MEETING POINT
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WORKSHOP DOCUMENTATION

Workshop 1

How can public procurement boost innovation and growth?

Hans Jeppson

The inventors and innovators need support to realise their project in the real viable and reproducible innovation. It Sweden it is common to invest more in research, which hopefully can be used in the future. But in reality, problems are always appearing; inventors need a company to develop the idea into a business, find buyers and build on the original idea.

Strong demand increases the supply of innovations. Both atomic weapons and strong medicines have come during the time of war, when people needed a competitive advantage. The demand has seldom been higher. Hopefully, we never have to experience the same demand, but the demand will always be the force that drives innovations.

The golden age of procurement in Sweden in the 1910s to the 1980s changed after the introduction of the free market. However, the public sector must ask for innovations again. The private and public sector cooperation is a necessary symbiosis to increase the amount of innovations.
The companies who could innovate are afraid of market failures:
Supplier does not see the demand as sufficient for the development costs and the responsibility for the development and they have the interest to maintain the existing technology and resist innovations.

The public sector needs to be specific about the needs and show that there will be enough demand to break the status quo and challenge and encourage companies to come in the market with innovations.

There are several ways to be involved in innovation procurement – from merely suggesting the innovations to making it a key factor of the procurement and being ready to cover part of the research and development costs. The public sector acts as a catalyst for the new innovations. One has to take a holistic view when asking for new developments, for example, a window needs not only to save energy, but also has to be easy to set in, use and maintain.

Start by the need analysis – identify what we really need, how do we formulate these needs? What is the situation at hand and the environment? Legislation, HR, compatibility, costs; all influence the feasibility of the innovation. Verify the analysis – have you gotten it right? Let someone else look at this, do they understand the analysis and agree with it?
Market analysis – which companies can deliver the solutions? Perhaps no need for innovation and the solution already exists? Do we need innovation?

Competitive dialogue. Start with needs and limitations, suppliers develop the concept, the contractor calls for final tenders, evaluation & award. The supplier can be innovative during the dialogue, and the process takes time.

Pre—commercial procurement.
R&D services can be bought without public procurement process if the result of R&D is of value for someone else. If there is competition to carry out the R&D, the price paid will be considered as market price, and not a financial state aid.

The whole process is oriented towards that the competitors would cooperate around large challenges within R&D.

Public procurement of innovation. workshop.

Björn Lagnevik & Lars Wilander

Developing the ability and skill of the municipalities and cities to be better buyers of the innovation. The buyers cannot have all the competence about the new innovations; therefore a dialogue with the suppliers is very necessary.

Examples of small but effective steps of innovation procurement within hospitals:

Prepare the space for innovation.
New equipment needed to be bought to hospitals, but the compatibility was an issue. Instead, one clinic was emptied of all equipment that was distributed to other hospitals, and could instead be filled with all new equipment. One has to create space for a new innovation. The combined purchase allowed for high equipment compatibility and decreased total purchase costs by about 40%.

Cost per treatment.
Leasing of the equipment – allows a quick change to the newer systems as the technology develops. Service is included. It is easy to add more equipment, if necessary. No need to sell it further and find buyers for old machines. Quality control included in the agreements.

Pay for performance.
Paying for cancer treatment medicine only if it has helped the patient. Therefore the money is enough to try out the medicine on more patients and pay only for the effective treatment. The suppliers see it as a feedback for developing new medicines, even if they do not get paid for a specific case.

Companies are much more tightly organised, and the CEO is the one taking decisions. In the public sector, the picture is much more fragmented. Many divided money pools and decision makers. The communication needs to be adjusted depending on who one talks to. However, there is no time to wait for the perfect solution or model for acquiring innovations. The municipalities need to take steps in the right direction and document the process and learn from it.

Innovation procurement is not a project, but a long-term perspective. The public sector needs to challenge the suppliers to think in the long-term as well, so they keep innovating. By including in the contract the requirement to continually update the existing technology, the public sector gains a development partner. However, a great care needs to be taken to have the agreement open enough to allow smaller suppliers enter the innovation market.

