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A follow-up analysis

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Preface

This report describes the results of a follow-up evaluation of the strategy and activities of BeBo (Beställargruppen Bostäder). The first evaluation, also conducted by the Danish Building Research Institute, Aalborg University, was carried out in 2009.

The project group wishes to thank the board, secretariat and members of BeBo for granting unrestricted access to all relevant material and for participating willingly in the evaluation process.

The evaluation has been funded by BeBo itself. The authors would like to emphasise that BeBo in no way has put hindrances to this independent evaluation of BeBo. The conclusions of this evaluation belong to the authors, and they are not necessarily shared by the board, secretariat or members of BeBo or the Swedish Energy Agency. It is our hope that the evaluation will stimulate the continuous development of BeBo.

Danish Building Research Institute, Aalborg University
December 2016

Ruut Peuhkuri
Head of Department of Building Technology and Management

Content

Introduction

Background

The recent EU public procurement reform (European Commission, 2014a) explicitly states that construction and procurement play a crucial role in the EU 2020 plan for smart, sustainable and inclusive growth (European Commission, 2014b). Under certain conditions the directive opens for integration of initiatives, which support both sustainability and innovation. The EU directive has to be implemented into national legislation no later than April 2016.

The Swedish government is supporting various activities through the Swedish Energy Agency (in Swedish: Energimyndigheten) as part of its overall aim to reduce energy consumption in order to mitigate climate change. Among these is support for a number of networks in different sectors. These networks are viewed as instrumental in implementing the Swedish energy policy through collaboration with actors who have an influence on energy consumption within the sector. The networks are also considered as vehicles for a faster uptake of new innovative energy-saving solutions (Finansdepartementet, 2013; BeBo, 2014a).

BeBo (“Beställergruppen Bostäder”) is one of these networks. It is an association of real estate owners and procurers of housing in Sweden established in 1989. The objective of BeBo is to improve energy efficiency and to provide better indoor climate and economy for owners and end-users. BeBo collaborates closely with the Swedish Energy Agency. The secretariat of BeBo is located at the Swedish Construction Clients Forum (in Swedish: Byggherrarna) in Stockholm (BeBo, 2014b).

This evaluation report is a follow-up on a similar evaluation of the BeBo network conducted in 2009 by SBi (Gottlieb and Haugbølle, 2010). The main conclusion of this evaluation was that BeBo would be able to contributing to the general development towards a more energy-efficient sector. Further, it was concluded as follows (Gottlieb and Haugbølle, 2010: 28):

> *“The strategy of BeBo is very well aligned with what is going on in the environment, but BeBo should consider including an additional multi-level focus on behavioural aspects of energy consumption.*
>
> *The close collaboration with academic institutions is highly instrumental in BeBo's operations; however BeBo should consider to expand this institutional 'resource pool' with competencies from other scientific fields.*
>
> *By utilising their buying power and purchasing volume, BeBo can effectively assume the role of proactive change agent; however it is still too early to assess the empirical effects hereof.*
>
> *There is a good match between the different elements of BeBo's strategy. The networked structure of the association provides a highly beneficial fit with the economic logic under which BeBo operates.*
>
> *Increased focus on system-deliveries can be seen as an expansion of BeBo's arenas in comparison with previous practice. This will potentially require additional resources and funding to be dealt with.”*

Recently, the BeBo network was evaluated as part of a general evaluation of 24 governmental initiatives to reduce energy consumption in society. The evaluation was commissioned by the Ministry of Enterprise, Energy and Communications and conducted by the consultancy firm SWECO (SWECO, 2014). The comprehensive report has a section dedicated to BeBo and the two sister network initiatives BeLok (Beställargrupp Lokaler) and BeLIVS (Beställargrupp Livsmedelslokaler). The three network initiatives have many similarities in their layout and function, and they are treated together in the evaluation.

The overall SWECO (2014) evaluation of BeBo is very positive, but some areas for improvement are mentioned. Among others, the evaluation concludes that BeBo could benefit from further work with the formulation of its objectives. In particular the definition of different levels of objectives is weak, and there is an unsystematic mix of goals directed towards certain results and goals directed towards certain effects. In spite of this, it is the assessment by SWECO (2014) that BeBo has had a stable conception of the long term goals and has pursued them. According to SWECO (2014) BeBo has succeeded in pushing energy efficient solutions and products earlier into the market that you otherwise could have expected. Similarly SWECO (2014) assess that contractors and manufacturers have been pushed in their development towards practical energy efficient solutions for properties. BeBo's work principle is also praised for its prioritisation of packages of energy reducing initiatives rather than a single initiative approach.

However, SWECO (2014) states that it is very difficult to assess whether or not the existence of networks like BeBo has led to reduced use of energy within the target groups. SWECO (2014) advises that a more clear presence of BeBo is needed in the public, at least if BeBo wants also to reach the small property owners. It is noted that the "strategy of demonstration projects" does not provide a proper way of leverage in this context. SWECO (2014) views an enhanced communication effort as a possible way of addressing this challenge.

Purpose and scope of evaluation

In 2014, BeBo asked for a follow-up evaluation applying the same analytical framework of evaluation as in 2009 (Gottlieb and Haugbølle, 2010). Thus, the evaluation will concentrate on the period from early 2010 to early 2014. In addition, BeBo has stressed that the last two years are the most interesting for BeBo as this period marks the full implementation of a new communication strategy. This has been noted as a priority since the communication strategy was one of the central criticisms of the network in the 2009 evaluation. Nonetheless, the evaluation has also looked at the period going back to the 2009 evaluation.

The purpose of the follow-up evaluation is three-fold:
– To evaluate the value and appropriateness of the strategy of BeBo.
– To evaluate how BeBo has been able to benefit from the advice of the 2009 evaluation.
– To make recommendations for future improvements of the operation of BeBo.

The scope of this evaluation has been limited due to restricted resources. Hence, it has not been possible to make a quantitatively assessment of the extent to which the activities of BeBo has made an impact on the energy-efficiency of the housing sector in the past years. Further, project material

from development projects has been fully disclosed, but it has not been possible to conduct a series of interviews with those involved in the development projects like the building owners, occupants or project participants.

Reading instructions

This evaluation report is divided into six chapters. The first chapter introduces the evaluation. The second chapter gives a brief survey of international experiences with innovation networks similar to BeBo. The third chapter describes the applied methodology. The fourth and major chapter of the report contains the analysis of BeBo. The fifth and sixth chapter discuss the lessons learned and summarise the conclusions.

Client innovation networks: State-of-the-art

In the following, a brief overview and state-of-the-art of innovation networks with an emphasis on clients will be presented. The purpose of this chapter is to identify other relevant client innovation networks around the globe, share some of the lessons learned by these networks, and point at the opportunity for international collaboration and knowledge sharing on managing client innovation networks. The overview of relevant networks includes:

- The international researchers' network of CIB W118 Clients and users in construction.
- The European SCI-Network.
- The Danish PLUS network.
- The Danish AlmenNet.
- The Dutch Het Opdractsgeversforum in de bouw.
- The Australian research centre CRC Construction Innovation.

This chapter can only provide a very brief overview of these client innovation networks and the lessons learned. For more details, the individual network or references should be consulted. However, some general observations stand out. First, it should be noted that the networks differ quite significantly with regard to for example their geographical location, funding schemes, organisational structure and themes being addressed. Second, despite their differences they all share similarities with BeBo with regard to the ambition of changing the industry through the initiation of R&D projects, demonstration projects, dissemination activities, etc. Hence, it may well be worth to initiate closer collaboration and knowledge exchange by BeBo with some of these networks to improve its understanding and management of the limitations and potential of an innovation network of clients.

CIB W118 Clients and users in construction

The International Council for Research and Innovation in Building and Construction (CIB) decided in 2010 to initiate a new permanent Working Commission on Client and Users in Construction (W118). The establishment of the working commission followed in the wake of the previous CIB initiative to establish an International Construction Clients Forum (ICCF). The aim was to strengthen the activities on the demand-side of construction as a supplement to the activities on the supply-side of construction.

An important output of the Working Commission has been a research roadmap to define the research field and to formulate an agenda for future research activities, support the initiation of new R&D projects and stimulate knowledge exchange on clients and users in construction (Haugbølle and Boyd, 2013).

