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“We cannot be at the forefront, changing society”. Exploring how Swedish property developers respond to climate change in urban planning

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Abstract: It is increasingly expected that private actors play the role as entrepreneurs and frontrunners in implementing climate measures, whereas empirical studies of the position, role and engagement of private actors are scarce. Situated in the context of urban planning, a critical arena for triggering climate transitions, the aim of this paper is to explore how Swedish property developers respond to climate change. Qualitative analyses of corporate policy documents and semi-structured interviews with property developers reveal a vast divergence between the written policies, where leadership ambitions are high, and how the practice of property development is discussed in interviews. In the latter there is little evidence of property developers pursuing a forward-looking or cutting-edge climate change agenda. Instead they are critical of increased public regulation for climate-oriented measures. Explanations both confirm previous studies, highlighting lack of perceived customer demand, uncertainty of financial returns and limited innovations, and add new elements of place-dependency suggesting that innovative and front-runner practices can only be realized in the larger urban areas. Municipalities seeking to improve their climate-oriented profile in urban planning by involving private property developers need to develop strategies to maneuver the variance in responses to increase the effectiveness of implementation.

Key words: climate change, implementation, urban planning, property developers, public-private

1. Introduction

Cities play a critical role for designing and implementing policies in pursuit of climate transitions. It is increasingly recognized that governing climate change, as well as facilitating wider processes of societal transformation, requires the engagement and coordinated responses of both public and private actors (Urwin & Jordan, 2008; Juhola & Westerhoff, 2011; Agrawala et al., 2011; Tompkins & Eakin, 2012; Bulkeley & Betsill, 2013; Schroeder et al. 2013). Governments thus rely on resources, expertise and will of private actors in implementing climate measures (Bauer & Steurer, 2014). Involving the private sector is seen as a way to increase the efficiency, legitimacy and sense of common ownership in implementation (Eakin & Lemos, 2006; Tompkins & Eakin, 2012; Mees et al., 2016) and also stimulate economic growth and development opportunities (Taylor et al., 2012). It is expected that private actors, as potential entrepreneurs or leaders will be “playing a crucial role as problem solvers, taking risks where others might avoid them” and to “fill capacity gaps and stimulate market-based responses to environmental challenges” (Schroeder et al., 2013, p. 762f. Harman et al., 2015). Discerning and differentiating agency responses in micro-level settings has been stated as important both in classic implementation studies (Hill & Hupe, 2014) and climate governance studies (Klein & Juhola, 2014). When it comes to climate governance studies, most empirical analyses have however focused on the role of public rather than private actors (Agrawala et al., 2011; Juhola, 2013). This suggests the need to increase the empirical understanding of the position, role and engagement of private actors in governing climate change (Bulkeley, 2010; Agrawala et al., 2011; Taylor et al., 2012; Mees et al., 2012, 2013, 2016; Juhola, 2013).

Urban planning is a critical arena for triggering transitional change in terms of climate change (Biesbroek et al., 2009; Wilson & Piper, 2010; Hurlimann & March, 2012) at which enhanced engagement of private actors are required to mobilize force and implement climate policies (Hrelja et al., 2015). In urban planning, property developers are a key group of private actors developing, selling or managing houses and blocks. On the one hand, property developers are seen as having “considerable financial, political or technical resources” (Taylor et al., 2012. Agrawala et al., 2011) thus suggesting the capacity to take a key role in implementing climate measures. On the other hand, the practical evidence of property developers being engaged in such activities is uncertain (Meijerink & Dicke, 2008; Loucks et al., 2008; Storbjörk & Hjerpe 2014). Studies targeting the perspectives of property developers themselves, however, are rare.

Accordingly, *the aim of this paper* is to explore how Swedish property developers respond to climate change in the context of urban planning. This means targeting to what extent the potential to take on an active role and increase private sector engagement in implementing climate measures is being realized in policy and practice. Empirically, the study is undertaken in the Swedish medium-sized city Karlstad. Property development and urban expansion in Karlstad is currently intense which, combined with high municipal ambitions for creating climate proof urban structures, makes it relevant for a study on property developer responses. The following research questions are put in focus:

1. What profile, goals and ambitions for responding to climate change are expressed in company policies of the property developers?

2. How do the property developers portray their role and position for responding to climate change in concrete property development practice?
3. What do the differences expressed in policy and practice imply for the ability of property developers to take on an active role and contribute to improved implementation in urban planning for climate change?

The research questions are answered in section four. Before that comes one section introducing the conceptual framing of the paper and the analytical distinctions of inactive, reactive, preactive and proactive responses as well as one section on methodology. In section five conclusions are drawn.

