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A Room With No View: Sweden's Future Housing Policies

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A Room With No View: Sweden's Future Housing Policies

The Impact of Legislation on Housing Quality

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Abstract

This thesis investigates the evolving role of building regulation in defining housing quality within Swedish policy, with a focus on the ideological and structural consequences of deregulation. Through a qualitative analysis of historical policy documents, architectural standards, and empirical data from Gothenburg's housing stock, the study traces how regulation has shifted from a welfare-state mechanism for safeguarding residential quality to a market-oriented tool for enabling cost-efficiency.

Drawing on socio-technical systems theory and the social shaping of technology, the research identifies how contemporary rhetoric around innovation and flexibility conceals a systematic erosion of spatial and qualitative standards in housing. Findings reveal that deregulation has contributed to fragmented governance, reduced accountability, and a housing market increasingly unable to meet the needs of its residents. By exploring the gap between policy discourse and lived outcomes, this thesis challenges prevailing narratives of progress and argues that meaningful innovation requires a redefinition—not a desertion—of housing quality.

Keywords: housing policy, housing quality, deregulation, socio-technical systems, innovation, construction governance, Sweden.

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Filippa Malmgren and Rania Kobeissi
Gothenburg, June 2025

List of Acronyms

Below is the list of acronyms that have been used throughout this thesis listed in alphabetical order:

BABS	<i>Byggnadsstyrelsens Anvisningar till Byggnadsstadgan</i>
BBR	<i>Boverkets Byggregler</i> ('Boverkets Building Regulations')
BCE	Before Common Era
BS	<i>Byggnadsstadga</i> ('Building Regulations', 1948 law)
CBA	Centre for Housing Architecture
CE	Common Era
HSB	<i>Hyresgästernas Sparkasse- och Byggnadsförening</i>
MAB	<i>Manual för Analys av Bostadskvaliter</i> ('Manual for Analysis of Residential Qualities')
MB	<i>Miljöbalken</i> ('The Swedish Environmental Code')
MEL	King Magnus Eriksson's Law of the Realm
NR	<i>Nybyggnadsregler</i> ('New Construction Rules')
PBL	<i>Plan- och Bygglagen</i> ('Plan and Building Act')
PHB	<i>Praktiska och Hygieniska Bostäder</i> ('Practical and Hygienic Housing')
SABO	<i>Sveriges Allmännyttta</i> ('Swedish Allmännyttta')
SBN	<i>Svensk Byggnorm</i> ('Swedish Building Norms')
SST	Social Shaping of Technology
STS	Socio-Technical Systems

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"Our ancestors established the intelligent and useful practice of transmitting their thoughts to future generations in the form of bodies of notes so they would not be lost but, growing generation by generation [...] they would gradually arrive at the highest level of scientific development in the course of time. So for this we owe them no half-hearted thanks, but infinite gratitude, because they did not jealously pass over these matters in silence but took great care to hand on to posterity their insights of all kinds in written form."

— Vitruvius, *The Ten Books on Architecture*. [124]

1

Introduction

Five years ago, as we embarked on the first year of our education, we were introduced to the writings of Marcus Vitruvius Pollio. His creed was stated and restated as part of an introductory architectural history course: *firmitas, utilitas, venustas*. Strength, utility, and beauty. Architecture, we were taught, was a social and cultural discipline, a spatial balance not concerned merely with aesthetics but so, too, the abstracts of life: how we live, connect, rest, move. Design’s influence on the built environment became an omnipresent force in our projects—with varying degrees of finesse. Vitruvius’ writings, and the centuries of architectural writing that followed, positioned the built environment as a carrier of cultural meaning, ethical responsibility, collective memory, and social impact.

Within your first month at Chalmers, you are also encouraged to purchase *Arkitektens handbok*. It is a compact, dense reference work described as a must-have practical aid for anyone who plans, draws, builds, manages, or uses buildings—the Swiss army knife of technical manuals. “The book won’t tell you how to design houses,” it cautions, “but it provides basic information.” It contains diagrams, clearances, requirements, and dimensions—the functional skeleton on which the fleshed-out image of architecture can be primly hung. It does not pretend to be history, or theory, but merely distilled practice—a lauded toolbox, condensed into a “pocket” format clocking in at 700 pages.

The whiplash between these pedagogical opposites was immediate and disorienting. The reconciliation between architectural values and the quantitative demands of regulatory compliance has only become increasingly challenging since our first year. Where regulation once served to translate architectural quality into measurable thresholds, policy now retreats from those standards altogether. Where design values were once translated to policies ensuring compliance, they now become undermined by a structural withdrawal, erasing the foundations on which compliance has historically relied.

Sorry, Vitruvius. It is difficult to reconcile that intellectual legacy with the conditions under which we now graduate.

Today, the architectural ambitions that once informed the development of Sweden’s building regulations have been systematically scaled back—not through debate, but deletion. Ceiling height is negotiable. Daylight requirements are arguable. Spatial accessibility is slashed. These changes are not the result of architectural consen-

sus or social demand; they are the consequence of a government-induced policy climate defined by quantification, deregulation, and market alignment. Innovation is invoked as justification, but the basis of that innovation remains diffuse as the regulatory framework begins to disassemble long-standing qualitative standards for housing.

This thesis examines the implications of these changes. It investigates how housing quality has historically been defined and enforced within Swedish building policy, with special attention to the underlying socio-technical systems that shaped it. By analysing the development of standards and their impact on the quality of housing, particularly in Gothenburg, this thesis aims to assess the potential effects of upcoming reforms and the ideological forces they reflect. Drawing from theories of social shaping of technology, socio-technical systems, and socio-cultural innovation mechanisms, this thesis asks what happens when architectural values are systematically displaced in the name of productivity and innovation, and what that displacement reveals about the evolving relationship between regulation, innovation, and the future of our built environment.

This thesis, like the handbook, won't tell you how to design regulations. It may provide a basic idea of how not to.

1.1 Research Purpose

This thesis is founded on the premise that there is a connection between statutory legislation, regulatory structures, and the resulting quality of housing. The overarching research aim is defined as follows:

To describe the impact of Swedish building policy on housing quality.

The purpose is deliberately broad, especially for a Master's thesis. However, its breadth is justified through emphasis on the key term *describe*. The goal is not to produce definitive models, but to outline the mechanisms and historical developments that have shaped how housing quality is defined, legislated, and realised in practice.

Achieving this aim requires a cross-disciplinary approach, drawing on architecture theory, policy analysis, and socio-technical theory. This thesis seeks to highlight general conclusions that point to broader themes and dynamics embedded in the policy-quality balance. To guide this purpose, the following research questions have been formulated. These span from the historical development of Swedish building regulation to the contemporary effects of policy on housing design and residential quality.

1.2 Research Questions

RQ1 How has the role of building regulation in defining housing quality shifted within Swedish housing policy over time?

RQ2 What are the systemic effects of deregulation and innovation rhetoric on housing quality in Sweden today?

RQ3 How do current Swedish housing policies shape socio-technical inequalities in housing quality?

1.3 Limitations and Excluded Material

As per the overarching research purpose, the thesis requires certain spatial and literary limitations. With regard to geographic limitations, the research is limited to housing and the quality of the residential market in the Greater Gothenburg Metropolitan Area as of 2025. The content of this thesis concerns documenting the supply and quality of residences in this region and exploring the interactions between these factors as they relate to housing legislation.

To define the quality of a residence, a limited number of architectural characteristics will be determined from basic floor plans and section drawings—these do not include studies or standards concerning advanced building physics, thermal climate studies, moisture management, ventilation technology, energy efficiency, or structural integrity.

Such precise technical matters require more extensive documentation and engineering analyses than are encompassed by the scope of this thesis, even if they undoubtedly play a role in the quality of a residence.

1.4 Thesis Outline and Disposition

The *Introduction* provides the conceptual framing and motivation for the thesis. It situates the research within contemporary regulatory discourse, presents the purpose, and outlines the key questions driving the aim. The *Background* chapter is organised into sections, each aligned with a specific research question and grounded in a distinct body of empirical material. While these sections differ in historical context and content emphasis, they collectively contribute to the overarching objective: to describe and critically examine the relationship between Swedish building regulation and housing quality.

The *Theory* chapter establishes the analytical lens through which the material is examined. Drawing from frameworks in the social shaping of technology, socio-technical systems, and socio-cultural innovation mechanisms, this section constructs the conceptual foundation used to synthesise the findings and inform the discussion. The *Methodology* chapter describes methods and materials used in data collection and analysis. The aim is to clarify the epistemological approach and the rationale behind the selection and interpretation of sources.

The *Results* chapter presents the key findings of the empirical investigation, which serve as the basis for the *Discussion* in which they are interpreted through the theoretical frameworks previously outlined. The *Conclusion* collects the thesis's contributions and reflects on its implications. Finally, the *Recommendations* chapter develops the conclusions to identify directions for future inquiries.

Research Purpose

To describe the impact of Swedish building policy on housing quality.

Research Questions

1. How has the role of building regulation in defining housing quality shifted within Swedish housing policy over time?
2. What are the systemic effects of deregulation and innovation rhetoric on housing quality in Sweden today?
3. How do current Swedish housing policies shape socio-technical inequalities in housing quality?

Background Structure

Section	Scalar Level	Main Concepts
History of Swedish Housing Policy	National	Historical development of quality regulations
Housing in Gothenburg	Regional	Socio-economics of residential market
Qualities of Housing	Local	Residential quality characteristics

Methodology

The Methodology is comprised of a document analysis, an interview examination, and a case study.

Results

Analysis of the development and impact of Swedish housing policy on the quality of housing. Qualitative study of dwellings in the context of policy.

Conclusion Structure

Discussion concerning the theoretical background and the results, completed with a conclusion and an outlook to future studies.

2

Background

The Background section introduces relevant literature and information from a range of years and publications, intended to provide a foundational understanding of the topic.

2.1 History of Swedish Housing Policy

While Vitruvius began formulating his first iteration of architectural regulations around 25 BCE, the first sets of Swedish laws governing these matters came much later—furthermore, their original form differs vastly from the role and shape they have taken in the modern construction industry. This section is intended to outline the historical background of Swedish construction regulations and the purposes for which they have been formulated over the years, the socio-economics that have influenced these regulations, as well as the impact of significant revisions made throughout their implementation.

2.1.1 Early Building Codes and Urban Planning

The earliest known building codes came long before Vitruvius authored *The Ten Books on Architecture*; they were published as part of a set of general civil codes decreed by King Hammurabi of Babylon in 1760 BCE. Along with Hammurabi's recommendations for how to handle death of man by ox or the ranking of concubines, there were multiple laws relating to construction. These laws were primarily concerned with penalties for failing to construct a structurally sound building, mandating the death penalty for builders whose structures collapsed. With such fatal consequences, ancient builders were undoubtedly sufficiently inclined to guarantee the safety and longevity of their work despite lacking exact building codes instructing them how to do so. [103, 117]

The trend of eminently unqualified monarchs and heads of state using statutory legislation to exert power over all areas of societal development in whichever way they saw fit, including construction and housing, would continue for another two thousand years. In the grand scheme of Hammurabi's civil codes, the matter of legislating construction and setting a framework for urban planning played an anonymous part, making up a scant few of the many codes that were enforced. Building codes, zoning laws, and housing standards simply were not issues hefty enough to be considered for a legislative framework in and of themselves. However, in this regard,

the civil codes were more helpful than any Babylonian likely could have anticipated as they did make up the foundation for what would ultimately become the practice of legislation, central in governing housing-related matters today. In this matter, it is unquestionably verifiable that all roads lead to Rome.

De Architectura, or *The Ten Books on Architecture*, was the result of Roman architect Vitruvius' work in establishing a more contemporary discussion regarding the architectural practices of Augustan Rome (around 30-20 BCE) [54]. In spite of those ambitions, the writings concerning the architecture and construction of a typical Roman house, the *domus*, differs wildly from what a modern architect would consider within their realm of responsibility today. The Roman *domus* was not simply a place of rest; it functioned as a workplace, a salon, an altar, and a lobbying platform, as well as a home. The Roman architect was thus not only responsible for ensuring appropriate aesthetics were fulfilled by the *domus*—they were simultaneously a civil engineer, a project manager, and a public relations operative that needed to guarantee that the home was an extension of its owner, and subsequently their social standing. [4, 95]

As such, there were many facets to consider when constructing a good Roman residence if one implicitly trusts the word of Vitruvius. Most of the qualities that determined whether a home was of good enough quality or not were based on how well the design communicated its owner's affluence and political influence. However, one commonly agreed upon standard—though not documented and legislated as such—was the inclusion of certain rooms and spaces for activities in the planning of the residence. The spatial flexibility expected of a typical *domus* was recurring in all floor plans for owners of comparable social standing; no building code explicitly detailing this expected standard was composed in law. Rome would have to burn to the ground before the first building codes could actually be conceptualised.

In 64 CE, the majority of the Eternal City crumbled to ashes while Emperor Nero supposedly fiddled in his countryside estate. Although Emperor Nero's actual role in the Great Fire of Rome has been hotly debated, it is known that in the wake of this architectural tragedy, he did introduce what very well may be the world's first set of comprehensive building codes and zoning regulations put into law. Nero was the first to adopt systems of planned open spaces, broader thoroughfares, and mandate the use of fireproof stone as a building material. Further, he erected porticoes as added protection in front of Roman multi-family rental residences (*insulae*) at his own expense [4]. For an emperor described by most contemporary sources as especially tyrannical, self-indulgent, and debauched, this was a remarkably well-intentioned venture. Nevertheless, if other sources are to be believed, he may have been the culprit behind the fire in the first place—in which case, it may have been motivated by guilt rather than benevolence. [56]

Culpability notwithstanding, the fact remains that Nero introduced the matter of setting a certain quality in laws regulating architecture. The reforms, while initially welcomed in terms of utility, were not only functional but aesthetically beneficial to the new capital [4]. Regulated quality thus became the harmonious meeting of

form and function, expanding on the initial principles set forth by Vitruvius. Still, it would take another 500 years until the passages specifically relating to building regulations were developed further—done so in Palestine by Julian of Ascalon in 533 CE. In terms of residential quality, maintaining visual corridors, views, and privacy protection were key parts of these building regulations. [59, 94]

As there were no centrally operating legislative entities controlling medieval Europe, various kingdoms and city-states developed their own standards for quality—thus, a varied number of nascent building regulations sprung up across the continent, shaped by provincial geographies and cultures. The process of state-building would be required to create more centrally governed regulations, but by the end of the 11th century this centralisation of political leadership had hardly started in several European countries, among them Sweden. Around this time, the Swedish seat of power was located in Uppsala, close enough for control of the trading town Birka, but the Swedish king did not rule uniformly across the country and thus no national law could be decisively implemented—at least not until King Magnus Eriksson rose to power and implemented the Law of the Realm (MEL) around 1350 CE. [6, 192]

There was a special section in the MEL dedicated to construction termed *Byggningabalken* (‘The Building Code’) which purportedly was applied across the entire nation. Its main purpose was a more just distribution of land, though regulating more spacious settlements and connecting villages via public roads were part of the codes. The regulation and planning of more urban settlements became increasingly important some 200 years later to strengthen economy and trade. In 1608, Gothenburg was the first Swedish settlement to apply a square grid plan as a means of both efficiency and symmetrical aesthetics—form and function. The city was burned to the ground by the Danes during the Kalmar War in 1611, after which it took approximately thirty years (until 1639) for the Swedes to realise construction codes can be implemented to fireproof buildings—only 1575 years later than the Romans. [1, 3, 101]

However, the qualitative aspect of housing in the building codes was as of this point in time still lacking. In the 1734 edition of *Byggningabalken*, there was only one paragraph pertaining to quality in terms of aesthetics—houses in the city were to be built and maintained “for the benefit and adornment of the city” [101, p.16]. The quality standard again refers to the equilibrium between form and function. With the arrival of the 19th century came a wave of urbanisation and industrialisation, which meant that cities became dirtier and more crowded. Thus, in 1859, the Swedish *Riksdag* (parliament) debated the implementation of a nationwide building ordinance law, with the purpose of facilitating industrialised urban development through strategic regulations. Qualities regulated by the suggested ordinance were, among others, larger openings in buildings to provide fresh air and better views—measures to improve air quality, hygiene, health, and well-being in cities were now important factors to consider. [101, p.21]

The advent of industrialisation led to the separation of work and home. The living conditions in the worker’s quarters of Sweden’s growing cities were terrible, and

2. Background

during the 19th century the political debate about housing policy bloomed—subpar housing quality would come to be seen as a question of social equality and a moral threat to society. By 1850, one had already come to associate hygiene-related issues and epidemics with dark, cramped, moist apartments with poor air circulation. An 1851 edition of *Tidskriften för svensk byggnadskonst* ('Journal of Swedish Architecture') brings up the discussion regarding the moral and psychological benefits of various types of housing—claiming that a good-quality home would even be able to prevent binge-drinking. [146, p.40]

In 1865, a special 'pauper's committee' (*pauperismkommittéen*) conducted a housing survey in response to the spread of cholera in Gothenburg, aiming to improve the quality of urban residences. The rapid urban growth continued throughout the 19th century due to the construction of railways and canals further inland. In response to this, the first nationwide building code and health statute tailored to cities came into effect in 1874. However, the new national building code offered no radical changes; the code mainly dealt with issues related to urban planning, such as the width of streets and the height of buildings, rather than the standards of housing. The quality of working-class housing was not considered an architectural problem, and as there were no regulations declaring otherwise no aesthetic ambitions were set with regard to the dwelling of the working class. [5, 101, 133, 146]

At the turn of the 20th century, the industrial society cemented itself as a more tangible sociopolitical force in Sweden. A number of more scientifically minded urban housing surveys were carried out in 1890, in which housing quality standards were measured in number of people per room and cubic meters of air per person. As cities grew, so did political organisation—the social-democratic labour party (*Socialdemokratiska arbetarpartiet*) was founded in 1889; the liberal party (*Liberala samlingspartiet*) was founded in 1900. [146, p.43]

Still, it would take another few decades before the 'housing issue' solidified into the political matter of housing policy, which by that point was a matter of import to both ends of the ideological spectrum. As things stood, the housing issue was still slowly shifting to being more nationally researched and regulated. One major reason behind the difficulties in solidifying these pressing matters as a nationwide political discussion was the systematic failure of the Swedish democracy around the turn of the century. While new parties were being founded in response to ideological shifts, only 25% of men over 21 had the right to vote. Women's rights were not so much as a footnote in meeting minutes until 1921. [25, 107, 146]

As Sweden entered the 20th century, the combination of urbanisation, differing sociopolitical attitudes, and the increased focus on health along with morality would come to shape the manner in which the housing debate was conducted in the coming decades.

2.1.2 Housing and Public Benefit in the 1910-20s

Around the early 1900s, the liberal view was that housing quality was outside the public, and thus the political, interest. This would change swiftly with the rapid growth of Swedish cities—as cities grew larger, so did the amount of workers, which meant that the urban worker’s quarters became increasingly cramped and poor. These areas came to be seen as a “virus” threatening society at large with their “grime, filth, and darkness.” [193]. Thus, it became important for civil society to “cleanse” itself and enact measures to combat the corruption of the worker slums. This would be achieved through *egnahemslån* (‘home ownership loans’), which aimed to promote a new housing ideal—workers would have to opportunity to use these loans to own their house and the land on which it was built. The *Egnahemmen* (‘owned homes’, henceforth referred to in Swedish) became symbols for the desired quality of life achieved through housing: the nuclear family and the tenant-owned residence. The home became a tool in the class journey from common worker to a full member of middle-class society.

Industrialisation, which had been partially hailed as a stepping stone to the society of tomorrow, was now being viewed more critically in light of its downsides. Naturalistic ideals, such as fresh air, access to green space and water, as well as other benefits of an outdoor-oriented life were touted as the pertinent principles of the modern citizen—a direct antithesis to the dark, damp, waste-generating industrial quarters. The idea of the scenic garden city, in combination with the prevalent national romanticism at the time, gave rise to an architectural tradition prioritising aesthetics and natural materials.

Simultaneously, the idea of socialism would become increasingly popular across most social groups. The mechanics of the housing sector would become an important tool for political debates—in 1911, motions on housing conditions for the poor, land prices, and construction costs were introduced in the Swedish parliament. In 1912, following these motions, a committee of housing experts called *Bostadskommissionen* (‘The Housing Commission’) was appointed to explore housing-related issues; among these issues were loans, cheaper building methods, and simpler building regulations. They carried out the first national housing census between 1912-1914, revealing that a great number of Swedish households lived in cramped, untenable residences. The central question that permeated the approach to these issues therefore became how to adequately support the working family’s progress to home ownership without infringing on the free housing market. [146, p.56]

The underlying regulations that enabled increased government control of the building sector was a 1907 change of a national town planning law. It revised the previously mentioned 1874 building statutes, which only allowed building regulations directly related to preplanned urban areas. Thus, greater regulatory control of housing policy could be achieved. It was a governing decision made in the nick of time, as the Swedish housing standard as of the 1910s was decidedly poor and marked by distressing social conditions. The subpar housing standard of the mid-1910s was partially the fault of the collision between quickly growing cities and a lagging, unregulated construction sector, resulting in poorly designed workers’ quarters; it was

2. Background

also caused by the largely unmanaged and unreliable housing market, controlled by a limited number of larger actors. These main players, by way of their financial and political strength, all but possessed a *carte blanche* to steer the market as they pleased.

“It was the Wild West in the housing world. Private builders and real estate owners could set their own terms and conditions. If the galoshes don’t fit, someone else is in line.” [191, p.10]

The situation escalated far enough to be undeniably harmful and unsustainable following World War I—that, along with the results from the 1914 housing census, proved that the government needed to intervene. The matter of regulating housing quality thus became a central political debate during the 1910s. [146, p.59]

Bostadskommissionen was replaced in 1918 by a new group of housing experts, who presented an updated regulatory proposal at a parliament gathering in 1920. The proposed legislation targeted rising construction and rent costs in an attempt to facilitate building, but the passed bills offered no effective change in the end—the measures taken were considered to be too “politically cautious” and based on an incorrect understanding of actual housing requirements. Instead, the discussion shifted from economical countermeasures to questions of standardisation. [146, p.63]

The ineffective government measures, the 1914 housing census, and the general public opinion thus led to renewed efforts to advocate for nationally set standards for architectural quality. It became increasingly important to find a middle ground between the citizens’ ideals for the home and the perceived responsibilities of the municipalities and the government in regulating housing. Those underlying factors, the naturalistic ideals that had grown in the wake of industrialisation and urbanisation, along with the hopes of establishing a housing norm, resulted in one of BBR’s earliest predecessors: *Praktiska och hygieniska bostäder* (‘Practical and hygienic housing’, henceforth referred to as PHB). [110, 146]

PHB was published in 1921 and came to be a practical handbook for the standardisation of housing design, even if it was not formally adopted. Its purported main focus was on ensuring there was a minimum quality standard in small apartments, partially tailored to address the shortcomings in urban housing that had been uncovered in the 1914 census. Among other suggested regulations, the PHB recommended at most four apartments per stairwell and floor, disapproved the construction of studios, and directly condemned apartments with windows facing only in one direction. The PHB suggested these residences had no way of fulfilling sufficient light, view, or ventilation requirements and thus were beneath contempt. Additionally, it was important that a residence was *genomluftbar* (i.e. ‘capable of being cross-ventilated’, henceforth referred to in Swedish). [110, p.67-70]

Further, the PHB maintained the recommended room height of 2.7 m set in 1918 but suggested a possible decrease to 2.5 m in apartment buildings with at most two floors. Kitchens were to have their own windows for access to direct daylight and

were not to be smaller than 12 m^2 . A general apartment was to be a minimum of 42 m^2 . The view from the residence was important; beautiful vistas facing the landscape or urban surroundings were to be obtained and preserved. PHB's suggested areas, dimensions, and standards were based on contemporary research results from Germany and England, some of which were based on worker's quarters of similar standard to Swedish ones. [110, p.84-108, 206]

The PHB clearly underlined that its main purpose was to be understood as a tangible expression of experiences crystallised into general standards; these proposed regulations were geared toward serving as a planning reference. The purpose of the PHB regulations was expressly described in the following fashion:

“They provide the urban planner with a means of asserting, in the face of bias, conflict and speculation, [their] expert and impartial views on the shape of society, and give [them] the feeling that the careful study [they] devote to [their] task will be of real benefit.” [110, p.233]

In the wake of these ideas, the first cooperative building society HSB (*Hysesgästernas sparkasse- och Byggnadsförening*, henceforth referred to as HSB) was founded in 1923 by the prominent architect Sven Wallander. Its goal was to construct high quality housing at reasonable prices for its members, while involving itself in the politics of the residential market. HSB patented rubbish chutes, standardised kitchen interiors, access to warm water, showers, and gas stoves. These innovations were pushed with the goal to “construct modern homes for modern people” and make this a central question in the ongoing debates. This mindset of establishing the new, modern standard would come to shape the ideological notions that formed Sweden in the coming decade. [146, p.83-85]

However, alongside the founding of HSB in 1923, rent control legislation and large parts of the government's lending programs were discontinued. Instead of developing the burgeoning housing reforms further and solidifying them in regulatory frameworks, they were dismantled as Sweden neared the 1930s. Still, the idea of *allmännytt* had taken root—a concept referring to homes for the public benefit of everyone, henceforth referred to in Swedish. Well-meaning attempts to establish homes for *allmännytt*, however, would be temporarily stifled to highlight a new European trend: functionalism. [5]

2.1.3 Functionalism in the 1930-50s

The prevalent European architectural movement at the start of 1930 was functionalism, spearheaded by figures such as Mies van der Rohe and Le Corbusier and presented at international exhibitions as the design of tomorrow. The negative connotations associated with industrialisation were erased in the face of new aesthetic opportunities—high quality housing was functional and standardised above all, and the national romantic and naturalistic ideals from previous decades were quickly dismissed as naive and uneconomical. Economic rationalism could be effectively disguised as part of a radical architectural overhaul. Its aesthetics and planning

principles would trickle down in mixed forms, shaping the politics of the housing sector up until the present day. [5, 9]

Functionalism came to be formally introduced to the Swedish public by way of the Stockholm exhibition in 1930. The exhibition became symbolic of the new style that permeated modern housing and was characterised by functional rationalisation and standardisation. At the time, Sweden was undergoing a severe recession with unemployment and housing shortages—the functionalist movement was supposedly the tool with which architects could remedy the ongoing social issues. That way, functionalism was not only a new architectural style but a symbol of progress and optimism—the belief that utilizing scientific development would lead directly to an improved society. The quality of a home was determined by the way it had been planned logically and functionally, not by any other characteristics. [146]

A year after the Stockholm exhibition, a new town planning law was introduced to the Swedish parliament (proposition 1931:79). Its main purpose, as was outlined in the initial 1928 law proposal, was to facilitate a better division of neighbourhoods in cities. Further, in cases of more dense urban areas with higher and more compact developments, it would serve as a more “artistic investigation” [101, p.31]. The 1928 proposal referred to other health statutes for daylight requirements, but underlined that buildings were to be maintained in such a way that “fire safety was not compromised, or health hazards, unsightliness, or disfigurement arose” [101, p.32]. This was a step toward centralising the organisation of planning policy. [83, 100]

In the same year, the propaganda book *acceptera* (‘accept’) was published by five functionalist proponents, setting the tone for the political housing debate by demanding the acceptance of the modern, rational method of building and the logic it demanded from architectural planning. One of its authors, Uno Åhrén, who would become a prominent functionalist voice, had by 1928 already claimed that “architecture was nothing more than an economic, practical organisational technique” [9, p.249]. Åhrén was also part of initiating the 1933 *Bostadssociala utredningen* (‘The Social Housing Inquiry’), along with HSB chiefs and other experts—thus, the functionalist influence suffused the national political debate on the Swedish housing standard. [9, 146]

The *Bostadssociala utredningen* was initiated with the express purpose of mapping the housing situation in the country and developing national policy guidelines. They soon came to the conclusion that overcrowding was the most acute problem, which was corroborated by the 1934 book *Kris i befolkningsfrågan* (‘Crisis in Population’), authored by Alva and Gunnar Myrdal. The findings of both the book and the committee contributed greatly in cementing yet another ideological perspective that would pervade the national housing debate along with functionalism—namely, the idea of housing policy aiding Swedish families. The idea of the home and the role of the family became central, which ignited new debates related to allmännyttan and housing quality. As the Myrdals put it: “sound and adequate housing for all the people is a necessary condition for physical and spiritual health,” pointing to the

increased importance put on good residential quality. [127, 146]

The political ideology supporting these beliefs was also popular at the time, as the 1932 victory of *Socialdemokraterna* would usher in a period of social-democratic dominance in Swedish politics lasting until 1976. A significant reason behind this decisive victory was the politics founded on the idea of *folkhemmet* ('The People's Home', henceforth referred to as *folkhemmet*) which referred to politics including everyone living in the "great home"—the nation. As described by Per Albin Hansson, prime minister in 1932:

"In the good home there is equality, consideration, cooperation, helpfulness. Applied to the great popular and civic home, it would mean the breaking down of all the social and economic barriers that now divide citizens into the privileged and the backward, the dominant and the dependent, the rich and the poor, the possessed and the impoverished, the plundered and the pillaged." [146, p.90]

The concept of *folkhemmet* would suffuse the housing policy debate as well, and these ideological foundations would come to shape the way the state involved itself in the building sector for years to come. Efforts made as a result of the new debates were largely focused on particularly disadvantaged groups: families with many children, pensioners, and farm workers. 1935 was the first time the state attempted to directly improve the conditions for families with many children and small incomes by instating the *Barnrikehussatsningen* ('Large Family Housing Investment'), which provided loans for contractors to construct housing for this particular purpose, as well as rent subsidies for families who wished to move in. These large family homes would come to be known as *Barnrikehus*, as well as *Myrdalshus* ('Myrdal Homes').

