SME – University collaborations: Creating mutual benefits

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Successful collaboration between academic research groups and industry is normally, by the outside, associated to R&D activities. For small and medium sized enterprises (SME), acting on non-research intense markets, collaboration of such kind may therefore seem very far away or even irrelevant. The involved partners in an academic – industry collaboration, often rather referee to the mutual benefits of such relationship. For instance: Academic researchers may get access to information, data or infrastructure while the non-academic partner gets access to advice, specific knowledge or students as future employees.

A well-known research group within the field of Sustainable Electric Power Production led by Professor Ola Carlson at Chalmers has a lot of collaborative projects together with large multinational companies. Notably, they also work with one small regional company, within the energy supply sector.

It all started when Lars Olsson started as CEO at Falbygdens Energi AB (FEAB). The previously management of the company had recently rejected a proposal of a 16 MW wind power expansion with reference to the grid's lacking ability. Lars Olsson was not so sure about the lacing ability and posed the question to Ola Carlson at Chalmers. *"I had known Lars Olsson for some time, even before we started to work together. He is a free-thinker and has got a large international engagement. I had actually tried to catch his attention for my research questions at a few different occasions, so this was a good opportunity."* Ola Calson tells me. He wrote down on a piece of paper what they needed and what they could offer. The research group was after wind electricity production data, such as loading and grid construction, information that normally is hard to get access to according to Ola Carlson. In return, they were offering advice and dialog. *"We both signed the paper and Lars has since been fully accessible."* Ola Carlson says.

When theory meets practice

Since then the Ola Carlson and his researchers have had regularly meetings with Lars Olsson, exchanging knowledge and discussing on-going research. *"It is easy,"* Ola Carlson says, continuing: *"Lars Olsson has a lot of knowledge in the field and he understands quickly. He also set research results in a practical situation which means that we also discuss the*

Ola Carlson, Professor at the division of Electric Power Engineering

Making Science Useful

Roles: Seven types of roles are identified in relation to making science useful. The roles are developed from different activities for diffusion and utilisation, carried out by one or a group of researchers, or by an entire part of the organisation. The roles are; researcher, educator, advisor, debater, entrepreneur, infrastructure developer and networker. These roles are in general intuitive but develop differently, based on personal characteristics, area of research, the recipients of results within the area, and by different local traditions of how to work with utilisation.
More information: This framework is developed by Staffan Jacobsson, Eugenia Perez Vico, Chalmers University of Technology, Hans Hellsmark, SP Technical Research Institute of Sweden and Merle Jacob, Lund University. For more detailed information, please contact Eugenia Perez Vico (eugenia.perez@chalmers.se) or Hans Hellsmark (hans.hellsmark@sp.se).

best use of the results". Also Lars Olsson is enthusiastic about the cooperation: *"It has been a lot of discussions about how to control electricity production and consumption, hosting capacity and other. It has been a lot of fun! Some time there has been too much of theories, but I'm a practitioner and I think that is appreciated. For me, it is all about putting it into practices."* Lars Olsson believes that their research collaboration has been very fruitful even though FEAB is a small company. The bottle neck for Lars Olsson is time, but he prioritizes to meet the researcher once a month with additional communication by e-mail and phone when needed.

Collaboration with benefits

The main benefit for FEAB has come from providing the access. *"With the detailed information about the grid's construction and our wind power electricity production, the researchers were able to give us advice on potential wind power expansion in the existing grid structure. We decided to make an investment of 20 MSEK in five new wind power plants, connecting additional 16 MW wind power without re-building the grid"* Lars Olsson says.

As the main benefits for the researcher involved, Ola Carlson points at the access to all the specific data. *"Such information is not easy to get hold of"* he says. *"It has also been a more efficient and less expensive way of collecting data since placing a research computer on the sight would have required regularly visits and hardware costs of approximately one Million SEK"* and he continues: *"And even though the generalizability might go down, I believe such data increases the credibility of the research"*.

I ask both of them about the most important part for a fruitful collaboration and none of them need to think twice before answering: *"Personal relations, willingness and ideas, of course."*

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