of research equipment at KTH or at the partner's location. Here, in-kind contributions are also valued, as well as joint applications for research grants.

Financing is where one partner places financial resources earmarked for a particular purpose at the disposal of KTH; several types of support are possible, e.g. professor positions.

Product and service placement is where partners present products or services that are of use to KTH's researchers, educators or students.

The partnering process involves a number of annual meetings to optimise partnership development. These are in the form of annual management dialogues, steering committee meetings and work meetings, and they all have a role and a function in the process. Demonstrated willingness and commitment from both sides is of utmost importance for

success. It is important for both organisations to invest equally in the partnership – 50/50 is a good motto – and for there to be clear incentives for all of those participating. Openness, trust and confidence lead to successful, long-term relationships.

The partnership is supplied with human resources through the appointment of a partner coordinator in both of the organizations. The coordinators should be individuals with the ability to work across their entire organisation, who are used to achieving results and producing efficient documentation, and who have a strong capacity for building relationships. The partner coordinators should be in frequent contact with each other as they provide important inroads into both the partner and KTH.

The composition of a steering committee for a strategic partnership is based on the areas identified for closer cooperation by the partners and according to KTH's goal for the partnership. At least two of KTH's schools should be represented on the committee. KTH's faculty representative serves as chairperson or vice chairperson for the steering committee.

Participants in the management dialogue should be at the same level within their respective organisations. KTH is represented by the President/Deputy President, Dean of Faculty, a partnership owner from KTH's management, a faculty representative with responsibility for the partnership and the partner coordinator. Partners should be represented by at least one person from executive management who is asked by the company's most senior officer to represent the company in the partnership. It is beneficial if the company's representation at the annual management dialogue reflects the company's global structure.

3.2 Objectives and expected results for the partnerships

The objective of KTH's strategic partnership programme is to increase the quality of education and research at KTH and strengthen the innovative capacity of our students, educators, researchers and partners. Increased systematic collaboration between KTH and the community comes about through strategic partnerships and various forms of individual exchanges.

3.3 The partnering process

See process illustration 1: Process relationship map

The partnering process is divided into three phases: initiation, development and follow-up. A partnership is initiated through a discussion where an interest is expressed at the management level which leads to a memorandum of understanding (MoU) and a statement of objectives[1]. A MoU is a declaration of intent from both partners which is followed up annually at the management level. The statement of objectives defines the indicators agreed upon for a continuous follow-up process and is reviewed during the management dialogue. It also defines goals for the partnership's development for a period of between one and three years. When assembling a steering committee, it is important to consider the specific areas

---

[1] *See Annex 1 Example of statement of objectives*

identified for more intense collaboration. Qualitative goals for individual exchanges are recommended – hard facts facilitate follow-up. A MoU is a public document while all other documentation pertaining to the partnership is treated as working materials at KTH.

See process illustration 2: Partnership follow-up

3.4 Process roles and responsibilities

Function of the management dialogue

The venue of the management dialogue alternates between KTH and the partner. It is a forward-looking meeting which can be held in connection with lunch or dinner.

- The partner coordinators set the date for the management dialogues (well in advance).

- The management dialogue meeting reviews the minutes from the previous year's management dialogue, the activities of the past year as well as the steering committee's proposals for any revisions to be made to the statement of objectives. Time is allocated in the agenda for a forward-looking discussion based on events and circumstances in the external environment that may affect the organisations and that can be referred to the steering committee to work on further.

- An internal KTH meeting (max. 1 hour) is arranged with the President, Deputy President, faculty representative and partner coordinator. The objectives for the meeting are discussed.

- A period of about three hours is allocated for the management dialogue and this includes time for a meal. Partner coordinators keep the minutes which the steering committee can later use for follow-up in preparation for the next management dialogue. The management dialogue should look to the future and provide an opportunity to share ideas in order to define new areas, new forms of collaboration etc.

- The minutes from the meeting are sent to the Deputy President who reviews them and adds any viewpoints before sending them to all participants in the management dialogue.