2. Conceptual framing and analytical distinctions

Governing climate change is dependent on the ability to ensure the implementation of public climate policy agendas and goals. Implementation is hereby understood as negotiated order with looking-glasses directed at “what happens on the ground” in micro-settings (Barrett, 2004; Hupe, 2014). Here several key components are identified as important, of which we in this paper particularly target the comprehension, capability and willingness of implementing actors to induce change (Barrett, 2004; Vedung, 2005). What started out as an emphasis on the “street level bureaucrats” involved in implementation (Lipsky, 1980), has, in a context where the role of public administration is changing, necessitated a focus on both public and private actors (Hill & Hupe, 2014). In the climate governance literature, there are clear expectations of private actors taking a more active role in implementation (Agrawala et al., 2011; Tompkins & Eakin, 2012; Juhola et al., 2013; Bauer & Steurer, 2014). Research suggests that “businesses are increasingly aware of the need to respond to climate change, both in operational and strategic terms” to “maintain their current operations and competitive advantage” (Agrawala et al., 2011. PwC, 2010). Studies in Denmark and Sweden demonstrate that, in general, municipalities have not yet involved business in climate adaptation policy-making and implementation (Lund et al., 2012; Hjerpe & Glaas, 2012). Studies in the Netherlands instead show that when it comes to green roof initiatives, the green roof industry played an important role for raising efficiency in implementation. Although the municipality played a key role in agenda-setting, initiation and by providing subsidies, they left knowledge development and innovations to private entrepreneurs who took on the task (Mees et al., 2012, 2013; 2016). Similarly, studies on low-carbon urban transitions (Khan, 2013) and sustainable vehicle technology (Nilsson et al., 2012) illustrated the importance of intensified private sector engagement to spur action.

Property developers, the targeted private actors in our study, are faced with the possibility of restricted future access to land with development potential due to climate change (Hertin et al., 2003; Loucks et al., 2008; Taylor et al., 2012; Mazmanian et al., 2013) as well as increased public regulation to climate-proof urban development by measures supporting energy efficiency, sustainable mobility, improved storm-water management, limiting allowed percentage of paved ground and regulating lowest allowable floor elevation (Lund et al., 2012; Storbjörk & Ugglå, 2015). The property development industry is often portrayed as consisting of actors with considerable financial, political or technical resources (Taylor et al., 2012) that

are assumed to foster innovative design practices in both mitigation and adaptation (Hertin et al., 2003; White, 2015; Shearer et al., 2016). However, existing research illustrate that expectations are not met in practice. Studies of European flood management (Meijerink & Dicke, 2008; Loucks et al., 2008) and Swedish urban planning (Storbjörk & Hjerpe 2014; Storbjörk & Ugglå, 2015; Hrelja et al., 2015) demonstrate that planners see problems with reluctant property developers and politicians who comply with demands from the property development industry in a way that reduce the impact of climate considerations. However, few studies specifically target the voices of property developers. One exception is two Australian studies of preferences, capabilities and perceptions of property developers, highlighting that so far, climate change impacts have had a relatively low priority (Taylor et al., 2012; Shearer et al., 2016). Developers are not a homogeneous group but have different motives, approaches and strategies (Coiacetto, 2001; Adams et al., 2012; Shearer et al., 2016). A build-and-walk-away-mentality was documented with many commercial property developers that build to sell, compared with housing associations who stay on as property managers (Taylor et al., 2012). The commercial developers thus tended to “privatize the profits and socialize the cost” when dealing with climate risks (Loucks et al., 2008, p. 551; Hertin et al., 2003).

To categorize different types of property developer responses we will make use of analytical distinctions stemming from planning studies, namely the concepts of inactive, reactive, preactive and proactive responses (Albrechts, 2010). Whereas *proactive* responses are targeted at “designing the future and making it happen”, *preactive* responses are instead preparatory where actors get ready to initiate changes. Both proactive and preactive responses are characterized by being strategic, anticipatory and forward-looking. Contrary to this, *reactive* responses are defensive, compliant and characterized by taking a rear-view mirror perspective and reacting to the most immediate threats or minimum public requirements. Finally, *inactive* responses are evasive, avoiding action (Albrechts, 2010).

Positions taken by property developers are often assumed to be dependent on a combination of individual developer characteristics, development cultures as well as site and market considerations (Adams et al., 2012; Shearer et al., 2016). The lack of sufficient property developer responses documented in the Australian studies was mainly attributed to the fact that climate risks were associated with increasing costs through e.g. tougher design standards and insurance premiums. Adding to the economic disincentive, property developers stated a lack of consumer demand and, consequently, anticipated a low financial return (Taylor et al., 2012; Shearer et al., 2016). Apart from the economic factors, impediments related to confusion over climate change policies and of what specific changes that they as property developers were expected to undertake were identified (Taylor et al., 2012). While regulation was seen as necessary and effective to motivate action it was clearly not a stated preference among the Australian property developers. Property developers were also less convinced about the benefits to their own company of adopting a leadership role in absence of clear government policy and incentives (Taylor et al., 2012). A recent Swedish study shows a similar picture, indicating that instead of fostering innovation, property developers held on to market assessments and reproduced mainstream consumer demands (Hagbert & Femenías, 2015). These results resembles conclusions previously drawn of private companies managing climate risks, explaining limited action by low level of awareness and uncertainty regarding risks and

benefits, lack of in-house capacity and analytical expertise, restricted ability to finance adaptation (public subsidies or costs passed on to consumers), tendency to focus on short-term installation costs and the formal and informal institutional context with e.g. regulations and public-private partnerships (PwC, 2010; Agrawala et al., 2011; Mees et al., 2012).