The development of the innovation procurement relies on evaluating the innovation options in a holistic perspective, not only taking in account the direct, but also indirect costs and benefits. A close dialogue with the suppliers and the technology end users is necessary to ensure successful and effective procurement.

Workshop 2

How do we develop testbeds in the Baltic Sea Region?

This workshop was held by Kamil Zajaczkowski who works for the Sustainable Development Hub. There were about ten participants in the workshop including statistical analysts, council workers and media representative. The workshop went well and was focused around group discussions and focus questions.

The workshop started by Mr. Zajaczkowski introducing himself and asking everyone else to introduce themselves. He then showed pictures of examples of testbeds and asked what made them testbeds without fully defining them. The first task for the participants was an individual exercise which was to write on a piece of paper their own definition of a testbed. This was done individually so that the participants would not influence each other and so to acquire a wide variety of answers. Each person then read their answer out loud and a group discussion followed to pinpoint the criteria of a testbed. Next, Mr. Zajaczkowski wrote his own definition of a testbed and showed a test and refinement loop diagram on the board.

The next activity required the participants to be divided into three groups. Mr. Zajaczkowski showed quotes on the board which had been said by people in various industries about testbeds. After each quote was a question which the groups had time to discuss. Each group was given pink and green post it notes. They had to write points which agreed with the quote on the green notes and which disagreed on the pink note. After a ten minute group discussion on each quote, the groups read out loud what they had written and all the participants in the room discussed their findings. An important thing to note here is that there was never a right or wrong answer and so each quote was open to discussion.

The first quote was "A testbed is just a rebranding of something that humans have been doing for centuries for the purpose of making a process a product" and the question that followed was "Are testing and test beds the same things?". The general consensus for this was that they both had similarities and differences; although some participants pointed out that testing had existed before testbeds and both needed redefining as time passed.

The second quote lead to the question "who should own testbeds and why?" The main conclusion was that the testbed would probably be more efficient if the testbed was owned by a private company although cooperation with the public sector was always welcome but this could lead to a conflict of interest. Some also pointed out that private companies needed tough regulations in order to make sure that their findings were not just to make profit. Another point was the private funding would ultimately give a public result and benefit/ disadvantage the area/ city/ country as a whole. The main disadvantages to having the public sector own the testbed were that the money came from public funding and the public sector may have other priorities.

The third quote was "If the testbed is an open arena, it will always be a subject to product privacy issues" and the quote which followed was "Are testbeds a risk of product privacy?" This was not discusses too

much since all the participants worked for the public sector and so having someone from the private sector would have made the discussion more interesting. However, the main issues commented on were copyright and software issues.

The final quote was "working internationally with testbeds is only a political tool and serves little purpose in reality" which led to the question "is there value in having cooperation between several countries?" Here the main thing commented on was market testing; for example, if something works in a specific place it might not work in another place due to different sites, cultures, traditions, surroundings, politics etc... Some test beds can also be very labour intensive which is not an option everywhere. It was pointed out that when countries work together on a testbed, like they have in the Baltic Sea for example, it is necessary for all parties to share knowledge, capital, finance and labour. The last thing mentioned was that there could be organisational issues and language barriers. However, although there are many negative aspects to international cooperation, if done properly, the testbeds can have many good impacts.

The workshop ended when Mr. Zajaczkowski summed up everything that had been mentioned and asked the participants to define testbeds one more time. A general consensus was reached with the terms "critical analysis" and "realistic evaluation". A development for the future would be to have a checklist for what makes a good testbed and have a good example of one with positive results.

Workshop 4

Industrial symbiosis

Q1 What are the barriers holding us back (theory becoming reality)?

First of all, it is the general business mentality. If there is no critical need to look into an industrial symbiosis partnership, businesses tend to avoid it. Moreover it is difficult to communicate Industrial Symbiosis ideas to top management levels within an organization. In small municipalities it has proven to be even more difficult, as political views often have to be shared. Furthermore, there is a lack of natural meeting points, since companies usually do not organize meetings, suitable to discuss these ideas, on regular basis. Additionally, parties are seldom aware of the benefits and resources that would be gained by a symbiosis partnership.