See process illustration 3: Partnership development

Function of the steering committee

The steering committee is responsible for ensuring that the partnership develops in the desired direction, for follow-up and for proposing ways the partnership can be further developed by revising the statement of objectives. The members of the steering committee are also responsible for following up and revising the statement of objectives in preparation for the management dialogue. It is therefore appropriate for the steering committee meeting

to be held about one month before the management dialogue. The steering committee holds three or four meetings a year. The partner and KTH take turns hosting the steering committee meetings. An agreed agenda is set for each steering committee meeting. The meeting is run by a chairman. The minutes from the meeting are sent out to all participants following approval by the chairman.

4 Three key functions at KTH

The cross-functional maps for Developing the Partnering Process and Following up the Partnering Process (see annex 2) identify three key functions at KTH. A partnership owner from KTH's management, a KTH faculty representative and a partner coordinator from KTH Business Liaison.

The partnership requires the involvement of at least three key people from the partner organisation: a partnership owner from group/executive management with ultimate responsibility for the partnership, a person responsible for steering committee work on behalf of the company/organisation and a partner coordinator.

4.1 Partnership owner from university management

The person with ultimate responsibility for a strategic partnership – the partnership owner – is the Vice President for Strategic Collaboration or the Dean of Faculty. The partnership owner is appointed by the President and ownership is followed up annually by the President.

Responsibilities
- Coordinates KTH's representation at annual management dialogues.
- Reports to KTH's Management Group twice a year, and annually to the University Board, providing a status report on how the partnerships are progressing.
- Convenes meetings, reviews all strategic partnerships with faculty representatives and partner coordinators for a discussion on what is working and what needs to be developed at KTH.
- Annual dialogue with the head of the Business Liaison department regarding the allocation of resources for partnerships. It is important to create awareness of the roles of faculty representatives and partner coordinators in the university's schools and administration.

If there is a shortage of allocated resources or commitment from partners or KTH, it is the task of the partnership owner from university management to find an appropriate way to conduct a dialogue on the progress of the partnership.

4.2 Faculty representative

The faculty representative represents the whole of KTH in the partnership. This individual should be well informed about the types of instruments for cooperation that KTH offers: individual exchanges, recruitment, research collaboration, education collaboration, financing and product/service placement.

Responsibilities

- Represents the whole of KTH in the partnership and develops relationships within KTH's schools.
- Reports on partnership follow-up at the annual management dialogue.
- Acts as chairman or vice chairman of the steering committee.
- Participates in meetings led by the Vice President for Strategic Collaboration and the Dean of Faculty and convened for the faculty representatives and partner coordinators for all partnerships.
- Participates in planning meetings with partner coordinators once a month or as often as needed.

4.3 Partner coordinators at KTH

The partner coordinators are the portal into KTH for employees in various divisions/levels within partner organisations. The coordinators also put the KTH people in touch with the right people in the partner organisations. The coordinators maintain a meeting structure for the partnership and ensure that everything is properly documented. It is important for coordinators to have a good understanding of the situation of researchers and educators and the driving forces in the academic sphere. They also need to have expertise in project management, strategies, relationships and forging contacts.

Responsibilities
- Project management tasks to develop the partnership as determined by the steering committee.
- Carry out continuous planning and follow up their own work.
- Convene and prepare materials for the annual management dialogue and document the dialogue meetings.
- Convene and prepare materials and information for the steering committee meetings and document the meetings.
- Gather data to follow up the indicators in the statement of objectives for annual follow-up.
- Communicate information/news about the partnership that may be of interest to communications personnel at KTH Business Liaison.

4.3.1 Competence profile for the Partner coordinators
(*see also the document KTH Partner coordinator CVs*)

- All partner coordinators were recruited externally between the years 2011 and 2013.
- Education level, Master's degree, not a third-cycle degree.
- Mix of women and men, age range 35–46.

4.3.2 How do the Partner coordinators regard their role and how to further develop it?

The SWOT analysis conducted with the partner coordinators for the partnering process is limited to their roles and responsibilities within the partnering process. An analysis of the partnering process's cross-functional roles with respect to developing and following up strategic partnerships highlights the importance of the role of the partner coordinator[2].

---

[2] *See process illustration 4: Cross-functional map for partnership development, and process illustration 5: Cross-functional map for partnership follow-up.*

Strengths

A long-term focus on strategic partnerships is included in KTH's Development Plan 2013–2016 as a key development area for systematic cooperation with the external environment. There is a strong sense of ownership for partnerships among KTH's management and the strategic partners.

