Abstract: Sweden has a housing shortage, which the Swedish authorities expect to continue until 2025. Producers of wooden multi-family buildings have a relatively small market share in comparison to traditional building materials. The limited capacity to fulfil the increased building demand also restricts the possibilities for development towards innovation, bio-economy and sustainability. The municipalities in Sweden have responsibility for the planning of the building development in their region based on their projected requirements and strategies. Combining this with a desire to develop sustainable building solutions based on wood increases the complexity. Currently, public building developments are achieved through the public procurement act or the land allocation activity, dependent on their development strategy. This normally involves the development of local strategies regarding, for example, design, material choice and geographical development. This study aims to identify drivers that will enable improved market activities related to actions in public building initiatives using wood-based solutions, which is conducted by studying a specific building project managed by the Växjö Municipality in Sweden. The result indicates that improved transparency in the land allocation activity generates possibilities for developers to respond successfully to the requests submitted by the municipalities, and thus, increase the possible use of sustainable building methods using wood. This knowledge improves the understanding of the required strategic development for the companies, the government and the municipalities, to increase the use of sustainable building materials in Swedish multi-family housing projects.

Keywords: wooden multi-family buildings; sustainability; public process; sustainable construction; governance

1. Pre-Conditions for Building Development

Issues regarding the sustainability within urban planning practices have increased in line with urbanisation and are now firmly on the political agenda in Sweden [1,2]. Further, the recent increase of sustainable development strategies enhances the importance of urban planning focusing on ecological sustainability [3]. In 2005, a national wood-building strategy was adopted with the aim that 30% of all new buildings within 10–15 years should use a wood-frame and that the number of buildings made out of wood increase by 30% within five years [4]. Despite this, less than 10% of the multi-family buildings are currently being built in wood, and the building developments in Sweden continue to show an upward trend for using concrete in building solutions for multi-family buildings [5,6]. The slow market growth of wood as a viable solution for multi-family buildings could be derived from the market strength of concrete, which is based on both a well-established infrastructure regarding production and the municipality’s familiarity of concrete in a construction context [7]. However, several municipalities in Sweden chose to develop against this prevailing trend, Växjö municipality being one of them focusing on using wood in new building projects since their implementation of the national
wood-building strategy. Therefore, Växjö municipality reached the municipal objective already in 2015 where 25% of the construction directly controlled by the municipality would be wood-based.

There is currently a change underway within public governance, from ‘government to governance’, which usually represents a shift from central governance to interactive governance because of a transition from public sector control to private sector control [8]. The changed strategic approach in public governance is seen as a governmental guideline towards processes and activities that can identify both public and private stakeholders that make governance possible [9–12]. In practice, this means that some power and control of municipalities has been transferred to private or other social actors [13], which is also a situation that has affected the building planning process and is intended to encourage positive development of wood-building solutions. Hence, the change in strategic governance is seen as a control model to handle cooperation between actors based on their capability to manage a particular project (i.e., getting public and private actors to work together for a mutual interest) [10]. Today, this is largely based on market actors fulfilling the requirement, and municipalities are expected to develop controlling instruments in line with the goals mentioned in the environmental and housing policy [14]. The municipality is expected to meet the public interest in housing development and contribute to achieving Sweden’s environmental and climate objectives. The government, on the other hand, is attempting to influence the actions of municipalities towards sustainability through the planning and environmental legislation that regulates construction.