To include other social groups in these national initiatives to raise housing standards, a new housing policy was outlined, and the state would be responsible for the management of rental housing. The state would provide high-risk capital *topplån*—a 'top loan' was part of the housing loan taken when buying a home with the intention of financing the entire purchase with the loan. The top loan usually consisted of between 70-80% of the purchase price of a property [69]. Further measures included general interest rate subsidies and the founding of more municipal housing companies. The quality of the housing would be assured by requiring certain functional and architectural requirements to be met for loans to be granted. [5, 146]

The qualities prioritised in the new housing standards were exclusively drawn from functionalism. The Swedish planners and architects of the 1930s were largely concerned with technical and organisational requirements. The rigid, goal-oriented framework of functionalist architecture was uninterested in accommodating any of the aesthetic values present in previous architectural ideas. Reinforced concrete slabs and new heating technology provided an opportunity for new spatial relationships; these new room configurations naturally fell within the constraints of economic rationality and were treated as uniquely singular. The immeasurable qualities that contributed to the home as a whole were discarded in favour of delegating individual

functions—one room each for cooking, sleeping, and living. As a result of the 1930s functionalism, the architecture, construction, and engineering industry started labouring under a supposedly rational division of functions, in which each sector needed to assert itself in relation to market competitiveness, profitability, and bureaucratic practicality [5, 102, 135]. The problematic aspects of this functional division would soon come to be apparent even to the most vocal functionalist proponents, as Uno Åhrén would write in a 1933 edition of the magazine *Byggmästaren* (‘The Swedish Builders’ Journal’):

“The free market, it must be admitted, has in regard to land development and construction proven to lead to anarchy. And this anarchy is so deeply rooted in the social system itself that we cannot, by ordinary legislation, overcome it and convert it into its opposite: a real planned system.” [5, p.32]

The debate on housing policy would, as it had during World War I, be put on hold during World War II. The building industry was brought to its knees by high interest rates and increased construction costs. To stimulate the industry and facilitate a flying start to post-war housing construction, the government tasked a new expert committee with a housing inquiry in 1940. It reviewed, among other things, building regulations that might unnecessarily increase the cost of public construction and proposed amendments to the building code. The explicitly stated purpose was to investigate measures needed to simplify and standardise new construction for the civil service.

The resulting proposal was submitted in 1943 (SOU 1943:10). It underlined the importance of access to direct sunlight in all rooms, but suggested lowering the recommended room height from 2.7 to 2.6 m for economic reasons—with the exception of nursing homes for the mildly mentally ill, since it was deduced the mildly mentally ill would benefit from higher ceilings [12, p.24]. A minimum room height beneath 2.1 m was expressly discouraged, and even the new minimum of 2.6 m was only acceptable in rooms with a depth of 5 m and in buildings separated by an adequate distance (1.5 times building height) to their counterpart across the street, so that access to sunlight would not be infringed upon. [12, p.17]

Building on the results of SOU 1943:10, another committee was called upon to carry out a review of existing legislation on building activities and related matters. The results of this second study yielded SOU 1943:30, which expanded on the suggested regulations outlined in the first proposal. An apartment was to be arranged so it could provide opportunities for comfort and good hygiene, and every room was to have a window sizeable enough with a proper orientation so that good daylighting could be achieved. Further, apartments consisting of one or more rooms and a kitchen needed a minimum area in its largest room of at least 17 m^2 . The room height returned as a central question, but this second study wished to maintain 2.7 m but suggested lowering it to 2.5 m given certain requirements as to the placement and depth of the building [66, p.6-9]. The changes were carried out and officially implemented in 1946. [101, p.42]

The 1940s marked a time in which the tenets of functionalism came to be officially represented in regulatory frameworks. The first examples of minimum dimensions and measurement standards were outlined in BABS 1946 (*Byggnadsstyrelsens Anvisningar till Byggnadsstadgan*), aiming to supplement existing building codes with specific regulations on the technical execution of buildings. Architects aimed to create the housing of tomorrow by using the tools of engineers and scientists. BABS 1946 would be a method through which the new goals of the housing debate could be realised. These had been outlined in *Bostadssociala utredningen*'s first final report in the previous year (SOU 1945:63), and targeted three main points: housing overcrowding was to be eliminated, the quality of standard appliances would be raised, and differences in urban-rural housing would be equalised. This standard was not statutory, but rather a set of recommendations. In practice, however, they had to be followed in order to obtain a building permit. [5, 101, 109, 135]

Another important decision following SOU 1945:63 was that the state would support municipally owned housing companies with significant loans, covering up to 100% of costs. The aim was to transfer the majority of state-subsidised housing construction to allmännyttiga companies in an effort to eliminate risks for speculative investments. At the time, the construction industry was considered to be underdeveloped, and municipalities had low planning competence. The market was reluctant to invest; any investments made were speculative and thus focused on short-term gains, taking economic advantage of a situation characterised by an acute housing shortage. [25, 68]

Substandard housing could be rented at high prices, which actors took advantage of, mirroring the 'Wild West' of the 1910s. Large discrepancies in rent levels between new and existing housing strongly constrained housing demand, and households with ordinary incomes could not afford new construction. By subsidising allmännytta and tying building permits to qualitative standards, the state aimed to 'catch up' to an existing housing need and head off future crises. Following the economic depression in the 1930s, Sweden had the strongest economic growth in the world until the 1950s; this would be used to fuel construction efforts in the coming decades. [11, 25, 119]

Together with increased construction efforts, applying the BABS framework along with existing building standards would supposedly assure the quality of new housing. In 1945, along with *Bostadssociala utredningen*, the *Stadsplaneutredning* ('The Urban Planning Commission') submitted its final report (SOU 1945:15). This report contained a proposal of a new set of building regulations (*byggnadsstadga*, henceforth referred to as BS), which officially came into law in 1948 (1947:390) [101, 157]. It further outlined the qualities that a typical residence should have:

“The residential apartment shall be arranged so that it provides the opportunity for comfort and good hygiene. It shall thus [...] meet reasonable requirements for space and comfort. Suitable connections should be provided between rooms, avoiding as far as possible spaces with insufficient daylight. When planning housing, care should be taken to ensure that it is in as sunny a position as possible and, where practicable,

that it is genomluftbar.” [157, p.728, 61 §]

The next edition of BABS came in 1950, adding the first *allmänna råd* (‘general practices’) and references to Swedish standards. Room size rules were followed up and expanded on. Eight different forms of minimum dimensions for bathtubs, showers, and toilets were presented, and these were to be expressly followed [101, p.56]. To further minimise costs, the storey height was reduced in 1952, and the effective room height was set to 2.5 m. The findings of functionalism thus came to define the quality of the home in an increasingly regulated manner. Sweden would build its new future through normalisation, standardisation, serialisation, and mass production enabled by new building codes steeped in the economic rationality of 1930s functionalism. [5, 101, 146]

The interest organisation SABO (now *Sveriges Allmännyttta*, ‘Swedish Allmännyttta’, henceforth referred to as SABO) was also founded in 1950, around the same time as the next edition of BABS was released. SABO championed the concept of allmännyttta and functioned as a bridge between the public housing sector and housing politics, acting as a supportive, guiding structure for municipal enterprises. SABO became a counterweight to the private property owners monopolising the market, and as such the public housing companies under SABO’s umbrella came to be a method through which folkhemmet could be realised. The tug-of-war between SABO and private property owners over the importance of allmännyttta, folkhemmet, and the concept of quality in the ideal home would define the ideologies behind housing policy for decades. [93, 146]

In 1954, the collection of standards known as *God Bostad* (‘Good Housing’) was first published by *Bostadsstyrelsen* (‘Swedish National Housing Board’). Compliance with the standards outlined in *God Bostad* was a requirement for obtaining favourable government housing loans, and this mechanism aimed to ensure that the state-subsidised housing achieved a certain minimum quality standard. While the 1921 PHB framework set baseline rules to ensure hygienic homes, the *God Bostad* was the result of a decade-long process of architectural research, aimed at defining the ideal home. [53, 137]

It was heavily influenced by minimum measurements set in a 1942 publication by the well-known Swedish architect Sigurd Westholm; the publication came to be known colloquially as ‘Westholm’s Bible’, but its formal title was *Minimifordringar å Storleken av Bostadslägenheter i Hus Avsedda Att Uppföras med Stöd av Statligt Tertiärlån* (‘Minimum Requirements for the Size of Residential Apartments in Houses to be Constructed with the Support of a State Tertiary Loan’). However, *God Bostad* was mainly focused on a good standard of new construction for poor families with many children—the same target group as for the *Barnrikehusen* twenty years earlier. [18, 19, 20, 101, 102]

“Living well means having a home that is adapted to our needs and wishes in terms of spaciousness, layout, equipment, material treatment, lighting, location, etc., while

being reasonably priced in relation to our household budget.” [18, p.3]

The 1954 edition of *God Bostad* outlined five main requirements for what a good residence should be: sufficiently spacious, efficiently planned, hygienic, and easy to maintain, with access to a variety of communal facilities, complemented by a good external environment [18, p.4]. A studio apartment with a kitchen was to be between 32 and 42 m^2 . The largest apartment typology, a five-room apartment with a kitchen, had a recommended area between 90 and 110 m^2 [18, p.6]. Several other qualitative factors were underlined as especially important: daylight, furnishability, and accessibility. [18]

The standardisation of certain qualities facilitated the mass production of apartments to remedy the housing shortage. The norms made an economically motivated mass production feasible, but in the same vein, prevented the economic driving forces from having an architectural impact that would jeopardise the housing quality [5]. Simultaneously, as was outlined in the 1956 state report *Riktlinjer för bostadspolitiken* (‘Guidelines for Housing Policy’, SOU 1956:40) the prerequisites for a general increase in the housing standard for families was undoubtedly the availability of spacious, satisfactory residences—a condition that was not yet met by 1956, but would come to be the focus of the coming decade with the nationwide *Miljonprogrammet* (‘Million Homes Program’, henceforth referred to in Swedish). [166, p.94]

2.1.4 Record Construction in the 1960s-70s

By the start of the 1960s, it became increasingly clear that despite the housing modernisation and high levels of construction, the continued migration to the cities would keep demand high in the coming decades. An inability to meet these demands was seen as an obstacle to growth—the housing shortage thus became a central political question. As such, both the supply and quality of the housing stock itself became significant, a focus that marked the norms and standards shaping the construction industry going forward. [25, 146]

The next edition of BABS was published in 1960, in the same year as an updated edition of *God Bostad*. The second edition gave additional instructions on the quality of communal spaces related to housing, such as green areas and laundry rooms, while the third and final 1964 edition expanded to specifically consider other target groups than the family, such as students and retirees. The manual was influenced by the functionalism of the 1930s, and aimed to be used as a handy tool in the modernisation of Sweden’s housing with a heavy focus on the ‘effective floor plan’. The idea was that with a well-planned layout as a foundation, a home of high quality would naturally follow. [19, 20, 53]

The majority of actors in the building industry were aligned in their vision of how to solve the housing shortage, and that was by establishing a state-led standardisation. The base of this standardisation would be the aforementioned effective floor plan and this would in turn enable rapid production of largely uniform housing complexes of sufficient quality. In 1965, a report by the *Bostadsbyggnadsutredningen* (‘The

2. Background

Housing Construction Inquiry’) was published, outlining the steps required to raise the housing standard in the country (SOU 1965:32). It was partially based on two previous reports: a survey of future housing needs and the consumption patterns of the housing market (SOU 1961:51 & SOU 1964:3)—based on those results, the 1965 report aimed to envision how the market would develop and adapt building legislation accordingly. [139, 140, 141, 146]

Two goals of the 1965 report were explicitly stated to be “raising the quality and standard of housing” and “production of housing suitable for different categories of households,” culminating in the recommendation to build 100,000 apartments per year between 1965 and 1975—the start of what would come to be called Miljonprogrammet. It was officially implemented in a 1967 proposition (prop. 1967:100), passed by the parliament in the following year. [84, 141, p.24, 159]

The goal of mass production and industrialisation in the Swedish construction industry was clearly outlined, but so was the overarching purpose of the Miljonprogrammet solution—to mitigate the housing shortage afflicting the Swedish residential market. This mitigation would be carried out under the concept of *allmännytt* by deferring to the main societal objective of the decade-long program:

“Society’s objective for housing provision should be to provide the whole population with sound, spacious, well-designed, and appropriately equipped housing of good quality at reasonable cost.” [84, p.172]

Along with the 1967 proposition, a new set of BABS regulations were published, replacing the 1960 edition. The BABS 1967 framework was also called *Svensk Byggnorm* (‘Swedish Building Norm’, henceforth referred to as SBN), and represented a shift to performance-based regulation in Swedish building legislation [101, 114]. These performance-based regulations were technically focused and unconcerned with architectural qualities; the housing standards outlined in *God Bostad* released just three years earlier thus received no mention in the updated national framework. The legislative basis on which Miljonprogrammet was constructed, and the standard of the housing funded by the state, was thus subject to the efficiency and profitability requirements of the free market. [145]

Proposition 1967:100 represented a crossroads in which the future of folkhemmet could either be enforced through stronger legislative control or tied more closely to the whims of the market economy. When the proposition passed in 1968, the parliament had chosen the latter—a move that would come to define the relationship between national legislation and the housing market for decades [5]. There was an inherent awareness of the risk associated with allowing marketability to influence legislation in this manner, as the priorities of the market in relation to design and quality were clearly outlined in the proposition itself:

“It seems likely that, to the extent that cost reduction [in construction] has been achieved, it has been achieved through some restraint in the standard and quality of

housing.” [84, p.242]

The large-scale national construction meant that by the end of the 1960s, the acute housing shortage had steadily turned into a housing surplus. The construction boom was continuously shaped by updates to the building legislation, which in turn was shaped by the economy of the housing market [25]. The residential room height was set to 2.4 m in 1971 (prop. 1971:48), a legislative update motivated by potential savings. Modern technology—such as new ventilation techniques and installation methods—would supposedly guarantee a sufficient hygienic standard. The proposition claimed that “a well-balanced standardisation of vertical dimensions can bring economic benefits, not least by enabling rationalisation in [...] technology,” and as such, the changes to the legislation used innovation as a tool to enable market-motivated changes to the building code. [85, p.9]

The building boom was brought to a halt by the 1973 oil crisis. Sweden’s future construction needs were now difficult to forecast, and the economy plateaued into a stagflation marked by both inflation and declining employment. The political battle about the housing supply was at odds with debates on how to establish the value of the built environment. The functionalism that had dominated the execution of Miljonprogrammet ranked low on the list, and these areas were consequently regarded as low-value environments, leading to greater tenant turnover and social segregation as living there was seen as undesirable. Nevertheless, the work in housing standardisation continued, and new building legislation was published in 1975. SBN 75 introduced new provisions related to daylight, furnishability, and accessibility requirements. [25, 101, 146]

1976 represented a political shift in Sweden, as the social-democratic government fell for the first time in 44 years [146, p.210]. While no drastic systematic changes were made to the housing sector, a new committee named *Plan- och Bygglagsutredningen* (‘Plan and Building Law Inquiry’, henceforth referred to as the PBL inquiry) was initialized in 1978, publishing their findings in two reports in 1979 (SOU 1979:65 and 1979:66) [101]. The basic principles of quality in the suggested law were:

“The quality of community planning depends to a large extent on resources, knowledge, systems for cooperation, and political will. Legislation cannot by itself guarantee higher quality, but it can create the conditions for it. For example, by requiring coordination with other forms of planning and by specifying forms of decision-making and requirements for the basis for decisions [...] Spatial planning requires clarity, simplicity, and flexibility. Otherwise, there is a risk of ending up with centralised [...] planning that contradicts fundamental common values.” [143, p.232]

By the end of the 1970s, the focus of the Swedish housing sector shifted from construction to maintenance, given the declining state of the economy. New legislation was not geared toward promoting increased construction but rather improving the existing housing stock. This led to several new areas of housing policy coming into focus: community engagement, indoor environmental quality, integration, resident

services, asset maintenance, and regional development. Each new area required new legislative means to establish a baseline quality standard; this would permeate policy frameworks going into the 1980s. [25, 146]

2.1.5 Renewal of the 1980s

At the start of the 1980s, Sweden's economy was in recession once again, and unemployment was on the rise. Earlier legislation was focused on mitigating the housing shortage and preventing speculative investments, but the initial major government inquiries of the 80s were all centred around quality improvements [25, 146]. In 1981, a two-part report was published (SOU 1981:99-100) detailing efforts to improve the quality of the housing stock. At the time, the main policies outlining qualitative standards were mainly SBN and BS. The conclusion was that the need for research, development, and training on spatial planning issues was high, and more efforts were required to push through effective legislation [171, 172]. This sentiment was echoed by another report in 1982 (SOU 1982:65), which focused on the need to reinvest in housing and underlined the overarching purpose:

“Society’s goal for housing [...] should be to provide the entire population with sound, spacious, well-designed, and appropriately equipped housing of good quality at reasonable cost.” [188, p.20]

This purpose was the same as in the original Miljonprogrammet proposition (1967:100), and thus its importance was restated as the findings of these reports would lay the foundation for the next step in ensuring the whole population had access to “sound, spacious, well-designed and appropriately equipped housing of good quality at reasonable cost,” as had been first stated in 1968 [14, 84, p.2]. These findings culminated in the 1983 proposal *Bättre bostäder* (‘Better housing’, Ds Bo 1983:2), introducing another decade-long commitment in housing policy, this time dedicated not to construction but to maintenance. The introduction of the ROT-program suggested in *Bättre bostäder* had six main goals centred around making housing more equitable, well-maintained, accessible, modern, and integrated. This regeneration was to be carried out in a thoughtful, deliberate manner, mindful of social and cultural objectives.

“The built environment is constantly changing in form and content. This change is the result of interactions between different forces in society. If important social objectives are to be achieved, concerted consideration must be given to what changes in the built environment are necessary and what forces for change should be given priority in the renewal process.” [14, p.9]

The report explicitly highlighted that changes to the built environment have tangible effects on its residents. Changes made without proper consideration were costly and technically complex, and the risk was that “technical and economic considerations can easily override concern for people [...] affected [...] in the short or longer term” [14, p.9], and as such it was crucial that appropriate policymaking and legislation lay the foundations for future housing policy. These concerns were echoed by *Bostadskommittéen* (‘The Housing Committee’) in a 1986 final report (SOU 1986:4):

“Little attention is paid to the design of individual dwellings in terms of usability, convenience, and comfort. Deviations from existing regulations have become increasingly common. As building codes are revised, it is desirable that they be reviewed to ensure that they are clear and unambiguous and provide building authorities with the support they need to enforce good quality housing.” [17, p.16]

These worries were addressed in legislation by the PBL inquiry, whose new law had first been suggested in 1979. It was geared to enable the steady development of the built environment, with emphasis placed on coordination, planning, and the population’s concerns. The proposition based on the 1979 final report was made official in 1985 and was comprised of a systematic rework of the planning and building system, replacing most older frameworks. The keywords of the new law were simplification, decentralisation, and increased freedom and responsibility for actors in the construction sector. PBL was officially implemented in 1987. Alongside the PBL came the PBF (*Plan- och byggförordningen*, ‘Planning and Building Ordinance’, henceforth referred to as PBF), which functioned in tandem with the PBL to regulate building. [86, 101, 143, 184]

An important section of the PBL related to quality was 3 ch. 5 §, which highlighted that “buildings must be fit for purpose and provide for comfort, good hygiene, a good working environment and a satisfactory indoor climate”, further noting that living rooms and kitchens should have windows facing the surrounding environment, rooms intended for work should have daylight, and floor plan, room design, and view would be subject to these standards [184]. It further admitted that while some standards related to quality of life could be fulfilled using modern technical installations, setting some standards in relation to the comfort of living would allow for better quality housing:

“Requirements for sunlight and [genomluftbarhet] in dwellings are already established in current regulations, but are primarily formulated as hygienic requirements. Even if the hygienic requirements can be met today with technical installations, the comfort requirement [...] means that dual aspect apartments with good solar values should still be sought after.” [86, p.490]

Along with the new law came a reformation of the government organisations that oversaw building legislation, and as a result, *Boverket* (‘The Swedish National Board of Housing, Building and Planning’, henceforth referred to as *Boverket*) was founded in 1988. In the same year, *Boverket* unveiled new construction rules (NR; BFS 1988:18, henceforth referred to as NR), which were comprised of general standards and regulations. These concerned daylight provisions, spatial arrangements, room height requirements, and specific regulations on accessibility and furnishability. Quantitative values and references were based on a default value and a collection of Swedish standards and norms. The regulations came into law in 1989 as the first iteration of NR. [25, 101]

2.1.6 Marketisation of the 1990s

Changing regulations and policies came to be a trend outside the housing sector as well. At the start of the 1990s, the concept of the welfare state would fade under the impact of global economic issues bleeding into Sweden. The New York stock market crash in 1987 was followed by widespread inflation, one of the underlying reasons for the 1990 Swedish tax reforms, which had a significant impact on the housing sector. [9, 146]

The main purpose of the tax reform was to lower income taxes, giving Swedish households greater freedom in allocating their private finances. However, to lower the income taxes, the government raised money by raising property tax and lowering interest subsidies—thus gathering almost half the cost of the tax reform from the housing sector. As a result, SABO companies raised their nominal rents with 50% over three years. Households without taxable income, such as retirees and students, still had their housing costs increased. The decommissioning of the state's subsidy system meant that the individual financial strength of the SABO companies became increasingly important, and as such they were vulnerable to economic fluctuations. *Allmännyttan*, which had only become a general concern once the state stepped in following World War II to bear the associated financial risks, thus became partially subject to business-oriented rationality rather than public-spirited benefit. [9, 25, 146]

Alongside the tax reforms, which were carried out between 1990 and 1991, housing went from being a building block of the welfare state to a player on the free market—housing policy was decentralised, and the responsibility for it shifted to the municipalities. The response to the financial downturn at the start of the 1990s was the start to the evolution of public housing into an actor susceptible to the forces of the free market. Thus, housing transitioned from a hefty state expenditure to a significant source of income. [93]

Concurrently with the tax reforms in 1991, the competition *Byggutmaningen* ('The Building Challenge', henceforth *Byggutmaningen*) was announced by the minister of housing, aimed at the construction industry. The purpose of the competition was to produce good housing at low cost for different households. Certain deviations from building legislation could be made, excepting standards for accessibility, safety, indoor environmental quality, and comfort. *Byggutmaningen* was a challenge that preceded the deregulation of housing legislation, with the purpose of testing which deviations from policy (PBL and NR) could be made if the choice was up to the developers, and what consequences these deviations had for housing costs. It was part of the ongoing discussion regarding whether or not deregulation of housing policy could be the solution to cheaper housing. Existing legislation was criticised for hindering the development of innovative solutions and for driving increases in construction costs—opinions that were mainly voiced by contractors. [24, 46]

While only one of the submitted suggestions was actually built (the neighborhood Solen in Borlänge), the results of the competition were used as part of the 1992 report on deregulating the housing market (SOU 1992:47). The report proposed

that special regulations for public housing companies (*allmännyttiga*) be removed from legislation to operate on the same terms as other actors in the housing sector—to achieve a desired “neutrality between categories of property owners” [15, p.118], which would supposedly equalize the market. It further maintained that the requirements for quality in terms of *trevnad* (‘pleasantness’) and *ändamålsenlighet* (‘fitness for purpose/appropriateness’) should be removed from the PBL (3 ch. 5 §), on the basis of them being difficult to define:

“What is pleasant and what is appropriate [ändamålsenligt] are highly subjective assessments. Moreover, the assessments of the same individual may vary from time to time depending on a variety of factors. For this reason alone, the issue is not suitable for legislation.” [15, p.111]

On this basis alone, qualities such as pleasantness and fitness for purpose were struck from national housing legislation. The report maintained that the requirements set in 3 ch. 5 § came from the shortcomings in these respects that had previously defined the housing stock of Sweden. After Miljonprogrammet, the situation had changed radically, and the report underlined that Sweden “currently [has] an overall surplus of housing, most of which is of good quality” [15, p.111], and therefore these requirements no longer had any plausible reason to remain in legislation. The amendments to the PBL were implemented in 1995. [15, 93, 101]

The early 1990s also meant the establishment of BBR—*Boverkets Byggregler* (‘Boverkets Building Regulations’, henceforth referred to as BBR)—which replaced NR. BBR (BBR 1, BFS 1993:57) included both regulations and general standards, detailing requirements for room height, accessibility, and housing design. One of the objectives of BBR’s implementation was to facilitate housing with different qualities, thus increasing the variety of the housing market—in direct opposition to the politics preceding Miljonprogrammet (prop 1967:100), which called for a reduction of variations. Minimum levels for day- and sunlight were outlined as part of the standards for health and hygiene. There were separate sections on housing for the elderly and students; there was no mention of quality in terms of comfort (*trevnad*) or fitness for purpose (*ändamålsenlighet*). Thus, housing quality became a matter of meeting technical regulatory requirements rooted in minimal hygienic standards, and the ambition for the design of housing was merely broadly defined in this context. [21, 22, 101]

“Dwellings shall be designed, planned, furnished and equipped with regard to their long-term use and the number of persons for whom they are intended.” [21, p.22]

The matter of legislative requirements for subjective, qualitative architectural characteristics returned in 1996, when the government presented a proposition (prop. 1996/97:3) related to cultural policy. The conclusion was that efforts were required to establish good conditions for the development of architecture and design in Sweden, and ensure that qualitative and aesthetic aspects were not subordinated to short-term economic considerations. The government defined a clear architectural goal for societal development, claiming that the state “has a major responsibility to stimulate more qualitatively oriented architecture and design” [87, p.106], and

underlining that the state should stimulate development by setting norms.