Everyone (university partnership owners, faculty representatives and partner coordinators) is working towards the same goals for all partners – to promote scalability.

The skills profile of the partner coordinators is not academically biased but permits flexibility. It is beneficial to have a mix of women and men with different experiences from professional careers and educational backgrounds. The role of the partner coordinator is unrestricted, and creativity and open-mindedness are encouraged. A strong project manager is able to generate ideas and take advantage of synergies between different partnerships and KTH schools.

Weaknesses

Some aspects of KTH's long-term intentions for the partnerships are unclear.

Resources need to be allocated to develop the partnerships – particularly with respect to faculty involvement. It is also unclear how the faculty member roles are determined. It is unclear who is responsible for which tasks between steering committee meetings for the projects defined by the steering committees. What are the roles and responsibilities of the other members of the steering committee? It is also unclear what should be done by other support personnel within the university administration, e.g. who sets the dates for management dialogues.

The skills requirements for various roles in the partnerships are not clearly described, which prevents uniform quality assurance and may also result in responsibilities not being adequately taken care of. It may be hard for the partner coordinators to have a gain an understanding of what drives researchers/educators; none of the present coordinators has a third-cycle degree.

The coordinator's task is difficult if there is no one in a corresponding position in the partner organisation.

It can be difficult to understand the drivers of the partner company if you don´t have decent experience from professional work in industry and big companies.

The role as partner coordinator can be hard to handle if basic understanding for the partner is missing, one should be encouraged to spend time at the partner company in the start up phase of the partnership.

Opportunities

The fact that the Vice President for Collaboration is part of the President's Group is a positive factor.

The role of the partner coordinators can be strengthened by encouraging specialisation in one of the areas specified in KTH's strategic partnership programme, e.g. basic research, third-cycle education, research financing and long-term recruitment to KTH. A matrix showing specialities and partner companies will improve knowledge transfer.

Introducing an administrative tenure track for university employees will help ensure that long-term relationships between individuals are maintained and developed.
Partner coordinators can benefit from physically spending 1–2 days a week at the school/department relevant to the partnership, or with the partner organisation. The same is true for the faculty representative – it is important to gather everyone in one physical place once a month.

KTH is ahead of other universities in this area and could be involved in steering its development. KTH has the capacity to impact the allocation of funding and is also well prepared if/when an autonomy reform is passed.

Threats

Since monetary funds are not used in KTH's strategic partnerships, there are no tools for exerting pressure. A shortage of resources – time = money for faculty representatives – leads to a risk of a lack of commitment, making the task of the partner coordinators difficult.

Dependence on individuals in all roles who are dependent on KTH's organisation. The partnerships require a lot of the partnership owners in terms of their ability to manage and develop long-term relationships.

5 Stakeholder analysis – What do KTH's partners and participating faculty members think?

Below is a summary of the stakeholder analysis based on the objectives for the self-evaluation report, *see also the document "Stakeholder analysis of strategic partnerships" (10 pages).*

The analysis was conducted through a) document studies highlighting intentions/goals, implementation and effects of activities, b) analysis of existing survey and interview data generated by the so-called NOTIS project, and c) interviews conducted with the following categories:

KTH, university management	4
KTH Schools, management and/or contact node for partnership	4

KTH partnership coordinator/administrator	7
Adjunct faculty*	8
Partner companies, management level*	4

* Two of the eight interviewed adjunct faculty members were also at management level at two of the partner companies.

Stakeholders at KTH feel that increased collaboration will enhance the university by raising relevant issues and bringing opportunities for new resources. Increasing mobility and cooperation will bring more people in to spend more time on the core activities. Companies can provide contacts and expertise, but they can also provide resources in varying amounts in the form of research funding and infrastructure. In answer to a question about what companies could be expected to contribute, one interviewee said the following: *Knowledge! What areas of our education and research do we need to develop to remain at the leading edge?*

One of the criteria for collaboration is, of course, that there is mutual interest in the partnership. The interviews described how there has been a renewed and intensified interest for some time from industry in partnering with universities. Cooperation has existed for a long time, but the new emphasis on long-term partnerships is now supplementing previous cooperation which was mainly based on specific projects, programmes or centres of excellence.