2. Building and Research Process

The municipal building process is generally initiated by the executive board taking a decision regarding building development and planning within their municipality. The planning decisions are normally based on political decisions, the programme for housing development or the general building plan, and in some cases combined with initiatives presented by developers. These decisions and plans are executed by the building development divisions within the municipality through either a procurement process or a land allocation process. Municipality often requires that a land development agreement is established as a condition for detailed planning prior to the exploitation of land [15]. There are several possibilities and limitations to pose specific municipal requirements in the guidelines regarding a land development agreement with reference to wood. The legislation permits municipalities to pose specific requirements and guidelines for land allocation agreements based on the municipality’s internal targets and policy document SFS 2014:899 [16]. However, the Planning and Building Act [17] places restrictions regarding the municipality’s possibilities to pose specific technical requirements for land development projects. This complexity is also analysed by Sveriges Kommuner och Landsting [Swedish Association of Local Authorities and Regions] (SKL), confirming the land allocation process as a flexible approach and reinforcing the position of the municipalities using civil law to pose specific requirements when selling their land for building projects [17].

This study has focused on the operational activities linked to the land allocation process, that is, when the building development divisions have identified suitable developers to be included in the process [16]. The initial stages of the research process were conducted by attending two land allocation projects, from October 2016 to August 2019, initiated by a medium-sized municipality in Sweden. The first project included approximately 270 apartments or townhouses and the other project involved one kindergarten and approximately 30 apartments. All projected were based around a wood-based building solution. This gave insights into the process for both the Swedish municipalities and the developers regarding structure, official building strategies, documentation, the public procurement function in building projects and communication throughout the land allocation process. Initially, the steering committee within the municipality created and submitted documentation to the selected developers. The selection process was conducted in two stages, with preselection of 30 developers reduced to 15 developers for the first project and 14 developers reduced to 5 developers for the second project. The final selection process was based on amended submissions and the awarded bid was selected based on a joint evaluation by the steering committee.
Not much has currently been published about this concept, which requires a new research approach that results in an exploratory study with descriptive components [18,19]. Using different levels of interviews is appropriate for the complexity faced in the studied public process and is applicable when explanations and descriptions are required [18,20]. This provides a structured view identifying the most important factors linked to the land allocation activity offering greater depth and range to the result [20,21].

The initial stage of the study identified the framework for data collection and the main stakeholders in the public process regarding the land allocation process and the wooden multi-family house industry in Sweden [22]. A total of 40 interviews were conducted between April 2017 and December 2018 with 20 developers from 12 companies within the wood-building industry (4 CEOs, 8 Business Development Managers, 8 Sales Directors) and 20 employees from the municipalities (12 Land and Exploration Managers and 8 Planning/Project Managers). The interviews, each 35–80 minutes in length, were based on an interview template including questions about the building development process, the municipality building policy, the strategic role of procurement and the requirements of the land allocation process and possible barriers restricting development. All interviews were analysed by reviewing the interview responses, summarising them into shorter value statements using systematic text condensation [23,24]. These statements were categorised based on the total impression, identifying and sorting meaning units, condensation and synthesising.

The interviews were audio-recorded to enhance credibility, source triangulation was applied by using multiple respondents and investigator triangulation was applied since the research was discussed among the research group and certain respondents for possible adjustments [25].

3. Policies and Control Mechanisms Used by Municipalities

According to Boverket [National Board of Housing, Building and Planning] [26], “Buildings and facilities should be located and designed in an environmentally sound way and so that good long-term management of land, water and other resources is promoted”. Boverket has the primary responsibility for the national environmental quality objective “God bebyggd miljö” [quality urban environment] through the development of different policies [27]. One such policy is the national strategy “More wood in construction”, which was adopted in 2005 [4]. The strategy highlights climate and environmental issues in reference to the Kyoto Protocol’s intention to reduce the impact of the construction industry, by increased use of wood as a building material [4].

3.1. Administrative Controlling Instruments

Several regulations have been reviewed in order to identify the administrative instruments controlling the municipalities’ development of wood construction [16]; The Swedish Environmental Code (MB) (SFS 1998:808) [28], The Planning and Building Act (PBL) (SFS 2010:900) [17], the Boverket’s Building Regulations (BBR) (BFS 2011:6) [29,30] and The Public Procurement Act (LOU) (SFS 2016:1145) [31].