The next keypoint is sharing information among the companies. The former is often inhibited due to lack of meeting events, trust and transparency. In every symbiosis case you need to be very open. Everything must be laid out on the table so that an agreement where both parties benefit equally could be reached. Good relations are the often required for such cooperations, hence it is easier to start a symbiosis in smaller communities, since companies there tend to work together. On the other hand, revenue is just as important. Symbiosis is a long term revenue process compared to typical industry and one must take a different point of view when looking at it. The key obstacle associated with this is persuading the management to take a more long-term approach.

Finally, people are not educated on industrial symbiosis enough as of yet. It is a relatively new concept. In addition to this, the startup phase of a symbiosis lacks funding, as it is difficult to measure what you gain being in a symbiosis network (positive effects on environment and economy). Competition with the world market for resources must also be taken into account. Lastly there is the lack of awareness that common problems can be solved by cooperation between parties.

Q2 What kind of support would make a meaningful difference? (Constructive solutions, ideas)

First proposal was an introduction of informational, educational material, i.e. handbook in Swedish language with successful symbiosis examples and guidlines for startup stage activities as well as outlining the gains achieved by such partnership (Industrial symbiosis for beginners). To continue with, interested parties could use existing networks (Industrial developement center i.e.) to organize focus groups for already involved organizations (That way there is no need to create a new network). Creating local symbiosis centers (at both municipal and national scales), which would connect businesses and provide cooperation opportunities might also prove to be beneficial.

Lobbying could be one of the goals of such center. It would help overcome the struggle with rules and regulations that arises when trying to build industrial symbiosis. The following step would be identifying the organs that would be interested in industrial symbiosis collaborations.

Lastly, there is the exploring of possibilities of getting EU funding and then distributing it between different sites.

Final thoughts would focus around the fact that the critical demand mass for the discussed resource centre is almost reached, therefore now would be the time to find support for setting it up. Meetings between smaller and more focused groups should take place in the near future.

Workshop 5

What can you get from a business accelerator?

Part 1: Presentation

Tyréns presented how they work with accelerators and the research they conduct in the field. They started TIBAL (Tyréns innovation and business accelerator lab) a platform whose main objective is to stimulate common innovation projects.

During the presentation there was a discussion about the meaning of certain words and the problem that might occur when communicating specific concepts. The example from this workshop was the word *innovation* that is widely used but understood differently depending on who is using the word and what background those people have.

The focus was also on *Business Model Canvas.* The business model canvas is a tool to help one identify products and services and the market.

Product/service:
- Key partners
- Key activities
- Key resources
- Cost structure
Market:
- Costumer relations
- Channels
- Costumer segments
- Revenue streams

Value proposition is a part of both product/services and the market and is very important to define. It is important for business to mediate a value in the product/service that is offered on the market as a step to attract customers. If the customer don't see any value in the product/service then the product/service will be much more difficult to sell and might never leave the research phase.

There was also discussion about the *Value Proposition Canvas* within the *Business Model Canvas*. This contains several topics mainly concerning value proposition and customer segment, that need to be discussed and filled in; an iterative process.

Part 2: Group task

The workshop started with an actual case from the municipality of Kalmar. The problem was formulated as an urban waste management problem in the narrow city center of Kalmar (but later it was not so clear if

this was the problem), which has an old cultural history and cannot be altered much because of its cultural values.

The initial discussion about the problem was about the transports collecting the waste and how to minimize the disturbance from them. Further discussions showed that the problem might be more complex than solely transportations. Depending on perspective, different problems and values are revealed. If viewed from the citizens' perspective, then noise and accessibility might be the main concerns. If viewed from the municipality's perspective, a vivid and attractive city center (including eg. reduction of emissions) is of importance. If viewed from the waste management company's perspective, there might be other issues, e.g. the work environment.

The workshop showed that problems that might seem easy in the beginning might have a complexity to them which is hard to understand before a thorough analysis is done. The discussion showed that what in the beginning seemed like a transport issue might in fact be about noise and emissions. Thorough analysis on the problem is therefore needed before a solution can be offered.

Workshop 7

Digestate – how can we develop the product and enhance the market?