Property developers can thus either pursue an active role of taking responsibility, showing leadership and engaging in innovation or a more inactive role where impediments for action are important to identify.

3. Methodological clarifications

Empirically the study is undertaken in the municipality of Karlstad, situated in the river Klarälven delta at the shore of the big lake Vänern in the West of Sweden. Karlstad functions as a communications hub for the Värmland region between Stockholm and Oslo and is considered medium-sized in Swedish comparison. The land area of urban Karlstad is 30.3 km² and, in 2015, its population was about 87.000, including rural areas. Karlstad has a long history of managing environmental issues, stemming from alarming reports of poor urban air quality during the 1990's which spurred improvements in public transportation. The unique Delta-location has provided attractive waterfront redevelopments and necessitated that managing flood-risks is an integral part of all urban planning. Currently, local goals of both climate mitigation and adaptation are interlinked with the overarching vision of attractiveness and fulfilling ambitions to grow, the latter expressed by the slogan "Quality of Life. Karlstad 100 000". Key strategic goals in Karlstad are growth, attractiveness and the good green city (Karlstad, 2012). Currently, urban expansion and densification leads to intense property development.

The property development industry in Sweden consists of small-scale and large scale construction companies, real estate companies, architectural firms, consultancy firms and providers of building material. We specifically wanted to target property developers as the actor group in charge of building and construction, and in this group a variety of property developers active in current property development practices in Karlstad. From previous studies we know that distinguishing between different types of property developers is relevant (Coiacetto, 2001; Adams et al., 2012; Shearer et al., 2016). A mapping of central property developers was done guided by the municipal planning office. Four larger property developers with a long engagement in property development was selected; HSB and Riksbyggen as private housing cooperatives and Peab and Skanska as commercial construction companies. Two newer and smaller actors were also included; Kärnhem, a project development company operating in middle sized communities, and Prepart, a local commercial developer. Finally we included the municipality housing company, KBAB. The interview-sample thus involves newer and older players in the field of property development, actors working solely in Karlstad and actors operating in larger parts of Sweden, as well different types of property developers, i.e. the municipal housing company, private housing cooperatives, construction and civil engineering companies and project development companies (Table 1). The semi-structured

individual interviews with key representatives of the offices active in Karlstad were conducted in the spring of 2014.

Table 1. Interviewed property developers

Interviewee	Type of property developer	Since	Market	Company Motto
KBAB (1)	Municipal housing company	1942	Local Market	A home for you
HSB (2)	Private housing cooperative	1923	National-Local Market	Where opportunities live
Riksbyggen (3)	Private housing cooperative	1940	National-Local Market	Room for the whole life
PEAB (4)	Construction and civil engineering company	1959	International-Local Market	The Nordic Community Builder
SKANSKA (5)	Construction and civil engineering company	1897	International-Local Market	Find your new home
Kärnhem (6)	Project development company	2003	A selection of middle sized municipalities	Creating spaces for life
Prepart (7)	Project development company	2010	Local Market	Development. Cooperation. Trust

The interviews lasted between 1-1½ hours each and followed an interview guide, focusing on questions regarding the position, goals and ambitions and the role of property developers in urban planning practices in Karlstad, what influence the position taken in terms of climate risks and mitigation (energy and transportation), how property developers interact with municipal actors and the distribution of roles and responsibilities in urban planning. The latter two are reported in a parallel paper on public-private interplay. All interviews were audio-recorded and transcribed verbatim. All interviewees consented to us using the names of their companies and a preliminary compilation of the analysis was sent to the interviewees as a member-checking device (Baxter & Eyles, 1997).

To complement the interviews, an analysis was also made of company documents, accessed by the official web-pages of the property developers in October 2015. Documentation included sustainability and climate ambitions, ongoing projects and initiatives as well as how their own position was presented. The documentation consisted of sustainability reports, environmental policies and other corporate documentation from 2014, the same year the interviews were made. For the two smaller property developers, data was much scarcer than for the others and they did not have any statements regarding green building, environment, sustainability or climate change. This means that the analytical section dealing with written statements mostly reports on perspectives from five of the seven property developers.

The analysis of the qualitative material was stepwise. First, documents and interview transcripts were analysed developer by developer or interview by interview to capture specific characteristics. Second, meaning-concentration meant focusing on both specific content and different recurring analytical themes. Themes with bearing on private sector involvement in urban planning were generated inductively from the empirical data, guided by the research questions and thereafter discussed in the light of previous studies and analytical distinctions.

The document analysis was based on discerning analytical patterns with respect of company profile, goals and ambitions, whereas the interview analysis focused on recurrent aspects featuring as explanations to property developer role and positions. When presenting the empirical results, respondent statements and reflections are emphasized. The validity of our interpretations is strengthened by comparing statements from different interviews and documents (Silverman, 1993), meaning that many citations are examples of general analytical patterns. However, we also make room for individual views and experiences, when these highlight important alternative perspectives that deepen our understanding of the issues at hand. It is also important to acknowledge that we are comparing very different types of empirical data. Policy documents reflects the official viewpoints of the property developers, of which five are oriented on a national or international arena, whereas the interviews reflect the perspectives of individuals situated in Karlstad that are not necessarily representative for the corporate perspectives on a larger scale.