- Physical planning: SFS 2010:900 [17] is a controlling instrument to regulate land, water and construction planning.
- Comprehensive plan: Presents the basic features of the intended use for land and water areas as well as the future development of buildings. The plan is not legally binding, but it is mandatory to have a comprehensive plan [28].
- Planning program: The municipality have the authority to set goals and decide on start dates for any planning activity within a specific building program [23].
- Detailed development plan: Mainly governed by SFS 2010:900 [17], Chapter 4, the regulation with a detailed development plan and area regulation.
• Plan description: The plan description is required, in combination with the detailed development plan, to describe how the detailed development plan is supposed to be understood and implemented. SFS 2010:900 [17] defines what should be included in the plan.

• Planning provisions: The detailed development plan is legally regulated by planning provisions such as usage provisions, property regulations and administrative provisions and is controlled by SFS 2010:900 [17].

• Environmental impact assessment: Environmental impact assessments must be included in the environmental plans describing the environmental impact of planned land development required by SFS 1998:808 [28].

• The prohibition against specific technical requirements by the municipality: Regulations in The Planning and Building Act regarding municipalities’ ability to pose specific requests for technical requirements in the planning process [17].

• Public procurement: SFS 2016:1145 [31] applies to procurement made by a public entity.

• Land allocation and land development agreements: The Swedish Government decided on a new law (SFS 2014:899) [16], Act on Guidelines for Municipality Land Allocations, that is of major importance for the municipalities in terms of land development agreements, land allocation and the pre-conditions for setting their requirements for construction.

3.2. Background of Wood-Building Development within the Växjö Municipality

Several buildings out of wood had been constructed in Växjö, even before the first wood construction strategy was adopted in Sweden. The same year, 1994, as the ban on building houses over two floors with wooden frames was abolished, Värendshus built a three-story house using wooden frames that became the first building built in accordance with the new building regulation [32]. Shortly thereafter, in 1996, Sweden’s first modern five-story wood-frame building was built at Välludden, Växjö, as a demonstration-building for the purpose of developing wood construction technology following changes to the regulations. Thereafter, a research project was initiated, ‘Multi-storey buildings with wooden frames and light flooring’ [32]. The municipality had already been working to strengthen the local business community and the university, prior to its timber building strategy. Hence, since the 1990s, Linnaeus University has collaborated with business actors to develop the forestry industry through the wood design and technology programs. Therefore, since the municipality adopted their wood construction strategy, they have continuously worked to identify partners and contribute to the processes promoting wood construction.

Växjö municipality has, since setting its goal of becoming a fossil fuel-free municipality, been actively working to profile itself as a municipality focusing on environmental and climate with the slogan ‘Europe’s Greenest City’ [33]. The municipality is part of the Association of Climate Municipalities, an association of municipalities, county councils and regions that actively work with local climate development aimed at reducing greenhouse gas emissions in Sweden [34]. An important aspect in the municipality’s environmental and climate ambition has become its focus on using wood as a construction material, where “50% of all municipal new construction projects will be wood-based by 2020 [33]. Växjö municipalities renewed wood construction strategy, “Växjö—the modern wooden city”, contains more links with the municipality’s goal of reducing carbon dioxide emissions in accordance with the municipality’s environmental program. Furthermore, in the renewed wood construction strategy reference is made to the regional strategy, “Think wood for a sustainable Småland”, with the aim of Småland, by 2020, being a leading wood region [35].