Workshop Agenda
1. Introduction, Sven-Erik Svensson, SLU Alnarp
2. Required properties of digestive as fertiliser in organic food production, Krister Andersson, Oxie, Malmo (not present, Sven-Erik presented his part)
3. Technology for digestate refining - Gunnar Thelin, Ekobalans, Lund
4. Food waste into biofertilizer and biogas - aspects on water content, Anders Persson, Sysav Utveckling
5. A product's different values - Bitte Persson, Larsvikens gard, Viken, Hoganas
6. Group discussion and conclusions

1. Sven-Erik Svensson presented the workshop topic and introduced the question to be followed throughout the discussions: food waste as a fertiliser on farmland - a sustainable solution, but how to do it in practice? The question was further developed by looking into the current available solutions for collecting digestate: paper or plastic bags or sink garbage disposal device.

Helsingborg designed a collecting system that could be used as a solution for food waste recycling. More exactly, the system consists of a 3 pipe network for the following waste types: shower, toilet and food waste. Participants discussed whether this solution would include the vacuum technique to use less water possible, but this is still to be decided. Also, one participant said that this system would target mainly restaurants and such big food waste producers and not focus on household food waste from the very beginning.

More challenges need to be taken in consideration, such as liquid or dry fertilisers?, how to develop the market?, new products from digestate?, to get a better understanding of market needs and opportunities.

2. Next, the workshop included an organic farmer's point of view regarding the required properties of digestate as fertiliser in organic food production. In his opinion, the following aspects should be taken into consideration: certified product, accepted by food industries, consumers and authorities, reliable fertilisation effect in plant cultivation, easy to store and handle, cost effective, low environment impact, no hazardous compounds, polluting agents, medicine or dangerous microorganisms and good overall economy with the product in cultivation and market aspects.

The farmer was open to both liquid and dry products, however, participants underlined that the farmer would buy the dry products if the liquid ones were too expensive. The liquid products include a high percentage of water and implies high costs for transportation.

Participants described the regulations as very restrictive and underlined that an organic farmer needs to use organic digestate products to follow EU regulation or maybe more certifications need to be developed.

3. Further, EkoBalans presented their digestate refining solutions that address the issues connected with digestate products, such as, the water quantity (75%-98%), expensive transportation and economic dependence on local spreading, large storage demand, gas emissions at storage, soil compaction - many field crossing, limited spreading opportunities (in place & time), nitrogen volatilisation and other gas.

EkoBalans refining solutions include dewatering, nitrogen (eco:N) and phosphorus (eco:P) extraction, and the solid phase (eco:S). By dewatering the digestate products' volume gets reduced radically by 75-80%, or by up to 90% in case of drying.

For the implementation of these solutions some important aspects need to be considered, for example, the uncertainty variable regarding the new technology, operating costs, market for products, investment pay-back, transport cost, and efficient coagulating agents (PAM), that currently are prohibited in Sweden. The speaker raised awareness about PAM's non-toxic nature and proposed to have it reconsidered by regulations.

After presenting the cost comparison using EkoBalans concept, the speaker finished with the idea of the technology learning curve, in other words technology is more expensive at implementation phase, and then price decreases. Therefore, the main challenge is to identify the first potential investors in this new technology.

4. The 4th topic focused on Sysav's technology for producing food fertlizers. After introducing the company's mission and services and Sweden's target regarding food waste collection, the speaker described the technological solutions they use: the plant for pretreatment of food waste and the screw press - a technology that requires small amounts of water.

The technology's objective is to produce biofertilizers that have high content of nutritions, high dry content, but still pumpable and are accepted as organic. Sysav identified some key aspects regarding organic/ecological biofertilizers that should be taken into consideration: a high interest between farmers in accepted organic fertilisers, a lack of nitrogen fertiliser in today's organic cultivation, a willingness to pay for a certified organic fertiliser, new regulations.

5. The last speaker from a seven generation farmer family presented their successful story around potatoes and brought samples from their product range. The story began ten years ago they looked at the potato market and came up with the idea of selling smaller potato packs. Thus, they gave up the 5kg standard potato pack and created two smaller versions: a 1kg pack and the 5 potatoe pack. They targeted the segment of single persons, however the local market was not ready for this new packaging solution. Stockholm market proved to be more open and quickly adopted the farmer's idea.