The research roadmap provides a state-of-the-art of national client associations, international networks and national reform programs as well as various CIB permanent working commissions and temporary task groups. The roadmap identifies three main R&D areas: agency dealing with roles and responsibilities, governance dealing with processes and mechanisms, and innovation dealing with change and continuity (Haugbølle and Boyd, 2013).

The roadmap is to be followed by book in 2017 with an international collection of papers on client's agency, governance and innovation.

SCI-Network in Europe

The Sustainable Construction and Innovation through Procurement network (SCI-Network) is a European network of public authorities working together in order to (SCI-Network, 2014):
– Explore European best practice in construction procurement.
– Identify how best to encourage innovation and sustainability.

The SCI-Network was established through a project co-funded by the European Commission's competitiveness and innovation programme (CIP) through the Lead Market Initiative running from September 2009 to December 2012. The European Lead Market Initiative aims at lowering barriers to bringing new products or services onto the market in six key sectors, including construction. Public procurement is viewed as a core demand-side trigger for innovation.

The SCI-Network has published a number of relevant documents of which two are of particular interest in this context. First, a guide on procuring innovative and sustainable construction solutions contains a series of recommendations for good practice developed by a series of working groups within the network (Clement et al., 2012). Second, a number of best practice examples are provided to illustrate the guide (Singer and Clement eds., 2012).

The project has now ended, but the online discussion forum is still highly active. It is managed by ICLEI – the international council for local governments' environmental initiatives – which facilitates for a sustained operation. The discussion forum allows registered participants to share experiences, ask questions, and upload relevant documents and links related to innovative procurement on sustainable construction (SCI-Network, 2014).

The PLUS network in Denmark

The PLUS network in Denmark (Partnering, Læring, Udvikling og Samarbejde) was a network of professional construction clients, knowledge institutions and assessors. The PLUS network was an extension of two previous networks Project New Ways for Collaboration (Projekt Nye Samarbejdsformer) from 1998, which extended into the network Clients Creating Value (Bygherrer Skaber Værdi) from 2001. Both networks were initiated and funded by the public authorities (for details, see PLUS-netværket, 2007 and 2007a).

The PLUS network was funded in 2006-07 by the private foundation BoligfondenKuben. The funding for the network was terminated as the foundation lost its main source of income from the private developer and administrating company Kuben A/S, when the company was effectively liquidated due to the financial crisis.

The activities of the networks involved monitoring of some 30 individual demonstration projects over a period of some 10 years, the production of seven best practice working papers (plus two internal papers) on partnering based on lessons learned across demonstration projects, and dissemination activities like seminars, courses etc. The demonstration projects were mostly funded project by project from public funds and own funding as in-kind contributions. The demonstration projects explored a number of common objec-

tives and perspectives on collaborative procurement, in particular partnering, and other new ways of collaboration like lean construction, value management and methods for involvement of tenants.

The PLUS network was managed by a board and a private individual consultant hired for the purpose as secretariat. The board of the PLUS network included representative from the social housing sector, representatives from two ministries and two researchers from DTU and SBi.

The website of the PLUS network with its repository of case reports and best practice papers is no longer accessible. However, a version of the site can be found in the web archives of Wayback Machine (PLUS-netværket 2007b).

AlmenNet in Denmark

A new support scheme for renovation of social housing was launched from Landsbyggefonden (Danish National Building Fund) in 2003, which included support for demonstration projects to improve the attractiveness of social housing. Meanwhile, the huge Danish private philanthropic foundation Realdania decided to consolidate its financial support for separate development projects within social housing into one joint development programme focusing on elderly social housing estates. In 2004, the Danish National Building Fund and Realdania signed a partnership contract on a joint development programme with a budget of close to DKK11 million in the three-year period 2004-2007. This development programme paved the way for the initiation of a new association for development of social housing called AlmenNet in late 2007 (Davidsen and Bertelsen, 2014).

AlmenNet is a development association for development-oriented social housing companies. AlmenNet aims to develop good solutions to the challenges related to future-proofing the social housing estates. Through joint development and learning the association will help to ensure that social housing will continue to be attractive in the housing market and appeal to broad community groups. The primary vehicle of AlmenNet is demonstration projects and dissemination activities (AlmenNet, 2014).

AlmenNet currently has approximately 50 member organisations, which together represent almost 2/3 of all social housing in Denmark. The association is managed by a governing council, board of directors and an executive committee supported by a secretariat hosted by the Danish Association of Social Housing Associations (AlmenNet, 2014).

AlmenNet has initiated some 25 development projects. The results from these projects are available on the website of AlmenNet for free download. The more than 30 publications are grouped in five types: pamphlets, guidelines, reports, tools, and test reports. In addition, some 10 fact sheets on tools are published as well (AlmenNet, 2014).

Het Opdrachtgeversforum in de bouw in the Netherlands

The Construction Commissioning Forum (Het Opdractgeversforum in de bouw) was established in the Netherlands in early 2006 by a group of (semi) public clients. The aim of this Dutch construction clients' forum was to share knowledge and develop procurement professionalism, competence development, quality assurance and advocacy of clients' interests. A small secre-

tariat at one of the member organisations was set up to assist the board (Het Opdrachtgeversforum in de bouw, 2014).

In 2009, the organisation and operation of the forum was evaluated, and a number of adjustments were initiated. The Dutch client forum in construction is now organised with a steering committee, a forum with project groups and participants, and is supported by a secretariat located at TU Delft. The forum explicitly addresses (semi) public client, and not private clients and developers.

The themes of the client forum include:
– Procurement: Past performance measurements, integrated contracts, tender board and electronic procurement.
– Knowledge: Rijks Project Academie, a professor chair in public commissioning and various types of knowledge products.
– Integrity: Code of Conduct for Clients.
– Information and communication technology/Building Information Modelling.
– Scope of Public Commissioning.
– Sustainability.

A unique and very interesting feature of the Dutch construction clients' forum is the very close link to research. The client forum has been financing the professor chair of public commissioning at the Faculty of Architecture at TU Delft for an initial period of three years (2013-2015). The chair is embedded in the Real Estate & Housing Department at TU Delft.

CRC Construction Innovation in Australia

The Cooperative Research Centre for Construction Innovation in Australia was established in 2001 at Queensland University of Technology as a joint venture as part of the Australian government's Cooperative Research Programme. In 2009 the centre was replaced by the Sustainable Built Environment National Research Centre (SBEnrc). The CRC for Construction Innovation was a national research, development and implementation centre focused on the needs of the property, design, construction and facility management sectors (CRC Construction Innovation, 2014).

The activities of the research centre were not exclusively focused on either clients and property owners or energy savings and sustainability. Rather, the centre had a broader agenda with three focus areas: business and industry development; sustainable built assets; delivery and management of built assets; and advanced ICT platform (CRC Construction Innovation, 2014). However, the research centre has been instrumental in putting client issues on the research agenda through the three consecutive international conferences on "clients driving innovation" (see Brown et al., 2005, 2006 and 2008) as well as an international volume of papers on construction innovation (Brandon and Lu, eds. 2008).

Methodology

Analytical framework: Business strategy analysis

For sake of continuity and ability to compare with the previous evaluation BeBo asked for the same analytical framework of evaluation that was applied in the 2009 evaluation. This framework will shortly be introduced. Further details on the analytical framework and arguments for using this framework can be found in the 2009 evaluation (Gottlieb and Haugbølle, 2009) or in the original research article (Hambrick and Fredrickson, 2001).

Hambrick and Fredrickson's (2001) main point of critique of business strategy analysis in general is that the use of specific strategic tools tends to draw the strategist toward:

> *"…narrow, piecemeal conceptions of strategy that match the narrow scope of the tools themselves. For example, strategists who are drawn to Porter's five-forces analysis tend to think of strategy as a matter of selecting industries and segments within them. Executives who dwell on "co-opetition" or other game-theoretic frameworks see their world as a set of choices about dealing with adversaries and allies." (Hambrick and Fredrickson, 2001).*

Rather, strategy should be seen as an integrated set of choices that stand apart from a catch-all conception of strategy as every important choice an executive faces. Strategy, in Hambrick and Fredrickson's (2001) words addresses how a business intends to engage its environment, so choices about internal organisational arrangements are not part of strategy, and neither are well-known concepts such a *mission* and *objectives*. These should rather be seen as standing apart from and guiding the strategy.