3.3. Wood-Building Strategy

The actions taken by Växjö Municipality are first and foremost formulating a wood-building strategy, through “More Wood in the Construction 2005” [36], and then “Växjö—The modern wood city 2013” [37]. The wood construction strategies define both objectives and clarification about what to do and how and by whom these actions should be completed. The “modern wood city” strategy,
adopted in 2013, stipulates that 25% of what is built by the municipality entities will be wood-based by 2015 and 50% shall fulfil this objective by 2020. In parallel, wood construction strategies have been systematically included in external communication about Växjö’s work on sustainability. It was in conjunction with the wood-building strategy in 2005 that the development towards increased usage of wood-building started to gain momentum and the “Valle broar” construction project was identified as an R&D focal point for wood construction [32]. The municipality’s objectives were elevated to use wood in higher buildings, and for “Valle broar” to develop into a modern wood-city [35]. This development strategy is contradicting the general trend to use concrete, which in many municipalities is based on poor knowledge regarding wood in construction favouring already known building solutions and techniques [7]. Hence, it was stipulated that the Växjö municipality actively use the land allocation activities to increase the development of wood construction, and further work to create new areas suitable for wooden construction, e.g., Torparängen [37]. The municipality has decided that a development strategy for land allocation and land development agreements shall be used to establish cooperation with the developers and contractors who wish to develop wood construction in Växjö [35].

Further, another municipal activity to control the increase of wood construction based on the wood-building strategy is the coordination with various public and private entities. This was further developed in “Växjö—the modern wooden city” [37] where the municipality presented the ‘Triple Helix’ model, illustrating Växjö municipality’s cooperation with the university and the business community. The intention is to support research and education on wood construction. Hence, the municipality participates in various research projects at a national and international level to strengthen research and development in the region.

3.4. Research Environment

The importance for the municipality to have a collaboration with the university is given formal status in the land allocation agreements that include a research partnership as a prerequisite for an agreement between the municipality and developer. This can be found in land allocation agreements for inter alia Vallen, Pelarsalen and Torparängen where it is stated that planning, design and construction should be open to research and follow-up results shall be available for subsequent projects [36–38]. However, the initial plan for Torparängen was not focused on establishing a long-term research bed for the university until the municipal council decided in 2015 that the objective of the area should be characterised by a high environmental ambition and building in accordance with the Växjö municipality’s wood construction strategy [37]. Therefore, cooperation with the university has been included as a requirement to be awarded the land allocation project. The research project associated with Torparängen is planned for 2016–2020 and is a multidisciplinary project including a market study focusing on understanding drivers for increased wood construction, environmental impact, procurement and tender management processes, design, production, delivery and assembly, acoustics and vibrations, measurement of moisture and heat, vertical relative displacements, sustainability and an end-user perception analysis.

3.5. Physical Planning

The directive from the municipal council stipulates that construction solutions based on wood shall always be tested at the start of each project. Further, wherever relevant in the detailed development plans, the plan description shall include a description of how the implementation of wood constructions are achieved. Also, as in the case of land allocation and land development projects, plans will be used to establish cooperation with builders and developers who wish to develop wood construction [39]. Therefore, a reference is included in the planning program concerning the municipality’s wood-building strategy, and a segment of the “modern wood city” [37] strategy is included to provide further guidelines related to wood construction. These include developing wood construction so that knowledge and interest in building using wood frames increases, leading to environmentally friendly and
energy-efficient houses by using wood as a default building component. This also captures the end-user perspective, which is expressing a positive view of wood’s affective values and aesthetic qualities.

Additional activities are also identified as the planning responsibility in the Växjö municipality’s wood-building strategy, which are to conduct an active and early dialogue with interested builders, architects, developers and researchers to develop wood construction. One of the main measures to increase the construction of wood has been the municipality’s role as a contractor actively seeking wood-building solutions during their procurement activities. Also, the municipality can advise its affiliated companies to test the potential of wood in each new building project where the possibilities of using wood in their projects must be documented [36]. Further, a description in the documentation concerning the building permit process specifies that the municipality’s wood-building strategy will be taken into special account and is the basis for the design of all new buildings in the area [40].

3.6. Land Allocation—Conceptual Description

Växjö municipality has in its wood-building strategies stated that land allocation and land development agreements shall be used to establish the cooperation with builders and contractors who wish to develop wood construction and as a method to set aside dedicated zones for wood construction in the local area [39]. Further, the municipality actively works with land policy programs to allocate areas for wood construction, which is realised through the purchase and sale of municipal land. The municipality’s focus has primarily been based on requirements of land allocation projects, where the municipality has implemented guidelines for land allocation and land development agreements, following the new legislation.