4. Property developer responses to climate change

The empirical analysis is presented in four subsections. The first deals with the written profile, goals and ambitions of the property developers for shouldering an active role. Thereafter follows the question of what happens in property development practice, here presented in the three subsections of realizing competitive advantages, meeting increased regulation and meeting customer demand.

4.1. Profile, goals and ambitions

All seven property developers state as their key objective to offer customers affordable, high quality properties, characterized by comfort, safety and functionality:

“We build blocks and homes that we ourselves would like to live in. The goal is to fulfil the housing-dreams of different people and increase their quality of life” (Skanska, 2014a. Riksbyggen, 2014a; HSB, 2014a; PEAB, 2014a; KBAB, 2014; Kärnhem, 2014; Prepart, 2014)

A green and climate-oriented profile is presented as decisive for the municipal housing company and the four bigger national property developers and they share several characteristics in how they frame their profile and tasks ahead. Contributing to and being forerunners in securing a sustainable urban development with climate-smart sustainable housing is presented as a key concern and a sign of taking societal responsibility (KBAB, 2014; Riksbyggen, 2014a; HSB, 2014a; PEAB, 2014a; Skanska, 2014a; b). This ambition is supported by a strong emphasis on being forward-looking by “driving development” and “finding new solutions” to be tested in concrete projects:

“We are the obvious partner in Nordic Community Building. We create ideas, take initiative and are forward-looking. We are resource-efficient and our climate-smart solutions are cutting-edge. What we do is sustainable throughout the whole life-cycle” (PEAB, 2014b. Skanska, 2014a; b; Riksbyggen, 2014a; KBAB, 2014; HSB, 2014a)

This approach also involves influencing others by being forerunners, showing good examples and inspiring others (Skanska, 2014b, Riksbyggen, 2014a; HSB, 2014a; PEAB, 2014a; KBAB, 2014). It is underscored that there is a high pace of innovation and that already, the work undertaken by property developers have curbed emissions:

“The pace of innovation when it comes to climate-smart building is high. The visions for our future societies are promising from a climate perspective, and already emissions from some of the new houses are marginal” (HSB, 2014b, p. 1. Skanska, 2014a, b; PEAB, 2014a; Riksbyggen, 2014a)

Emphasizing climate change stretches from positional statements like “climate change is a key concern for us” (Skanska, 2014a; PEAB, 2014a; HSB, 2014a; Riksbyggen, 2014a) to formulating concrete goals like reducing the company climate impact by 50% until 2023, compared with 2008 (HSB, 2014a). The property developers highlight environmental certifications of buildings as important indicators of action, some using LEED or standards set by Sweden Green Building Council (Riksbyggen, 2014a; HSB, 2014a; PEAB, 2014a) while others like Skanska have developed their own “Green Map” to specify what is meant by green building in terms of energy, climate and material (Skanska, 2014c).

Generally, the documents show few internal differences in terms of profile, goals and ambitions of the targeted property developers. However, some differences are found regarding explicit motivations for increased action that are related to what type of property development the actors engage in. Of the seven property developers, the municipal housing company and the two private housing cooperatives stay on as property managers after finalizing the building of the houses, whereas the other four build to sell. The developers who stay on motivate their climate ambitions with taking responsibility befitting their role as managers:

”Our role as property managers means that we think differently from the start. Building sustainable economically, environmentally and socially is crucial for us” (Riksbyggen, 2014a, p. 8. Interview 1)

For Riksbyggen, this also means creating opportunities for residents to live sustainably in their everyday lives where car pools and new urban mobility services allow customers to save money while new land areas are made available and emissions are reduced (Riksbyggen, 2014a, p. 27). Riksbyggen also work on providing tools for ecosystem services and prepare to offer climate adaptation services like vulnerability assessments and suggesting adaptation measures to the housing associations (Riksbyggen, 2014a). The two housing cooperatives also present several ongoing projects and initiatives e.g. Living Labs (HSB 2014a) and “Positive Footprint Housing” (Riksbyggen, 2014b) where new concepts and ways of sustainable living are tested in real life. At least for HSB, climate smart living is also presented in terms of social justice:

“Climate-smart living cannot be a luxury for expensive housing areas – it has to be an economic opportunity for all housing associations in Sweden” (HSB, 2014b, p. 1)

Compared to this managerial emphasis, the property developers that build to sell express other motives like securing competitive advantages and meeting demands:

“Reducing our negative environmental and climate impact is a natural part of a responsible urban development. An efficient use of resources both generates business advantages and economic savings at the same time as it reduces the environmental impact. /.../ It also makes it possible to meet increasing regulations, customer demands and industry development” (PEAB, 2014a, p. 22. Skanska, 2014b)