“In [...] legal regulation of construction, [there is] a trend towards increased rationalisation and liberalisation, as well as towards market adaptation. However, it is important that this development does not lead to important common cultural values and aesthetic qualities being destroyed or dispersed, or that the ecological balance is damaged.” [87, p.107]

Two months after the proposition, a final report of a specially appointed parliamentary inquiry was published, titled *Bostadspolitik 2000* (‘Housing Policy 2000’). It problematised the lack of tenant-oriented perspectives applied in quality standards, criticising the heavy-handed use of stereotypical solutions and the large-scale approach favoring rationality over people’s needs for pleasant environments and aesthetic values. The reformation of legislation in the 1990s had shifted the responsibility for overall quality to the developer, whose incentive to maintain housing quality was rooted in commercial interest. Another conclusion of the report was that laws and regulations should be designed so that they clearly contribute to the design, management, and care of the built environment in the long-term interests of society as a whole. This was difficult in terms of architectural quality, as qualitative debates were considered subject to interpretation, an ambivalence that did not lend itself well to rigid legislation. [87, 101, 189]

“In the field of architectural quality, there are also measurement challenges. Aesthetic quality may be one thing to the cultural elite and critics, and something else to contractors or tenants. A continuous and lively discussion [...] should take place about what constitutes low- and high quality in architecture.” [87, p.222]

In conjunction with these ideas, the Swedish government tasked Boverket with investigating whether or not PBL contributed to shortcomings in architectural quality. The findings were published in 1997, resulting in changes suggested in a 1998 proposition as part of a program called *Framtidsformer* (‘Forms for the Future’, henceforth referred to as *Framtidsformer*), whose purpose was to establish stable, long-term architectural programs before the year 2000. *Framtidsformer* contained a detailed discourse on the definition of architectural quality and the role it should play in urban planning, but the following proposition addressed neither questions of competence nor processual issues in relation to quality. No new frameworks through which arguments of architectural quality could leverage itself against commercial interest were established, despite the goals set forth by *Framtidsformer*. The only change was the inclusion of new legislative provisions on the value of aesthetically pleasing design, not anything in regards to how high-quality design should be defined, or systematically applied. [23, 88, 89, 92, 101]

The politics influencing Swedish housing legislation were overall turbulent during the 1990s. The combination of internationalisation brought forth by Sweden’s entry into the EU in 1995 and the precarious state of the economy led to legislative reforms that made housing policies increasingly marketised and deregulated. The unfavourable financial conditions warred with a prevalent optimism underlying a

confidence for the future awaiting society in the new millenia. While the PBL was being scaled down along with the economic frameworks incentivising housing for allmännyttan, new legislation intended to safeguard Sweden's environment entered into force. *Miljöbalken* ('The Swedish Environmental Code', henceforth referred to as MB) was introduced in 1999, and thus established sustainability firmly on the political agenda. Good, high-quality architecture now entailed good resource management. [25, 45, 101, 128]

2.1.7 Minimisation in the 2000s-10s

The political efforts following the implementation of MB were geared towards circularity, sustainability, and reduced emissions, influencing housing legislation. This was tied to the fact that the housing shortage had resurfaced as a central question; existing housing stock was not up to par with modern demands for accessibility, energy efficiency, and indoor environmental quality. [25]

The housing exhibitions in Helsingborg (H99) and Malmö (Bo01) became symbolic for high-quality housing. Bo01's theme was "the city of the future in the ecologically sustainable information- and welfare society" [168, p.3], and an explicit goal in the specifically developed district building program was to "ensure a very high quality in architecture and design" to secure long-term sustainability [62, p.5]. Separate quality programs were developed through collaboration between the developers and the city, setting more ambitious standards than the prevailing policy. These programs were one-off instances and did not influence national legislation, which was instead increasingly influenced by the common frameworks set by the EU and the trend towards deregulation and function-based legislation. [25, 169]

In 2002, Boverket was tasked with developing performance requirements aligning with the EU frameworks and the new national environmental goals. The final report, published in 2004, discussed the formulation of performance-based requirements in the BBR based on a desire to facilitate innovation. The idea behind this was limited to technical and engineering-oriented innovation rather than being rooted in design and architectural qualities. The functionalism of the 1930s returned in a new, technological guise—by reintroducing functionalism in the context of performance and quantification, the tools of the 2000s thus gave it a second wind that facilitated its immersion in housing policy once more. [25, 101, 114]

One of the clearest motivations for performance-based regulation was the wish that it would decrease construction costs, which had been steadily rising. Inquiries into rising costs resulted in the conclusion that large parts of the increased expenditures were actually due to land prices and administrative costs (SOU 2002:115). Consequently, the percentage of tenant-owned apartments among new housing construction went from 20% in 1995 to 69% in 2001 [47, p.16]. The developments were linked to the role that developers played in the Swedish system: "Tenant-owned construction [...] in areas with high housing demand, is more profitable than producing rental housing" [47, p.90], and thus Sweden's largest developers operated accordingly. Certain

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qualities and accessibility requirements of constructed housing were no longer tested through the approval of building permits but were checked by the developer's quality managers. External quality control thus had no role in the process. [142]

“Society’s ability to control the quality of housing has thus been limited, with the result, according to many, that the quality of housing has declined and certain basic social requirements are not being met.” [142, p.202]

As a result of the inquiries into the qualities of housing, BBR was continuously developed. In 2005, requirements for residences of max 55 m^2 were reduced to facilitate construction and reduce costs. In 2006, definitions of direct and indirect daylight as well as direct sunlight, were introduced. Shortly after these changes, a 2008 inquiry was launched into the role and activities of Boverket. While part of the 2009 final report (SOU 2009:57) concluded that BBR should be simplified and restructured, it also underlined that a deregulated market required an increased societal need to survey its functioning. The underlying conditions regulating the market and its actors needed monitoring to account for the effect on factors such as cost and quality. The sectorisation of planning and the focus on standardisation in sets of quantifiable values and functions were seen as hindrances to achieving high-quality housing. [41, 101, 187]

“The state’s traditional tools, the law or the norm, are by their nature minimum requirements: at least this must be achieved, no lower can the bar be set. But what is needed is to set the bar high, [to challenge and mobilise efforts]. Change and development in the field are moving rapidly.” [41, p.5]

PBL was shaped by the assumption that construction and planning were carried out on a municipal level. Over time, money and initiative in construction had slowly shifted to the private sector of the free market. The PBL was considered outdated, and consequently a new law was proposed in 2009 with the express purpose of simplifying planning and tightening control. The revisions instead deepened the crevasse between design and technical, performance-based requirements in legislation. Architectural qualities such as flexibility, furnishability, and accessibility were subject to a hierarchical design rationale; they were subordinated to more quantifiable functional requirements. The new PBL entered into force in 2011 alongside a new PBF, which further detailed the new requirements. In the PBF, Boverket was designated to write provisions for identified building requirements, which then shaped the basis for the BBR regulations. [90, 101, 114, 186]

Following the new PBL and PBF, BBR was also updated (BFS 2011:6), with new changes entering into force in 2012. Housing quality got its own definition in a follow-up publication the same year (BFS 2011:26, clause 1:2231), as part of the *allmänna råd* ('general advice'), which were not legally binding. Instead, general advice clauses were intended to show how actors could reason in the interpretation of the rules. [26, 101]

“Housing qualities can be both practical, such as the availability of sufficient storage space, and perceptual, such as spatial coherence.” [26, p.4]

The BBR thus attempted to balance the trade-off between architectural qualities and a more practical rationality of legislation. The next edition of BBR (BFS 2013:14) entered into force shortly after the results of a government-appointed Boverket inquiry into further regulatory changes to facilitate the construction of student and youth housing. On average, the suggested changes meant a possible reduction in apartment size by 7 m^2 , circa 25% of the total projected living area. A further reduction of 3 m^2 was highlighted as a possibility by moving around certain zones for hygiene. The regulatory changes were not further discussed in relation to the definition of housing quality mentioned in the 2011 BBR. [27, 28]

“By relaxing the requirements, it will be possible to build student and youth housing with significantly smaller living areas. However, it should be borne in mind that this may lead to overcrowding.” [28, p.15]

Further, the residential noise tolerance was lowered to enable construction of “small, one-sided apartments” in urban areas to appease students moving to cities with universities [28, p.47]. Concerns of long-term health effects of increased noise levels in the home were dismissed as students would only live in these apartments for a shorter time, and the health studies themselves were of “varying quality” [28, p.46], and therefore the risk was deemed insignificant. It was concluded that students, with their assumed moving frequency, would endure increased noise exposure for the chance to have cheap housing.

Another argument was that the quality of a home in terms of noise levels could be considered subjective, dependent on tenant tolerance—a parallel to the 1992 claim that what could be considered ‘pleasant’ qualities in the home could not be legislated for, given an inherent subjectivity. The 2014 edition of BBR further enabled these minimisations of housing by allowing a range of regulatory exemptions in terms of accessibility and usability when converting attics to student housing up to 35 m^2 , although the achieved housing quality was not further considered. [15, 28, 101]

In 2015, the sequel to *Framtidsformer* (1998) was published, called *Gestaltad livsmiljö* (‘Designed living environment’, henceforth referred to as *Gestaltad livsmiljö*). *Gestaltad livsmiljö* had the express purpose of shaping new policies regarding architecture and design to fortify Sweden’s sustainable development. While the policy goals of *Framtidsformer* were reiterated and their importance underlined, no legislative changes were proposed in the proposition based on the program. The concept of innovation in construction was raised and argued for, calling for the possibility of regulatory exemptions in the pursuit of new forms of housing. These exemptions, however, were under no circumstances to infringe on accessibility standards—instead, experimental exemptions would be carried out to create greater variation in the housing stock without compromising those qualities. The proposition for *Gestaltad livsmiljö* was passed by the Swedish parliament in 2018 (2017/18:110), outlining the new national objectives of Sweden’s architecture and design policies. [37, 101, 112, 151]

“In the construction of housing, the state, municipalities, residents, and the market should act collectively to create high-quality, long-term living environments [...] Architecture, form, and design—as physical, social, and economic practices—can make visible how social structures and cultural diversity are materialised in the built environment. This approach challenges prevailing perspectives in which common practice and economic models often favour short-term solutions.” [112, p.81]

The emphasis on long-term approaches was undermined one year later by a 2016 proposition calling for temporary building permits for housing. The purpose of the permits was to stimulate construction by utilising temporary housing as a complement to permanent construction, to mitigate Sweden’s housing shortage. The proposition was adopted in 2017, and while the initial suggestion limited the usage period to five years, it was renewed for another five years in 2023 [101, p.86]. In the same time period, BBR underwent a number of revisions. In the 2016 edition of BBR (BFS 2016:6) clause 1:2231 was expanded by adding sightlines as a housing quality. Still, the matter of overseeing the regulation and its role in construction remained, and as such, a special committee named *Modernare Byggregler* (‘Modern Building Regulations’, henceforth referred to as *Modernare Byggregler*) was tasked by the government with overseeing the Swedish building regulation system in 2017. [29, 48, 91, 101]

The committee left its final report in 2019, calling for a foundational shift in the formulation of regulations. *Modernare Byggregler* underlined that building regulations should be formulated in terms of functional requirements to allow for more flexibility. Further, it was stated that functional requirements would promote cost-effective solutions and innovations, as they would be formulated without the restriction of normative general advice [49, p.509-510]. Construction actors believe that by reducing housing area, the cost-efficiency and productivity of the sector could be improved, although it could “have negative consequences for the quality of housing” [49, p.260]. Housing qualities and other architectural values, which had been raised as important in *Gestaltad livsmiljö*, were not outlined as the main driving forces behind the suggested reforms.

Furthermore, the minimum requirements setting the baseline standard for quality would be established in PBF rather than BBR. Standards for adequate views, window placements, and separable spaces would be moved to PBF [49, p.62]. The simplified framework and improved flexibility would encourage increased construction. In *Modernare Byggregler*, actors in construction appeared to partly blame overly stringent building regulations for the sector’s lacking innovation and productivity [49, p.180]. Statistics from *Konjunkturinstitutet* (‘The National Institute of Economic Research’) showed that, according to housing developers, the shortage of competent labour was what had been limiting productivity since 2014 [13, p.32]. The different views on what actually hindered construction in Sweden, as well as what role legislation played, led to varied replies to the suggested reforms. The quality aspect was undermined by a focus on whether or not the implementation would promote or dissuade market stimulation, production, and innovation.

Boverket rejected the regulatory proposals in Modernare Byggregler. They had been tasked with performing their own review of the Swedish building regulations shortly before the final report of Modernare Byggregler was published. They would consequently start *Möjligheternas byggregler* ('Building Regulations for Possibilities'), working to "formulate its new regulations in the way [Boverket] finds most appropriate" and underlining that Boverket "considers itself competent to formulate its rules in the best way in accordance with authorisations given" [32, p.4].

Before moving on to developing the Swedish housing policy of the 2020s, Boverket published a report in 2020 (2020:23) summarising its work between 2018 and 2020 in the area of Gestaltad livsmiljö. The 2018 proposition had outlined the import of "sustainability and aesthetics not being subject to short-term economic considerations," [151, p.7] and Boverket concurred—highlighting that the built environment and architecture are tools in the construction of a sustainable, high-quality society [30, p.3]. The report further noted that the quality of housing directly impacted "long-term value creation from social, ecological, and economic perspectives," thus the focus for Boverket's long-term work should concern these areas. [30, p.47]

"The architecture of housing is linked to issues such as health, involuntary segregation, rent levels, climate impact, and energy use. There is a need to advance knowledge in this area and to identify synergies with other fields. Boverket has a role to play in this regard." [30, p.47]

2.1.8 The Deregulation of the 2020s

The 2020s were off to a turbulent start with a pandemic and its consequent economic repercussions. By relegating citizens to working and studying from home, it became very clear that access to housing of good quality was important—a fact which bolstered political relevance in questioning how the threshold for entering the housing market should be lowered. The consequences of the pandemic led to new criticism of the systemic issues of the housing market, centred around the increasing price trends and household debt. This development adversely affected Swedish households' ability to afford and live in good-quality housing. It was also concluded that the matter of housing legislation could not be considered separate from welfare policy; challenges in the housing sector were stated to be directly related to disparities in purchasing power and other economic conditions. [16, p.462]

A public inquiry from 2022 (SOU 2022:14) reported that there was a "need for the state to take a clearer lead, demonstrate political will, and manage housing [...] as the cross-disciplinary issue it is" [16, p.462], claiming that the current political goals for the housing sector were unclear and inadequate. To stimulate the housing sector and increase its productivity, the focus fell on building policy. In 2022, it was believed by five out of eight Swedish political parties that the best way to build more housing would be to deregulate legislation, a notion driving policy reforms as these parties were all part of the majority coalition in power. In 2022, according to

Konjunkturinstitutet, the major factors limiting housing construction, according to developers, were the labour force or market demand. [105, 178]

The focus on deregulation as a solution to issues in the housing sector greatly influenced the assignment given to Boverket by the government. Boverket presented the results of *Möjligheternas byggregler* in 2023, setting the political tone for the level of housing legislation expected going forward by proposing legislative reforms the scale of which has not been seen in decades, in accordance with the government's demands. The suggested framework garnered thousands of replies from industry actors, with most vehemently questioning the sharp turn in the suggested regulations. Boverket's proposal entailed that the general guidelines and references to standards be entirely removed, and that only functional requirements should remain. It would thus simplify the interpretation of BBR, and the deregulation would in this manner contribute to more innovative solutions and technological development. Consequently, it would supposedly also make the construction sector more efficient and increase competition, which had been the government's main goal of the initial overview in the first place. [31, 39, 52]

“The aim of the overview is to create a simplified and consistent regulatory framework with [...] a similar structure and level of detail throughout. The government has also emphasised that regulatory simplification—with the aim of contributing to faster and cheaper construction—is a high priority.” [31, p.6]

The first iteration of the new BBR had no statement defining what high-quality, good housing should be, other than maintaining it ought to be innovative. The proposed reforms were not explained in the context of *Gestaltad livsmiljö*, either. In the suggested new edition of BBR, regulations on daylight and room height would be decreased. Instead of the requirement of 2.4 m (which has been in place since 1971), that measurement would now become a functional requirement, as such effectively removing the minimum dimensions previously regulating housing design. [34]

The term direct daylight would be removed in the pursuit of technologically neutral regulations, as requiring direct daylight encouraged one type of specific installations—windows. Flexibility in permitted deviations from the new legislation would be accepted if full compliance was deemed technically or economically unreasonable, provided the changes preserved significant housing qualities. As for what those would look like in practice, the suggested regulations had no specific say. [34]

The new legislation maintained that innovation, made possible by deregulated policy, would pave the way to Sweden's future. The new regulations did not specify what high-quality, innovative housing would look like as a result of these functional requirements, and sought-after housing qualities explicitly listed in the regulations were unchanged from the 2016 BBR [34]. The construction sector itself would now be free to interpret the functional requirements. This was stated to be an important step in bolstering the productivity of the construction sector; Andreas Carlson, the Minister for Infrastructure and Housing (2023-), underlined this fact during an interpellation

debate:

“The government wants to speed up construction. Construction needs to be more cost-effective, and companies in the construction sector should be given greater opportunities to find new, innovative solutions that increase the efficiency of construction. The absence of precisely this, the opportunity for innovative solutions and efficient construction, has been highlighted as a fundamental and important part of the lack of productivity in the construction sector.” [51]

Despite the stated long-term focus highlighted as important by Gestaltad livsmiljö, the new BBR made no mention of increased ambitions in terms of circularity or sustainability practices. A 2024 proposition has allocated 527 million SEK (prop. 2024/25:60) towards researching sustainability in the built environment between 2025 and 2028. The same proposition notes that the government wants to be “among the leading countries in terms of expenditure on [R&D]” [148, p.1], to promote innovation. On a policy level, there are no parallel incentives suggested that aim to sway the construction sector toward measures that align with this goal. [148, p.103]

Boverket published a report detailing the importance of a high-quality built environment in 2024, explicitly noting that there are “clear correlations between the height and density of construction and human health and well-being,” and underlining that sustainable urban design must balance competing interests against one another to create a coherent societal foundation [35, p.1]. They further noted that “daylight and sunlight are crucial for health” [35, p.192], especially in Sweden, with long, dark seasons where people spend most of their time indoors. The report further underlined the need to identify and implement measures based on the human scale; to adapt planning efforts to the long-term needs of the people’s need for experiential richness and sensory stimulation. [35]

“If we are willing to acknowledge underlying ideological positions, address conflicting objectives, and draw attention to the values at risk of being lost in the process of transforming a place, we open up a space to the long-term qualities we aim to achieve. This allows us to critically assess whether our plans incorporate enough flexibility to adapt to our future needs—or whether we are, in fact, locking ourselves into a structure that may constrain us over time.” [35, p.190]

Two other reports of note were published by Boverket in 2024. Report 2024:27 highlighted that the spatial planning process includes several stages that form a causal chain. Judgments and considerations made in one stage influence and create conditions for the following steps; the interaction of actors at each stage is therefore “crucial for the qualities of the built environment” [38, p.38], as per the findings. The other report (2024:25) was singularly focused on obstacles to innovation in construction—an area the government explicitly wanted to advance through the assignment they had given Boverket. Boverket’s consequent findings were:

“During the course of the investigation, it has become clear that the most crucial obstacles for increased use [...] innovative design solutions lie outside Boverket’s

area of activity [...] The main obstacle is the culture, traditions, and norms that characterise the construction sector [...] The level of knowledge about, and confidence in, sustainable and innovative designs is low. There is a reluctance to apply solutions other than the industry standard, there is no adaptation of work processes when applying innovative solutions, and there are no incentives to build sustainably.” [33, p.36]

The government’s work on building more sustainably was outlined in its new strategy for urban planning and its goals for the housing sector a few months later. The report (2024/25:96) highlighted the need to build sustainably, the importance of architectural qualities mindfully integrated into planning, and how essential knowledge within these areas was for the planning of the built environment. [183]

“Designing a sustainable and attractive living environment [...] involves the integration of complex and at times conflicting interests into a coherent whole. From large-scale systems and strategic frameworks to small-scale design and detail, the built environment shapes the conditions under which people live their lives and determines which values can be preserved and developed. In the planning, development, and management of the built environment, architectural knowledge is therefore essential.” [183, p.7]

The essentiality of architectural knowledge, however, was not fully reflected in the mission given to Boverket, despite the reports by Boverket themselves and the government’s publications. After reviewing the criticism from the sector, a few changes were made, but the essence of the new framework remained the same, though requirements for outlook opportunities through windows were added. The lack of minimum requirements in terms of accessibility, daylight, room height, and other functional standards remained, opening up a number of questions with regards to what implementation will look like. Under the new regulations, reduced accessibility dimensions in student housing can shrink their total living area to 13 m^2 , with the actual room itself making up 6.5 m^2 [182]. In paragraphs detailing what housing functions shall be taken into account for design and dimensioning, the term "long-term use" was removed. The regulations did not specify a requirement for storage fittings in the residence. [170]

The contested issue of minimum daylight requirements remained unchanged. Boverket’s follow-up consequence study claimed that that “the sunlight requirement can be removed because it is mainly when people are outdoors that sunlight has an impact on health,” and therefore keeping the standard would impose unnecessary restrictions on the design of housing [36, p.88]. Another unnecessary restriction is, according to the new BBR, the requirement to achieve sufficient thermal comfort. In the same consequence study, Boverket states that thermal comfort is influenced by variable factors such as clothing and activity level, and uses the tenant’s ability to influence the thermal environment as justification for the reduced requirements:

“The user’s ability to influence the thermal environment generally reduces the need to assess whether thermal comfort is achieved for different users and types of use within

the space." [36, p.91]

The user's ability to influence the indoor air quality is of less importance, as the new rules do not require manually openable windows. Boverket notes that "ventilation options, as well as other means of increasing air exchange, [are] a matter of design," and thus not relevant to legislate [36, p.79]. In regard to room height, Boverket maintains that "it is not appropriate to specify a binding minimum room height [...] The proposed performance-based requirement is considered appropriate and remains unchanged," despite responses calling for a quantitative minimum standard. [36, p.99]

"The revised requirements for daylight and room height may create opportunities for more functional layouts, while also posing a risk that certain rooms may receive limited daylight or have low ceiling heights. However, Boverket considers that these changes do not significantly affect architecture or the designed living environment [...] Overall, the proposed regulation is not considered to have a negative impact on the ability to carefully design living environments." [36, p.156]

The new framework will enter into force in July 2025, despite ongoing debates about the consequences of applying the new regulations and worries about how the quality of housing might deteriorate as a result of unclear legislation. Along with the new BBR, beach protection measures and the building permit process have also been deregulated in pursuit of faster, cheaper construction [149, 150]. Reports from Boverket (2025:10) show that 76% of the housing demand is localised to metropolitan regions where available space to build is sparse. Simultaneous government efforts are focused on reestablishing *trädgårdsstäder* ('garden cities') through increased production of *småhus* ('small houses', henceforth referred to in Swedish). The småhus are in this context defined as "dwellings that offer accommodation with direct access to a small or large private garden, irrespective of the design of the building or the tenure of the dwelling," as part of a new *egnahem*-movement. [152, 153, 154]

One such initiative is the planning for the *Sverigehus* ('Sweden Homes', henceforth in Swedish) introduced by the political party *Sverigedemokraterna* ('The Sweden Democrats', henceforth in Swedish)—the *Sverigehus* is a national type-approved småhus in "traditional Swedish style" [181, p.5]. The house will consist of 150 m^2 of living area, and thus it will be "just the right size for an average family" [181, p.14]. Boverket will be commissioned to develop proposals on how the *Sverigehus* can be implemented as per the 2025 budget proposition [147, p.24]. Concurrently, an *egnahemskommissionär* ('Commissioner for Egnahem') has been appointed by Minister Carlson to promote the new *egnahem*-movement. The same budget proposition considers the measures taken for the development of Sweden's built environment as satisfactory:

"The government's assessment is that the government's initiatives in art, architecture, form, and design have helped to promote participation in and increased knowledge and understanding of the values that the field has for society, citizens and their living environments. " [147, p.2188]

There are two parallel images of the Swedish housing landscape. On one hand, the Sverigehus and the renewed egnahem-movement are framed as long-term solutions for average families, grounded in tradition and standardisation. On the other hand, flexibility in housing standards is highlighted as a means to address urgent needs. The following statement by Minister Carlson, illustrates how such flexibility is described in practice, referring to a visit made to a residence designed by *Stadsmissionen* ('City Mission') in Stockholm:

"They invited me into the so-called 'Big Three'. This is a three-room apartment where, by bending the rules to make it as flexible as possible, it has been possible to create two very small rooms in storage areas with windows. This, said Stadsmissionen, is ideal for small children's rooms in households consisting of a single woman with several children who may have had to flee from their abuser and need to quickly get a home that provides security. I don't think those children care that much that it's actually a storage room. It's a separate room with a door that can be closed, so you can go away and do your homework. There is light, there are windows. This is a way where I see the possibility of flexibility. You achieve a function, but you don't have a clear requirement for detail." [51]