However, nothing is mentioned about wood-building strategies in the guidelines for land allocation activities [16], but the reference is made in effect to the ambitions of sustainable construction and the municipal environmental programs that contain references regarding the wood-building strategy. Further, there is a consensus within the Växjö municipality that the land allocation process improves the governance and control for increased use of wood in new building projects. This provides the municipalities with the possibility to stipulate specific requirements within the land allocation projects, therefore excluding them from the regulations within the Public Procurement Act [31]. This is based on the official wood-building strategy, and the land allocation agreements are seen as the most suitable method fulfilling the ambition of increased use of wood in constructions with the municipality. Furthermore, Växjö municipality has mainly used land allocation contests with requirements for wood construction in accordance with the wood-building strategy. The developers have to present their intended solution to a steering committee that grades and decides on the proposed solutions, jointly agreeing on a winner for the specific project. Exceptions may apply if the municipality policy dictates that land can be directly assigned to a developer (e.g., if a company should have a product that is adding extra value contributing to the municipality and its inhabitants).

4. Land Allocation Competition—Torparängen

Växjö municipality’s wood-building strategy stipulates that Torparängen is an area where most of the construction will be achieved using wood frame solutions. In addition, the detailed development plan ’Del av Växjö 12:10′ (which gained legal force in 2017) designates Torparängen as the new wood construction arena for Växjö [41–45]. Figure 1 displays how the area is divided into different building and development zones according to Växjö 12:10 [45]. Further, Växjö municipality’s definition of a wood house is a building where most of the building frame is built using wood.

It was decided for Torparängen that a land allocation competition would be used to identify and award the developers the project and them the right to acquire the land. References were made in the invitation to the land allocation competition about the municipal council’s decision, § 2015: 17 [45], of the objective at Torparängen. Växjö municipality announced, during spring 2016, the land allocation competition for five residential areas in Torparängen located in the northern part of Teleborg. Växjö municipality’s environmental ambition and wood-building strategy characterised
the development at Torparängen, since specific requirements regarding wood buildings were made mandatory for the land allocation competition [45].

**Figure 1.** Map regarding detailed development plan for part of Växjö 12:10, incl. Torparängen [45].

### 4.1. Land Allocation Procedure

The criteria applied to land allocation projects are specified in Växjö municipalities land allocation policy, which is used for the activities associated with the project at Torparängen:

- Cost of land (decision made by the municipality council 2015)
- Building diversity
- Improved competition and market diversity
- Building and area design
- Organization and execution

The land allocation process is developed in two stages:

Stage 1 identifies interesting project ideas where the developer describes the general ambitions of their project. An official report of interest by the developers includes an account of:

- Organisation and experience
- General description of the project implementation plan
- Ambitions regarding sustainable construction methods
- Ambition regarding wooden building construction
- A written description of the proposed concept

Time schedule: Submissions of conceptual ideas are to be made, followed by an evaluation of the proposed concepts and communicating the results. An assessment is made based on the project’s likelihood of implementation according to the proposed concept as well as the overall level of ambition for the project.

Stage 2 is for companies presenting their proposals that are considered most interesting to be given an opportunity to develop their conceptual project ideas further. The revised proposals shall include the following:

- A basic site plan that describes the design of the external environment, the location of buildings within the area, road solutions for cycle traffic and pedestrians and car parking solutions
- Type of building solution and ownership proposal
- Design examples of buildings and outdoor environments (i.e., façade designs, references or inspirational images). There is no requirement to present floor plans for the apartments
Develop the proposal’s ambitions regarding sustainable construction further
• Communicate the choice of building frame and building system

The proposals must be presented in an A3 format as a PDF file. The developer proposing a building concept is not required to make an oral presentation. The municipality will only assess proposals that are complete in accordance with the defined stages in the land allocation process, as defined above.