To summarize, the written policies present the municipal housing company and the four bigger and nationally established private developers as future-oriented and innovative forerunners with clear responsibilities of taking property development to a greener and more climate oriented level. Both proactive and preactive responses are found. Few differences are found between different types of property developers even though several previous studies have highlighted developers as a heterogeneous group of actors with different motives, approaches and strategies (Coiacetto, 2001; Adams et al., 2012; Shearer et al., 2016). What does stand out in the analysis is a difference in motives for engaging and taking an active role between *property managers* emphasizing better stewardship and creating opportunities for residents to make life-style changes in their everyday life and *commercial property developers* building to sell emphasizing meeting increased demands and securing competitive advantages. This corresponds well with conclusions from previous studies (Taylor et al., 2012). When it comes to property development practices in Karlstad, the focus of the coming three sections, the interviewees with one exception appear even more homogeneous as a group. Also, there is little evidence of them taking the lead in pursuing forward-looking or innovative solutions. Three of the main motives for property developers to take on a new role that were highlighted in their corporate policies – realizing competitive advantages, meeting increased regulation and meeting customer demand – rather turns to disincentives. We start with the question of competitive advantages, where the value of taking a front-runner perspective is questioned.

4.2 Realizing competitive advantages?

Contrary to research literature and the profiles expressed in corporate policies, the interviewees suggests that the role of property developers in setting agendas for or driving processes of innovation and change is limited. In urban development, the property developers are clear of where to draw the limit between public and private responsibilities:

“The municipality controls how the larger area develops whereas we have a responsibility for our building-plots. The helicopter view is for the municipality” (Interview 3. 2, 4-7)

Rather than embracing a new entrepreneurial role and engaging in innovative approaches for responding to climate change in the building-plot perspective, most interviewees rather express weak incentives. As the title of the paper suggests:

“We cannot be at the forefront, changing society” (Interview 7. 2-6).

Different explanations to this are seen amongst interviewees. For one, experimentation is deemed risky:

“The property development industry is conservative by its nature. We don’t want to experiment with buildings persisting for 50-60 years. We need to know what works. There are numerous examples where the industry has miss-stepped with poor constructions as a result.” (Interview 6. 2-5)

Whereas the company policies speak of taking initiative, being forward-looking and cutting-edge, the interviews clearly suggest that instead of being the primary mover the ambition is rather to be third in line to see how a solution works and what it costs. The interviewees also suggest that the approach taken differ with respect of urban contexts. Climate profiling beyond business-as-usual rather occurs in the three larger cities of Sweden than in Karlstad (Interview 2-7). According to one of the construction and civil engineering companies having as a general ambition to regularly engage in profiling projects, what could potentially trigger taking a first mover role in Karlstad would be the opportunity to do something really unique and attractive in waterfront areas:

“One alternative could have been to build in water on pillars to let the water flow freely. This we have been interested in. It would be cool. It would have meant something really extra for residents and we could have charged extra for that. It would need to be something really extraordinarily and no half-measures” (Interview 4)

Without such uniqueness, the option is to join municipalities seeking to develop housing areas with a green and climate-oriented profile. This expanding trend of municipal profiling with green housing areas is attractive for private developers to join. But taking part does not mean pushing the limits. Public actors set the bar and then follows the need of selecting a reasonable level of projects:

“It becomes too prestigious for municipalities. /.../ We need an area with a green profile in Karlstad but we don’t have to be better than all the rest because we don’t have the same price levels here as in Stockholm or Gothenburg. We must make ends meet financially. We don’t need that type of extreme profiling here.” (Interview 4)

The idea is instead that the bigger cities provide the lessons for the smaller cities to follow since “you cannot drive research-oriented projects in all locations” (Interview 3. 2, 4-6). Public actors such as the municipal housing company are the ones who are expected of to drive innovative processes:

“KBAB have taken the lead here in Karlstad when it comes to testing new techniques and drawn lessons from innovation. Their increased costs have been accepted in a way that is not possible for a private property developer. In a sense it becomes a sort of tax-funded property development” (Interview 4. 5, 7)

The municipal housing company have been engaged in a unique project, Sjögången, consisting of eight floating rental apartments in an attractive location. The project has been controversial with critics arguing that they are not representative of what a public housing company ought to do. According to representatives from KBAB, the apartments have allowed innovative property development in terms of climate change and sustainability where the whole process have been documented and made public for others to follow (Interview 1). Representatives from the

public housing company explain their forefront-role as stemming from them having the long-term public good rather than financial benefits as their beacon:

“Public housing companies build to hold and manage properties rather than selling. Our perspective is to keep and manage the house for a hundred years. Why should investments pay back so quickly? Why is it not enough that investments are sound in a longer time-perspective? For the first 20 years an investment may be unprofitable but thereafter it may instead contribute to other investments. With such a perspective we can build with a different quality today” (Interview 1)

This argumentation is clearly in line with the positions of property manager and innovators found in the policy documents.

To summarize, the analysis suggests that in municipalities outside the three largest urban centers, the agenda for innovation and change in property development is stronger among public housing companies rather than private property developers. The interviews reveal a sense of *place-dependency* where cutting-edge climate innovations in private property development practice can only be tested and undertaken in larger cities like Stockholm, Malmö and Gothenburg, where consumers are willing to pay for the extra measures. Few of the incentives suggested in earlier research and in the company policies motivated the interviewed property developers to take proactive or preactive steps in their every-day property development practice. Moreover, contrary to what might be expected from the written policies, there was no clear differences with respect of motives or ambitions among the private property developers depending on whether they stay on as property managers or build to sell. The exception here being the municipal housing company.