2.2 Housing in Gothenburg

Gothenburg is Sweden's second-largest municipality, with 600,000 inhabitants. The city was founded in the 17th century, and its main trade was shipping due to the port, whose importance grew due to the Swedish East India Company—thus, Gothenburg made big profits through exports of wood, iron, and fishery products. Due to the violent, recurring fires sweeping through the city throughout the 18th century, new building policies were instated, decreeing that only stone buildings were to be constructed within the moat marking the inner city limits. Vasastaden, Lorensberg, and the main city boulevard Avenyn became the first middle-class residential areas, all constructed in stone. [72, 78]

Around the end of the 19th century, the Gothenburg-typical *landshövdingehus* ('Governor House', henceforth referred to in Swedish) were constructed, mainly for the working class. City bylaws in the 19th century stated that wooden houses could be two storeys at most to protect against fire, but one building association circumvented the rule and submitted drawings for a building with the ground storey made of brick and two upper storeys made of wood. The industrialisation of the city meant a reinvention of the worker areas near the ports, and in the wake of factory growth, several new urban areas were constructed: Hisingen, Lindholmen, and Lundby. The 20th century saw the construction of two bridges across the Göta Älv river cutting through the city, connecting the different parts of Gothenburg. The tram became electric and expanded across more districts. The expansion of the infrastructure propelled Gothenburg towards its development into a modern city of the 21st century. [72, 173]

2.2.1 Urban Areas

In 2021, Gothenburg's districts were consolidated into four urban areas: Hisingen, Nordost, Centrum, and Sydväst. The former divided areas within each district are as follows:

Table 2.1: Gothenburg Districts by Urban Area

Region	Districts
Nordost	Angered, Bergsjön, Gamlestaden, and Kortedala
Centrum	Kålltorp, Kallebäck, Krokslätt, Johanneberg, Guldheden, Haga, Olivedal, Majorna, Stigberget, Masthugget, Härlanda, and Olskroken
Sydväst	Högsbo, Askim, Hovås, Billdal, Skärgården, Näset, Önnered, Tynnered, Frölunda, and Älvsborg
Hisingen	Kärra, Backa, Kvillebäcken, Kyrkbyn, Rambergsstaden, Norra Älvstranden, Torslanda, Björlanda, Tuve, Säve, Slättadamm, and Biskopsgården



Figure 2.1: Map over Gothenburg Regions

The master plan that guides Gothenburg’s urban development plays a central role in shaping current planning policies. For the period leading up to 2035, it sets out more specific strategies to direct the city’s growth. Regarding long-term housing needs, the plan projects forward to 2050, anticipating a population increase of approximately 250,000 residents. To accommodate this growth, an estimated 120,000 new dwellings will be required. The plan emphasises that most of this housing development is to be achieved through densification, particularly within the central areas of the city (such as Centrum and parts of Hisingen, see Figure 2.1). A significant portion of this effort involves the transformation of former industrial zones into new residential districts. In the urban periphery, expansion is proposed in selected larger communities. The master plan also recognises Gothenburg as “a divided city with major differences in living conditions and health,” and affirms that current planning efforts are guided by the vision of a “close, cohesive, and robust city” for the future. [80, 81]

The municipality has the overarching responsibility for ensuring that all residents of Gothenburg have access to adequate and high-quality housing. The master plan adopts a spatial strategy rooted in traditional neighbourhood-oriented urbanism and the principles of the garden city. It emphasises that access to quality housing is a fundamental condition for individual well-being and a functioning daily life. However, the challenges involved in achieving and maintaining a balanced and well-functioning housing market are noted to be substantial. Sweden’s rapid population growth—primarily concentrated in metropolitan regions—has contributed to persistent housing shortages and market imbalances. These issues are multifaceted and, as the master plan notes, demand coordinated interventions across governmental, parliamentary, regional, and municipal levels. [80]

2.2.2 Demographics

Gothenburg’s demographic development spans several centuries, beginning in the early 1600s when King Gustav II Adolf granted the city its official charter. At the time, the city was only a small settlement of around 1,000 inhabitants. By 1887, the city had reached a population of 100,000. Rapid industrialisation in the early 20th century, facilitated by Gothenburg’s strategic location and strong maritime influence, accelerated the city’s urban growth. Shipping, manufacturing, and textile industries established Gothenburg as a key industrial centre in Sweden.

By the early 1950s, the population had grown to approximately 400,000. Significant investments in the automotive industry during the late 1960s, including the establishment of Volvo’s Torslanda factory, further spurred urban growth. During the Miljonprogram, Gothenburg added around 60,000 new residences, alongside key infrastructure like the Älvsborg Bridge and the Tingstad Tunnel, which strengthened connectivity across the Göta Älv.

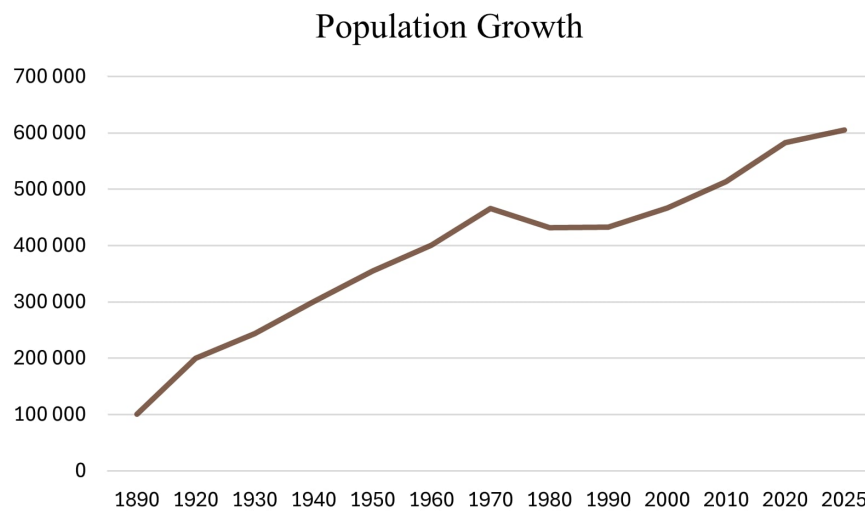


Figure 2.2: Population Growth in Gothenburg [58]

Economic restructuring and a shipyard crisis in the 1970s led to industrial decline, unemployment, and emigration, see Figure 2.2. Population growth resumed only in the late 1980s, and by 2000, Gothenburg was on its way to 500,000 citizens. From 2008 onward, the city experienced accelerated growth, averaging 7,300 new residents annually, driven by high immigration and sustained birth surpluses. The population surpassed 600,000 in April 2023, marking the third year in a row in which Gothenburg had the strongest population growth in Sweden [58]. To gain a better understanding of Gothenburg’s population, the graph below illustrates the city’s age distribution, see Figure 2.3.

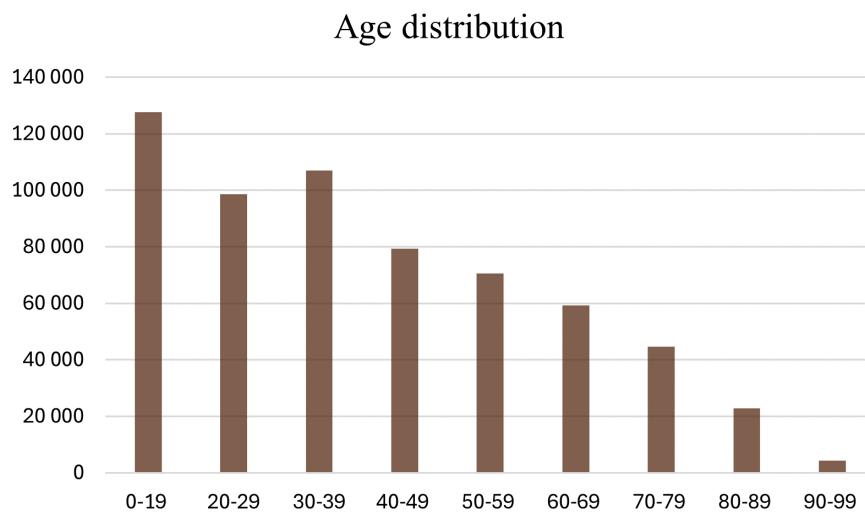


Figure 2.3: Age distribution in Gothenburg (2025)[176]

As shown in Figure 2.3, Gothenburg’s population is characterised by a relatively young age profile, with a strong representation of residents under 40. In total, 22,1% of Gothenburg’s population lived alone—as of 2023, 30% of men aged 20-29 lived

alone, compared to 25% of women in the same age bracket. This represents a 50% increase compared to 2013, pointing to a growing number of single-person households [131]. Alongside these demographic trends, patterns of tenure have evolved, reflecting broader economic and social changes. Figure 2.4 shows the distribution of tenancy forms across Gothenburg as of 2024, highlighting the balance between rental housing, tenant-ownership, and full private ownership.

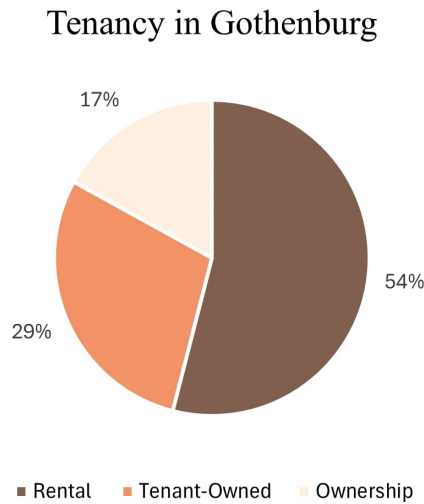


Figure 2.4: Tenancy Forms in Gothenburg (2024)[176]

The type of tenure is closely linked to the forms of housing available across the city. Figure 2.4 illustrates the distribution of apartment types in Gothenburg as of 2024, highlighting the prevalence of studios and two-room apartments relative to larger family dwellings.

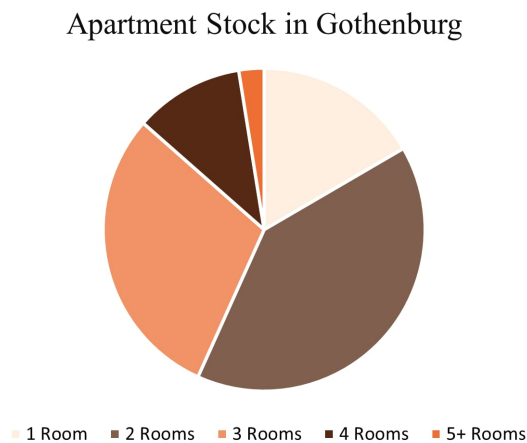


Figure 2.5: Apartment Stock in Gothenburg (2024)[76]

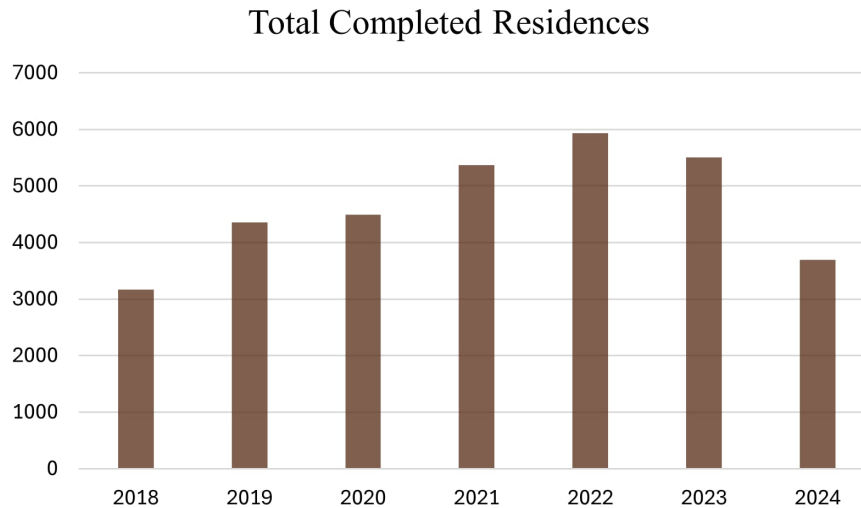
Between 2017 and 2024, the majority of apartments added to the housing stock (disregarding speciality housing for students or retirees) were smaller than three rooms—see Table 2.2. [76]

Table 2.2: Apartment Stock in Gothenburg [76]

Apartment Type	2017	2024	Change (%)
1 Room	31 665	38 468	21%
2 Rooms	82 067	92 853	13%
3 Rooms	62 339	68 777	10%
4 Rooms	23 105	25 448	10%
5+ Rooms	5 635	5 864	4%

2.2.3 Housing Market

By 2030, the city is expected to reach 700,000 inhabitants. In conjunction with this, the housing shortage is increasing. To meet future needs and reduce the current housing shortage, 4,000 to 5,000 new homes must be built each year in Gothenburg until 2030 [73, 79]. To meet the needs of its citizens, Gothenburg aims for more than half of all new housing built by 2030 to consist of rental apartments. The remaining portion is expected to include tenant-owned apartments or other specialised housing. According to a 2024 report, the distribution of new housing types does not align with projected requirements. Gothenburg is building more tenant-owned apartments than rentals, a trend that has persisted over the past seven years. [77, 79]

**Figure 2.6:** Total Completed Residences in Gothenburg [82]

Significant socio-economic disparities exist across the municipality, with certain districts exhibiting markedly higher income levels than others. In 2021, the median disposable income in Långedrag was SEK 512,000, more than three times higher than in Olofshöjd, where the annual median income stood at SEK 159,000. The income gap between the city's highest- and lowest-income areas has widened steadily over time, mirroring national patterns of increasing income inequality. In 2015, the difference between the top and bottom areas was slightly above SEK 320,000;

by 2021, this figure had risen to over SEK 350,000. The table below present the development of median disposable incomes across Gothenburg’s residential areas between 2015 and 2021. [129]

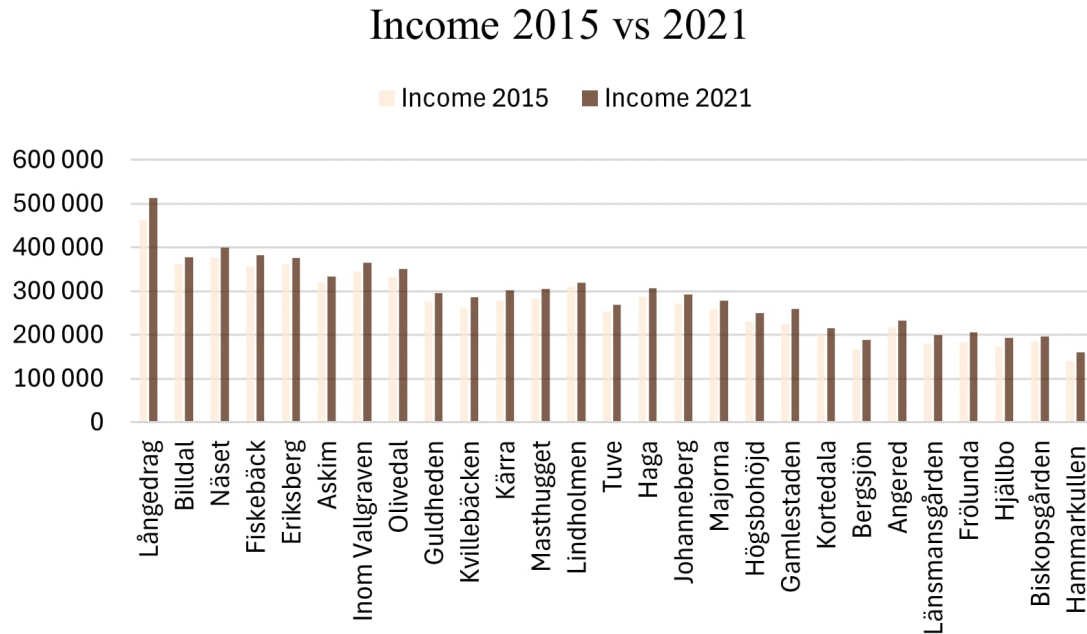


Figure 2.7: Income by Gothenburg Areas [130]

Although household incomes in Gothenburg have increased steadily over the past decades, property prices have increased even faster. Historically, the city’s housing stock was dominated by rental apartments, but the balance has shifted significantly since the start of the 2000s. Major urban development projects, such as those in Eriksberg and Norra Älvstranden, have focused on the construction of tenant-owned apartments. Between 1997 and 2024, prices for tenant-owned apartments in Gothenburg increased by 1231%, see Figure 2.8. In the same period, the average monthly income increased by 51% [75, 175, 179].

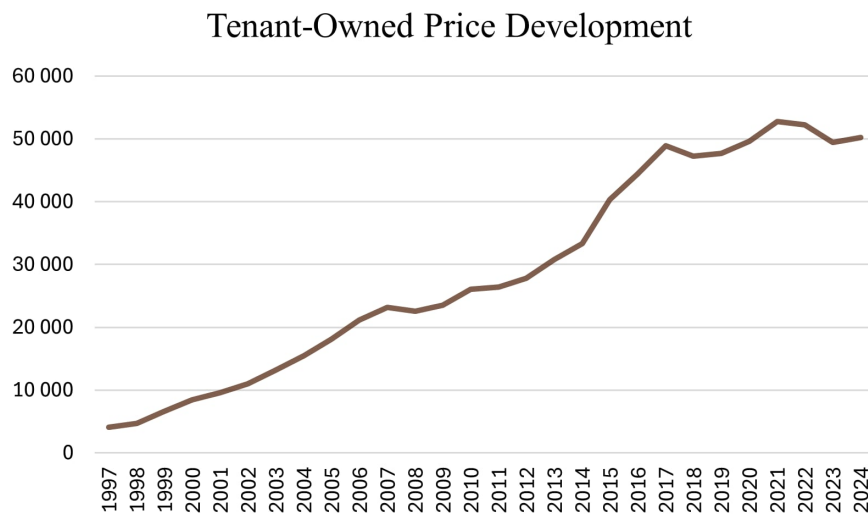


Figure 2.8: Tenant-Owned Price per Square-Metre in Gothenburg [180]

While the rising price per square meter for tenant-owned apartments reflects increasing barriers to entry for homeownership, parallel trends have been observed in the rental market. As a significant portion of Gothenburg’s population relies on rental housing, shifts in median rent levels provide important insight into broader issues of housing affordability. Figure 2.9 illustrates the development of annual median rents in Gothenburg over the same period. Between 2016 and 2024, the median rent per square meter in rental apartments increased by 28,7%, see Figure 2.9. [177]

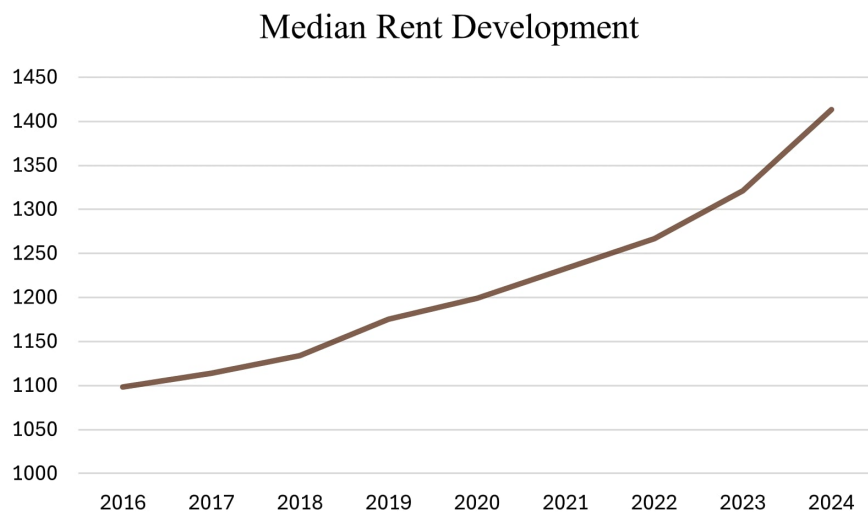


Figure 2.9: Annual Rent per Square-Metre in Gothenburg [177]

2.3 Qualities of Housing

The historical background shows that the definition and expectation for quality housing have naturally varied quite a bit since the first building policies were implemented.

Different modes of life and changing technological developments have resulted in a number of architectural qualities over the years, with some returning frequently in desirable residences, to the point where they can be considered sought-after indicators of good housing quality. Surveys have shown that among these factors, some continuously resurface as particularly important characteristics: furnishability, good daylight access, openness, axuality, spatial connections, and sufficient spaces for hallways and storage are all considered appreciated qualities in the home [49, p.112]. Simultaneously, the role of the home is being challenged by modern information technology, as the relationship between place of work and residence becomes entangled with possibilities of teleworking. This has placed increased focus on what qualities make up our homes, especially in the wake of the COVID-19 pandemic, though the discussion has been extensive and well-documented since before 2020. [45, 97]

“A residence should not only be beautiful and enjoyable, it should also be practical, usable, and sustainable over a long period of time [...] it is also about how different functions are solved to support the furnishing and utilisation of the dining area, bedroom, living room, hallway, bathroom.” [136, p.165]

Architectural quality is linked to “values, knowledge, places, and quality assurance procedures” [162, p.236], and as such quality is understood in a variety of ways in different perspectives. The building sector consists of professionals with differing opinions about the definition and implementation of quality. Changes in organisational design, sustainability goals, and technological developments further create a need for reinterpretation and specification of the quality concepts. Questions of quality are thus subject to interpretation and cannot be solved by traditional analyses—creating ill-defined wicked problems with no clear answers. Solutions are not true or false, but rather good or bad on a constantly shifting scale. [57, 159, 162]

“The aesthetic dimension of quality in architecture and urban design is a question of experience and evaluation. The technical dimension of quality concerns traits in products that can be controlled during the production process. These two aspects are very difficult to unite in a quality concept.” [162, p.239]

The difficulties of explaining and quantifying values that are spatial and context-dependent in nature have been prevalent throughout housing policy history, resulting in challenges when attempting to regulate what good housing looks like in practice. Aside from architects, there are few other actors in the building sector as directly involved with the design of housing from the spatial perspective of the residents. Further, there is limited access to literature or studies that examine how the quality of the housing impacts the long-term health of its tenants [125, p.97]. The difficulties in ascertaining the importance of architectural qualities in the context of other socio-economic forces affecting the construction sector are well-documented. While research and experimental housing zones push the envelope of what constitutes the future home, political frameworks lag behind in terms of actualising new findings. The problems arising in relation to this are largely related to the lack of existing methods through which actors can legitimise the importance and effect of architectural quality in the home. [134, p.2]

There are few frameworks actively seeking to evaluate housing from a qualitative standpoint, and most actors develop internal or project-specific quality programs to formulate desirable characteristics for certain developments. One more widely applicable framework has been developed by *Centrum för Boendets Arkitektur* ('Centre for Residential Architecture', henceforth referred to as CBA) at Chalmers University of Technology. CBA has created a manual for the analysis of housing qualities nicknamed MAB. MAB is a tool that allows architectural arguments some legitimacy in the planning process by rating housing design from a quality-minded perspective. Its main purpose is to define quality in residential housing and provide a score based on the design and overall qualities of the home. However, by boiling down the architectural characteristics to quantifiable measures, it may also be partially reductive in the evaluation of housing by having to apply a set of general qualitative characteristics to all housing, when context-dependent values may have a great impact on certain residences. [55]

Boiling down architectural qualities in housing to their core components enables the assumption that the whole is no more than the sum of its parts. The practice of identifying certain observable characteristics and shaping them into a framework intended to help guide housing design implies an expectation of user competence. As such, the use of a rating framework becomes informative rather than a checklist of dos-and-don'ts. Housing quality has been considered more or less important since industrialisation, when it became a way of standardising hygienic homes to combat overcrowded workers' quarters. In the 1950s, *God Bostad* expanded qualities to involve aspects such as daylight and flexibility, but the manual targeted the 'expert' reader, that is, it implicitly assumed a mutual understanding of certain basic concepts preceding actually reading it. The MAB, too, is intended for use by those familiar with the basics of its contents—its suggested use entails a client utilising MAB to give architectural consultants and building contractors a clear project quality goal. [53, 55]

Should a reader lack this expected competence, it will be difficult to find frameworks clearly outlining and describing desirable housing qualities in a clear manner. Regardless, there are no other Swedish frameworks which attempt to list and rate housing qualities in the same manner. As such, the basis of MAB was used to inform the chosen dwelling qualities picked in this thesis, along with other literature exploring characteristics of quality in housing. MAB analyses a total of 28 qualities divided into three categories: the residence, the building, and the courtyard. Twelve of them concern the dwelling itself, and they are the main characteristics used as a basis to narrow down and define the qualities used for evaluations in this thesis, along with the qualities that have surfaced from the literature in the historical overview. [55]

2.3.1 Furnishability

Furnishability is a mark of how adaptable a home is in terms of spatial flexibility. Modern homes are in general smaller, and the reduced size means there is less space for variation in furnishings. A well-designed home maintains a basic furnishability

no matter its size, thus enabling its tenant to vary the use of certain spaces. Even the ancient Roman *domus* homes were spatially varied, with similarly shaped rooms and good connectivity, which enabled a mix of functions required of the home. In Gothenburg, some thousands of years later, the 1945 *Bo Bättre* ('Live Better') housing exhibition in Guldheden emphasised the importance of room sizes and shapes in relation to ensuring a baseline furnishability. Further, the dwellings built during Miljonprogrammet were all centred around the idea of a well-designed plan layout as the foundation for the home. Today's homes, which are subject to minimisations made possible by deregulated frameworks, thus find their furnishability and flexibility challenged. [95, 108]

Having control and agency over one's environment and its use helps ensure the environment allows residents to feel content and at ease. A high degree of furnishability allows residents to have that agency, which counteracts feelings of helplessness. Residents who feel helpless to affect their surroundings may be subject to increased rates of mental health issues, thus marking the importance of being able to shape one's surroundings [67, p.544]. The increased focus on furnishable, multifunctional homes was also highlighted in IKEA's 2023 Life at Home report. The report concluded that work being separate from home was a notion partially abandoned in the wake of COVID-19, and that high-quality homes now must be multifunctional and flexible in use [98, p.17]. Furnishability is one measure that can be applied to estimate how adaptable homes are, and will be split into two factors: effective furnishability and multifunctionality.

In the MAB, effective furnishability refers to a quantitative measurement based on the actual furnishable living area. A furnishable area is defined as the total sum of free floor surfaces available after deducting circulation spaces. This only applies to rooms with windows. It does not specify specific furniture dimensions, but makes an attempt to evaluate general furnishability based solely on available floor space.