With this conceptualisation in mind Hambrick and Fredrickson (2001) provide a framework which is an appropriate approach for the evaluation of BeBo as it addresses important and relevant issues related to mission and objectives, strategy and supporting organisational arrangements (see Figure 1).

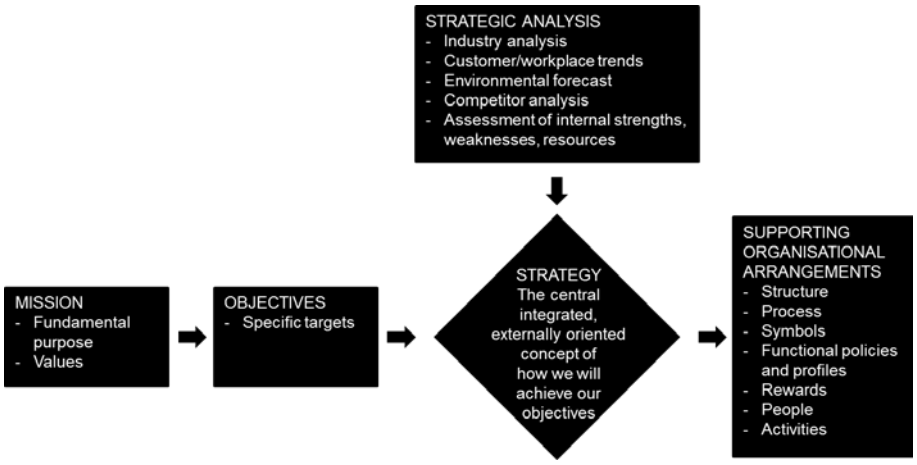

Figure 1. Putting strategy in its place. Adapted after: (Hambrick and Fredrickson, 2001).

Arguing that a strategy has five basic elements, Hambrick and Fredrickson (2001) provide a framework for strategic design that provides answers to five questions as illustrated accordingly (see Figure 2):

1 Arenas: Where will we be active?
2 Vehicles: How will we get there?
3 Differentiators: How will we win in the marketplace?
4 Staging: What will be our speed and sequence of moves?
5 Economic logic: How will we obtain our returns?

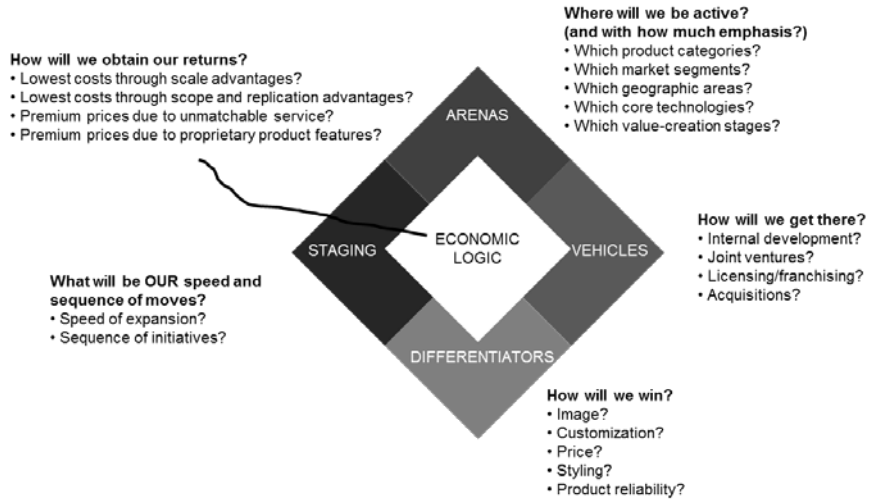

Figure 2. The five major elements of strategy. Adapted after: (Hambrick and Fredrickson, 2001).

Thus, making use of Hambrick and Fredrickson's (2001) conceptualisation of strategy will enable us to discuss and assess BeBo's strategy and presence in the Swedish market.

Data collection

The bulk of the work with the evaluation took place in a six months period from March to September 2014. The work was conducted in the following four phases:

– Phase 1: Design of the study and data collection consisting of the following activities:
  – A) Interview with BeBo's secretariat in Stockholm on BeBo's development and activities from the past five years.
  – B) Identification, screening and access to written materials (strategy documents, reports and tools).
– Phase 2: An inventory of international experience from similar networks through literature, personal contacts, etc.
– Phase 3: Analysis and evaluation of BeBo consisting of the following activities:
  – A) Analyse written material and website.
  – B) Focus group interviews with the board and secretariat in Stockholm.
  – C) Presentation and discussion with BeBo of an early draft of the report.
– Phase 4: Reporting and presentation of the evaluation findings at a meeting with BeBo's steering committee.

Three different forms of documentation have been collected. First, documentary sources like public policy documents, strategic policy documents of the organisation, minutes from member meetings and steering committee meetings up to 2014, the internal and the external part of the website of the organisation as well as reports, articles, folders and tools from various research and development projects initiated by BeBo.

Second, group interview with the BeBo secretariat and some of the board members conducted April 2014 in Stockholm. This first meeting aimed at interviewing the secretariat and board members about activities since the 2009 evaluation, major achievements and challenges for BeBo.

Third, a consultation process with the board and secretariat was organised in two steps. The first step involved a discussion with the board and secretariat in June 2014. The purpose of this meeting was to do a systematic follow-up on the lessons learned from the 2009 evaluation. The second step involved a presentation and discussion of the preliminary findings at a meeting with BeBo board members and secretariat in September 2014 in order to clarify any misunderstandings by the evaluators.

Analysis of BeBo

The analysis of BeBo is divided in three parts. First, the foundation of BeBo is analysed meaning the mission, the objectives and the strategic relevant analyses conducted to inform BeBo. Second, the five constituents of arenas, vehicles, differentiators, staging and economic logic making up the strategy of BeBo is analysed. Third, the supporting organisational arrangements are analysed.

Mission, objectives and strategic analyses

The first step in the analysis is to have a closer look at the foundation of BeBo, meaning the mission and objectives of BeBo along with underlying analyses of strategic importance to the operation of BeBo (Figure 3).

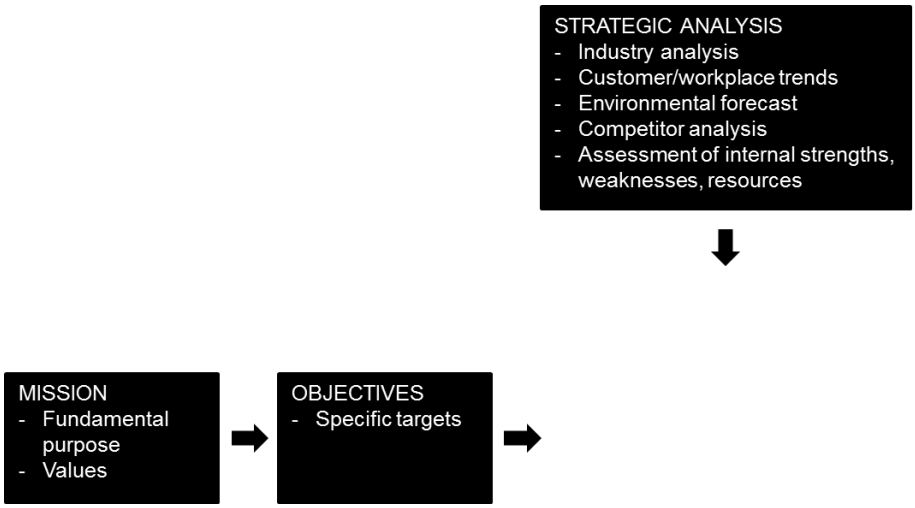

Figure 3. The base of BeBo – mission, objectives and strategic analyses. Adapted after: (Hambrick and Fredrickson, 2001).

Mission and objectives

BeBo is a procurement group for housing established in 1989 in collaboration between the Swedish Energy Agency (Energimyndigheten) and the largest Swedish residential property owners.

BeBo is instrumental in the collective Swedish efforts to reduce energy consumption in the built environment. The public funding of BeBo amounted to SEK9 million in 2009 and SEK32 million for the four year period 2012-2015. As with the similar network BeLok for commercial buildings (Nilsson, 2006) and BeLIVS for shopping facilities, BeBo has since 2005 acted as a network under the auspices of Byggherrarna (the Swedish Construction Clients Forum) and Energimyndigheten (the Swedish Energy Agency).