One difference in expectations that emerged was that companies emphasise contact with students and undergraduate education, while at KTH, as mentioned above, the expectations to a greater extent relate to revitalising research – both in terms of ideas and monetary resources. One important partnership incentive for companies is being able to recruit the best engineers. Companies also like the idea of having "their" issues addressed in education programmes and students learning about them as employers. This may happen in the form of degree projects or lectures presenting future careers, based on the company's perspective.

Many interviewees emphasised the long-term nature of the work involved, and that this should factor into the expectations. Partnerships, unlike other forms of cooperation, involve preparing for and setting up structures for long-term processes. It is important to first create many interfaces and identify common issues; the resources will then follow in various activities. There are of course high expectations that the partnerships will result in concrete ventures leading to results and effects.

One question we asked was: Are there any plans at your school/department for how you will use/exploit the strategic partnerships? Several interviewees responded that at the school level the process has so far been organic – a project happened to get started and they happened to meet an appropriate person to call in for an adjunct/affiliate position. With respect to the latter, the ability to find the right person was emphasised. The strict requirements placed on adjunct faculty limits the number of appropriate candidates.

It does, however, appear that the schools are developing long-term strategies for partnerships and adjunct faculty. These strategies are integrated in their strategic plans. One of the issues addressed related to what these individuals should contribute. How can we identify areas for cooperation at several levels, e.g. individual exchanges, research and professional development?

It is very beneficial for collaboration to be integrated into all processes that are under way at KTH and at the respective company. There are good examples, based on a company's long-term planning, of how to develop action plans for joint efforts in a specific area and then populate the project with researchers from both the company and KTH. But here there is also, in certain cases, the potential to incorporate other aspects of the company's activities which have not yet been included in the partnership, such as internationalisation, which is an important part of some companies' structures and strategies.

The strategies and ambitions from the companies' side have shifted somewhat over time and among the various companies. Some companies seem to have had a very clear objective and have demonstrated this with an ambitious project plan, including who will be involved. Some companies are focusing more on placement of adjunct professors, while others see opportunities to create centres of excellence. Another difference is that some enter into relatively narrow partnerships in a single area at the beginning with the possibility of expanding into other areas later on, while others take a broad approach from the start and then subsequently focus in on specific areas. Taking into account the relatively short time that has passed, there is no easy answer to what is the right or wrong way forward. In the current situation any means of driving this process forward is in some sense the "right" way.

Is it important to formalise collaboration in this way? The answer was unequivocally yes. Formalisation has, among other things, placed a greater emphasis on the process, with the agreement and the activities involved now being discussed as strategic instruments. In several cases in the past, collaboration and joint projects have existed but they have been less formal and have therefore not been perceived as significant. Now the same projects can carry more weight when they are placed in greater contexts.

Good way to formalise. The strength of the old way – the dynamic aspect – is also a weakness; it becomes very dependent on individuals. Now the process is lifted up to the KTH level and there are no downsides to that. KTH seems a bit difficult to navigate for those of us on the outside. It's hard for the [partner company] to get a good sense of the entirety of KTH and its organisation.

A recurring theme in the interviews has been the need for communication and coordination in both of the processes. This applies to all channels – both at KTH and at the partner companies. We have not studied things like minutes from meetings, but the interviews indicate that issues such as who should do what and in which timeframe are not always clearly defined. The expectations that the parties have of each other are simply not communicated clearly enough. There may of course be a reasonable explanation for this. One reason that is mentioned is that people are dependent on other people's knowledge and

schedules and when sitting in a meeting they have no authority and/or knowledge of what resources are needed. The partner coordinators have, of course, a key role to play in facilitating this.

The partner coordinators' skills have been mentioned as a crucial factor for the partnerships. We believe that their task requires a unique combination of skills: knowledge about universities in general and KTH in particular, a deep understanding of business and industry, and a full range of project manager capabilities, e.g. communication skills.