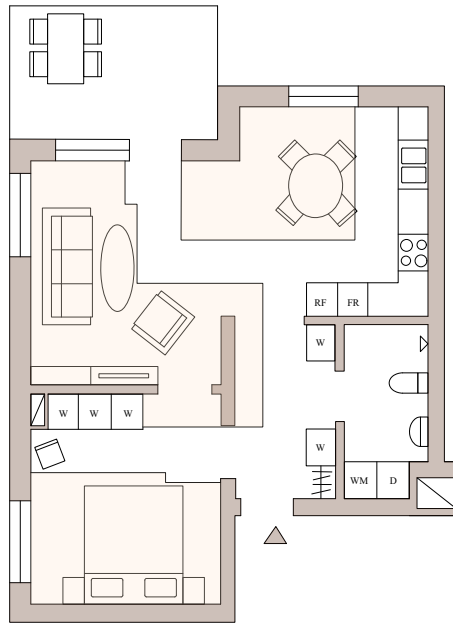


Figure 2.10: Furnishable zones in floor plan. Redrawn from MAB [55]

Multifunctionality refers to the ability to adapt the use of a room, thus ensuring its flexibility for long-term use. Modern homes (constructed after 2000) typically have apparent differences in size between living areas and bedrooms—thus, it is often not possible to make any shifts in the functions of the rooms, unless larger renovations are made. Adaptability in terms of multifunctionality is a way to be resource-efficient over time if dwellings can be modified for new functions without requiring large-scale renovations [49, p.116]. Typically, multifunctional rooms have been around 12, 14, or 16 m^2 , though the sizing has decreased with shifts in legislation [50, p.205]. Shrinking apartment sizes have compromised multifunctionality, even though flexibility can contribute to qualities for both the resident and the neighbourhood, as it enables the possibility of living there longer, even if the family constellation changes. [50]

In the MAB, the qualities of flexibility and room shape can be used to evaluate a dwelling's multifunctionality, though they are separated as different factors. For the purposes of this thesis, multifunctionality will be expressed in terms of room shape. A multifunctional home has well-designed rooms whose shapes can typically be described as a rectangle or square, thus, the rooms are more general and thus not assigned a particular function by design. The square or rectangular shape is considered to provide a wider variety of use, thus increasing the home's flexibility. Rooms with clearly assigned functions and low usage flexibility become problematic for tenants who require some degree of adaptability from their homes. As mentioned above, a tenant's ability to influence their surroundings and customise the home has been linked to better mental health and lower stress, both of which are part of the

long-term sustainable development goals. For an example of multifunctional spaces in rooms, see Figure 2.11. [7, 43, 55, 67, 160]

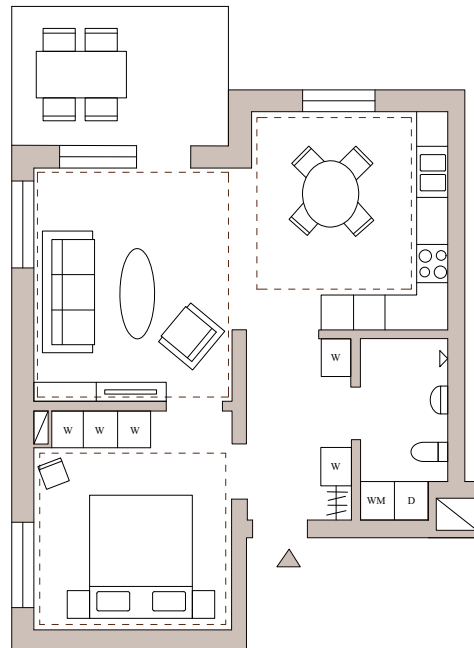


Figure 2.11: Multifunctional zones in floor plan. Redrawn from MAB [55]

2.3.2 Daylighting

Daylight access has been an important aspect of the home since housing policies were first formulated. Visual connectivity, views, and sunlight were highlighted as important qualities as early as 6th century Palestine, then by Julian of Ascalon [94]. Florence Nightingale concluded in 1863 that patients with sunnier hospital rooms had better recovery rates and moods than those in darker spaces [132]. In Swedish policy, access to direct daylight was brought up in the 1921 PHB manual as essential. In 2006, definitions and requirements for direct daylight became part of BBR. Access to daylight in relation to exposure to darkness is especially important in Sweden, given its long seasonal stretches of days with short amounts of sun. Daylight directly regulates human circadian rhythms, thereby contributing to fostering health, stabilising moods, regulating metabolism, and strengthening the immune system. As today's people spend most of their time in indoor environments, access to daylight is strictly dependent on the spatial characteristics of their surroundings; daylight access as an architectural quality thus becomes increasingly important. [10, 111]

The amount of natural light in a home, along with the views from it, are important aspects that contribute to its quality. Apartments today tend to be smaller, with

windows facing only in one direction, and as such, ensuring the space does not feel dark and cramped contributes greatly to the experience of living there. BBR has historically defined two versions of daylight: direct and indirect. Direct daylight was defined as light through windows leading directly to the outside. Indirect daylight was defined as light from the outside entering rooms without windows facing the outside. The requirements were applied to rooms or separable parts of rooms intended for more than occasional stays. In homes, this referred to spaces for daily interaction, cooking, eating, sleeping, and resting. Hygiene areas, garages, and storage rooms were exempted from daylight requirements.

The previous BBR required daylight access on a room basis; the new BBR sets the daylight requirement on an apartment basis, meaning that only half the living area needs to fulfil daylight standards. Direct daylight is no longer standardised, only daylight in general. View requirements apply only to rooms for meals and socialising [2, 40]. View has been characterised as a rule on its own merit in previous editions of BBR, where sufficient view provided “the opportunity to follow the variations of the day and the seasons (BBR 6:33)” was required in all rooms intended for long-term stay [101, p.97]. On the other hand, the new BBR does not include any requirements with regard to the quality or content of the prospective view. [36, 55, p.87]

Recent research indicates, however, that the quality of outlook from the home is of interest to regulate, as the importance of visible, nearby greenery has been proven to be crucial to mental health and wellbeing [163, 190]. The Danish municipality of Fredriksberg had a tree policy as early as 2018, mandating that every citizen should be able to see at least one tree from their home. Cecil Konijnendijk formulated the 3-30-300 rule during COVID-19, calling for a higher standard: every home should have at least three trees within sight, every neighbourhood should have a canopy cover of at least 30%, and there should be at most 300 m to the closest park or green space. This rule has been applied by the Gothenburg municipality since 2023. [74, 104]

2.3.3 Spatiality

Previous housing policies that advocated for genomluftbarhet for hygiene-related reasons unwittingly upheld the practice of housing with certain spatial arrangements, given the plan layouts typical for those types of dual-aspect apartments. The organisation process through which room sequences and axes are formulated in housing is evidence of the spatial intention with which the residence has been drawn. This spatial intention, in turn, also affects daylight access, outlooks, and visual connections in the home. [55, 65, 110]

Spatial intention dictates modes of movement through the home, which in turn contributes to the perception of private, separable spaces as opposed to social areas. The 2011 BBR had explicitly stated that “spatial coherence” [26, p.4] was a perceptual housing quality, as such underlining its importance. The method through which the BBR regulates aspects of spatial coherence are directly related to room height and

certain accessibility requirements. Accessibility regulations require certain minimum dimensions which contribute to standardised room shapes, though this may vary largely between apartment types. On the other hand, room height is something which has been regulated consistently since the first iterations of building policies, unlike accessibility measurements which vary from room to room and apartment to apartment. Room height has been a minimum requirement, a baseline standard height, since its inception. [12, 66, 101, 110]

Historically, building legislations have shifted toward a continuous decrease of the minimum acceptable room height, and the suggestions for the new BBR as of 2025 entail a removal of the standard height in favour of a functional requirement lacking a minimum level. Room height has been found to be one of the top three architectural qualities that affect psychological well-being [70], and research further underlines the ranges through which people can see or move through environments is extremely important. The main determinants of judged spaciousness are lighting, living area, and the visual permeability of the home's boundary, a boundary typically marked by walls and a ceiling [174]. Thus, room height is considered a crucial aspect of spatial coherence and housing quality.

3

Theory

The *Theory* section introduces relevant theoretical frameworks and positions them in the context of the thesis scope. Existing theories and perspectives, as documented in established research, are presented as developmental cornerstones for concluding discussions. The section presents three interrelated perspectives: Social Shaping of Technology (SST), Socio-Technical System Frameworks (STS), and Sociocultural Innovation Mechanisms, all of which will serve as analytical lenses to inform the synthesis of the empirical material. Each framework provides conceptual foundations to understand how Swedish building regulatory systems reflect broader societal values, institutional logics, and market forces. The aim is not to treat theory as a separate inquiry, but to embed it to make apparent the systems that shape housing quality in Sweden.

3.1 Social Shaping of Technology (SST)

The Social Shaping of Technology (SST) framework refutes the notion of technological determinism—the idea that technologies evolve in a linear, autonomous manner by a self-owned logic, and that societies, in turn, adapt to their trajectory. In deterministic models, the scope and efficacy of policy are thus limited to merely monitoring the technological development and application; such models delimit possibilities of choice, contestation, critique, and alternative developmental pathways. SST is fundamentally opposed to this determinist conviction, instead depicting technological change as a function of its social, political, and institutional processes. [164]

However, stakeholders in the regulatory process view building regulation as “largely technical documents, and do not always consider social and institutional infrastructure, roles, and expectations, especially from the market side” [123, p.447], thus delimiting the critical lens through which to analyse organisational aspects. Building regulatory systems, such as BBR, thus are viewed as neutral codifications of performance-based functions. SST enables a reframing of building regulatory systems as something beyond a set of best-practice dimensions—a technology in its own right, socially constructed, negotiated, and contested. By contextualising BBR through an SST framework, it can be viewed as a product of sociopolitical pressures and institutional alignments. Thus, it is not a neutral facilitator of minimum standards—more a representative of dominant principles and exclusions. [164]

A basic requirement of the SST framework concerns the emphasis on the cate-

gorisation of technologies. Russell and Williams (2002) caution against conflating technologies as generic capabilities, components, or techniques and technologies as specific applications or arrangements of components. In the context of building regulatory systems which, as aforementioned, are typically viewed as “largely technical documents,” this theoretical distinction becomes increasingly important. When regulation is treated as a tool, or means to an end, it is disconnected from the wider context it operates within. The divergent perspectives—viewing regulation as a technical tool or a systemic component—hinder comprehensive understanding and examining of complex systems. [123, 164]

Further, SST draws on concepts from large technical systems theory to understand how technologies evolve, stagnate, and operate as components within complex systems. One such component is the reverse salient, referring to a component or subsystem within a broader configuration that falls behind in development and thus obstructs the advancement of the system in its entirety. Moreover, reverse salients may become targets of dissatisfaction, and consequently foci of effort and stimuli for change. In a socio-technical configuration, SST thus enables a view in which regulatory frameworks can either support or constrain their broader context. A regulatory element that once served as a guarantor of quality, or an enabler of innovation, can become a systemic bottleneck or basis of inertia—or vice versa. SST underlines that the identification of such reverse salients is shaped by their sociotechnical contexts, and the predominant perceptions of what constitutes quality within the constraints of the system. [96, 164]

A crucial point of SST is the recognition that technologies must be viewed in the context of broader socio-technical systems. In much the same manner that SST rejects technological determinism, so does it reject determinism in innovation; the notion that innovation is a linear, straightforward series of advancements, and not a process of system reconfiguration and improvement. As systems mature, they may become entrenched and intractable—resistant to regulatory control or change because of institutional alignment, market structures, and tacit knowledge patterns that reinforce the existing configuration [60, 61]. Attempts at control are then depicted as “obstructive and burdensome” [99, 164, p.73]. In relation to this, Russell and Williams highlight two contradictory views accommodated by conventional discourses around mature systems: that technologies can be straightforwardly designed and applied to achieve predefined goals, and conversely, that they produce unavoidable, unintended consequences. The former overstates the capacity for linear top-down control; the latter absolves actors from accountability for foreseeable outcomes. [164, p.47]

These contradictions are institutionally reinforced. The separation of responsibility for innovation and regulation—both in policy and academia—mirrors the division of the supply and implementation phases in technological change [158]. SST responds to this discussion by debating the expansion of the role of policy-makers beyond facilitation—innovative development and regulatory design become co-produced, parallel processes, legitimising the involvement of a broader range of actors in shaping

regulatory systems. [164]

A final cornerstone of SST is the discussion regarding visions and standards that influence technologies. Visions are resources by which actors mobilise, shape, and evaluate expectations and commitments around new technologies. A vision does not pertain to merely the features of the technology, but its function, benefits, and the sociotechnical order of its application. The vision becomes a model of the wider social context and its desirable futures, an emphasis that demonstrates how particular objectives will be favoured or invalidated in the development process. Standards developing from visions are thus subject to sociotechnical dynamics, such as negotiation, contestation, and resistance among market actors.

Changing market conditions, physical infrastructures, environmental regulations, and financial circumstances all affect the crystallisation of desirable visions, thus the resulting standards, and as such, the direction of technological development. Typically, these connections have been overridden in policy analysis—SST will, in this regard, enable an analytical foundation to make apparent the formative forces behind building regulation, and as such, the principal visions for Sweden’s spatial future. [164, p.54-72]

3.2 Socio-Technical System Framework (STS)

Socio-technical system framework (STS) theories and their foundational concepts emerged from studies focusing on the roles of social and technological components in organisations. STS found that the action of the organisation and the roles of its socio-technical components are intrinsically linked. Building regulatory systems has been lifted as a complex STS by Rochracher (2001), Petak (2002), and Meacham (2018) [123, 144, 161]. By choosing to view the building regulatory system as an STS, the STS framework provides a model that enables a description of the actors and institutions involved in the regulatory systems, and further allows the consideration of how actor interactions affect the STS as a whole. [123]

The interactions and predispositions of the respective STS actors are ultimately what converge into the final result of a decision-making process. As society historically progresses, so do its values and expectations, thus changing the parameters of organisational design. Socio-technical phenomena are contextual as well as organisational, legitimising the application of STS in the analysis of actor interactions. Although architectural forms and the built environment are not organisations, they may be considered socio-technical phenomena and products of organisational design [123, 185]. Further, an inability to chart and comprehend the organisational interactions of a socio-technical system has been repeatedly cited as a partial cause of regulatory system failures. [71, 120, 122, 123, 126, 167]

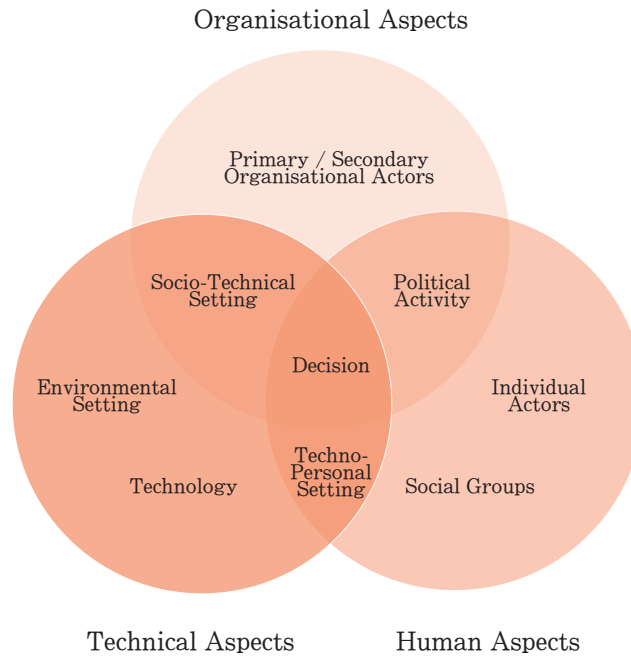


Figure 3.1: Framework for socio-technical decision making. Adapted from [123, p.447]

The STS framework contextualises the subsystems that impact policy development, adoption, and implementation. Policy decisions and changes must account for the balance between the STS actors: market forces, policymakers, environmental preconditions, technological developments, individual groups, and more (see Figure 3.1). The success of policies in relation to their desired outcome are influenced by the STS interactions, which may be characterised by their respective placements in varying subsystems. For an illustration of these subsystems, see Figure 3.2.

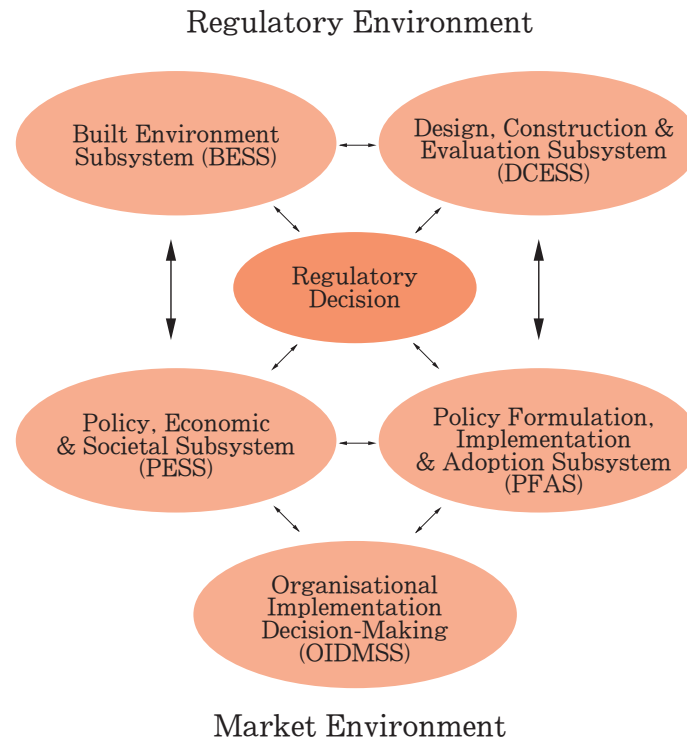


Figure 3.2: Framework for socio-technical decision making. Adapted from [123, p.448]

Within the STS framework, building regulation can be positioned as a component of the DCESS (Design, Construction, and Evaluation Subsystem), which includes codes, standards, guidelines, performance-based design and the tools with which to realise them. How the tools and systems are then characterised and implemented in regulation is through interactions with other subsystems, such as PESS (Policy, Economic, and Societal Subsystem), the Built Environment Subsystem (BESS), and the Policy Formulation, Adoption, and Implementation Subsystem (PFAS). Also relevant is the Organisational Implementation Decision-Making Subsystem (OIDMSS), which mediates between regulatory intent and market realities by filtering proposed policies through the lens of feasibility, cost, and industry acceptance.

Together, these subsystems form a dynamic network in which regulation is not simply authored and enforced, but negotiated, interpreted, and operationalised across institutional and market environments. These subsystems are caught between two overarching environments: the regulatory environment (comprised of legislative laws and ordinances), and the market environment (expertise, capacity, and resources). STS serves to illustrate that the respective subsystems do not function in isolation, but interact continuously with adjacent subsystems in a broader context. [123, 144]

While each subsystem has its own logics, constraints, operations, and priorities, reforms in system-specific modes of organisation can still lead to ripple effects across

other subsystems. Economic policy updates or changing demographic statistics within PESS can drive restructuring efforts in DCESS. Changing conditions in the Market Environment may impact PFAS, which in turn affects BESS through regulatory decisions. STS is a method through which these interdependencies can be conceptualised as dynamic feedback loops, rather than linear chains of causality. It underlines the importance of aligning regulatory goals with the capacities and constraints of other subsystems. The systems-based perspective thus enables an assessment of how regulation can support or destabilise the system as a whole. In this thesis, a simplified version of the STS framework is used to foreground the subsystems most relevant to spatial, regulatory, and institutional dynamics. [123]

Beyond identifying building regulations as part of the DCESS, it is also necessary to define the regulatory approach itself in relation to the socio-technical system in which it is embedded. Meacham (2018) suggests that regulation is not a static tool but a reflection of its broader socio-technical environment. Many Western European countries use a regulatory approach classified by O’Riordan (1985) as an ‘elite’ consensual approach. This is a variant of a regulation-by-consensus approach, characterised by: flexibility in interpreting tools, stronger reliance on self-regulation, and a closed management system [138]. This model relies on a high degree of shared competence and aligned goals among system actors. As operational logics of subsystems change, such assumptions become vulnerable. The closed management model means there are “limited avenues for public participation or means to elicit public expectations and perceptions” [123, p.452], until widespread dissatisfaction results in political pressure to effect change. However, there remains no requirement for an ‘elite’ consensual approach to act specifically on any input received. [123]

Widespread dissatisfaction may arise as a result of regulatory dysfunction in a complex system. Meacham (2018) observes that this may arise when regulators assume the existence of certain market practices or capabilities that are not in place [123, p.454]. Decisions about standards, implementation, and the success of adoption rest on expectations of market readiness. If these expectations are inaccurate, the result can be not only ineffective policy, but also active dysfunction across the socio-technical system. As discussed by Lundin (2005), May (2007), and Meacham (2010), such mismatches can result in system failure, leading to misaligned expectations and unsustainable implementation. [115, 116, 121, 122]

Conclusively, STS primarily maintains that regulation must be systematically aware and contextually sensitive. The regulatory approach shaping frameworks thus functions beyond rule-setting mechanisms, and instead should be viewed as mediators between subsystems. Their consequent effectiveness thus depends on their ability to align with and influence the dynamics of the overarching system. [123]

3.3 Socio-Cultural Innovation Mechanisms

Innovation is often framed within policy discourse as linear and market-driven, much like technological determinism within SST. Schumpeter (1934) argued that innovation occurs when new combinations of extant resources and conditions are introduced into business models to foster the growth of firms [165]. This conception of innovation, however, sidelines social and cultural dimensions as conditions of productivity, rather than factors entangled with values, ideologies, aesthetics, and power relations [155, 156]. In the context of housing quality and innovation in the built environment, the affected processes cannot be separated from the experiences of tenants, nor from the spatial ecologies in which they unfold. As such, innovation mechanisms may be approached from a socio-cultural perspective—emphasising that the bases of innovation exceed the monoculture of market success. [118]

The socio-cultural approach emphasises that innovation is a result of activities clustered in what Longhurst (2015) calls “alternative milieus,” which are socially protected spaces where experimental practices are fostered [113, 118]. Within these spaces, actors create “new ways of doing, organising, knowing, and framing” that challenge the prevailing logic of market-based innovation and capitalist modernity [8, 118]. Lyu and Qian (2025) underline that these frameworks do not reject economic viability, but contest the assumption that market success is a necessary passage point for innovation; economic and non-economic values are mutually shaped and negotiated. [118, p.68]

Viewing innovation as a socio-cultural mechanism enables recognition of innovation as a force of both empowerment and exclusion. This is relevant in the field of housing policy and consequent standardised quality, where deregulation is justified as an enabler of innovation. What qualifies as innovation is not neutral, but constructed within specific socio-cultural paradigms shaped by power-laden processes and enforced through policy. Further, it positions innovation as a top-down process, in which the end users (tenants) are viewed as passive recipients of new knowledge and technologies. Bridge and Smith (2003) note this view is the result of an enduring productionist bias, in which the notion of innovation is mostly constructed from the supply side, which would be developers in the context of the housing sector. [44, 118]

There is an inherent contradiction prevalent in the theory of innovation mechanisms: users and communities are noted as both active agents in innovation and passive recipients of top-down processes. STS frameworks labour under a similar misapprehension in elite regulation by consensus approaches, as defined by O’Riordan (1985): innovation is presumed to occur among technical professionals. From a socio-cultural standpoint, this contradiction entails a systemic narrowing of what innovation is permitted to mean, in turn enabling a disregard for user needs, spatial quality, and social diversity—all of which are crucial end-user (tenant) perspectives. [118, 138]

Lyu and Qian (2025) further argue that the innovation landscape is “fraught with social and cultural contingencies” [118, p.76], where issues of application and recogni-

tion are central. Bottom-up innovation, in turn, struggles to legitimise itself against structural biases that reward business-oriented typologies and techno-economic rationalities. Through a socio-cultural lens, innovation can instead be viewed as a process situated within a contested cultural and political terrain; this terrain is shaped by historical norms, institutional agendas, and power-laden policy mechanisms. This perspective enables critical examination on how the dismantling of qualitative standards in regulation may not simply fail to stimulate innovation, but actively suppress forms of innovation that are socially grounded, user-centred, and spatially resilient. [118]

Moreover, by redefining the institutional thresholds from which innovation is benchmarked—shifting the baseline standards encoded in and enforced through policy—such regulatory changes alter not only the conditions of practice but also parameters of what counts as innovation. The socio-cultural perspective thus emphasises that innovation is not a universally defined phenomenon, but a contingent process shaped by the values, exclusions, and priorities embedded in regulatory and institutional design.

4

Methodology

The *Methodology* section outlines the research strategies and methods employed; this thesis employs a three-part methodology to explore the relationship between Swedish building policy and residential quality. The three methods (document analysis, interview study, case study) are connected to inform and refine the research inquiry. Each method has a specific purpose: to establish a historical and theoretical foundation, to shape empirical focus through expert insight, and to examine how qualitative realities mirror policy changes.

4.1 Document Analysis

This thesis relies on a qualitative document analysis to trace the historical development of Swedish housing policy. Document analysis is a qualitative research method used to interpret and understand the content, context, and meaning of documents. It involves systematically reviewing and evaluating written materials to extract relevant information, identify themes, and draw conclusions [42]. The method chosen was used to examine how regulatory texts and policy frameworks have defined the concept of quality over time. Selection criteria were based on relevance to the legislative history of housing and connection to the design of housing qualities.

4.1.1 Thematical Framing

The document analysis followed a thematic coding process to identify how key concepts were defined and framed across time. The approach was interpretive but grounded in socio-technical theory, allowing policy to be viewed as an outcome of interdependent institutional forces. The document analysis consequently forms the historical spine of the thesis, enabling it to chart the development of quality in housing policy across several decades. Specific thematical keywords were used in source filtering, such as:

quality OR innovation OR cost-efficiency OR housing legislation OR housing policy
OR housing market

Specific thematical frames used in the reading and analysis of sources were:

The language and rhetoric of regulation
The presence or absence of specific qualities
The role of the state vs. market in housing

4.2 Interview Study

The second part of the research was an interview study to inform the analytical framing of the thesis. This part utilised an interpretive methodology, recognising that expert perspectives can reveal how regulatory frameworks are applied or resisted in practice. The findings of the interviews served as a way to gather empirical orientation to guide the analysis, as well as provide quotes that reflect industry perspectives.

An interview study is a qualitative research method used to explore participants' perspectives, experiences, or understanding of a particular issue [106]. A semi-structured format was chosen to allow for flexibility. This type of interview strikes a balance between consistency and openness—providing structure through pre-planned questions while allowing space for participants to elaborate on issues that matter most to them. Interview guides were tailored to each participant's field of expertise, enabling conversation to develop naturally while addressing shared themes. In total, twelve interviews were conducted with professionals from across architecture, policy, academia, and the construction industry. Interviewees were recruited through purposive sampling. While not representative, the sample captures a breadth of experience and insight relevant to the thesis's aims.