BeBo's mission is closely tied to the Swedish energy policy as promoted by the Swedish Energy Agency. The agency works towards an environmentally adapted energy system that utilises natural resources and results in decreasing emissions from climate impacting gases and other environmentally damaging materials and sees its fundamental purpose to contribute to a long-term sustainable development of society. For the 2014 budget, the

Swedish government set aside SEK2.8 billion for energy-related purposes (Regeringen, 2013). Within the sub-area of energy-efficiency a range of activities were planned including “technology procurement, market introduction and energy-efficient products”. Collaboration with networks and programmes are considered an important tool for the Swedish Energy Agency in the efforts to introduce energy-efficient systems and products faster on the market. Hence, a number of networks and programmes are supported including the BeBo network:

> *”Nätverk och program är viktiga verktyg för Energimyndigheten när den samverkar med aktörer på marknaden som kan påverka energianvändningen i samhället. För att energieffektiva system och produkter ska komma ut snabbare på marknaden samordnar och stödjer Energimyndigheten ett flertal program och nätverk inom olika sektorer.*
>
> *Inom nätverket Beställargruppen Bostäder (BeBo) pågår en stor informationskampanj med avsikt att sprida arbetsmetoden Rekorderlig renovering, en arbetsmetod för energieffektivisering av befintliga flerbostadshus som baseras på en ekonomisk modell för lönsamhetsbedömningar. Kampanjen har resulterat i 35 förstudier av aktörer utanför nätverket.” (Regeringen, 2013a: 31).*

BeBo (2014a) defines its mission and prime objectives as follows:

> *“Through the development of common procurement skills, the activities of BeBo shall help accelerate earlier introduction of energy-efficient systems and products on the market.*
>
> *Milestones:*
>
> - *Conducting investigations and measurements to elucidate potentials.*
> - *Test, demonstrate and evaluate new solutions.*
> - *Conducting feasibility studies as a basis for technology procurement.*
> - *Implement technology procurement.*
> - *Market and introduce energy-efficient technology.*
> - *Identify and disseminate lessons learned.*
> - *Act as a sounding board for the Swedish Energy Agency and other agencies within the group's areas of expertise.”*

In the action plan for 2014-15 (BeBo, 2014b) BeBo has formulated a number of statements that unfolds the mission and objectives of BeBo. They can be summarised as follows:

– To constitute a network of clients to work with energy savings in housing.
– To disseminate the methods developed in “Rekorderlig Renovering” through an information campaign called “Halvere mera” (“halving more”).
– To improve energy-efficiency and to provide better indoor climate and economy for owners and end-users.
– To speed up new products’ way to the market.
– Better and more rational solutions for installing of technical solutions in housing.
– To develop methods and technical solutions for effective energy-saving facility management in cooperation with market leading and future-oriented property owners. Examples include: energy-efficient common wash rooms and energy recovery from waste water and ventilation systems.
– To address both private and public clients in housing.
– To have activities all over Sweden.

– To establish at least 100 demonstration projects regionally distributed across Sweden.
– To develop new forms of cooperation in construction in order to ensure more cost-effective and holistic solutions.
– To identify new areas with a potential for development of both new knowledge and solutions.
– Through the project “Rekorderlig Renovering” (RR) to develop more rational and more cost-effective technical solutions, which can be applied in the building process.
– To work on the entire value chain of energy with focus on recovery of heat and with relation to building electricity as well as electricity consumption in flats; the focus has to be on both users and technical solutions.

Looking at BeBo’s objectives, they seem rather ambitious in the sense that it is difficult to find themes related to construction and energy refurbishment that is not covered by BeBo’s goals. Those objectives are undoubtedly both important and relevant for an organisation working with coordination in construction, but the broad scope can be questioned. In other words, it seems as if BeBo could benefit from a prioritisation of the objectives in order to concentrate the effort. It may be speculated that BeBo already has gone through such considerations, which would be reflected as a de facto profile of activities. Concerning BeBos activities our analysis have not allowed for a detailed analysis of the entire portfolio of BeBo activities, but it has had a line of points of impact which nonetheless may give the impression that BeBo in fact addresses the major part of the objectives, although some are clearly more dominant than others.

Strategic analyses

From the mission and objectives of BeBo, the evaluation will now turn towards the different types of strategic analyses that inform the strategic orientation of BeBo. In line with the analytical framework, an evaluation may address at least five types of strategic analysis: industry analysis, customer/marketplace trends, environmental forecast, competitor analysis, and assessment of internal strengths, weaknesses and resources (Figure 3).

Systematic and well-documented strategic analyses have not been produced by BeBo, but the network has nonetheless been occupied with these strategic considerations. Hence, the interviews with BeBo have revealed that strategic considerations have frequently been debated by the secretariat and board members based on their knowledge and experience of the industry. These strategic considerations have dealt with topics like profiles on the potential new members, trends in the market, potential competitors, and the characteristics of innovation in construction. These considerations have been fuelled by not only the knowledgeable members, but also by the self-initiated evaluation in 2009, evaluations of parallel networks like BeLok and more recently the evaluation of 24 general governmental initiatives to reduce energy consumption in society conducted by the consultancy firm SWECO (SWECO, 2014).

Strategy – unpacking the five elements

The next step in the evaluation of BeBo is to analyse the strategy of BeBo or the central, integrated externally oriented concept of how BeBo will achieve its objectives. The strategy consists of five elements – arenas, vehicles, differentiators, staging and economic logic – that will be treated consecutively (see Figure 4 for an overview and Figure 2 for details on the strategy components).

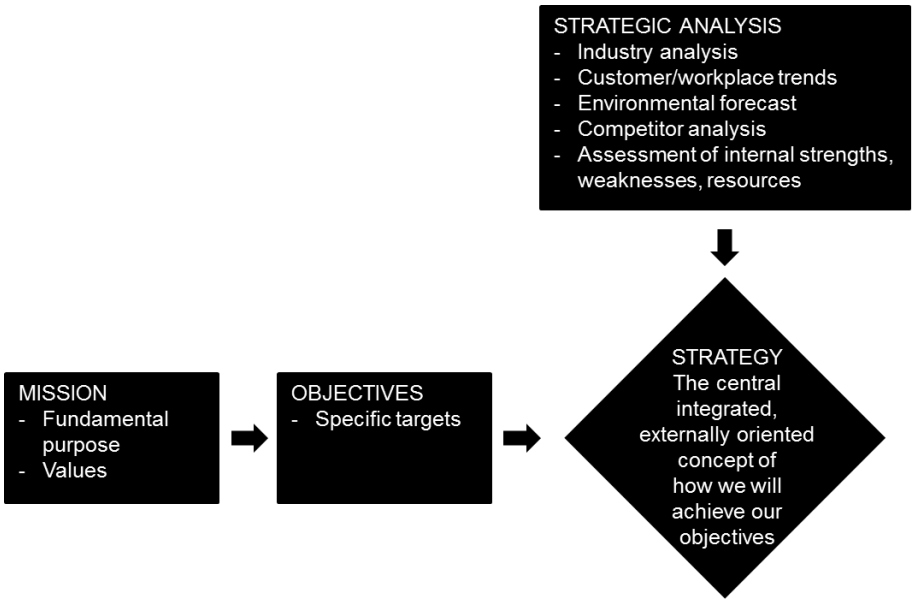

Figure 4. Putting strategy in relation to the base. Adapted after: Hambrick & Fredrickson (2001).

Arenas

The arenas to be addressed in this section include the core target groups for BeBo and the key focus areas being dealt with by BeBo.

Up till now social housing has been the core target group for BeBo's work but BeBo has considered including both the condominium sector (in Swedish "bostadsrät") as well as the institutional developers. It seems as an appropriate move forward as these are also important actors in the housing market. However, an expansion of BeBo's scope and activities would probably require additional financial resources, reconsidering the kind of tools BeBo is currently delivering, and redesigning the communication channels. As an example, private developers and private owners can be expected to have different needs e.g. for more profit-oriented optimisation tools that is not at present included by BeBo.