4.3 Meeting increased regulation?

Urban planning in Karlstad rests upon political goals to contribute to a sustainable development of the urban environment by reducing emissions and climate-proofing urban development. Municipal regulation, in the form of reduced energy use, new bicycle storage, reduced car-parking, the use of car-pools and bicycle rentals, reduced percentage of paved ground, specified return periods or lowest allowable floor elevation when assessing waterfront housing etc., all serve as a way to ensure implementation of local climate goals and ambitions. In the view of the private property developers, regulating by setting high standards is undoubtedly efficient to enact local climate goals and ambitions since, as one interviewee puts it: “without public demands, nothing will happen” (Interview 5). Here, public regulation – rather than the goals and ambitions of the property developers themselves – drive the climate orientation of property development, suggesting a reactive response. In this perspective, regulation is an appropriate way to enhance implementation of climate measures. According to the interviewees, Karlstad municipality is “extremely active in” putting forward new requirements, due to their high environmental profile and the climate risks the municipality is facing and anticipating meaning that “it is mostly the municipality who controls what we do” (Interview 4). However, the interviews reveal two opposing versions of how property developers act upon increased public regulation. Both versions can be expressed by the same individual.

On the one hand, interviews suggest that property developers *comply* with increased regulation by implementing the measures deemed necessary by public officials. In Karlstad, the municipality owns most of the land available for development and can therefore formulate stricter requirements, which several interviewees bear witness of (Interview 2, 4-6). This puts the municipality in a position to set standards:

“With tougher demands from public authorities we have to adjust” (Interview 6. 2-5, 7).

Compliance also comes from the fact that Karlstad is the most attractive location in the region for property developers to work in:

“There is no other municipality to build in. /.../ When you have equivalent neighboring municipalities you can play municipalities off against one each other but this is not possible here. /.../ We cannot issue ultimatums because then we won’t get any land the next time. No one says this aloud, it is sensitive since we want a good collaboration to secure building-plots” (Interview 4)

According to this version of compliance, the interviewees suggest that despite frustration with stringent and tough requirements and standards, private actors adjust to public demand.

On the other hand, the same interviews also signal an opposite version where property developers *resist and renegotiate* public demands to avoid or loosen up the requirements put forward by the municipality that are simply seen as being “unreasonably tough” (Interview 7. 2-5). Here, using regulation to enhance implementation of climate measures appears less effective since property developers are largely “acting not to act” or to pursue less ambitious actions and measures with respect to climate change. According to this version of resistance, Karlstad municipality cannot afford to be picky when it comes to property development since the rate of building is lower than municipal intentions:

“In a city like Karlstad there aren’t that many property developers left and they have to be content that we are still here. There is weak growth and too little is being built” (Interview 5. 6)

The same interviewees contend that many property developers have left the middle-sized municipalities in favor of the larger and expanding cities of Stockholm, Gothenburg and Malmö. Accordingly, interviewees suggest that private demands primarily shape property development in middle-sized municipalities with, comparatively to the larger cities, moderate growth. While agreeing that basic regulations need to be set by the municipality, property developers prefer that measures beyond that should be voluntary for those property developers who wishes to position themselves as climate forerunners. For many of the interviewees, what is considered economically viable determines whether property development projects take place:

“It is an act of balance. There are many goals involved. The municipality have their demands and we have ours. /.../ If municipality demands don’t match the economy we probably won’t have a project. /.../ We cannot work with projects that are not economically viable but meet all other demands” (Interview 4. 2-3, 5, 7).

In this version, private demands are of key importance and public actors will need to adjust for projects to come about at all.

From the analysis we identify two opposing responses to increased regulation. One reactive response, where property developers comply with regulation to secure building plots, thus suggesting that increased regulation from municipalities who want to take a lead in governing climate change clearly hold the potential to drive and enhance the climate and environmental orientation of property developers. According to this approach new and stricter demands are needed for property developers to adjust. Without demands, little will happen. Yet, an evasive response is also found. Several quotes indicate that property developers are skeptical of increased regulation, leading them to resist and renegotiate requirements that are economically unfeasible and return profits too uncertain. This response rather suggest that increased regulation does not guarantee effectiveness in implementing climate measures. Rather, the effectiveness of regulation for enhanced implementation appears conditional. Also, both the reactive and evasive response diverge strongly from the proactive and preactive responses expressed in the property developers' company policies. Clear problems are also seen with customer demands as a motivator for change.