Table 4.1: Overview of Interviewees

Role	Expertise Area
Boverket Representative	National regulatory oversight, sector coordination
Policy Advisor	Building legislation, planning frameworks in architectural practice
Ex-National Architect	Urban development and national policy
Standards Specialist	Building regulations, implementation, and technical standards in construction
Sustainability Strategist	Regulation reform and sustainability policy in architecture
Construction Executive	Sector-wide competence development and industry initiatives
Professor in Architecture 1	Housing adaptability, usability, and social quality in housing research
Professor in Architecture 2	Housing quality research and evaluation methodologies
Professor in Architecture 3	Built environment quality metrics and architectural theory
Architect	Residential design, lived experience, and housing quality
Creative Director	Design strategy and urban innovation in an international design think tank

Notably, the interview study played a bridging role between the past and present. While the historical document analysis benefited from hindsight, current practices are still unfolding and thus cannot be understood through contemporary documents alone. Interviewing current system actors helped to illuminate the lived dynamics of today’s housing sector: how regulation is interpreted or contested in real time.

4.3 Case Study

The third part of the research methodology was a qualitative case study analysing 41 residential floor plans from the Gothenburg area. A case study is a research strategy used to gain in-depth insight into a specific, bounded context—often through the close examination of one or more examples within their real-life setting⁴[194] . In this thesis, the case study refers to a focused analysis of selected housing layouts to understand how spatial design has evolved over time. The aim was to identify both

current and historical trends in residential architecture, with particular attention to how quality is expressed through floor plan configuration.

These residences, selected with the purpose of covering a range of time periods, areas, and sizes, were sourced from publicly available real estate listings on *Hemnet* and *Boplats Väst*. The selection was shaped by the availability of floor plan documentation on the specific date of data collection, reflecting the offerings present in the housing market at that time. At the same time, care was taken to ensure a distribution that was as balanced as possible in terms of construction period, geographic location within Gothenburg, and apartment size. Of the 41 plans, 23 were tenant-owned apartments and 18 were rentals, to allow for a comparative analysis between ownership types.

The case study aimed to chart broader shifts in architectural quality, examining how spatial qualities have changed over time. The analysis relied exclusively on architectural drawings, primarily floor plans and building sections, which served as the basis for assessing spatial characteristics. Each plan was evaluated using qualitative indicators derived from the historical review and CBA’s MAB framework: furnishability and multifunctionality (room shape). In addition to that, the case study will examine the spatiality in the form of room height. These qualities were selected based on their consistent recurrence in housing policy across the past century. The following table, see Table 4.2, describes the specific qualities examined, their definition and the method used for the analysis.

Table 4.2: Spatial Quality Indicators and Analytical Methods

Quality	Definition	Method of Analysis
Furnishability	Proportion of furnishable area.	Non-circulation areas (outside access paths) are summed and expressed as a percentage of total apartment area. The most favourable door access paths were selected.
Multifunctionality	Flexibility and efficiency of room shapes.	Rooms are modelled using rectangles. The amount of rectangles was divided by the amount of rooms. A 1.00 ratio indicates higher multifunctionality.
Spatiality	Sense of volume and vertical space.	Ceiling heights from section drawings are recorded and compared across time periods and ownership types.

These indicators allowed the case study to map how key qualities in Swedish housing—light, flexibility, spatial logic, and furnishability—have evolved in practice. The

combination of floor plan data and historical framing offered a means of linking policy development to built spatial outcomes. The individual scores for each indicator, as well as the full list of analysed floor plans, are presented in Appendix A.

4.4 Research Ethics

All research and data collection for this thesis were conducted in accordance with the principles of good research practice as defined by the Swedish Research Council and outlined in the 2024 edition of *God forskningssed*. No aspects of the research presented in this thesis raise ethical concerns in social, ecological, or economic contexts. All interview participants have been anonymised in accordance with ethical research guidelines.

5

Results

5.1 Historical Quality in Housing Policy

This section synthesises the detailed historical background into discrete regulatory eras, each defined by a dominant ideology, policy tools, and their effects on the definition and enforcement of housing quality.

5.1.1 1900s-1950s: Functionalism and Standardisation

Between the early 1900s and 1950s, Swedish housing policy shifted from health and hygiene concerns rooted in naturalistic ideals to a focus on rational planning and functional standards—see Table 5.1.

Table 5.1: Housing Qualities, Policies, Influences, and Actors (1900s–1950s)

Dimension	1900s–1930s	1930s–1950s
Dominant Quality Logics	Health & hygiene, naturalistic ideals, modernisation	Functional standards, rational planning, minimum dimensions, normalisation
Key Policies	1914 housing census, 1921 PHB, egnahemslån	Barnrikehussatsningen (1935), topplån, SOU 1943:10, 1943:30, 1945:63, 1956:40, BABS (1946), God Bostad (1954), BS 1947:390
Sociopolitical Influences	Industrialisation, liberal vs. social-democratic debate, home ownership ideals	Functionalism, folkhemmet, social-democratic ideals, allmännyttan, economic rationalism
Institutional Actors	Bostadskommissionen (1912), HSB (1923), public opinion, unregulated housing market	Bostadssociala utredningen (1933), social-democratic party, Stadsplaneutredningen (1945), SABO, Bostadsstyrelsen, architects & engineers

In the early 1900s, Swedish housing policy steadily developed toward active state centralisation, driven by rapid industrialisation, urbanisation, and primarily moti-

vated by deteriorating conditions in workers' quarters. The 1914 housing census conducted by *Bostadskommissionen* revealed widespread overcrowding and downright unhygienic housing conditions, prompting state involvement to reaffirm the quality of the housing stock without dismantling the free market. Initiatives like *egna hemslån* promoted home ownership as a tool with which the working family could advance toward the middle class. Ideals rooted in naturalism and national romanticism, advocating for green space and natural living environments, grew in reaction to the industrial urban sprawl—it became of the utmost importance that the baseline quality of housing should ensure a minimum standard of health and well-being.

The first major political measure was the 1921 publication *Praktiska och hygieniska bostäder* (PHB), which proposed minimum standards for residential quality, such as: 2.7 m room heights, the possibility of *genomluftbarhet*—used interchangeably for dual-aspect or cross-ventilated apartments. Studio apartments facing only in one direction were to be outlawed. The first cooperative housing actors grew in the wake of these changes; HSB was first among them, established in 1923. These actors touted the ideal of modern homes for modern people through innovations in building technology and organisational design. The concept of *allmännyttan* thus took root; the idea of housing for the public benefit of everyone.

Functionalism entered Sweden by way of the 1930 Stockholm exhibition, introducing rational planning, standardisation, and engineered housing design as solutions to the housing shortage and economic downturn. The 1932 social-democratic election victory, and the 1934 book *Kris i befolkningsfrågan* ('Crisis in Population'), reframed housing as a central welfare issue—highlighting *folkhemmet* as a central ideological current in the political debate. *Folkhemmet* was to be realised through state initiatives such as *Barnrikehus* and *topplån*—financing schemes aimed to ensure adequate housing for large families and low-income citizens.

In the wake of World War II, housing shortages and rising construction costs led to efforts to simplify and standardise building to stimulate construction productivity. Reports like SOU 1943:10 and 1943:30 introduced new technical minimum standards—lowering ceiling heights from 2.7 m to 2.5 m—while affirming the importance of daylight, hygiene, and furnishability, which had been outlined in PHB. BABS, first launched in 1946, codified these standards in non-statutory but binding legislation, institutionalising functionalist logics into Swedish building policy.

Municipal housing companies, supported by state-backed loans, were established to counter speculative market forces taking economic advantage of the acute housing shortage. SABO (1950) consolidated the principles of *allmännyttan*—advocating for high-quality public housing accessible to everyone. The qualitative requirements of housing, though not part of BABS, were outlined in the 1954 *God Bostad*. The good residence as outlined by *God Bostad* would be spacious, well-planned, hygienic, and easy to maintain. The 1956 report *Riktlinjer för bostadspolitik* ('Guidelines for Housing Policy', SOU 1956:40) noted that the availability of satisfactory housing was an issue that needed solving to remedy the housing shortage. To rectify this, func-

tionalist ideals were consolidated into legislative frameworks through standardisation and serialisation.

5.1.2 1960s-1990s: Mass Construction and Marketisation

Between the 1960s and 1990s, Sweden's housing policies were largely marked by trends of mass construction and marketisation—see Table 5.2.

Table 5.2: Housing Qualities, Policies, Influences, and Actors (1960s–1990s)

Dimension	1960s–1970s	1980s–1990s
Dominant Quality Logics	Efficiency, scalability, industrialised housing	Usability, maintenance, renovation, quantitative standards
Key Policies	God Bostad (1960/1964), SOU 1965:32, prop. 1967:100, SBN 67, prop. 1971:48	SOU 1982:65, 1986:4, 1992:47, Ds Bo 1983:2, PBL (1987), BFS 1998:18, BFS 1993:57 (BBR), prop. 1996/97:3, MB
Sociopolitical Influences	State-led standardisation, Miljonprogrammet, technocratic planning	Liberal economic reform, decentralisation, deregulation, market neutrality
Institutional Actors	Bostadsbyggnadsutredningen (1965), social-democratic governance, PBL inquiry (1979), construction industry	Bostadskommittéen, liberal governance, Boverket, Bostadspolitik 2000, EU, housing market, construction industry

By the 1960s, housing supply and quality became central political concerns due to sustained housing shortages. Updated editions of *God Bostad* (1960, 1964) reiterated functionalist ideals in the context of quality, promoting effective floor plans. State-led standardisation culminated in SOU 1965:32 and proposition 1967:100, which launched Miljonprogrammet—a decade-long commitment with the goal of constructing 100,000 new residences per year. The 1967 shift to *Svensk Byggnorm* (SBN) marked the next step in the transition to performance-based building regulations, favouring technical functionality in execution and design.

Cost-efficient priorities influenced the development of building legislation. In 1971, room heights were reduced to 2.4 m, justified by technological innovations and economic rationalisation. The 1973 oil crisis triggered economic stagflation, halting the construction boom and shifting policy focus to maintenance and urban renewal. By the late 1970s, the PBL inquiry (SOU 1979:65-55) advocated for legislative frameworks that balanced decentralisation, flexibility, and long-term quality. This focus carried over into the 1980s, along with the interest in maintenance—the ROT-programme (Ds Bo 1983:2) prioritised renovation and regeneration.

Boverket was founded in 1988, introducing the NR building regulations in the same year, aiming so systematise spatial, daylight, and accessibility standards through quantifiable norms. Boverket's function in the organisational hierarchy was to oversee

the regulation of housing policies. It has the task of guiding, researching and analysing issues that concern building and housing. It works on behalf of the government and parliament to achieve their goals in a non-political position. As the Boverket Representative phrased it: "*[Boverket's] role is not to have different opinions about things, but to work with the policies we have.*"

At the start of the 1990s, the 1990-91 tax reforms were complacent in shifting housing from a tool of the welfare state to a player on the free market—reducing state subsidisation, causing increased rents, and shifting allmännyttan closer to business-minded rationality. Deregulation accelerated with SOU 1992:47, removing qualitative concepts such as *trevnad* ('pleasantness') and *ändamålsenlighet* ('fitness for purpose') from PBL on the basis of those concepts being too subjective for legislation. The first edition of *Boverkets byggregler* (BBR) was launched in 1993, replacing NR in setting the minimum technical and functional standards for construction.

Sweden's EU entry in 1995 required reorganisation of certain frameworks, and would come to affect legislation and policy development in the coming decade. Although initiatives like *Framtidsformer* (1998) were presented, no further binding frameworks following up on the new long-term national architectural objectives were established. Legislative development instead focuses on entrenching sustainability as a legal obligation through the introduction of *Miljöbalken* (MB) in 1999, including resource efficiency in the concept of quality. Overall, deregulation, marketisation, and an increasingly minimalistic legislative approach redefined Swedish housing policy across this period.

5.1.3 2000s-2020s: Minimisation and Deregulation

From the 2000s onward, Swedish housing regulation increasingly prioritised performance-based compliance, cost reduction, and market flexibility—see Table 5.3.

Table 5.3: Housing Qualities, Policies, Influences, and Actors (2000s–Present)

Dimension	2000s–2010s	2020s–Present
Dominant Quality Logics	Performance-based compliance, market efficiency, minimisation	Performance-based simplification, flexible compliance, productivity
Key Policies	BBR revisions, SOU 2002:115, 2009:57, PBL (2011), Gestaltad livsmiljö (2017/18:110), Modernare byggregler (2019)	SOU 2022:14, Möjligheternas byggregler (2023/2025), prop. 2024/125:60, Boverket 2024:25, 2024:27, 2025:10
Sociopolitical Influences	Market-oriented governance, EU harmonisation, planning sectorisation	Innovation-based framing, decentralisation, deregulation, market stimulation
Institutional Actors	Boverket, social-democratic & liberal governance, EU, housing market, construction industry	Boverket, liberal governance, housing market, construction industry

By the early 2000s, Swedish housing policy was moving toward performance-based deregulation. While housing exhibitions like Bo01 in Malmö showcased ambitions for architectural and ecological quality, national legislation moved toward functional standards. Boverket’s performance-based reforms (2002) revitalised functionalism in a technical guise, targeting innovation but largely excluding architectural considerations. Rising construction costs attributed to land and administrative expenses (SOU 2002:115) led to an increase in the construction of tenant-owned apartments, given their profitability. A 2005 report (SOU 2005:77) noted that certain qualitative requirements were checked by developers themselves, limiting external ability to control the quality of housing.

Reflecting on these changes, an Ex-National Architect observed: *"Cutting construction costs by simply simplifying the building code will never work. You can skip certain requirements and save money—but only if nothing goes wrong. Fewer regulations may lead to fewer formal violations, but not necessarily better or cheaper outcomes."* The ongoing difficulties in reconciling housing demand with market stimulation led to continuous BBR revisions. Reduced minimum requirements for small apartments were introduced in 2005, while a 2013 revision overhauled student and youth housing to facilitate construction by reducing noise tolerances and accessibility standards.

Noise tolerance, specifically, was treated as subjective, and thus its minimum level was lowered. Technical functionality was prioritised over experiential qualities. Subjectivity was cited as the basis for an inability to legislate effectively in matters concerning such qualities. The Boverket Representative phrased it this way: *"People have different preferences, and there must be room to accommodate that diversity. However, if housing design is expected to meet all individual preferences, the result will be significantly higher housing costs."* The consequences of such decisions were

viewed in light of their cost-efficiency and the ability to exploit plots closer to trafficked roads. Research that supported these conclusions was cited selectively. It was noted by the Ex-National Architect that: *"The industry is poor at integrating research—one of the worst at doing so."*

Although a new national design program was launched with Gestaltad livsmiljö (2015) to establish long-term architectural values, deregulation trends continued. The implementation of temporary building permits (2017) further undermined ambitions for sustainable, high-quality housing. In 2017, the specially appointed *Modernare byggregler* inquiry conducted an overview of the building regulations. Its focus mainly emphasised functional requirements as a tool for reinventing the building regulations, promoting the idea that functionalism would stimulate industry productivity and innovation.

Before its final report could be presented in 2019, Boverket launched its own independent initiative, *Möjligheternas byggregler*. The new BBR (effective July 2025) was presented in 2023 to strong criticism from industry actors. As Professor in Architecture 2 said, *"For the first time in modern history, we will build worse than we have before."* New housing under reformed regulations was expected to feature significantly reduced sizes and diminished environmental and experiential standards, raising concerns about long-term consequences for health. As the same Professor noted, *"Smaller homes can't get any worse."*

The reworked BBR removes or rewords minimum standards for room height, daylight, thermal comfort, and ventilation, reframing these as performance-based functional requirements. Thermal comfort, in particular, is treated as subjective, with simplified regulatory treatment. As one Construction Executive pointed out, *"Serious, long-term developers who are committed to property management will not build 2-meter windowless rooms. However, there is a risk for exploitative developers."* A Standards Specialist similarly warned: *"There's a very high risk that many unscrupulous actors will try to profit from these new regulations, and then someone will end up saying, 'Oops, what happened?'"*

The overarching goal of the new regulations is to increase innovation and stimulate construction. The Boverket Representative stated: *"What creates innovation? Detailed rules create no innovation, because everyone follows the rules. Rules are always backwards-looking,"* and further maintained that the new framework would *"[provide] conditions for innovation, but whether innovation actually happens is up to the sector."* The reworked legislation aims to create a *"set of rules that allows for choosing different solutions and fosters innovation. It is always the industry that must innovate."* Regarding the role of legislation itself, the same representative described it succinctly: *"The legislation sets rules for safety and health. It defines a minimum threshold—what must not exist in society. It should not be interpreted as an ambition or vision for how we want society to be shaped,"* before further stating that: *"The question is not whether we find it appropriate or reasonable; the question is whether a ceiling height of 2.35 meters is unhealthy to live in. If it is not, then we*

cannot claim that it is. Any such assertion must be supported by evidence."

The aim is for this innovation to lead to increased productivity, but there are enduring worries about the implementation of the deregulated framework. One Policy Advisor stated that: *"It is primarily the developers who have requested these changes, but even they are concerned about the ambiguity that comes with the new regulations."* On the other hand, there are additional worries that the ambiguity will in fact lead to slower construction due to differences in understanding, as noted by the same Policy Advisor: *"The BBR and our Minister for Housing say that with these new regulations, we should let the market take the lead and create more room for innovation, which will result in faster and more efficient construction. But the industry believes it will have the opposite effect and that construction will actually take longer."*

The deregulation has persisted, justified by the overarching goal of faster, cheaper, and more innovative construction. However, a Standards Specialist also noted that this process has had institutional consequences: *"Now, Boverket has removed all of its areas of responsibility. As a result, people no longer turn to Boverket for interpretations, wording, or advice. Boverket is saving millions in administration."* The building permit process and beach protection measures have simultaneously been simplified in an effort to boost construction productivity. The Boverket Representative viewed the deregulation as an opportunity to strengthen other aspects of the organisation: *"Before, there were a lot of regulations—all we had time for was revising the rules, as new standards kept coming in constantly. There was no time to follow up and reflect."* The Policy Advisor also described the complexity of regulations as an issue, but from another perspective: *"Today's building regulations are so complex that it's hard to understand the reasoning behind them. For example, in the 1930s, the regulations clearly stated that a road had to be a certain width to allow two vehicles to pass—the 'why' was included. But in today's rules, that reasoning has often been lost. Everyone needs to get better at explaining the rationale behind the decisions that are made."* These reflections highlight that deregulation has led to a redistribution of responsibilities, simplified procedures, and raised concerns about the clarity and communication of building standards.

Reports from Boverket and the government itself throughout 2024 emphasised the links between housing quality, health, and long-term value. Nevertheless, the final legislative framework maintains a market-oriented, laissez-faire approach to quality. Government initiatives have allocated approximately 527 MSEK (prop. 2024/25:60) for research in sustainable urban planning, but no parallel incentives have been developed to encourage the industry to apply such knowledge. As a Creative Director specialising in design innovation said, *"Most policies today are designed to ensure compliance, stability, and accountability, often reacting to past failures rather than proactively enabling future possibilities. But with the right mindset, legislation can function more like a design brief."*

As of 2025, government strategies have focused on the promotion of increased *småhus* construction and garden city models as solutions to the housing shortage. However,

statistics show that the majority of housing demand is concentrated in metropolitan regions where space is limited and multi-family housing is more viable. Efforts to stimulate detached home construction stand in contrast to actual demographic demand, favouring nostalgic, low-density models poorly suited to address urban housing shortages. A Policy Advisor said, *"It's a delicate balance between having regulations that are too strict and those that are too relaxed. I think of it as a pendulum that swings over time. There are good reasons why regulations have gradually increased: denser urban development and new research."*

When it comes to implementing the new policies, it will be up to how the industry actors interpret their application. As one Sustainability Strategist put it: *"Boverket has placed all the responsibility on the industry to decide what is good. Modern building regulations have made it clear that a minimum standard is needed from the state."* Professor in Architecture 3 stated: *"Unfortunately, architects do not have the mandate to object or to refuse to build poorly."* The Boverket Representative had another view: *"I have on several occasions stated, 'No, I will not design this,' when a proposed solution failed to meet the regulatory requirements. In such cases, the client must turn to another consultant. This is something more consultants need to become confident in doing [...] One must be able to speak up and say no—that is, after all, what the entire system is built upon."*

Reflecting on the freedom resulting from the newfound deregulation, a Construction Executive stated, *"Now it's time for us in the industry to take responsibility for the freedom that many have been asking for. All along, there have been complaints from construction contractors and the construction industry about wanting deregulation and more freedom, much like when the Berlin Wall was torn down between East and West Germany. Initially, it was 'hurrah, we're free,' but it didn't take long before it turned into 'help, what do we do now?'"*

5.2 Historical Quality Development in Housing

The quantitative results from the case study are shown in the following figures and tables.

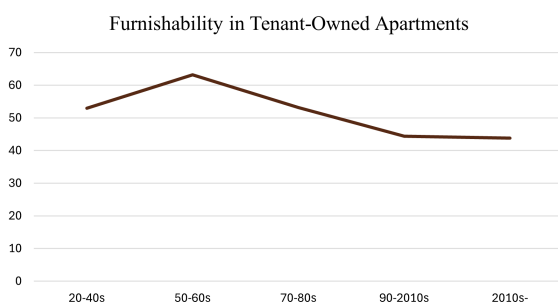


Figure 5.1: Furnishability in tenant-owned apartments

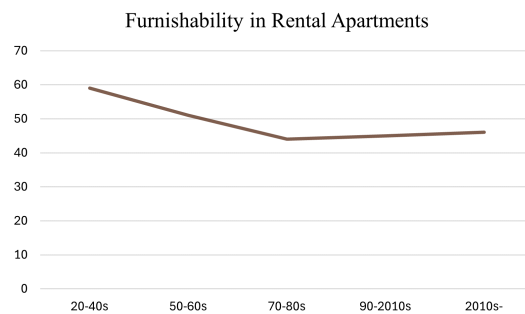


Figure 5.2: Furnishability in rental apartments

Figure 5.1 and 5.2 present the room form. For tenant-owned apartments, the earlier decades were characterised by square rooms with consistent 1:1 ratios, indicating a degree of spatial coherence and furnishing flexibility. From the 2000s onward, a noticeable decline in these spatial qualities has been noticeable. The shape of the room changes to elongated proportions, with ratios of 1.5 or even up to 2.5:1, which negatively affects the furnishability and functional adaptability of the apartment layout. The case study of room shapes in rental apartments reveals a lack of spatial quality in terms of room form. These units are often characterised by multiple small rooms that present challenges for furnishing and limit functional flexibility.

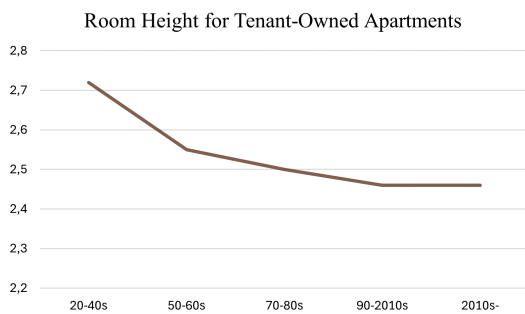


Figure 5.3: Room Height in tenant-owned apartments

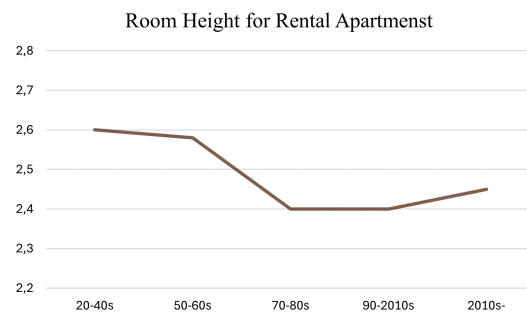


Figure 5.4: Room Height in rental apartments

Figure 5.3 and Figure 5.4 shows the development of room heights in tenant-owned apartments from the 1920s until the 2020s.

In tenant-owned apartments, see Table 5.4, rooms forms were generally consistent across the 20th century, with square or near square rooms (ratio 1) dominating from the 1920s through the 1970s. These spaces were frequently described as "square rooms," highlighting high spatial quality and flexible furnishability. However, from the early 2000s onward, the room ratios gradually increased. These newer layouts were often associated with narrow rooms and limited furnishability.

In rental apartments, see Table 5.5, showed more variations in rooms shape from earlier on. It is more difficult to identify a clear trend in rental apartments compared to tenant-owned units. While tenant-owned apartments maintained a consistent room ratio of approximately 1.00 up until the 1970s—after which spatial proportions began to deteriorate—rental units display greater variability throughout the entire period. The room ratios in rental apartments fluctuate considerably, making it challenging to pinpoint a distinct temporal breakpoint where a shift from square to elongated or less functional room forms occurred.

Table 5.4: Room Form in Tenant-Owned Apartments

Period	Year	Room Form	Comment
1920s–1940s	1920	1.00	Square rooms
	1933	1.00	Square rooms
	1936	1.00	Square rooms
	1938	1.00	Square rooms
	1945	1.00	Square rooms
1960s	1963	1.00	Square rooms
	1964	1.00	Bedrooms long and narrow (2:1 ratio)
	1965	1.00	Square bedrooms and social spaces. Long, narrow kitchen area (2:1 ratio)
	1968	1.00	Square rooms
	1969	1.00	Square rooms
1970s	1972	1.00	Square rooms
	1977	1.50	Narrow sleeping alcove
	1979	1.00	Square rooms
1990s	1997	1.00	Square rooms
2000s	2000	1.25	Room ratio 2:1
	2008	1.25	Limited furnishability
2010s–2020s	2012	1.25	Small rooms with limited furnishability
	2017	1.50	Square rooms
	2018	1.50	Room ratio 2.5:1 with many corners
	2019	1.50	Square rooms
	2020	1.25	Small rooms, limited furnishability
	2022	2.00	Square rooms for social areas. Bedroom layouts with small areas and many corners

Table 5.5: Room Form in Rental Apartments

Period	Year	Room Form	Comment
1900s–1940s	1900	1.00	Square rooms
	1938	1.25	Square rooms
	1942	1.00	Square room
1950s–1960s	1958	1.50	All rooms long and narrow (2:1 ratio)
	1958	1.50	Square rooms
	1960	1.50	Square rooms
	1967	1.00	Small rooms with limited furnishability
	1967	1.33	Square rooms
1970s–1980s	1972	1.00	Square rooms, though small with poor furnishability
	1973	1.00	Studio apartment with good furnishing possibilities
	1988	1.00	Long narrow rooms (2:1 ratio) with limited furnishing options
	1988	1.50	Square rooms, though room layout severely limited furnishability
	1989	1.25	Square rooms, but layout negatively impacted furnishability
2000s	2000	1.50	Square rooms, however small
	2009	1.00	Square rooms; much of the usable area lost due to two walk-in closets
2010s–2020s	2017	1.33	Decent square rooms; much of the space is hard to furnish due to unusable areas
	2017	1.00	Square rooms
	2024	1.50	Square rooms

6

Discussion

The *Discussion* examines how the development of Swedish building policy has impacted the definition, legislation, and experience of housing quality. Using a socio-technical perspective, the analysis underlines differences between policy development, legislative action, and actual outcomes. These findings are situated in relation to the research aim: to describe the impact of Swedish building policy on housing quality.