Another arena that has so far received little attention by BeBo is portfolio management. The bulk of development activities and demonstration projects have been directed towards individual buildings. Hence, there is a potential for developing tools for optimising a portfolio of buildings (whether housing or offices), collating experiences and sharing knowledge on portfolio management etc.

The BeBo network has continued its strong focus on technical fields like heat recovery on ventilation etc. in recent years. BeBo has a long tradition for delivering thorough technical reports on issues, which are central to energy renovation and heat recovery. As a consequence BeBo has been able to publish a line of very well documented reports with a high sensibility to practical implementation. As pointed out in the 2009 evaluation, behavioural and managerial topics are also important, but less prioritised in the workings of BeBo. Addressing topics like these could potentially lead to e.g. improved tools for management of building portfolios and better understanding of different types of users' behaviour, which would be instrumental in making better simulations of energy performance. Adjusting BeBo's priorities towards recognising and dealing with these topics are most likely required in order to take the next leap forward and address the not-so-low hanging fruits.

Vehicles

This section will take a closer look at the vehicles applied by BeBo to achieve its objectives. These include technology procurement via develop-

ment projects, demonstration projects, campaigns and dissemination activities, which will be dealt with in turn below.

BeBo conducts development projects with an overall focus on energy efficiency and environmental questions. The organisation has completed a series of activities – especially revolving around technology procurement, which can be seen as the primary vehicle of strategic realisation. In the various development and demonstration projects, experts are linked in different formations according to the specific task at hand.

With regard to the production and dissemination of knowledge from the development activities, the prime approach of BeBo is the extensive use of a series of parallel demonstration projects that are widely distributed regionally. While some demonstration projects have a rather narrow focus on dealing with a specific topic like heat recovery of ventilated air (see e.g. Wahlström, 2014), others have a more comprehensive perspective where several energy-saving initiatives are applied and tested as "packages". This is particularly prominent in the approach of Rekorderlig Renovering ("Record Setting Refurbishment") with the ambition of reducing energy consumption by 50 %. Among others the project excels due to its comprehensive array of measures, and the ability bring this together to performance measures on the level of a single building. The approach has been tested in five demonstration projects (see Levin and Larsson, 2012).

This approach is a model with well-recognized advantages regarding the heuristic function in the industry, but it may also give rise to some worries regarding their limitations as a general instrument. One concern is the relationship between the context and the validity of the single project: do the contextual differences between the renovation projects mean that it can be difficult to compare results and experiences? Another concern is the follow-up on each single demonstration project over time. A third concern is the bias towards technical projects at the expense of projects, which can illuminate and explore the potential for energy reductions by means of change in user behaviour broadly understood as tenants as well as facility managers.

The issue of generalised conclusions based on demonstration projects is not special to BeBo. On the contrary it is a common methodological question without any easy answers. It is, however, an important question to address in order to develop alternative strategies. Two such answers are provided by BeBo through a profitability calculation ("BeBo's lønsamhetskalkyl") and the so-called "Godhetstal" – a sort of key performance indicators or rather two sets of requirements for obtaining the minimum level of performance or a best practice level of performance. A third answer under development is the ambition to establish a standardised BeBo refurbishment process model with various tools, guidelines etc. based on Rekorderlig Renovering. It is strongly encouraged to continue and extend the work with BeBo process model as this holds the potential of incorporating the lessons learned from all of the demonstration projects etc.

However, to produce those detailed studies is just one side of BeBo's activities. The other is to disseminate the information about potentials of energy renovation in order to urge clients and facility managers to implement these initiatives. The comprehensive campaign "Halvere Mera" ("Halving More") aims at disseminating the methods and approach from Rekorderlig Renovering, which is based on the idea of "packaging" energy solutions and is executed in three steps: 1) Pre-studies, 2) implementation, and 3) closure. The campaign aims at initiating a number of pre-studies directed against all actors in the sector.

The 2010 ambition was to reach 100 new renovation projects before 2015 (Högdal, 2013; BeBo, 2013a). Although the campaign did not reach the projected 100 renovation projects, the campaign did manage to reach a different subset of actors that otherwise tends to be difficult to get engaged. The campaign was rather intense and succeeded in starting 31 new pre-studies and 17 smaller energy audits within a six months period. The final reporting from Halvera Mera (Högdal, 2013) gives a summary of the achievements from the projects conducted under Halvera Mera and is a valuable source of "real world" results from energy renovations. Different parts of the energy reduction initiatives are compared to a line of other variables in easy comprehendible tables.

The 2009 evaluation argued that the spreading of BeBo's results via the internet seemed insufficient and urged BeBo to improve its communication activities. BeBo has sized up the situation and improved the communication activities in several ways. Since 2011, BeBo has employed a part-time communication manager to deal with the communication activities, and a more systematic approach to communication has been implemented, which include doing website statistics and quarterly reports on communication to the board of BeBo (BeBo, 2011; 2012; 2013b; 2013b and 2013d).

The communication approach is multisided. It includes project reports, interviews, oral presentations at conferences, seminars and other meetings all over Sweden, and contributions, articles and letters in professional trade journals. The BeBo website is regarded as the vital communication platform of the organisation. It has recently undergone a major revision and update. Project reports, tools etc. from BeBo projects are now all available through the website. The web statistics shows that is frequently being used. Hence, it is the impression that the organisation is known widely among clients and actors involved in energy refurbishment.

Differentiators

This section revisits the strong differentiators identified in the 2009 evaluation (Gottlieb and Haugbølle, 2010) to review their continued presence, and it further identifies the pursuit of integrated solutions as a new differentiator.

For the past five years, BeBo has successfully been able to maintain its strong differentiators. Hence, the close ties with the Swedish Energy Agency, non-commercial purpose of BeBo and its evidence-based product development approach hereby promoting transparency have not withered. These differentiators provide BeBo with a brand, which is commonly known in relevant networks for qualified and important activities, and high status as a "supporting body" for the general governmental policy on sustainability and reduction of the energy consumption in society.

The very notion of being a network is a strong differentiator in itself compared to actions by individual clients and property owners. Being a network epitomises that by collective action other results can be achieved from what is possible on an individual level. Foremost, knowledge sharing across organisational boundaries is eased by being a network. Hence dissemination of lessons learned from demonstration projects etc. as well as getting access to otherwise privileged information is one of the benefits that BeBo can provide its members.

In addition, an emerging differentiator for BeBo is the focus on integrated solutions or "packages" (in Swedish: Paket) rather than focusing on the individual products or solutions. Taking on such holistic approach is highly recommendable as it directs attention towards exploiting potential synergies

and handling counterproductive interdependencies between the individual solutions.

Staging

This section follows up on the strategic staging process of BeBo as a three-stage model described in more detail in the 2009 evaluation (Gottlieb and Haugbølle, 2010). The three stages to be revisited include:

- Stage 1: Demonstrating how a building can be developed from its present state towards a significant reduction of energy consumption (ideally a 50 % reduction).
- Stage 2: Extending the lessons learned from individual buildings to all members of BeBo.
- Stage 3: Realising a 50 % reduction in energy consumption on a national scale.

The first stage is represented by the development activities of the programme of Rekordelig Renovering. This programme has been a crucial instrument for BeBo in recent years in demonstrating the ability to reduce the energy consumption of multi-family housing. Although the ambition was to reduce the energy consumption by 50 %, the five demonstration projects have shown calculated energy reductions in the range of 27-54 % with an average around 40 % and realised energy reductions in the range of 23-45 % with an average around 30 %. Except for one case the projects show a gap of 10-20 % between the calculated and realised energy reductions due to a variety of reasons like abandoning façade insulation, thus highlighting the difficulties of reaching the proposed targets.

The second stage is partly represented by the dissemination activities through the campaign of Halvera Mera. The initial expectation was some 25 pre-projects, but eventually some 31 pre-projects and 17 simpler energy inspections have been initiated, and a number of other property owners had to be placed on a waiting list due to resource constraints. The evaluation of the pre-projects of the campaign showed that there were large differences among the property owners with regard to the measures they were interested in, how they carried out their energy calculations, and how they did their calculations of profitability:

> *”Förstudierna i Halvera Mera visar att det finns stora skillnader bland fastighetsägare vad gäller vilka åtgärder de intresserar sig för, hur de utför sina energiberäkningar och hur de genomför sina lönsamhetskalkyler”. (Högdal, 2013: 22).*

The campaign has been highly successful in reaching out to a larger group of property owners including non-members of BeBo. In this respect, the Halvera Mera campaign not only entails the second stage but also to some extent the third stage of the three-stage model.