4.4. Meeting customer demand?

While it is suggested that the market expects increased demands for climate considerations in property development (Interview 2-3, 5), interviewees also claim that few consumers explicitly request or are willing to pay for climate certified property development in a city like Karlstad:

“It is probably easier /.../ in municipalities that are deemed attractive and have a higher level of population increase. Then you can get buyers on track. The further we get from the larger municipalities, the more difficult this gets” (Interview 6. 3, 5)

According to the interviewees, customer demand in practice means a focus on energy-use, operating costs and choice of indoor design rather than other climate and environmental standards (Interview 1-6). For the property developers in Karlstad, taking additional climate considerations is not believed to increase their attractiveness for customers which contributes to the skepticism towards stricter and extended climate-related requirements. Some requirements are difficult to meet based on consumer preferences. One such example concerns reducing the amount of paved ground in order to increase water infiltration in times of snowmelt or cloudbursts. Interviewees are convinced that stricter regulations clash with what consumers see as convenient:

“We can avoid having too much paved ground in an area when we build /.../ but customers like paved ground. What they choose to do on their property when we have sold it we cannot control and we don't want to make them feel bad about what they choose” (Interview 3. 4)

Similar arguments are made by private housing cooperatives and construction and civil engineering companies. Another problematic example, according to the interviewees, concerns pursuing changed mobility patterns by regulating car-use. This is clearly seen as a task for the

municipality through provision of effective public transportation but property developers do not seek to influence consumer behavior beyond offering opportunities for customers to choose alternative solutions like car-pools and bicycle-garages:

“We offer such solutions to our customers and then they decide whether they want it or not. /.../ We offer opportunities but it must be up to them to decide what they want” (Interview 2. 3-7)

From a property developer perspective, some climate measures are impossible to support since the property needs to be salable:

“The municipality may want to limit the number of parking-lots or not offer them at all but we cannot think that way. /.../ We need to have parking-lots for every apartment or house, otherwise we cannot sell it” (Interview 6. 3-5)

Property development needs to be adapted to targeted customers. Inner city areas may well suffice without parking-lots whereas outskirts-residential areas may not. Here the property developers prefer increased flexibility and contend that they themselves need to be able to decide which segments of the market to target (Interview 3-5). Moreover, when it comes to energy-use, the ability of property developers to influence third party resembles the case of paved ground. Even though floor heating would be avoided when building the houses, there are no guarantees that future owners will not install it. How to secure long-term compliance of requirements that are not favored by consumers is presented as a difficult task:

“It is a matter of balancing municipal and third-party demands. We can make a long list of demands that needs to be met but we also need to be able to control them and if they are not met what then? (Interview 4)

The property developers consider choices of paved ground, car-use etc. as choices that rightly belongs to the individuals and thus beyond the reach of public regulation. There are, however, other examples of measures like retention-dams where the ability to ensure that demands are met seem to be easier, at least when it comes to condominiums:

“Without retention-dams there will be flooding and no one wants this so we add in our contracts that the house association that buys our property simply must make a retention-dam in their property.” (Interview 2)

Here the question is not so much about choices related to lifestyle and comfort as in the case of paved ground and several of the mitigation regulations. Some property developers also raise the tricky issue of planning for future consumers, suggesting that perhaps the target audiences will prove outdated soon:

“Then we have the interesting question of the next generation. People born in the 1990’s don’t even take their driver’s license. Their take on this we haven’t begun to consider” (Interview 5. 1, 3-4)

The question here is who developers are planning for in current property development practices. The quotes at large suggest consumers of today rather than the unknown consumers of tomorrow, where the perceptions of the property developers motivate and reinforce their

evasive response. Now it is time to sum up the conclusions regarding the property developers' responses to climate change in urban planning.

5. Conclusions

This paper set out to explore how private property developers respond to climate change in urban planning and, based on the findings, discuss the implications of their responses for the implementation of climate measures. Empirically, we targeted written policies and interview transcripts from seven property developers active in one mid-sized Swedish city characterized by ambitious climate policies and a current property development boom. The property developers differed in terms of size, market, history, ownership (public-private), type (whether they build to sell or stay on as landlord or real estate managers). The analysis demonstrate a vast difference when comparing the written policies of the property developers with how the practice of property development is discussed in interviews.

At the corporate policy-level, the property developers generally put a large emphasis on taking a leadership role in finding cutting edge and innovative solutions with respect of climate change, also inspiring others. They generally appear to be somewhere in between proactive, making change happen, and preactive, preparing for change in their climate responses. In line with previous studies (Taylor et al., 2012) a difference is found between housing cooperatives and commercial developers in terms of motives and incentives for embracing new climate oriented property development. The housing cooperatives engage to facilitate sound property management and to create opportunities for residents to act sustainably in their every-day lives whereas the commercial developers who build to sell engage to meet public and consumer demands as well as secure competitive advantages. Such differences vanish when interview responses are considered. As a contrast to previous studies, emphasizing the heterogeneity among property developers (Coiacetto, 2001; Adams et al., 2012; Shearer et al., 2016), our interviewees with private property developers show a striking homogeneity in their take on the municipal agenda of proactively approaching climate change in Karlstad. The exception being singular innovative initiatives by the municipal housing company.