6.1 Quality: A Market Commodity

The historical development of Swedish housing policy reveals a decisive shift in how quality has been defined and implemented in the housing sector, from a tool of the welfare state to a market-oriented commodity.

In the 20th century, housing quality was directly linked to state responsibility. Frameworks such as PHB (1921), BABS (1946), and God Bostad (1954) outlined explicit architectural values: spaciousness, daylight, ventilation, and multifunctionality—all of which were either enforced through legislation or influenced policy development. The main purpose of enforcing these qualities was to bolster public health, hygiene, and well-being. Measures such as Miljonprogrammet and the ideological concept behind folkhemmet drove a parallel agenda—namely, the role of the home for the Swedish people. The policies being developed and applied entailed a noticeable tenant-oriented perspective—they underlined the role of the societal subsystem (PESS), see Figure 3.2. Minimum standards were to be universally enforced, backed by state subsidies and quality control mechanisms.

The PESS subsystem, highlighted by Meacham (2018), refers to the policy, economic, and societal subsystem within the socio-technical (STS) framework. The PESS subsystem could thus successfully influence the PFAS subsystem, which concerned policy formulation and adoption. The tenant perspective was thus legitimised in the regulatory framework. Results from the housing census and studies on how the population lived actively influenced policy development at the state level, which in turn influenced the design and construction of the built environment—that is, the BESS and DCESS subsystems. The results of the case study show quantitative results pointing to how these architectural values were mirrored in practice—in terms of furnishability, room height, and room shape, dwellings constructed between the 1920s and 1940s showed on average better housing qualities when compared to contemporary homes—see Figures 5.1, 5.2, 5.3, and 5.4, which highlight the historical

development of these housing qualities, pointing to a downward trend in line with deregulated housing standards.

The late 20th century shifted toward measures favouring industrialisation and urbanisation as key quality logics. State-led national initiatives with a resolute, singular focus, such as Miljonprogrammet and the ROT-program, were decade-long commitments tailored to address specific issues in the housing sector. The acute housing shortage needed to be solved, and following that, the quality of the housing stock needed to be improved—both of which were taken care of by the state, using functionalism and rational planning as tools to achieve these goals. It was founded on the assumption that rational planning and scientific knowhow, if imposed on a national scale, could remedy the ongoing issues. Quality was reframed through the lens of cost-efficiency—standardised floor plans, reduced variations, and uniform construction were rational solutions to housing shortages. These efforts intoned the magical words rationalisation and modernisation. Efficient construction and scalable solutions were presented as the ultimate tools to solve challenges in the housing sector, see Table 5.2. Quality was no longer a tool to promote welfare, but a logistical constraint to be defined and managed.

Building legislation became a tool with which to enable rapid construction to solve the issue of the housing shortage. As per the Social Shaping of Technology (SST) theory outlined by Russell and Williams (2002), this is an issue—by treating building legislation as a tool disconnected from its context, it hinders a comprehensive examination of the complex system that is the housing sector. The reductive view of building legislation has since remained, which in turn constrains its ability to evolve along with the system as a whole. Given that the building legislations are institutionally viewed as a set of neutral technical specifications, rather than a collection of crystallised visions and standards construed by the socio-technical system as a whole, they are forced to become reverse salients. Reverse salients, first defined by Hughes (1986) and later highlighted by Russell and Williams, refer to components within a system that obstruct the advancement of the system in its entirety. Building standards, once articulated as expressions of collective values, were increasingly treated as barriers to innovation or cost-reduction. Building legislation that once protected baseline qualities began to be viewed as an obstacle to efficiency and innovation.

The reverse salient, in turn, becomes the target of systemic dissatisfaction. Following this, the reverse salient becomes the foci of effort for change—this is visible in the way historical efforts have focused on building legislation as either the problem or solution for issues in the housing sector, whether it be quality, accessibility, affordability, or productivity. Government effort has focused on either tightening or relaxing building legislations as a means to an end for solving problems, which only serves to reinforce the role of building policies as a tool. Instead of solving the problem, however, this simply involves disrupting the context. By treating a small section of the complex system as a reverse salient to be solved by government action, the consequences are then unintended and usually undesired. One example of such measures was the tax reform of 1990, in which the end goal was increasing the citizens' disposable income,

but the measures implemented instead led to a 50% nominal rent increase by SABO companies over three years.

The overarching issues of the housing sector, and measures taken to solve them, have historically centred on building legislation. Efforts were made to simplify and modernise BABS, which in turn became SBN, and later NR. The conception of building legislation as a reverse salient led to a focus on simplification and deregulation. The tenant-oriented perspective favouring the PESS subsystem was lost, and the system as a whole was systematically shifted to align with the market environment. The results from the case study show the consequences of this logic: when given the opportunity to reduce costs by minimising formerly mandated qualities, such as room height and furnishability, market actors consistently do so.

This trend continued throughout the 2000s, evident in the shift to performance-based compliance and market efficiency. The 2009 decision to force allmännyttas companies to operate on a market-oriented basis further highlights the shift to a business-oriented legislative landscape. Attempts to stimulate productivity led to reduced minimum requirements in several BBR revisions. Deregulation and innovation became the new magical words. By reducing accessibility dimensions, room heights, and promoting exploitation through legislative adaptations, standards for quality became framed as obstacles. Select actors that construct at a higher quality than what is regulated thus contribute to a layered market: high-quality, spatially generous units automatically become upper-tier products. The median quality of the market will in turn decrease, as has been shown by the case study.

This shift reframes quality as a market differentiator rather than a baseline. Quality has been commodified, reinforcing socio-economic differences and undermining the role housing once played as an instrument of social equity. While cost-efficient, industrialised construction was once seen as a way to deliver quality at scale, it is now used to justify reducing quality altogether. The assumption that minimising costs by deregulation will result in both efficient and sufficient housing ignores the social consequences. Efficiency without safeguards does not produce better housing—it produces cheaper, smaller, lower-quality residences, as evidenced by the case study.

6.2 Subjectivity and Delegitimation

The rhetoric that enables a deregulation of building legislation in the name of cost-efficiency relies on the notion that legislation should be objective and not endorse "subjective" values. The argument that certain aspects of housing quality—daylight access, thermal comfort, spatial dimensions—are subjective, and therefore not suitable for legislation, has been a method through which deregulation has been justified.

This trend has existed since the 1990s, as is evidenced by the empirical findings of the document analysis. Qualities such as *trevnad* ('pleasantness') and *ändamålsenlighet* ('fitness for purpose') were removed in 1992. In 2013, a BBR revision reduced noise tolerances on account of it being a subjective quality. The new suggested BBR that

will enter into force on July 1, 2025, has described thermal comfort in the same manner, concluding that it is subjective and thus not suitable for stricter legislation. Further, it claims that direct day- and sunlight values can be decreased on account of the health benefits of sunlight access only applying when outdoors. While these qualities are treated as subjective and thus too ambiguous to be fit for legislation, the framework itself in fact adopts a more ambiguous approach by failing to define any baselines. Research is cited selectively. Anything not proven to be inherently harmful becomes fair game for minimisation—a dangerous notion in an industry characterised by its slow adoption of research.

This reflects a misreading of the interaction between the BESS, DCESS, and PESS. Deregulation assumes that subjective preferences will be translated from PESS into the system: if someone wants more daylight or space, they'll choose a brighter or larger apartment. If room height matters, the market will respond. In truth, this reflects a radical disconnect between rhetoric and reality. Demand has historically far outweighed supply, and given population and building projections it will continue to do so, especially in urban regions such as Gothenburg. Gothenburg, which is Sweden's second largest city, will have to accommodate 250,000 new residents by 2050. In metropolitan regions, where housing shortages are chronic and affordable options limited, choice is a fiction. Most citizens, given a forced move for a new job or studies, must take what is available. The presumption of subjectivity assumes a balanced housing market and a level playing field, which does not reflect the true conditions.

This logic disproportionately affects lower-income households—those with the least amount of choice in an imbalanced housing market. In Gothenburg, the income gap between the highest- and lowest-earning areas was 350,000 SEK in 2021 (see Figure 2.7), a gap large enough to severely limit housing access. The economic reality of a deregulated system contradicts any vision of enabling social mobility on the housing market. Deregulation treats the PESS subsystem as if its housing preferences have an unhindered impact on the market as a whole, when in practice other factors weigh more. There is a misunderstanding in how the implementation of decision-making functions in reality—a process which is encompassed by the OIDMSS subsystem. The OIDMSS filters legislative intent and market realities through the lens of feasibility, cost, and industry acceptance. In a system that has been forcefully shifted closer to aligning fully with the market environment, the subjectivity that is truly problematic is not the qualitative preferences of the residents, but in fact the business-minded rationalisation of the market actors.

Moreover, while legislation does its best to avoid defining "subjective" qualities so as not to interfere with the market, it takes liberties in deciding what certain social groups should realistically accept as quality housing. This is evidenced by the document analysis, which highlights this fact in the context of student housing. For student apartments, where tenants are expected to stay for at most a few years, legislation takes its liberties with deciding what levels of noise, space, or light students can be expected to endure on the basis of a temporary stay. Students, with

their assumed moving frequency, were concluded to accept lower quality housing for the chance to have cheap rent. The same logic is applied to other disenabled, disadvantaged, and disenfranchised groups. In a 2024 statement during a debate, the Minister of Housing praised a three-room unit where two of the rooms had been created by converting storage spaces with windows, noting that: *"This, said Stadsmissionen, is ideal for [...] a single woman with several children who may have had to flee from their abuser and need to quickly get a home that provides security. I don't think those children care that much that it's actually a storage room."* (see Section 2.1.8) The "room" doesn't need to meet formal quality standards, because it's framed as a flexible solution for those with no other choice.

This discussion raises another central question. What happens in case short-term housing becomes, by necessity, long-term? For example, if there is no mobility on the city-wide market? The system, by design, thus carves out exceptions that reinforce inequality under the guise of pragmatism. In this system, the removal of "subjective" standards in pursuit of neutrality becomes the antithesis of neutrality. It enables the lowering of standards for specific groups, justifying subpar conditions as economic realism. The system thus reinforces inequality through framing it as neutrality.

6.3 The Innovation Policy Paradox

Alongside subjectivity, innovation has been used as a magic word to justify deregulation. In this rhetorical framing, removing standards and relaxing legislation is not a retreat from responsibility but a necessary strategy to stimulate productivity and enable advancement. This, however, presents a paradox: by lowering the baseline standards for what constitutes sufficient quality housing, alternative visions for the built environment are displaced.

This method of framing is not new. Results from the document analysis show that technological advancements were cited as reasons to rewrite existing legislation decades ago—for example, the development of the new PBL in 1987 raised this question, highlighting that hygiene requirements could be fulfilled with technical installations, but underlining that *genomluftbara* (dual-aspect, in this instance) apartments should still be sought after, even if there was no legislative incentive to construct them. Rather than updating the baseline regulations to maintain quality in the face of new technologies, these innovations became reasons to lower quality standards entirely. Innovation was used to justify simplifying regulation altogether.

This raises an issue with how innovation is defined in housing policy. As Meacham (2018) argues, innovation is often understood through a top-down, technical lens—one that assumes experts and industry actors will deliver innovative solutions that will automatically trickle down into the BESS subsystem. The default assumption is that only the top of the pyramid can impose meaningful social, political, and economic change. This model ignores socio-cultural innovation mechanisms, where end-users (tenants) and grassroots movements can make progress. Innovation is viewed as part of the closed management system where only a small group of experts are allowed to

move the levers of power, and public participation is largely excluded.

O’Riordan (1985) describes this as part of an "elite consensual approach," noting specifically that this approach has no requirement to act on any input received. Bottom-up perspectives are excluded from actualising any progress into the system itself given its inherent structure. This can be seen through the document analysis, in which the results of the supposedly quality-driven housing exhibitions H99 and Bo01 had no legislative impact on the national level as a whole. There was no requirement to adopt findings, or shift the existing framework.

This closed logic assumes an inherent competence among industry actors to define and deliver innovation—which, in turn, assumes that actors operate from similar baseline ideologies and end goals. The end users, tenants, do not get any input on this process, even if they are the ones who must live in a day-to-day built on however the "experts" define innovation for their sake. Tenants, which are typically not experts, can only understand this innovation through the visions and ideals for housing presented by the institutes governing the housing sector. As shown in the document analysis, this was previously done by outlining ideological housing visions such as *egnahem*, *folkhemmet*, or *Myrdal-homes*. These visions were socio-technical constructs that reflect shared ambitions around the BESS, informed by the PESS. According to Social Shaping of Technology (SST), these visions function as scaffolding through which desirable futures are materialised. Innovation was framed, one way or another, for the benefit of the tenant. The new BBR, however, frames innovation entirely for the benefit of the market environment. The shift between favouring PESS to aligning more closely with the market environment disrupts the balance of the socio-technical system.

From this perspective, minimum standards do more than enforce baseline technical compliance. They set the foundation against which innovation is measured. Without them, what is considered acceptable, desirable, or even feasible in housing design is defined by the market environment, where cost-efficiency is dominant. This doesn’t enable bold, creative experimentation—it results in a systemic lowering of the ambition level, narrowing the options for how innovation can emerge. This also hinders the development of what Longhurst (2015) calls "alternative milieus," which are socially protected spaces where experimental practices are fostered, and from which innovation can emerge.

Meacham (2018) emphasises that innovation is not a linear, top-down process—it is negotiated by interactions between actors, all of which are subject to the interactions of the socio-technical system. Regulatory baselines serve as stabilisers, preventing broader societal objectives from being overridden by market logic. Once those stabilisers are removed, the innovation landscape is terraformed by the whims of the free market. When the free market then behaves like the free market—by rewarding risk-aversion, profit-motivated action, and shareholder dividends—one cannot be surprised no true "innovation" emerges as a result.

The empirical findings highlight that the construction sector favours building within the framework. The results of the case study show a consequent lowering of the average room height in line with the acceptable standards; there are very few exceptions actively choosing to raise the bar higher than what they are legally required to. Further, a 2024 report from Boverket explicitly highlights this, proving that construction actors are reluctant to apply solutions other than the industry standard, and that there are no incentives to do so (see Section 2.1.8, report 2024:25.) Historically, lowered regulations have thus not led to any sudden leaps in advancing housing. By dismantling the baseline quality standards altogether, the theoretical background and empirical findings point to that trend not changing.

Deregulation in Swedish housing policy thus reshapes not only the conditions of the built environment, in which innovation is expected to occur, but the vision of innovation itself. The removal of legislation does not produce opportunity for creativity, but a lowered ambition for the future of Swedish housing quality.

6.4 Institutional Decentralisation

Who, then, is responsible for ensuring this deregulation actively contributes to innovation? What actors can be expected to take responsibility in case this fails? What actors take credit in case these measures turn out to be wildly successful? Those answers lie within a maze of complexity constructed by diluted accountability and a fragmented chain of delegations.

A strategic decentralisation of responsibility has successively turned what once was a state-led system grounded in long-term visions into a disaggregated sector of multiple spheres of interests and actors. The government hands regulatory oversight to, mainly, Boverket. Boverket develops and implements regulatory frameworks. Interpretation of those frameworks is left up to municipalities and market actors. The burden of establishing and ensuring long-term, sustainable, and balanced legislative frameworks is transferred away from the state. Each step increases the system's complexity. Each step represents a lengthened bureaucratic distance between the tenant and the policymaker. Boverket serves as a "neutral" authority, providing guidance and carrying out changes ordered by the government. Neutrality in this context is an untruth, as Boverket cannot oppose government directives. As the document analysis shows, BBR revisions frequently follow political directives rather than its own report findings on architectural values. The removal of specific quality standards—daylight, thermal comfort, noise—reflects this.

This shift is a sharp departure from earlier state-led interventions in housing. Miljonprogrammet and ROT-programmet were large-scale, decade-long commitments, both deliberate and ideologically driven. They represent what can be termed "resolute singularities" in state ambition—instances in which the government accepted long-term responsibility for the housing sector's development. This commitment shifted in the following decades—power shifted to other institutions, then municipalities, and finally to the private sector. This development rests on the aforementioned assumption of

the closed management system defined by O’Riordan (1985), one in which actors operate with shared competence, aligned incentives, and mutual goals. The empirical findings suggest otherwise—that market actors build to standard, and rarely exceed them. As regulation weakens, the responsibility to make quality-defining decisions shifts onto the one with the most power in a market-oriented system—namely the economically strong actors. No single actor has full oversight, yet all actors have plausible deniability if the system fails.

While serious long-term developers may continue to maintain higher standards, the legislative framework offers little protection against exploitative practices. The pursuit of cost-efficiency and marketability is thus given the opportunity to undermine commitments to qualitative, experiential aspects of housing design. In socio-technical terms, this signals a change in the influence of the subsystems related to socio-technical decision making. When policymakers and governing institutions withdraw, the vacuum left behind can be filled by private market actors. The PESS subsystem thus retreats, leading to ripple effects that not only affect the DCESS but actively shift the entire complex network closer to being governed by the market environment rather than the state. This market environment, unlike Sweden, lacks borders—which opens up the Swedish housing market for global investment companies. Global actors will always be economically stronger than Swedish ones. When the system allows them to dictate the terms of national housing quality, there will be no frameworks that safeguard Swedish citizens from its effects.

Issues in complex systems invariably become wicked problems—ambiguous, interconnected, and without clear solutions. The origins of these issues become difficult to trace in the history of legislation, especially given its bureaucratic complexity, but the ability to highlight aspects of a complex system as problematic has enormous significance. The document analysis conducted in this thesis traces such lines of enquiry, revealing trends of delegation, deregulation, and rhetorical framing that make accountability difficult to locate. If the system wants to innovative itself effectively, its weak points must be visible. While an iron triangle of government, regulatory institutions, and corporate actors controls the direction of the housing sector, none are willing to take the role of central overseer. Further, each actor is slow to respond to new research, afraid to advance for fear of infringing on the other actors, and unwilling to yield even in the face of a firestorm of discontent. This lack of centralisation enables a cycle of blame-shifting, in which others can be painted as scapegoats for why the housing market isn’t developing accordingly. Those actors, in turn, can point the finger at whoever comes next in line—and so the system avoids effecting meaningful change at all costs. The only actor with no hope of shifting blame to the next one will be the end user—the tenant, who will invariably be burdened with what the system has decided is best.

6.5 The Supply and Demand Mismatch

The housing sector is at the end of the day primarily concerned with one central question: what housing should be built, and where? The answers to these questions

come in a myriad of variations depending on which actor is asked. While municipalities produce construction forecasts based on statistical projections, government strategy appears to be driven by ideological nostalgia and political platitudes. The disconnect between rhetoric and reality is once again apparent.

Boverket's 2025 report on construction need (2025:10, see Section 2.1.8) states that 76% of housing demand is localised to metropolitan regions. Gothenburg's masterplan states that it aims to meet its projected population growth by densification of city centres and transformation of industrial area (see Section 2.2.1)—yet, as evidenced by the document analysis, national policies emphasise småhus and garden cities: low-density, single-family housing ideals. The disconnect reveals a fundamental issue emerging from decentralisation: housing vision at the national and municipal levels diverge widely. Despite Boverket's own report findings, the government has as of 2025 tasked them with investigating the feasibility of Sverigehus—a symbolic housing typology that fails to address the reality of urban housing shortages. The government fantasises about garden city nostalgia, Gothenburg plans for large-scale necessity, and citizens must navigate a market that serves neither vision effectively.

From a socio-technical perspective, this reflects a misalignment within the policy formulation (PFAS) subsystem. According to SST theory, coordinated change requires aligned ideas between PESS, PFAS, and BESS. When the government produces visions disconnected from demographic realities, the BESS cannot function. These differing concepts for the future of housing influence the shaping of policies—as aforementioned, they crystallise desirable futures into decision-making. Yet today, those notions reflect an aged idea of how people live. A growing percentage of Swedes, especially in urban regions, live alone. In Gothenburg, 50% more people lived alone in 2023 compared to 2013. Fewer and fewer households resemble the traditional nuclear family. Urban construction is heavily centred around studios and two-room apartments, further reinforcing this trend (see Table 2.2.)

Despite this, state-level rhetoric romanticises low-density, single-family housing typologies, even in urban areas. In this context combined with rising living costs across tenancy forms (see Figures 2.8 and 2.9), a logical innovative development would be exploring experimental housing models, such as co-living, multi-generational housing—none of which are encouraged by national strategies, which are instead focused on deconstructing beach protection measures and simplifying the building permit process to facilitate construction. When the government and its second-largest city are not aligned in their vision for future housing, the socio-technical system as a whole is effectively disrupted. The result is a housing sector structurally incapable of understanding or responding to demand.

Taken together, these findings illustrate a housing sector caught in a self-contradictory loop. Decentralised, yet tightly constrained. Deregulated, yet deeply ideological. It is structurally designed around market logic, but rhetorically focused on the citizen. The socio-technical system that once positioned housing policy as a tool for the welfare state has become fragmented and led by cost-cutting innovation that serves

business-oriented logics. What is missing to develop Sweden's future housing is not technical progress or looser legislation, but systemic coherence. Without this, the Swedish housing sector will remain unable to deliver the housing its population needs—or worse, it will deliver housing its population has no other choice but to accept, regardless of quality.

7

Conclusion

After reviewing this litany of systemic contradictions, the question is whether things could realistically have been different. The current structure of the Swedish housing sector—comprised of bureaucratic hand-wringing, political hesitation, and operational fragmentation—has been hammering away the same objectives for over a century: resolving housing shortages, improving construction productivity, raising living standards. Results have been inconsistent at best, actively detrimental at worst. This history raises a pressing question: is it still possible to implement the politically challenging—but critically necessary—housing policies that can actually move Sweden forward in the 21st century?

This thesis concludes that the current system, and the policies set to be enacted in July 2025, will not pave the way to building a better Sweden. The Swedish housing sector, once scaffolded by coherent vision and collective ambition, has splintered into contradictory priorities and decentralised efforts. Innovation and subjectivity are invoked as justification for deregulation—yet the empirical findings of this thesis, from declining room heights to discrepancies between national policy and municipal demand, show a system that rewards compliance, not creativity. As regulation retreats, the market will not fill the vacuum with pioneering design, but with whatever sells.

The housing sector is unique in that this impact is visceral. Housing is spatial, material, and long-lasting. It's what makes the sector a good investment target—to the detriment of residents finding themselves dismissed in a market ultimately dependent on them. In this system, housing quality becomes the first and most visible casualty—felt not by policymakers, planners, politicians, regulators, developers, or consultants, but by tenants. This is not a call for nostalgia; the point is not to return to *folkhemmet*, *God Bostad*, or BABS, but to acknowledge two facts: the construction sector needs to face its contemporary reality, and housing is never just technical. As rents rise and standards fall, the mismatch between rhetoric and reality becomes detrimental to systemic development. Architecture has always depended on more than just design. It relies on informed details, vision, ambition, and experimentation. When its role is undermined and its ability to legitimise itself in the wider system trivialised, the consequences are measurable and lasting—in square metres, daylight access, rent levels, and the lived experience of residents having to accept less for more.

The beginning of this thesis tentatively promised to provide a sense of how not to design regulations—a question it now seeks to close. Vitruvius once defined strength,

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beauty, and utility as the three fundamental qualities of good architecture. This thesis offers a similar trinity for future policies: listen, learn, legislate.

8

Recommendations

The final section of this thesis outlines recommendations based on the findings and conclusions, aimed at rethinking the role of policy and innovation in the Swedish housing sector.

8.1 Thinking Beyond the Rules

Legislation in the Swedish housing sector today tends to operate from a reactive rather than proactive stance—focused on managing risk rather than enabling opportunity. Yet the consequences of the housing we permit now will last decades, shaping not only the built environment but also the social contract it supports. As noted by the Creative Director: *"Good policy should enable progress, but also make space for reflection, learning, and long-term thinking."*

This implies that policy is not just a technical tool, but a medium through which shared ambitions for quality and equity can be translated into built form. If innovation and quality is the end goal, it should be reframed as part of the collective ambition—which necessitates a shift in policy development from minimum compliance to purposeful guidance.

Dark Matter Labs' framework *Beyond the Rules* (2021) challenges the contemporary role of legislation [64]. It calls for a reinvention of the norms that hold the current system in place, and hinder it from developing. In this model, the role of policy is to shape alternative governance pathways that can enable creative problem-solving of tomorrow's problems. There are a number of practical implications based on this framework that could be applied to the Swedish housing sector:

- **Shift from performance-based minimums to outcome-based frameworks**
Define outcomes like daylight access, spatial flexibility, and indoor comfort as public objectives. Enable multiple technical and design strategies to meet these goals, rather than prescribing one path.
- **Introduce incentivising standards**
Pair baseline regulations with higher-level “aspirational” benchmarks that offer benefits—such as faster permitting, eligibility for subsidies, or design commendations—for projects that exceed the minimum.

- **Create experimental development zones**
Establish regulatory sandboxes or “living labs” in selected municipalities where standard requirements can be temporarily adapted to test innovative housing solutions under controlled conditions.
- **Include qualitative criteria in procurement and land allocation**
Treat spatial qualities, such as furnishability, daylight, and flexibility, as weighted evaluation metrics in public project tenders to prioritise tenant-oriented design.

While these shifts require a cultural rethinking of policy’s role, they are not without precedent. Several European nations already embed these ambitions into housing regulation and governance—offering relevant models for Sweden to consider.

8.2 European Policy Alternatives

If Sweden is to rethink how housing quality is defined and delivered, it can look to its European neighbours for examples of policies that balance ambition and adaptability. Sweden has a strong planning tradition and institutional infrastructure, as is evidenced by the document analysis, and so what is missing is political coherence and commitment to constructive policies.