The concept of trailblazing the lessons learned from the demonstration projects into the dissemination campaign is certainly worth recognising. However, some additional considerations may also be worth pursuing in the future. While the concept has been successful in attracting a number of property owners, these pre-projects have had a tendency to focus on the singular building rather than addressing the portfolio of the property owner. Extending from one project within one client organisation to the entire portfolio management of that particular client organisation is likely to be a point that requires further attention in the future. In fact, it may be worth considering to add a fourth stage to the three-stage model.

Economic logic

This section revisits the economic logic identified in the 2009 evaluation (Gottlieb and Haugbølle, 2010) to review its current application and to discuss two of the elements of the economic logic in more detail.

Overall, the same economic logic is in place in 2014 as in 2009. Hence, the economic logic of BeBo continues to combine the following five components:

- Delivering public purpose by way of being a non-profit organisation.
- Funding in part by the government and in part by the members.
- Co-financing schemes with different financing rates for different activities.
- Balancing environmental concerns with economic sound behaviour.
- Developing "collective procurement competencies" but without exercising purchasing volume and buying power.

Two of these components, namely governmental financial support and the financing scheme for demonstration projects, merit further attention as they are crucial for the success of BeBo.

First, as BeBo's mission and financial basis is provided by a governmental programme, the forecast could – with a quick glance – be perceived as quite stable. The current grant is provided for a four-year period running from December 2011 to December 2015. Four years must be considered a minimum requirement, as longer time is often needed due to the long lead times of initiating, executing and evaluating renovation projects. Hence, recently initiated demonstration projects or pre-projects within the campaign Halvera Mera cannot be expected to deliver results within the grant period.

Further, the ambitions of both BeBo and the Swedish Energy Agency are very high, but it may be questioned if the available funding reflects the level of ambitions. The annual government support is rather limited (some SEK8 million or EUR1 million) with a total budget of BeBo at around the double. Still, the operation of BeBo remains highly dependent on the level of government support and is very susceptible to changes in government support.

Second, the financing scheme for demonstration projects and the pre-projects of the campaign Halvera Mera is based on a co-financing scheme with different financing rates for different activities. A financial procedure was established, which separated funding for the pre-studies, the actual implementation of the renovation projects and the evaluations of projects (BeBo, 2013a). Clients aiming for renovation based on BeBo's ideas could apply for a grant of up to SEK150,000 to support the pre-projects covering up to 70 % of their costs. In addition they could draw on experts from BeBo's "resource pool". In exchange BeBo requested to receive a report within 6 months describing the renovation project. During the actual renovation project the financial support from BeBo was limited to a maximum of 30 % or less, while up to 50 % of the costs for the evaluation of the project results could be supported.

The differentiation of financial support throughout the three stages of the renovation projects seems to have been very helpful in initiating many renovation projects. This economic logic rests on a plausible hypothesis that the main barriers towards initiating and disseminating energy renovation are to be found in the initial phases. Hence, the differentiated support scheme provides more support at a critical stage of the decision-making process in order to reduce uncertainties. The differentiated support scheme seems to be an appropriate response to the challenges that many renovation projects are facing in the initial stages where decisive decisions are made with regard to the level of ambitions of energy reductions.

Supporting organisational arrangements

The final step in the analysis is addressing the supporting organisational arrangements that are set in place to implement the strategy and realise the mission and objectives (see Figure 5). This part will be restricted to an analysis of the members, the board and the secretariat.

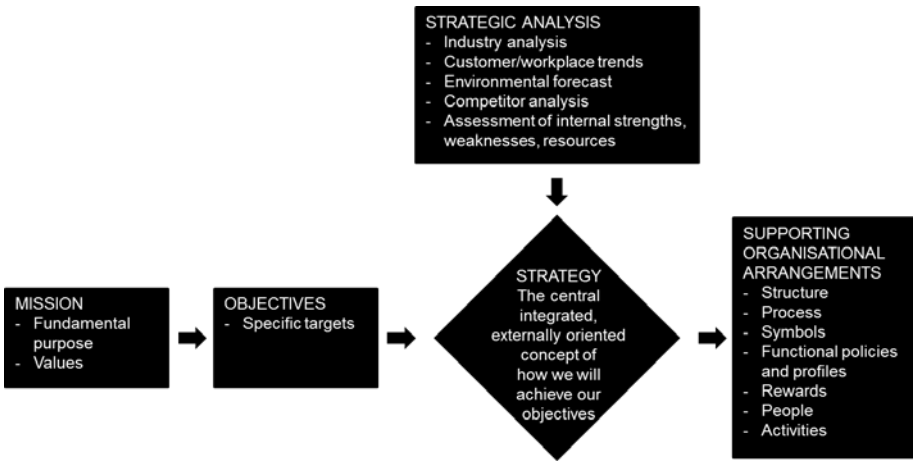

Figure 5. Supporting organisational arrangements in relation to the strategy and the base. Adapted after: (Hambrick and Fredrickson, 2001).

The BeBo board is composed of the chairman (previous chairman of the Swedish Construction Clients Forum), the previous secretary of the network, representatives of the Swedish Energy Agency and the Swedish National Board of Housing, the Swedish Agency of Building and Planning (Boverket), and representatives of the Swedish Construction Clients Forum and the Swedish Association of Public Housing Companies (SABO). The board is composed of a group of loyal, committed and influential members.

As of May 2009, BeBo had 20 members ranging from social housing associations to public authorities and professional organisations. The members included:

– AB Familjebostäder.
– AB Sigtunahem.
– AB Stockholmshem.
– AB Svenska Bostäder.
– Alingsåshem AB.
– Boverket.
– Byggherrarna.
– Eksta Bostads AB.
– Energimyndigheten.
– Fastighets AB Förvaltaren.
– Fastighetsägarna Stockholm.
– Gavlegårdarna AB.
– HSB:s Riksförbund.
– Hyresbostäder i Växjö AB.
– Riksbyggen.
– SABO.
– Signalisten.
– Uppsalahem AB.
– Vidingehem AB.
– ÖrebroBostäder AB.

In 2014, the 20 members had been joined by seven new members. The seven new members were (BeBo, 2014a):

– AB Helsingborgshem.
– AB Landskronahem.

– Eskilstuna Kommunfastighet.
– Förvaltnings AB Framtiden.
– Kommunefastighet.
– Kopparstaden AB.
– PiteBo AB.
– Stena Fastigheter AB.

Since the 2009 evaluation, BeBo had recruited a handful of new members. However, BeBo had not registered that new potential members were “knocking at the door” even though nearly all potential member organisations are aware of BeBos existence. Therefore it seems reasonable to conclude that the most interested and relevant members have already been recruited. The current number of members (some 25-30) is probably a fair number with regard to cooperation, both between BeBo and between the members internally. A more even regional distribution of the represented members may be achievable and desirable, but it is not considered a major problem. Further it may be discussed if the number of members is that important any longer. As BeBo is continually placing more and more emphasis on the web-based platform, it would probably be more relevant to ensure that the BeBo website is well-known.

The secretariat is divided in two: an administrative section hosted by the Swedish Construction Clients Forum and a technical section placed at the large consulting engineering company WSPgroup. Both sections are small and based on part-time employment of the secretariat staff. While this division ensures a competent secretariat, it also entails a dilemma with regard to operational flexibility versus the cross-pressure of other commitments in the home organisation of the staff members. The rationale behind the division is that it would be very difficult if not nearly impossible to find persons that would be able to span both the technical content of BeBo’s activities as well as the financial, administrative and communicative activities. This rationale is sound provided the good working relationship can be maintained between the two entities.

Discussion

In line with the analytical framework of Hambrick and Fredrickson (2001), the 2009 evaluation (Gottlieb and Haugbølle, 2010) addressed six criteria for assessing the value of the strategy of BeBo. Below, these six criteria are addressed again with a focus on the changes taking place over the past five years.

Does BeBo's strategy fit with what's going on in the environment?

The 2009 evaluation (Gottlieb and Haugbølle, 2010: 20) concluded that the strategy of BeBo was well-aligned with what was going on in the environment, but also recommended to consider including an additional multi-level focus on behavioural aspects of energy consumption.