A positive voice on the topic of communication and coordination says the following: *We can help each other. KTH has pipelines between different organisations. So do we. We can help each other to think along different lines thanks to this partnership.*

The role of the strategic partnership in relation to other long-term collaborative relationships is another important aspect. In many environments not many people know that the strategic partnerships exist. On the other hand, numerous other partners are mentioned with which both individuals and groups of researchers/educators are collaborating.

One concrete aspect with the aforementioned formalisation is how to draw up the agreements. Drawing up main agreement between the partner company and KTH is not regarded as being a big issue, which can be explained by the fact that it essentially contains no binding clauses on things like resources etc. for either party. But when the partnership is to be filled with content in the form of projects and activities, the wording of the agreement is important and the key point is often IP issues.

It is not possible to single out an individual party or entity as particularly difficult in this regard. At the central level at KTH there is suspicion that researchers do not understand what they are giving away, while researchers, on the other hand, think that the legal experts' opinions lack a basis in reality. The partner companies may have a similar situation, where another aspect might be that an international team of lawyers for a global corporation may have opinions about the wording of a contract.

On the positive side we have noted that many of those we talked to have respect and understanding for the legal aspect of partnership agreements and realize that time needs to be allocated for this. Also, several interviewees say that the more agreements like this are signed, the smoother the process becomes, and that structures and routines are being created for how to formulate the agreements. One key issue for mutual understanding is structured and good communication – both within and between the respective organisations.

With respect to the concrete aspects of collaboration, some partnerships have progressed farther than others. Most people believe they are progressing according to plan; they are basically "in phase." An important strategy issue for KTH to discuss is the different levels of maturity of the projects. Should we invest considerable resources in aspects that are already successful and thereby delay work in other areas? As several people pointed out, dedication

like the commitment that now exists in the most well-developed partnerships requires an enormous investment from everyone involved, at a high level in the organisations.[3]

It is interesting to note that the companies to a greater extent than KTH talk about the students as an important reason for cooperation and increasing their presence at the university. For several partner companies, engineers from KTH are the actual backbone of their own workforce. This is not, however, reflected in the activities that are under way or planned, which are dominated by research and postgraduate education.

Increased internationalisation has also been mentioned as an aspect with future potential. The partner companies are major international players, but this is not yet reflected to the same extent in their collaboration with KTH.

6 Cost estimate

Estimated costs are explicitly for the Faculty representatives and the Partner coordinators. Others are within ordinary operations within KTH.

The budgeted time at KTH Business Liaison is 20% of a full-time position per strategic partnership and Partner coordinator. For Faculty representatives the time needed is roughly between 5-10 % of a full-time position.

7 Analysis summary

The work process for strategic partnerships is new – for both KTH faculty and KTH Business Liaison – and requires close cooperation over a period of time. This is because the Vice President for Collaboration is part of KTH's Management Group and the position is attached to one of the departments within University Administration which has control over the resources. KTH's strategic partnership with Scania was established in November 2011 and the most recent one, with Vattenfall, in May 2013. Compared to other areas evaluated in AAE 2014, this process is new and should be viewed from that perspective.

Here is an extract from the report from the three-year Vice President assignment (October 2013):

> "The task of establishing strategic cooperation started in January 2011 at the initiative of the University Board for the purpose of improving and enhancing KTH's collaboration with the external environment.
>
> Around 30 professors at KTH played an active role in designing the structure that has now been established at KTH for strategic partnerships and exchange at the individual level with the outside world. All of KTH's schools were

---

[3] *Participants in KTH's strategic partnerships, 24 October 2013. Faculty for Innovative Engineering Report 2011–2013. Annex 3*

represented. There have been many constructive discussions and there is a high level of commitment and a strong desire to increase KTH's collaboration in a more systematic way than has been the case in the past. KTH's many excellent contacts have contributed as valuable discussion partners – particularly our adjunct professors.

It is already evident that the strong steering committees as well as the management dialogues that have taken place within the established strategic partnerships are putting more pressure on KTH – pressure to drive positive change at the university and to increase the quality of research and education, which is entirely in line with Vision 2027.

Reports on the assignment were presented on an ongoing basis to KTH's Management Group. Visits were made to all of the School Executive Groups at the beginning and at the end of the assignment. The work processes were developed based on discussions with representatives from all of the schools in a collaboration manager group specially created for the purpose.