The passion for potatoes developed and they started producing their own chips. They are the first and only chips producers in Sweden to manage an end to end process at their farm premises, from growing potatoes to chip production. More, chips are produced with cold-pressed rapeseed oil from Gunnarshögs Farm. As part of product branding, packaging played an important role to tell the story of the farm and have people trust the brand. On the packaging the photo of the farmer's father in the field when only 5 years old has a strong impact and contributes to their image of potato experts. Their product range is exported to Finland and Norway and soon will reach UK market.

When asked about food waste at their farm, the speaker said they barely had any since they had taken into consideration the complete production cycle. For example, their own cattle eat the potatoe peel. Overall, their expertise in potatoes, from growing and continuously testing a variety of potato types to product development and marketing strategy, represents an inspiration to the food industry market. For those interested, they have open days when their new potato products can be tasted.

6. Group discussion (in Swedish) and conclusions (as per the workshop slide)

Workshop 8

Innovations in urban mobility through co-creative and integrated planning approach

Workshop leaders, on behalf of 'Union of the Baltic Cities – Sustainable Cities Commission':
Maija Rusanen & Esther Kreutz

The workshop was opened by Maija and Esther, announcing the agenda and was followed by the introduction of those present for the workshop, mainly staff from different municipalities, interested in urban mobility, it continued with a series of interesting presentations on urban mobility, and closed with a discussions session. Maija introduced the concept of Sustainable Urban Mobility Planning (SUMP), described the existing context of urban mobility, characterized by high reliance on private cars, congested transport network, high emissions of CO2, health and other related issues and presented the recent developments in SUMP, globally. What SUMP requires and brings is a shift from traditional urban transport planning to sustainable mobility planning, focus on innovation for smarter and more sustainable way of urban mobility and improved efficiency. As main benefits of SUMP, were mentioned: better quality of life and urban environment, saving costs, contribution to better health, making more effective use of limited resources, winning public support. Some successful examples were introduced, namely the urban mobility as a service concept, applied in Finland, and the E-mobility strategy adopted by Aachen, in Germany.

Esther presented how a Baltic Sea Region Competence Center on SUMP was established to provide support, training, to register and make available the good examples in a data base, and getting involved in other international projects, like CHALLENGE, which addresses the four most pressing challenges in SUMP, namely participation, cooperation, measure selection and monitoring and evaluation.

In the next part of the workshop, City of Malmö presented its traffic and mobility plan, TROMP. Andreas Nordin and Peter Håkansson, traffic planners at City of Malmö introduced the challenges that the city face when it comes to urban transport – increase in urbanization and urban development, extreme effects like noise, pollution, climate change, which were accounted for when drafting their new plan, focused on a 'dense, mixed, green and short city'.

Andreas and Peter shared with those present at the workshop how they went about when designing their plan: starting from the current situation, identifying challenges, setting a clear vision and realistic, achievable goals, gathering a group of different experts, and informing, discussing and spreading the knowledge, since public support is very important. Participation was made possible through existing forums of dialogue, a travel survey organized in Skåne every fifth year, focus groups and quality studies. For setting the goals, they took into consideration several scenarios, based on the estimated increase in population for the City of Malmö, traffic volumes and trends, and other information gathered. From their experience, they shared some important aspects when it comes to sustainable urban mobility: how crucial is accessibility for citizens, division of the city in different zones, each with its own mobility plan, good communication with citizens, presence in the

neighborhoods through community offices, and educational aspects that contribute to both a better design of urban mobility, close to the citizens and wider acceptance, support and use.