The evaluation process for land allocation projects is conducted by the planning office, the city building office, the technical administration and Linnaeus University. During the first stage, 25 conceptual proposals were evaluated, generating 10 proposals for the second stage of the process. The assessment is summarized in a written report that will be distributed to all parties that propose a conceptual building solution.

The evaluation process of the conceptual proposals for Torparängen is follow different stages, in conjunction with the two-staged requirement process defined for land allocation projects.

Stage 1:
• The proposals ambition regarding sustainable construction
• The proposal’s incorporation with Växjö municipality’s wood-building strategy
• The applicability from a research perspective
• The developer’s ability to finalise the conceptualised project

Stage 2:
• The proposal’s architectural conceptual approach
• The building’s alignment with the plot of land and the landscape
• To what degree the proposal complies with the detail development plan’s design program
• How the proposal is expected to provide a good living and outdoor environment

Växjö municipality has initiated basic landscaping and infrastructure of the area during 2017/2018, and the expected building start was varied dependant on the strategy of each developer. However, certain developers commenced their construction in early 2018, and the remaining developers initiated their construction during the fourth quarter of 2018. The completion of all the expected buildings in the area is scheduled for 2023.

4.2. The Participant’s View of the Activities Associated with the Land Allocation Process at Torparängen

The strategic decision regarding the number of buildings, and the type of buildings, to be built in the municipality is normally based on the program for housing development or the general building plan developed by the municipalities and the government. These plans are predominantly based on statistical projections and do not capture the inhabitant’s expectations regarding cost levels, quality, size or material choice. Thus, the development at Torparängen is to some degree based on guesswork regarding the inhabitant’s requirements (i.e., political and governmental decisions rather than market drivers), which according to several respondents at the municipality can cause issues regarding new developments failing to fulfil their intended target with respect to their demographic and design.

As mentioned, Växjö municipality’s strategy is to use land allocation projects, as the main method for developing, or procuring, new building projects. This is a method that both the municipality and the developers consider to be beneficial for the development of wood buildings. However, there is an important distinction that has been identified regarding the use of land allocation agreements. The process is based on the municipality selling land to the developers for their construction projects, thereby bypassing the mandatory requirements mentioned in the Public Procurement Act (PPA) [31]. However, based on all the requirements that needs to be fulfilled, developers are considering themselves as a seller of a building solution towards the municipality rather than a procurer of land. This is a pivotal distinction (i.e., how the land allocation process shall be interpreted, either as a sales activity or
as a procurement activity), which according to most developers is a critical situation that contributes to
sub-optimization in the building process. Thus, the focus should be on the activities required by the
municipalities to qualify as a potential buyer and the perception of those who are responding to these
requirements. Hence, by creating a transparent understanding by all involved parties in this process
and providing clarity as to how this is managed more efficiently will benefit the process.

The benefits of using land allocation competition at Torparängen is the possibility to pose
requirements regarding material choice, design and to have the option to choose specific companies
for the intended project. This process will also provide the municipality with an opportunity to
support local companies, thereby enhancing the local knowledge base regarding wood-building
solutions. It will also provide possibilities to start thinking about wood-building solutions already
at an initial stage of the projects. The developers included in Torparängen share this opinion and
consider the possibility to select building solutions and designs without the formal limitations of the
PPA as beneficial for the development of specific solutions. However, both the developers and the
municipalities have some concerns regarding the negative aspects of this process as being subjective,
despite the ambitions of using a pre-defined evaluation process, creating difficulties for the developers
to interpret the project expectations.