When the interviewed property developers discuss the practice of property development in Karlstad, we find little evidence of private property developers pushing the limits or pursuing a forward-looking and cutting-edge agenda, as expected in the climate governance literature (Tompkins and Eakin, 2012; Schroeder et al., 2013; Harman et al., 2015). Innovative urban development is presented as a task for public rather than private actors. The only property developer expressing a management oriented perspective while also undertaking innovative property development practices in form of the floating rental apartments is the municipal housing company. The private property developers are instead critical of increased public regulation for climate-oriented solutions and rather appears to be in position somewhere between reactive compliance and actively resisting and re-negotiating public requirements to avoid going beyond regular property development practices. The latter rather suggests evasive response, which raise questions regarding the effectiveness of public regulation to enhance a climate-oriented urban planning agenda. In the empirical data property developers thus stretch

between taking a very active role as leaders in driving change – following writings in their policy documents – to taking either a role of reactive compliance or of inactive resistance and renegotiation – following the interviews. Whereas the role expressed in policy documents matches the expectations found in the research literature on private actors seeing the value of acting as leaders or entrepreneurs in progressing current climate governance, the latter two roles are a poor match with respect of such expectations.

Contrary to the Australian survey, the position taken by Swedish property developers cannot be explained by confusion about overall climate policies (Taylor et al., 2012). Rather local climate policies are seen by property developers as part of a coherent local approach, of which property developers are inherently critical. Similar to the same Australian study, increased regulation is seen as effective but also problematic from a business perspective (Taylor et al., 2012). Property developers want flexibility, not regulation, and they express a frustration with municipalities making tougher climate-oriented requirements as this is seen as creating unreasonable conditions for business. Also, when comparing the Swedish conclusions with Australian, we similarly found that the perceived lack of customer demand and uncertainty of financial return (Taylor et al., 2012; Shearer et al., 2016) were used as arguments to explain the position taken in property development practice. Customers are not believed to be interested in paying extra for solutions that benefit the climate if these do not at the same time – like with energy savings – benefit the household-economy. The Swedish study also gives additional perspectives on the problem with customer-demand. The property developers position themselves as being in the role of merging public regulation with consumer preferences and needs. From claiming to know the latter, property developers identify problems with municipal requirements that clash with what is convenient and desirable for consumers. How to secure long-term compliance of requirements e.g. reducing the amount of paved ground in a block or avoiding floor-heating when property is sold is seen as interfering with the effectiveness of local measures. In general, property developers see themselves as being able to offer new climate-oriented solutions to consumers but they see no role in otherwise trying to influence consumer behavior. That task is left to the municipality. Also, it is clear that the consumer that is being planned for is the consumer of today, knowing well that other more climate oriented preferences and life-style choices may be valid in the next generation. Several stereotypical assumptions are thus being made about consumer preferences in urban planning, supporting the uncritical reproduction of mainstream consumer demands (Hagbert & Femenías, 2015).

A further explanation given to the more inactive position taken in property development practice relates to the perceived limited value of undertaking innovative measures. Here our Swedish results coincide with findings in previous studies regarding private sector responses (Agrawala et al., 2011; Mees et al., 2012; 2016; Taylor et al., 2012) suggesting that private actors, in our study property developers, are not always convinced about the benefits of adopting a frontrunner or leadership role in responding to climate change. The interviewed property developers confirm that property development is a conservative business. Rather than being first movers, they want to go in third place since experimentation is deemed risky. Here the Swedish study also adds an important dimension to understanding what limits the role of innovative property development, namely the importance of place-dependency. Our analysis recurrently suggest that innovative climate measures in property development is something that

can be tested and undertaken in the larger Swedish cities of Stockholm, Malmö and Gothenburg, but not in middle-sized cities like Karlstad. According to the interviewees, it is in the larger cities that the demographic composition of consumers supports a willingness to pay for the extra measures and where it is appropriate to do research and development in the form of real-life living labs. It is also in attractive growth areas that property developers are willing to accept municipal terms and regulations rather than resisting and renegotiating requirements. The public muscles for enforcing regulation and securing implementation appears to be dependent upon how property developers regard the perceived attractiveness of municipalities and their targeted consumers. This suggests a variance in implementation performance (Hupe 2014, p173) that is place-dependent. Although it was stated in some company policies that “climate-smart living cannot be a luxury for expensive housing areas” it appears as if the question of cutting-edge climate innovations in private property development practice is something that can be achieved only in a single few municipalities. In Karlstad, the private property developers argue that it is not possible to engage in such proactive responses. This also suggests that the corporate policies of the bigger private property developers are not equally valid over the country.

To conclude, a key lesson from this paper is that property developer responses to climate change varies when comparing statements in policy and property development practice. At a practical level in Karlstad, responses stretch between reactive compliance to public regulation and evasive resistance and renegotiation. This raises serious questions regarding the effectiveness of public regulation to enhance the implementation of a climate-oriented urban planning agenda. We note that private property developers in their practical work do not match the expectations of them taking a proactive role in pushing for innovative and cutting-edge solutions with respect of climate change. Further, our research suggests that property developer responses differ across localities. This place-dependent variance in implementation performance has implications both for the research community who increasingly emphasize the need for more private sector engagement and for policy makers currently considering how to engage private actors in responding to climate change. Municipalities that seek to improve their climate-oriented profile in urban planning by involving private property developers need to be aware of and develop strategies to maneuver such variance in order to increase the effectiveness of implementation. The conclusions reported in this paper needs to be explored more fully beyond this singular case of Karlstad. Comparative studies of property developer responses in different types of locations are needed, where lessons from both successful and problematic attempts to enhance engagement can be drawn. This would bring further light to how variances in performance can be managed and implementation improved.

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