Relationships and networks take time to establish and maintain. These subsequently form the foundation for generating concrete results. Firmly established internal processes are crucial for success. We are already seeing that KTH's strategic partners are investing in adjunct appointments at KTH and several joint project applications are being prepared.

A number of challenges and opportunities have emerged. Processes have been identified where a broad base of support is one of the success factors because the actual work is carried out within the organisations. A significant amount of time has been spent on this and it will continue to require a large commitment in the future. At the same time, it has already become clear on a number of occasions that the trust that is built at top management level with our strategic partners can be very valuable when real challenges arise – the relationships are the foundation for understanding different opinions and the culture of different organisations. The differences that exist between various types of partners and universities are interesting and much can be learnt from them; the goal is not uniformity, but understanding each other's driving forces, processes and cultures.

Apart from successful participation in the EU's upcoming Horizon 2020 Framework Programme, KTH and its strategic partners should be well equipped to have a greater influence on future EU Framework Programmes through joint representation in various types of networks, such as European Technology Platforms (ETP) and European Innovation Partnerships (EIP) as well as at the national level. This would be a good permanent agenda item for both steering committees and management dialogues going forward."

Parallel to the establishment and development of the partnerships, the role of the partner coordinators has been developed. We still do not know enough about what works and does not work because the strategic partnerships are still in the development phase. The challenge for the Business Liaison department is to have the right mix of expertise; both initiators and administrators are needed to create the necessary conditions for a structure that can withstand fluctuation.

KTH's strategic partnership programme is a long-term investment. It requires sustainable structures that function at different levels, where simplicity is key to ensuring that new people can be brought into the process at different levels in the strategic partnerships as time goes by. A similar type of quality assurance is needed for the indicators that have been defined to measure collaboration at KTH at the annual follow-up of strategic partnerships as the process used for data capture.

The internal reference group adressed missing self evaluation concerning how the different departments within the University Administration cooperates for the partnership process. It also adressed the challenge securing the allocation of resources from Faculty in the long term – incentives for involvement needs to be cleared out.

A few more important key questions:

- The structure of strategic partnerships: roles and responsibilities. How can we encourage closer cooperation between university administration and faculty? Working in the same physical space from time to time may be one way, according to suggestions from the SWOT analysis of the development and functions of the partner coordinator role.

- What is the best way to develop the partner coordinator role? Responsibility for one or more partnerships? Recruiting some third-cycle graduates may be worth testing – working across the whole of KTH provides an overview and holistic approach which helps the process of recruitment to future leadership positions – this applies both to partner coordinators from the faculty and selected faculty representatives. What does the partner coordinator's career path look like in university administration?

Annex 1. Example of statement of objectives

Description of goals for annual follow-up

Indicators for continuous follow-up

Supply of talent and professional development

- Joint activities for student recruitment.
- Number of degree projects carried out with the partner, scope of the partner's participation in education programmes.
- Number of KTH graduates employed by the partner.
- Number of participants in contract education at KTH for the professional development of the partner's employees.

Research

- Collaboration projects: number, scope and volume
- Joint publication: number of articles and number of joint appearances/lectures by KTH and partner.
- Research funding, in-kind contributions, research grants and contract research.

Individual exchanges

- Number of people moving between KTH and the partner in undergraduate, postgraduate and third-cycle education.
- Number of people moving between KTH and the partner in research.

Quantitative objects year x–y – define goals for one, two or three years
General

Supply of talent and professional development

Choose a few of the activities above.

Research – focus areas for more intense collaboration
Should involve at least two research teams at KTH.
Resources and contracts are discussed for each specific project/individual exchange within the area.

Individual exchanges
The goal is for the number of individual exchanges to be flexible – increased as needed and based on the subject area (according to the company's business strategy goals). The numbers in brackets indicate the number of individual exchanges per (here month and year). Quantity and focus are followed up annually in the management dialogues. Discussion on quantitative goals in the formal steering committees.

From <the company> to KTH etc.
- x adjunct professors (b)
- y affiliated educators (c)
- z externally employed PhD students (d)

From KTH to <the company>.
- (e) experts, including industry post docs.
- (f) degree projects
- (g) project assignments