The strategy of BeBo is still well-aligned with what is going on in the *political environment* of BeBo. In particular the strategy is closely aligned with the policies of the Swedish Energy Agency. Further, the strategy nicely converges with the 2020 strategy on sustainable growth of the European Union.

With regard to the *business environment*, the core element of the BeBo strategy is a focus on implementation of cost-effective energy savings rather than maximum energy savings. BeBo is paying great attention to calculation of profitability for different types of renovations. BeBo consider this to be crucial for understanding under which conditions energy renovation has to be performed. BeBo has a profound understanding of this complex of problems and interrelated mechanisms, which energy renovations are part of. This is vital for BeBo's work as demonstrated in the development of a tool for calculation of profitability. This approach of BeBo aligns the ambitions well with a more commercially oriented approach, which we believe is likely to attract more followers.

With regard to the *operational context*, the use and operation of properties has proven to be highly important for the resulting energy consumption in buildings. In particular the role of end-users in the guise of tenants plays a significant role for the energy consumption (see e.g. Gram-Hanssen, 2003). Similar, the role of facility managers can have a profound influence on the energy performance of buildings (see e.g. Nielsen, Jensen and Jensen, 2009). Although BeBo recognises operation or facility management of the individual estates as an even more important factor than in 2009, the attention towards the behaviour of end-users is effectively still limited.

Does BeBo's strategy exploit their key resources?

The 2009 evaluation (Gottlieb and Haugbølle, 2010: 21) concluded that close collaboration with academic institutions is instrumental in BeBo's operations; however BeBo should consider to expand this institutional "resource pool" with competencies from other scientific fields.

The solid evidence-based approach and documentation of experiences from demonstration projects has been continued in the past five years. This approach has been taken one step further by cross-analysing demonstration projects and embedding lessons in the so-called “Godhetstal”. In addition, BeBo has initiated a BeBo phase model with guidelines etc., but further efforts are required in order to finalise this effort and fully exploit the potential of it.

BeBo has established a so-called “resource pool” that give access to key resource persons and institutions, including research institutions like KTH (Royal Institute of Technology in Stockholm), Lund University, and SP Sveriges Tekniske Forskningsinstitut (SP Technical Research Institute of Sweden). Recently, BeBo has expanded its external scientific cooperation into the field of economics in the housing sector. Hence, BeBo has initiated a closer collaboration with University of Gothenburg to address institutional problems and financial interface problems between business models for energy renovation in the different logics dominating actors working in housing and property development.

While external scientific cooperation has been applied on a national scale, extending this collaboration and knowledge acquisition to institutions in countries outside Sweden has not yet been realised. Although BeBo considers knowledge acquisition and closer collaboration with the other Nordic countries as fruitful, no plan for realising such collaboration exists currently.

Will BeBo's envisioned differentiators be sustainable?

The 2009 evaluation (Gottlieb and Haugbølle, 2010: 22) pointed out that by utilising their buying power and purchasing volume, BeBo could effectively assume the role of proactive change agent; however it was too early to assess the empirical effects hereof.

The BeBo network has strong differentiators due to its close ties with the Swedish Energy Agency, its non-commercial purpose and its evidence-based approach towards integrated solutions. However, the differentiators may come under increased pressure. BeBo is in a unique situation as the network has no direct competitors. A potential competition will most likely not address the “market”, but rather the public funding. Other public and private organisations could encourage the agency to distribute the public funding in different ways by following alternative principles. This could open access for both public research institutions as well as private consultants. Currently, there are no signs of competing organisations in the environment around BeBo. If the government changes the principles for how to support energy reductions in housing, this can change rapidly.

Some BeBo board members expressed concern that a current governmental shift in financial mechanisms may be underway. In particular, concerns were raised with regard to a more restrictive administrative procedure towards providing grants and more fundamental changes in how to evaluate the cost-effectiveness of governmental change programmes. The concern is that such changes in governmental management policies may be detrimental to the pool-based financial grants for activities used in the current operational model of BeBo.

As in 2009, the use of the buying power and purchasing volume of BeBo members still remain to be explored and exploited. In other words, part of the potential value of a network is not utilised. Although the potential benefits

are recognised by BeBo, different motives against doing so are mentioned, among others the risk of creating monopolies. Further, it is argued that the solutions required in each renovation project differ to such a degree which makes it complicated to develop common solutions at a large scale. All in all, BeBo's policy regarding this issue seems rather unclear.

Are the elements of BeBo's strategy internally consistent?

The 2009 evaluation (Gottlieb and Haugbølle, 2010: 24) concluded that the networked structure of the association provided a highly beneficial fit with the economic logic under which BeBo operated.

In the previous chapter, each of the strategy components was analysed and discussed in detail. Below each of the five strategy components is summarised:

- Arenas: Social housing in Sweden and focus on technical improvements.
- Vehicles: Technology procurement via development projects, demonstration projects, campaigns and dissemination activities.
- Differentiators: Close ties with the Swedish Energy Agency, non-commercial purpose of BeBo, evidence-based product development approach along with development of integrated solutions.
- Staging: Three-stage model moving from one actual building (step 1) over all members of BeBo (step 2) to the entire industry (step 3).
- Economic logic: Non-profit organisation, joint funding, differentiated co-financing schemes, balancing environmental concerns with economic sound behaviour, and developing "collective procurement competencies" but without exercising purchasing volume and buying power.

Pairing the five different components of the strategy diamond with each other provides a matrix for assessing the internal consistency of the strategy (see Figure 6). The matrix helps testing whether the chosen vehicles, differentiators, staging and economic logic fit with the choice of arenas and so on. In the case of BeBo, how do for example demonstration projects (a vehicle) fit with a focus on multi-family dwellings in Sweden (an arena).

	Arena	Vehicles	Differentiators	Staging	Economic logic
Arena		OK	OK	OK	OK
Vehicles			OK	Not	OK
Differentiators				OK	OK
Staging					Not
Economic logic					

Figure 6. Assessment of internal consistency of the BeBo strategy.

The matrix can be used for very elaborate and detailed assessments, but here it has been applied in a simple and possibly too rude judgment of being consistent or not (OK/not). While the overall assessment is that there is a reasonable fit between arenas, vehicles, differentiators, staging and economic logic, a couple of attention points stands out. Hence, the following will focus on these in more detail as the strategy entails some internal dilemmas that may require further reflections.

First, a classical challenge to any development activities in construction and real estate is linked to the lead times. In most cases, a minimum of three years is required, and often up to five years is required in order to initiate, implement and measure the effect of development activities. Unfortunately most development programmes are short-lived and run for a maximum of four years. Luckily, the BeBo network has been in existence for a longer pe-

riod of time, and repeated extensions of the financial support have been secured to continue the activities.

The vulnerability of development activities with regard to timing is noticeable in the dissemination campaign of Halvera Mera. Despite the anticipated value of the campaign, it is quite difficult to fully acknowledge the results of the campaign if measurements are not made in the realised renovation projects, which are still to come. Hence, similar activities in the future require start at the beginning of a development programme or a financial commitment from relevant partners to ensure that the vital follow-up and evaluation of the realised renovation projects can be undertaken within the programme period.

Second, another dilemma to be addressed is vehicles versus staging. As pointed out previously, it may be worth applying an additional stage in the staging process to address the adoption and implementation of results internally at the individual property owner. This would most likely require the development of new tools for managing portfolios, further elaboration of the BeBo renovation phase model etc. This should be doable within the existing BeBo strategy. However, a more prominent focus on portfolios and implementation in the individual organisation of a property owner would most likely require a somewhat different approach guided by principles of innovation management or organisational change management. This in turn may also impact on the vehicles being applied by BeBo and the resources needed by BeBo to achieve the goals.

Do BeBo have enough resources to pursue this strategy?

The 2009 evaluation (Gottlieb and Haugbølle, 2010: 26) concluded that an increased focus on system-deliveries or integrated solutions could be seen as an expansion of BeBo's arenas in comparison with previous practice. This would potentially require additional resources and funding to be dealt with.

The networked structure of the association still provides a highly beneficial fit with the economic logic under which BeBo operates. BeBo regards the network structure as a success in every respect. Broadly speaking the network structure is seen as a central condition for a good result with regard to dissemination of innovations and adoption of new knowledge and solutions. It should be noted that the success of the network structure is dependent on financial grants that extends over long(er) periods of time and are provided without bindings to specific renovation projects.