After the conceptual approach regarding SUMP, introduction of existing initiatives and projects and the presentation of a specific case – the traffic mobility plan of City of Malmö, the discussions session following was animated, being designed around two questions proposed by the workshop leaders: 1. How does the mobility system in your city looks like in 10 years? What are the biggest changes? 2. What does it require from the city/mobility planning perspective? During the discussions, important aspects surfaced, like the importance of electric bikes and cars, different initiatives implemented in the Swedish municipalities (Gothenburg and its e-bike program for municipality staff). One of the participants pointed out the importance of better integration between different mobility services providers, and development of 'smart mobility systems' while another participant distinguished between different types of mobility systems (daily and weekly). Mobility management, involving also soft measures and approaches, and the value/benefits of having a mobility manager within the municipality, were highlighted (i.e. better urban mobility design, cost saving). Another important aspect discussed was the importance of having a regional planning when it comes to SUMP, involving all municipalities in a region. Other beneficial measures that would contribute towards a more sustainable urban mobility would be more use of car sharing, increase in public support and involvement, and the understanding of the connection between movement and health, in a time where people live a very passive lifestyle (sitting at the office, sitting in the car, sitting at home).

Key learning points, possible next steps and potential cooperation/collaboration projects were compiled for the presentation of the workshop results to those attending the conference, together with the outcomes from other workshops, thus sharing the information and knowledge with everyone else present at the conference.

Important links:
www.sump-challenges.eu
http://www.bsr-sump.eu/
http://www.civitas.eu/content/e-mobility-strategy-city-aachen
http://www.maas.fi/

Workshop 9

Nutrient neutral municipalities?
– Ideas for circular economy and Baltic Sea protection

The workshop consisted of five different talks about projects with the same goal: to find a way to save the Baltic Sea and improve the status of this valuable ecosystem. The key information of each project is summarized following.

1. **The Baltic Sea Challenge (BSC)**

   It is a project with already more than 200 partners (cities, companies, schools etc.) that aim to create a network with a common vision of a clean and productive and shared Baltic Sea. One way towards this future is to protect local waters and take local actions. Their objectives (clear coastal waters, systematic water area management, healthy marine habitat, clean and safe water traffic and active Baltic Sea Citizenship) are in line with the EU and HELCOM.

2. **CITYWATER project**

   This project is to implement and facilitate environmentally relevant and cost beneficiary water protection actions for a Baltic Sea Protection. The key tool that was presented was the cost-benefit-analysis, providing information to support decision making. First of all, all impacts have to be identified. After that, with the help of the cost-benefit-analysis all relevant impacts are taken into account and ranked including a monetary value on each of them. The result of this analysis is a net present value with which recommendations for municipalities can be made. The conclusion of this presentation and discussion was that it can be seen at least as a way of thinking and data collection as well as to be used as a network to spread ideas.

3. **Race for the Baltic**

   It is funding NGOs to work within the restoration of waters in the Baltic Sea. One key objective is to spread the clear message of a need for action and quantification of the benefits of the latter. It is important to raise public awareness since 2/3 are either unaware of the problem or lack sufficient resources (knowledge or financial resources) to address it. The benefits of water restoration are both environmental

(flood control, biodiversity) and economical since jobs can be created. Finally, also recreation, tourism and population's well being will rise with an improvement of the status of the Baltic Sea region.

4. **Trelleborg municipality**

One example of a local action has been presented: Each year high amounts of algae end up on the coast by being washed to the beach, causing a terrible smell in the area and attract flies etc. By producing biogas from algae, a problem is turned into a renewable energy. This benefits as well tourism and the people living in the area. However, there are still challenges such as a lack of economical incentives to reduce or recycle the nutrients; there is also often a high amount of heavy metals in the algae, which make the algae unusable. By increasing research and spreading of information the local energy production as well as tourism (e.g. ongoing biogas exhibition) and recreation can benefit.

5. **Växjö municipality**

The main topic of this talk was the restoration of eutrophicated lakes around the city of Växjö. To take the problem by the roots, one of the goals is to reduce nutrient inputs, especially phosphorus that is a big problem in the area. An action plan has been made from 2014-2020 that includes for example to stabilize phosphorus in the sediments and improve the overall biological structure in the lakes (e.g. more submerged vegetation, less algae).

Some solutions as ways to improve the status of the Baltic Sea were presented together with a collection of the key motivations for the future. To summarize the workshop, it can be said that all participants share the same goals: Raise awareness of the problems, improve cooperation between and within municipalities, share knowledge and information and best practices for an improvement of the status of the Baltic Sea.

Workshop 10

"It´s the cooperation, stupid!"?