The developers consider the land allocation process as unclear since the municipality see themselves
as a seller of land, whereas the developers see the municipality as a buyer of a building solution.
Therefore, they do not think that the municipality has the necessary knowledge or an appropriate
process to manage this activity, resulting in lack of clarity regarding the requirements. The developers
highlight the municipality’s lack of structure as a problem and consider the municipality to base their
decisions on an ad hoc structure, which can be derived from insufficient communication regarding their
actual evaluation methods. However, this method is used, according to the municipality, to provide
increased flexibility for the developers creating opportunities to provide new and innovative solutions
at Torparängen. These possibilities would not be feasible if the evaluation process were restricted
with detailed requirements. However, this is of some concern for the developers who consider the
insufficient structure and lack of documentation as a problem. Also, both the municipalities and
developers recognise the general problems associated with an insufficient procurement process without
proper evaluating methods, which also is evident at Torparängen.

Further, the municipalities could see value in capturing the inhabitant’s opinion regarding new
building projects when developing the specification material to create an accurate market requirement
analysis. However, despite its importance, this was not prioritised at Torparängen due to time
constraints and general resource issues. According to the developers at Torparängen, the limited
scope and structure directly influenced the selection process negatively with a main focus on the
design solution. All other areas are assumed to be dealt with by the developer at the building
permit stage. This generates a large degree of uncertainty on what is evaluated, which is reflected
by contradictory evaluations made, for the same project at a different time, by the same individuals
within the municipality. This is, according to the municipality, something that must be improved and
standardised. However, the insufficient process with limited standardisation and subjectivity make
objective evaluation a challenge. This is reflected in the developers view regarding evaluation where
solutions based on high quality and modern design beyond the scope of the project have a higher
likelihood being awarded, resulting in an unnecessarily high cost.

Land allocation projects are, according to the developers and municipalities alike, a beneficial
process for controlling the development in a certain direction, which is beneficial for increased use of
wood buildings. However, both parties believe competition should be on equal terms, irrespective
of building material, and the functional specifications for the building should be the decisive factor
for choosing a certain building solution. Further, the developers can see a benefit in developing a
quantifiable evaluation method in addition to the current structure. The municipality could have
the option to require a cost structure with a rough square meter cost indication for the buildings.
This would provide an easy method to follow-up on the developer’s performance and assess whether
they stay within the confines of the earlier presented project scope. Furthermore, the developers would like the development of a national standard associated with land allocation agreements, generating a more efficient process. This is currently very fragmented regarding requirements, assessments, distributed materials and expectations, contributing to an inefficient process that can be derived from confusion regarding the seller/buyer perspective.

5. Concluding Statement

Växjö Municipality has for some time made a strategic decision to be profiled as a green city with a focus on sustainability. This has, among other things, contributed to an official strategy with a focus on wood construction. Therefore, any new building developments, under the municipality’s control, are required to test new building developments based on using a wood-building solution. Also, for the municipality to communicate their ambition to focus on sustainability has provided a faster process in regards to new developments using wood.

The governance of the public process also affects the development of wood-based building solutions, where the municipalities have several options for building developments based on the projected demand (e.g., using public procurement of new developments or the land allocation activity). Växjö Municipality has, to a large degree, opted for the land allocation activity since it provides more flexibility to pose specific demands regarding the building specification, which is not possible using public procurement that is limited by the Public Procurement Sct. The reason for these differences is that the land allocation activity is based on selling land with specific requirements imposed on the developers by the municipality. As such, the municipality has created a general process, described in Section 3.1, that needs to be fulfilled, in addition to the specific requirements for the development included in the land allocation activity.

Despite the municipalities having a documented process to sell land using the land allocation activity and control the development of wood-building solutions, this is a process that creates confusion for the developers. The general perception by the developers is that they see themselves as a seller of a building solution rather than a buyer of land, hence making the municipality a procurer of a building development project. This changes the dynamic in the land allocation activity and requires new methods and procedures. Hence, it provides a situation with uncertainty regarding what to propose by the developers, in addition to a subjective evaluation process performed by the municipality, which can contradict the positive development toward wood buildings and increased sustainability.

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