While the available resources seems reasonable for an unchanged level of activities and unchanged focus areas, there a number of areas that could use additional financial resources in order to prosper. First, technology procurement of integrated solutions like façade insulation systems has proven to be a major challenge and seems to require more resources in order to succeed. Second, a stronger focus on studies of the role of users' and facility manager's behaviour, financial mechanisms and portfolio management will require additional resources or a major shift in prioritisation of available resources.

Is BeBo's strategy implementable?

The 2009 evaluation (Gottlieb and Haugbølle, 2010) concluded that BeBo would be able to contribute to a move towards a more energy-efficient hous-

ing sector, although BeBo would not necessarily be able to reach the 50 % energy reduction target as such.

BeBo has set a very high ambition of reaching a 50 % reduction in energy consumption. It must be questioned if BeBo with its present vehicles and available resources will be able to realise such ambitious targets. The overall aim of achieving a 50 % reduction in energy consumption has been difficult to achieve in the demonstration projects of Rekorderlig Renovering. A number of reasons for this have been put forth by BeBo like differences between projects and so on. However, it may also reflect a too ambitious mission, a mismatch between the mission and the approach of cost-effectiveness, or that other vehicles outside the reach of BeBo like stricter regulation, government support schemes or similar is required to realise the mission. Implementation through technology procurement or/and information dissemination is a reasonable approach, but in our view it will likely not yield the 50 % energy reduction objective in itself. While the evaluators are in favour of setting high ambitions that are difficult – if not outright impossible to reach – and to be fair in the pursuing judgment, the same logic cannot necessarily be assumed to be applied within a governmental new public management regime. Hence, careful consideration and reformulation of the ambitions may be worth considering.

Conclusions

This evaluation of BeBo is a follow-up on a similar evaluation conducted in 2009 by Gottlieb and Haugbølle (2010). It is based on the business strategy framework developed by Hambrick and Fredrickson (2001) and has employed different types of empirical evidence: a range of documentary sources, a group interview with the BeBo secretariat and chairman, and a consultation with the board and secretariat.

In line with this analytical framework, six criteria for assessing the value of a strategy were addressed as follows. First, the strategy of BeBo is still well-aligned with what is going on in the political surroundings at both national and European level. With regard to the business environment, the focus on implementation of cost-effective energy savings rather than maximum energy savings aligns BeBo closer to the commercial realm. With regard to the context of use and operation, issues of e.g. commissioning and heat recovery of ventilation during the use phase has received increased attention since 2013, while user behavioural and managerial issues still have a more marginal position.

Second, BeBo exploits its limited resources well through a “resource pool” and a solid evidence-based approach to documenting the results of demonstration projects. This approach includes key performance indicators (the so-called “Godhetstal”) and a BeBo renovation phase model, which is under development. While external scientific cooperation has been applied on a national scale, extending this collaboration and knowledge acquisition to institutions in countries outside Sweden is not currently being planned.

Third, the BeBo network has strong differentiators due to its close ties with the Swedish Energy Agency, its non-commercial purpose and its evidence-based approach towards integrated solutions (“packages”). However, the differentiators may come under increased pressure if a shift in governmental financial support is made. Exploiting the buying power and purchasing volume of BeBo members still remains to be explored and exploited.

Fourth, there is a good match between the different elements of BeBo's strategy, but a clearer formulation of the mission and objectives may be beneficial as guiding principles for the priorities and activities of BeBo. The networked structure of the association still provides a highly beneficial fit with the economic logic under which BeBo operates, but the strategy entails some internal dilemmas. One, a classical dilemma is linked to the long lead times of renovation projects versus the typical shorter time scale for development programmes, which is noticeable in the dissemination campaign of Halvera Mera. Another dilemma to be addressed is the choice of vehicles versus staging, which is particular evident with regard to implementation of new energy saving practices in client organisations rather than solely in individual projects.

Fifth, the available resources seem reasonable for an unchanged level of activities and unchanged focus areas. However, technology procurement of integrated solutions like façade insulation systems has proven to be a major challenge and seems to require more resources. Further, a stronger focus on studies of the role of users’ and facility manager’s behaviour, financial

mechanisms and portfolio management will require additional resources or a shift in prioritisation of available resources.

Sixth, it must be questioned if BeBo with its present vehicles and available resources will be able to implement the ambitious target set. Implementation through technology procurement and/or information dissemination is a reasonable approach, but it will likely not yield the 50 % energy reduction objective alone as evidenced in the demonstration projects of Rekorderlig Renovering. Hence, it must be considered whether the mission is too ambitious, the approach of cost-effectiveness rather than maximum energy savings fully matches the mission of BeBo, or whether other vehicles outside the reach of BeBo like stricter regulation is required to realise the mission.

Figure 7 summarises the evaluation in a grading scheme using the European seven-grade scale from the European Credit Transfer System (ECTS) used at educational institutions.

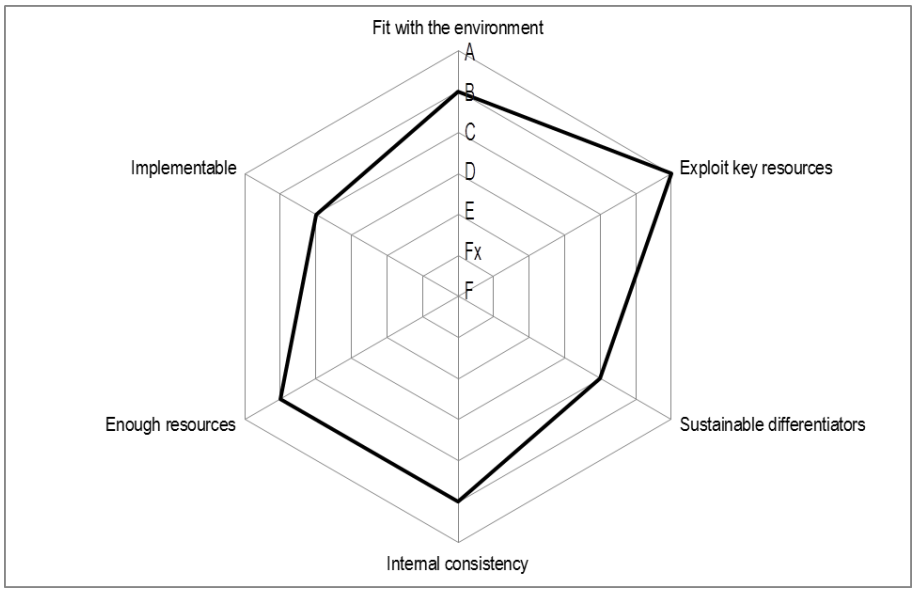

Figure 7. Summarising the evaluation using the European seven-grade ECTS system.

Finally, the evaluators would like to present a number of recommendations to be considered by BeBo:

– Make the priorities of objectives more explicit.
– Expand activities like “Halvera Mera” to develop results that are also applicable for other targets groups like the condominium sector (Swedish “bostadsrätt”) and institutional developers.
– Maintain the already extended communication activities.
– Continue the careful recording of data from the ongoing case studies, potentially in collaboration with research institutions.
– Strengthen the cross-analysis of demonstration projects and embed lessons learned in the “BeBo renovation phase model” and “Godhetstal”.
– Strengthen work on issues related to finance, management and user behaviour.
– Develop tools and guidelines that can support the implementation of results from individual demonstration projects in property portfolios.

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This report describes the results of a re-evaluation of the strategy and activi-ties of Beställargruppen Bostäder (BeBo) – an innovation network of Swedish housing procurers encouraged and co-financed by the Swedish Energy Agency. The evaluation follows in the wake of a similar evaluation in 2009.

The objective was to evaluate the innovation strategy, organisation and activities of BeBo aiming at reducing the energy consumption in the Swedish housing sector.

Through an analysis of BeBo documents, interviews and a consultation process, the strategy of BeBo was evaluated according to the interrelated strategy components of arenas, vehicles, differentiators, staging and eco-nomic logic.

The evaluation concludes that the strategy of BeBo is well-aligned with what is going on in the environment. Despite the appropriateness, certain areas for improvement are also identified.

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