This workshop dealt with the topic of collaboration between housing companies, industrial companies, municipalities, and between public actors.

The first presentation was about setting up a district heating system as a solution for waste heat in Zaanstad, a city that lies 30 kilometers (approx.) northwest of Amsterdam. Both industrial and residential, this city produces its fair share of waste heat, and yet most citizens prefer to pay for their own gas. Only 6% or fewer use district heating (DH), which has a reputation for being expensive. However, the high cost stems from a lack of competition and inefficient business models. The presenter was keen to highlight that if companies and municipality could see eye to eye, all of the local waste heat could be used to heat local residential areas, or even regional ones. The effort to create a fairer, more comprehensive district heating network proved a real challenge.

In the end, it became clear that three things formed the elements of success: mutual trust and transparency – try to understand each other and be as honest as possible; expectation management – be clear about goals, capabilities, and timescales; keeping a level playing field – let stakeholders formulate their own demands rather than tell them what they should want. Of the three elements, trust proves most difficult, as individuals and companies have to navigate profitability, intellectual property, disparities of knowledge/experience required to make effective decisions, and so on. Additionally, many companies often fail to see the problem and so will refuse to seek out a solution. In the end, all parties (housing companies, municipalities, etc.) will have their own needs and goals, but it is important that they come to see each other as united in a common effort to promote safe, clean energy.

The second presentation was about the e-Harbours project in the North Sea Region in Germany, a case-study in which the University of Applied Sciences of Hamburg is the core stakeholder. The projects' focus is on handling excess power in the grid in harbor areas that house both industry and residential life. Excess power can be handled in three ways: store it (by far the most expensive option), convert it into another type of energy, or consume it in other ways. An overloaded grid, however, means a frozen grid. As renewable energy sources grow, so does the need for handling the excess. e-Harbours was a collaboration between researchers from several universities, the energy sector, prosumers, housing companies, and municipalities. Though the project has academic roots, it exists very much in a real world fashion. e-Harbours worked with actual money and actual businesses in an effort to make real changes. As discussed in the Q&A portion, theoretical projects tend to yield theoretical results, and implementation can prove an immense challenge. However, profitability is a real concern. Earlier in the cooperation proceedings housing companies lacked the expertise and know-how

expected from an important stakeholder which the presentator considers as the main threat for the successful completion of the project. As a result, there were a few setbacks but it was clear: problems cannot be avoided. Instead, we must look for the silver lining inside of each cloud and turn these problems into opportunities.

After the presentations, participants continued the discussions in two separate groups. In the first group, participants from Holland, Sweden, and Germany were encouraged to share experiences of successful cooperation. The debate highlighted three different yet complementary approaches to cooperation. Swedes, for example, seek out consensus first and foremost while embracing the inherent problems but the unwillingness to point out real issues, to openly express needs, expectations etc. tends to stifle progress. The Dutch, on the other hand, are accustomed to speaking directly, "to the point where it's not nice anymore," said one (Dutch) participant. Lastly, one of the German participants expressed the need for clear rules and divided responsibilities established during the initial phases as key for successful collaborative projects.

Group 2 discussed the tension between practical considerations (profit, intellectual property, etc.) and the psychological aspects of collaboration (mutual trust, respect). One solution in Zaanstad was to create a role-playing game that allows stakeholders to experience each other's positions – a useful opportunity for building mutual trust and understanding. (On April 22, 2015, there will be another opportunity for stakeholders and interested parties to play the game.) Additionally, they discussed the importance of proper management. It was concluded that all parties will have their own agendas, but the only way to forge ahead is to make them recognize the wider goal of creating a cleaner world – because we all want a better world for ourselves and our loved ones. If we see ourselves as united, we can work backward from a larger shared goal and handle "smaller" practical issues more easily.

No one model of collaboration exists – nor should it. It is highly specific to local cultural norms, the degree of involvement from the municipality, the size of the companies involved, funding, and so on. Ultimately, successful collaboration depends on mutual trust (that all parties know what they're talking about – and that they do), open communication (clear expectations, clear capabilities), and seeing all parties as part of a larger whole working towards a better world.