The document analysis briefly touches on the proposition allocating 527 MSEK to researching sustainability in the built environment (prop. 2024/25:60, see Section 2.1.8), as part of an overarching effort to reclaim Sweden’s long-held position as the most innovative country in the EU. That position was lost in 2023 to none other than Denmark [148]. It is not surprising; Denmark has embraced many of the principles Sweden has deregulated away. Clear architectural standards, experimentation with new forms of tenure, and long-term public-private collaboration has led to Copenhagen being the 2023 to 2025 World Capital of Architecture—incidentally anointed so the very year Denmark passed Sweden in innovation rankings [63]. The Creative Director described other notable examples:

“Vienna remains a standout example. Its housing model treats affordability, quality, and long-term stewardship as a public responsibility, not just a market function. The result is high-quality housing available to a broad demographic. In the Netherlands, we’ve seen experimentation with modular and temporary housing—particularly on public land—which allows faster responses to housing demand. Copenhagen has long supported co-housing (andelsbevægelsen) and mixed-tenure models through zoning and public-private partnerships. These policies work because they’re clear in ambition, but flexible in execution.”

What these countries have in common is not a fixed technical rulebook, but a shared understanding of how to define housing quality in the face of market logics. These countries and cities recognise that innovation emerges from frameworks that enable

creativity and support experimentation; innovation doesn't spring from regulatory absence.

If Sweden wants to reclaim its position as top innovator, at least in regards to housing, it must confront the uncomfortable truth: we are not falling behind due to lack of expenditure, as the proposition suggests, but because others are simply doing it better. These countries use governance to shape the built environment for public good. Sweden must decide whether to continue reinforcing an ineffective innovation rhetoric, or begin cultivating it through coherent governance.

8.3 Rebuilding Innovation

Innovation in the Swedish housing sector is framed as a quality that will naturally emerge if regulation steps aside. As this thesis has concluded, deregulation alone does not lead to innovation, but rather uncertainty. This uncertainty is partially rooted in the lack of accountability, and by extension feedback mechanisms.

Architects struggle to legitimise design quality when Boverket's regulations reduce baseline standards. Boverket, in turn, is tasked to carry out the government's missives, even when its own findings oppose government directives. Policy flows downward; no signal returns up. Without learning mechanisms in place, the system becomes inert. It cannot correct itself, merely simplify.

This dynamic reflects the institutional decentralisation noted in the discussion. Responsibility is distributed, not shared. Each actor exists in its own vacuum, or surrounded by similar institutions in an organisational echo chamber. Rebuilding innovation will therefore require the implementation of a functioning feedback loop—a platform for reflection and iterative learning. Even if the system encounters innovation, it will have no clue how to respond to it unless its conditions, characteristics, and qualities can be effectively communicated.

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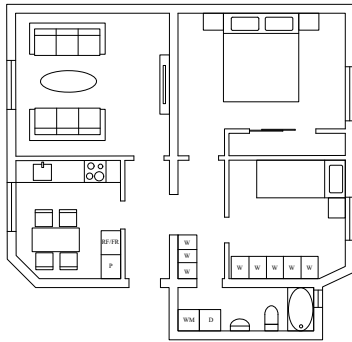
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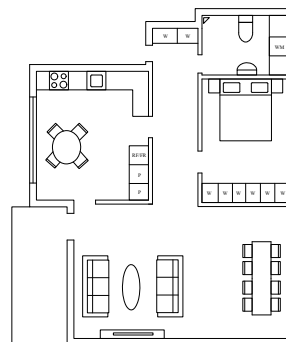
A

Residential Case Study

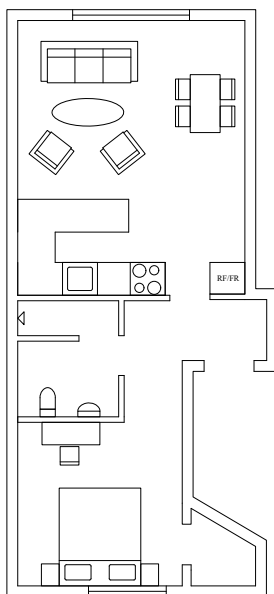
A.1 Tenant-Owned Units



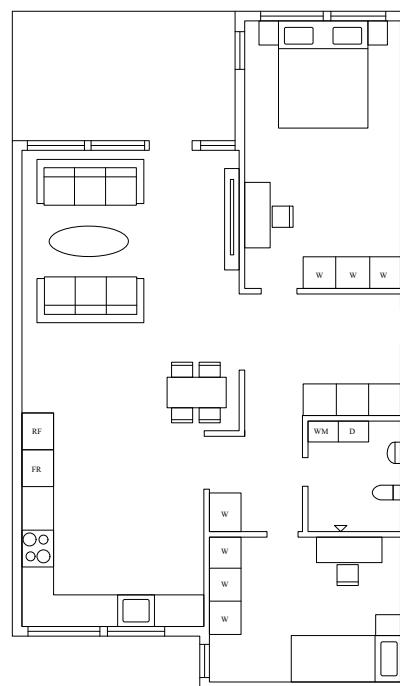
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Year: 1933
Area: Gamla Masthugget
Size: 60 sqm



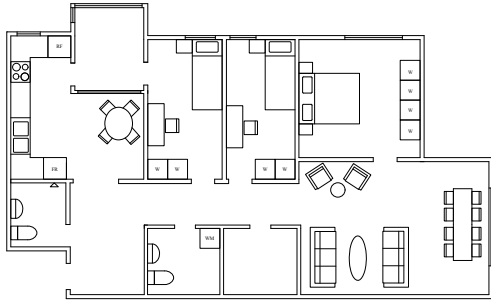
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Year: 1936
Area: Johanneberg
Size: 97 sqm



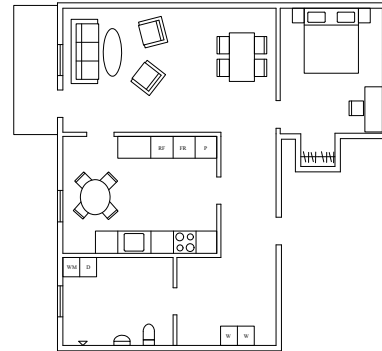
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Year: 1920
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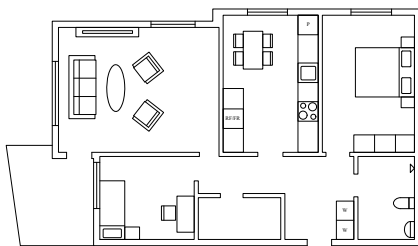
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Year: 1968
Area: Tynnered
Size: 68 sqm



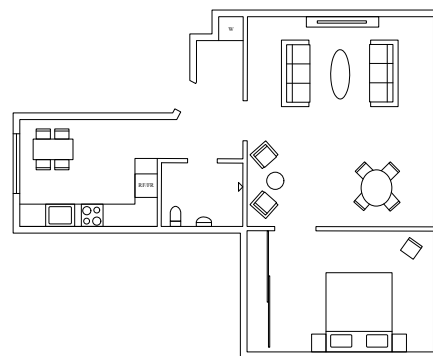
Address: Arvesgårde 9
Year: 1964
Area: Tuve
Size: 91 sqm



Address: Barometergatan 35
Year: 1965
Area: Biskopsgården
Size: 63 sqm

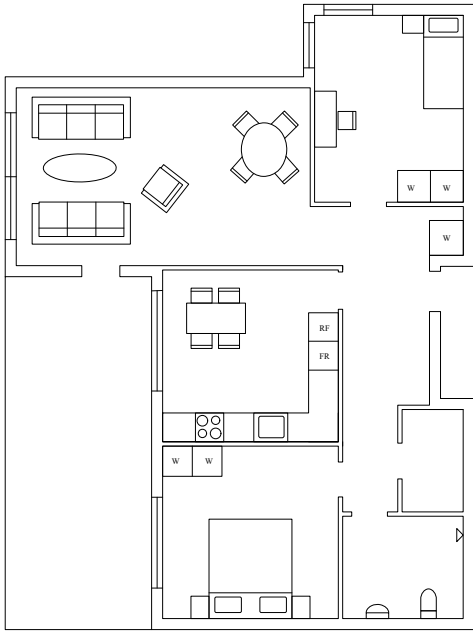


Address: Fiolgatan 10
Year: 1963
Area: Frölunda Torg
Size: 69 sqm

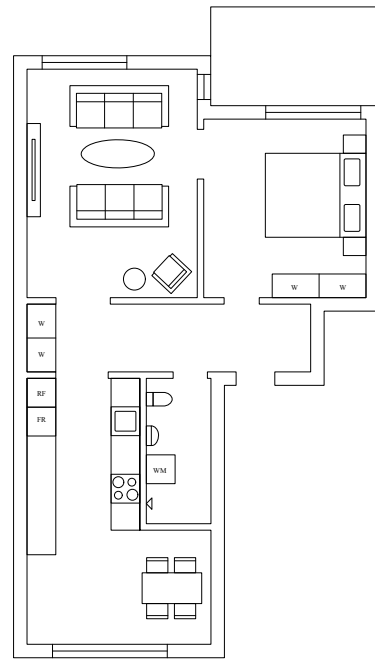


Address: Ekedalsgatan 3B
Year: 1938
Area: Majorna
Size: 56 sqm

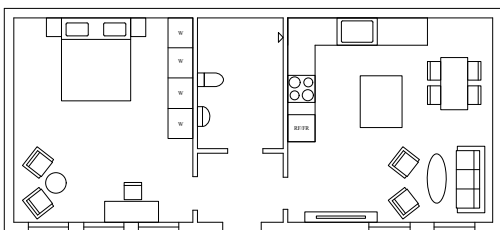
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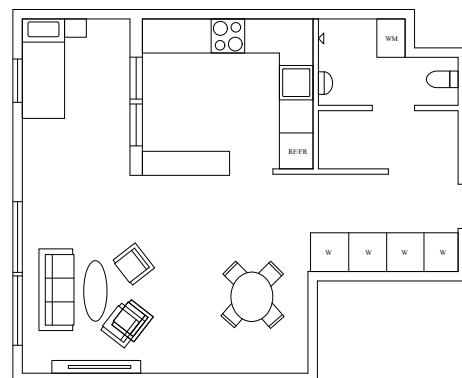
Address: Rappedalsvägen
Year: 1979
Area: Angered
Size: 81 sqm



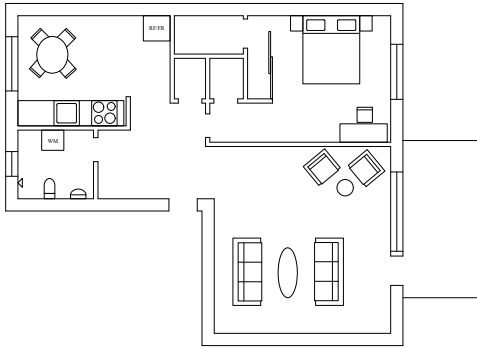
Address: Brunnehagaen 50
Year: 1972
Area: Tuve
Size: 1972 sqm



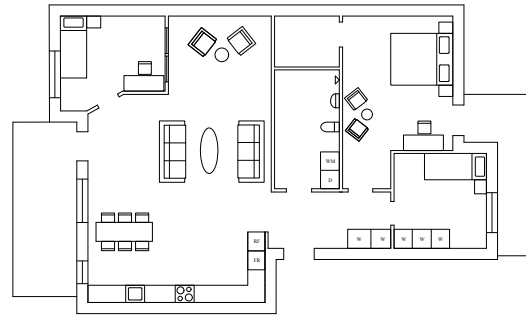
Address: Sä gengatan 55A
Year: 1969
Area: Hisings Back
Size: 48 sqm



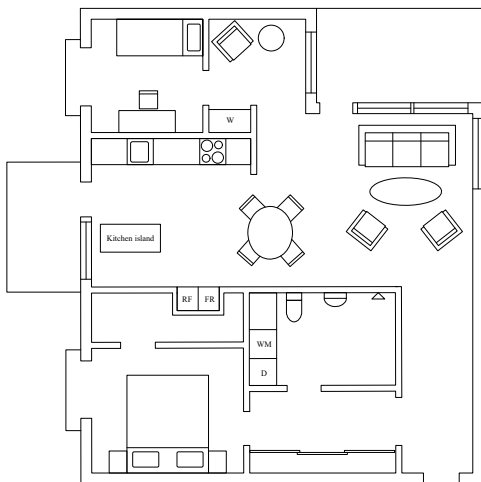
Address: Nilssonsberg 18
Year: 1977
Area: Linne
Size: 48 sqm



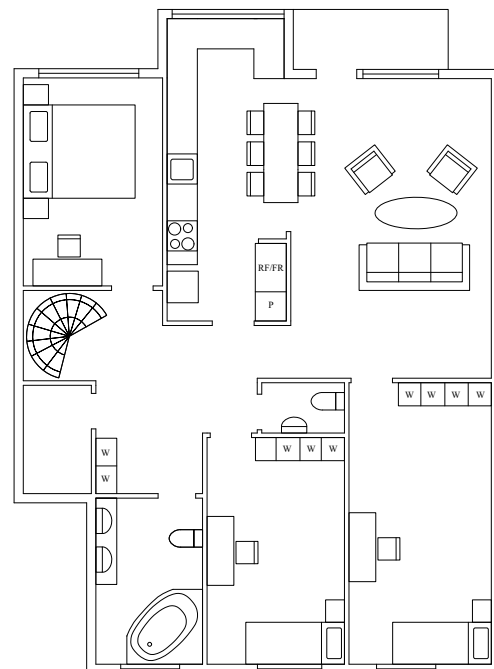
Address: Lars Kagsgatan 47C
Year: 1945
Area: Gamlestaden
Size: 46 sqm



Address: Hällefundregatan 10
Year: 2012
Area: Fiskebäck
Size: 101 sqm

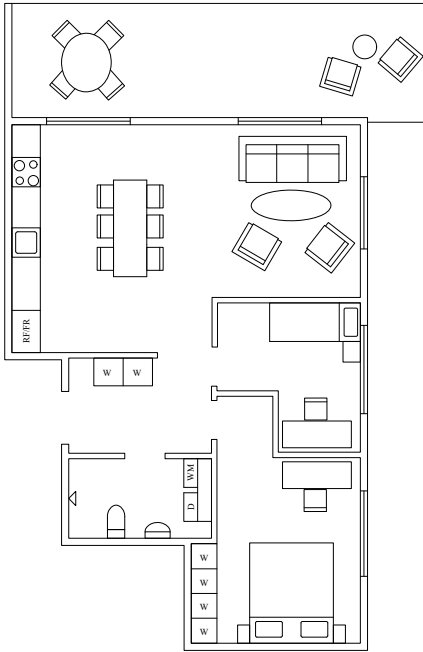


Address: Östra Eriksbergsgatan 73
Year: 2008
Area: Eriksberg
Size: 84 sqm

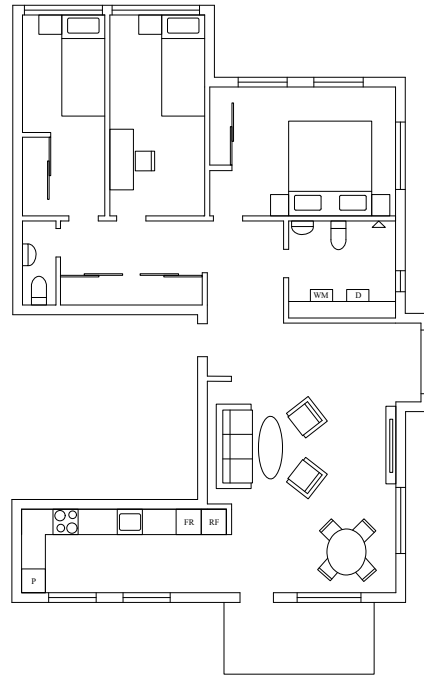


Address: Bergkristallen 20
Year: 2007
Area: Tynnered
Size: 142 sqm

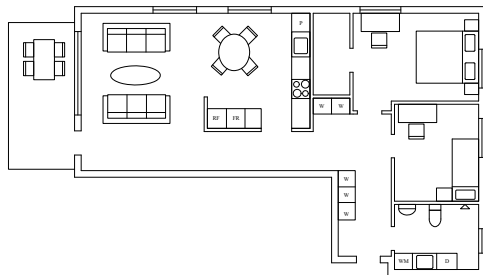
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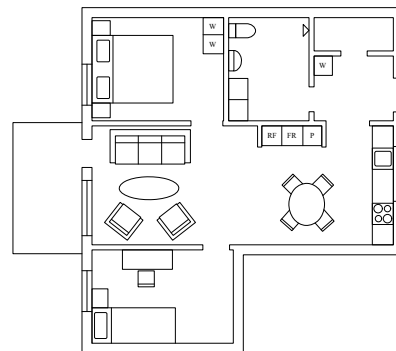
Address: Lysevågen 10
Year: 2022
Area: Torslanda
Size: 68 sqm



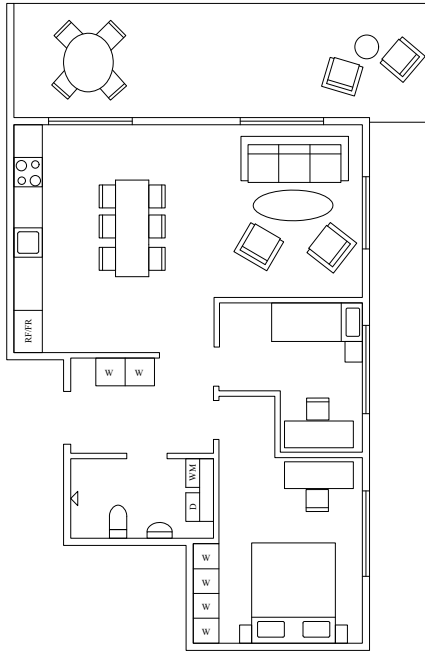
Address: Lindholmshamnen 40
Year: 2018
Area: Norra Älvstranden
Size: 88 sqm



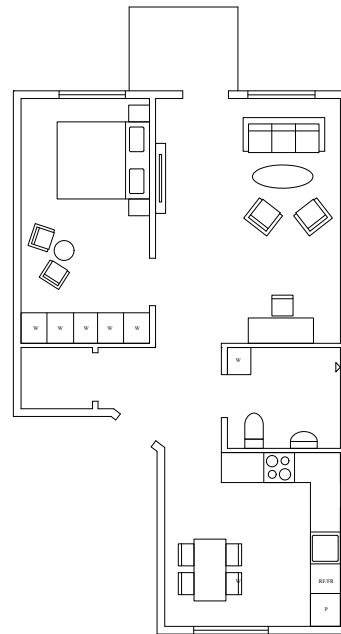
Address: Miraaleen 1
Year: 2017
Area: Sannegårdshamnen
Size: 90 sqm



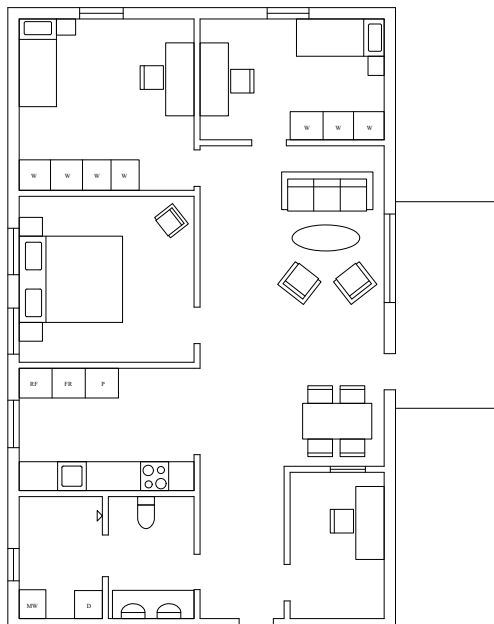
Address: Gropens Lillgata 20
Year: 2019
Area: Hammarkullen
Size: 72 sqm



Address: Lysevågen 10
Year: 2022
Area: Torslanda
Size: 68 sqm



Address: Modellörsgatan 2B
Year: 1997
Area: Källtorp
Size: 55 sqm



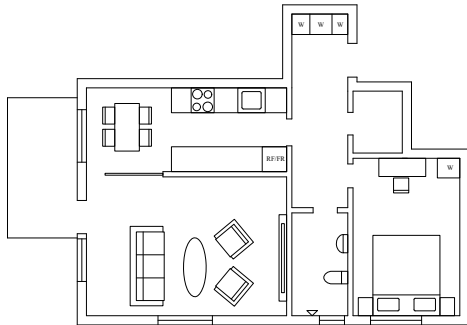
Address: Solängsvägen 61
Year: 2000
Area: Torslanda
Size: 93 sqm

A.1.1 Data for Furnishability

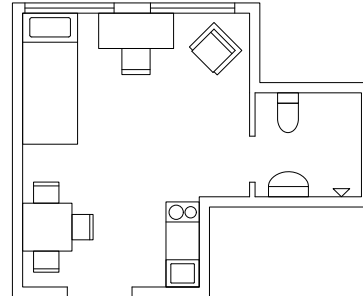
Table A.1: Furnishability [%] for Tenant-Owned Apartments

Period	Year	Furnishability
30–40s	1920	52.22
	1933	49.40
	1936	45.82
	1938	68.48
	1945	48.87
50–60s	1963	64.21
	1964	69.34
	1965	65.20
	1968	57.23
	1969	59.79
70–80s	1972	48.62
	1977	56.89
	1979	54.38
90–2000s	1997	52.73
	2000	43.01
	2008	37.50
2010s–	2012	59.28
	2017	44.44
	2018	42.50
	2019	35.97
	2020	31.83
	2022	48.81

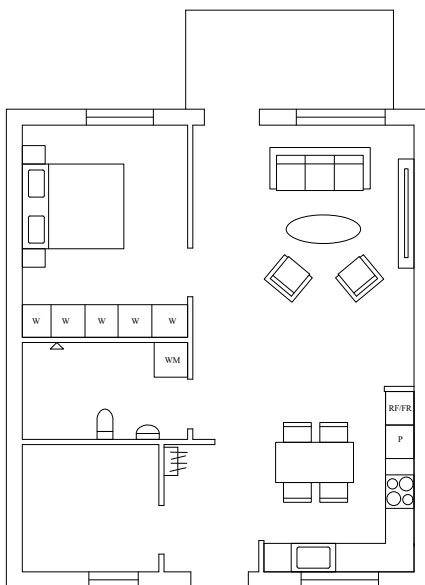
A.2 Rental Units



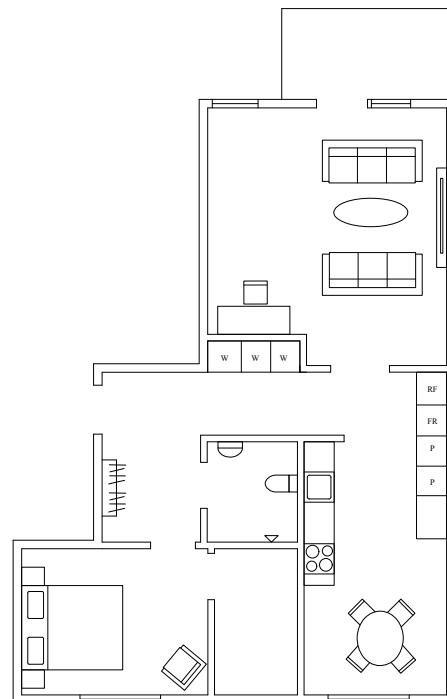
Address: Eketräsgatan 12B
Year: 2017
Area: Kyrkbyn
Size: 52 sqm



Address: Lekullevägen 6B
Year: 1942
Area: Askim
Size: 22 sqm

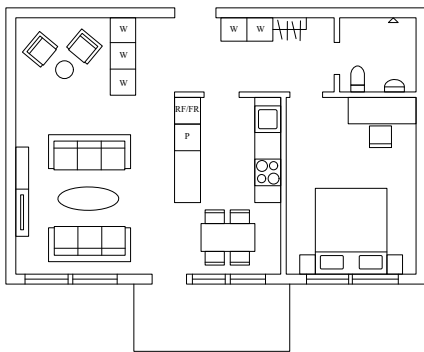


Address: Mandolingatan 1A
Year: 1960
Area: Frölunda
Size: 54 sqm

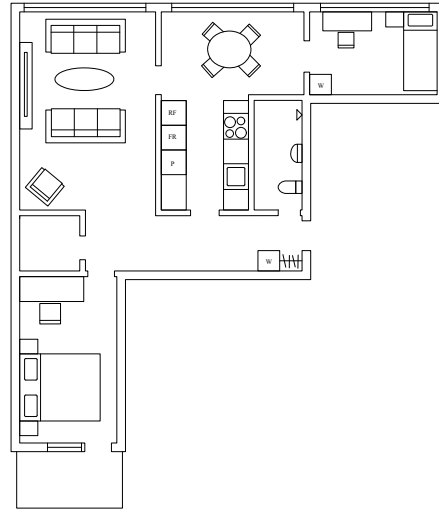


Address: Daggdropegatan 4
Year: 1958
Area: Biskopsgården
Size: 70 sqm

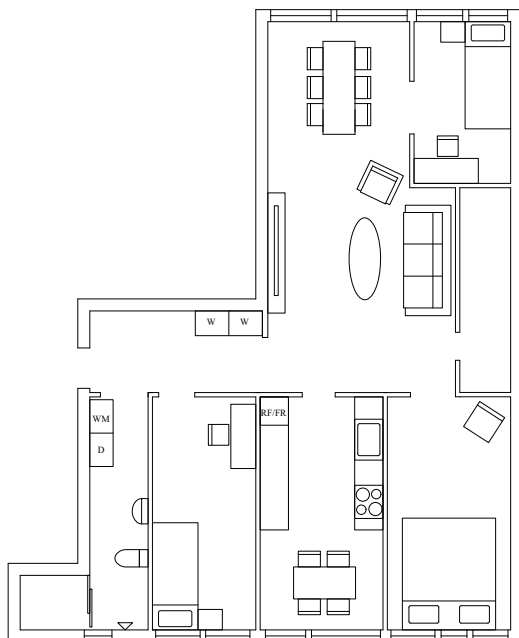
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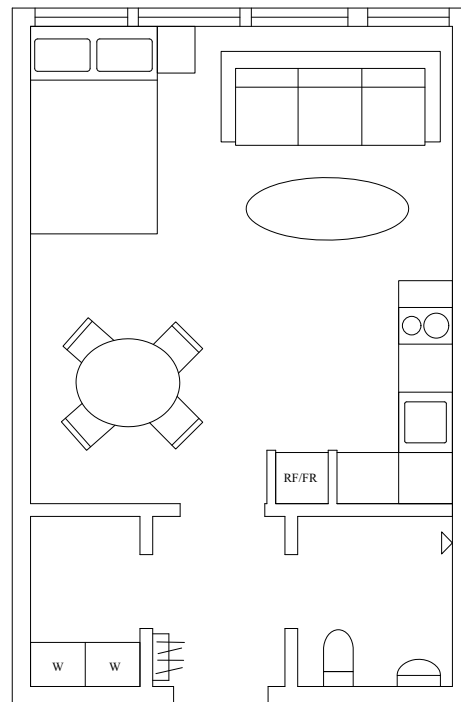
Address: Berdfjällsgatan 6
Year: 1970-1980s
Area: Hjällbo
Size: 53 sqm



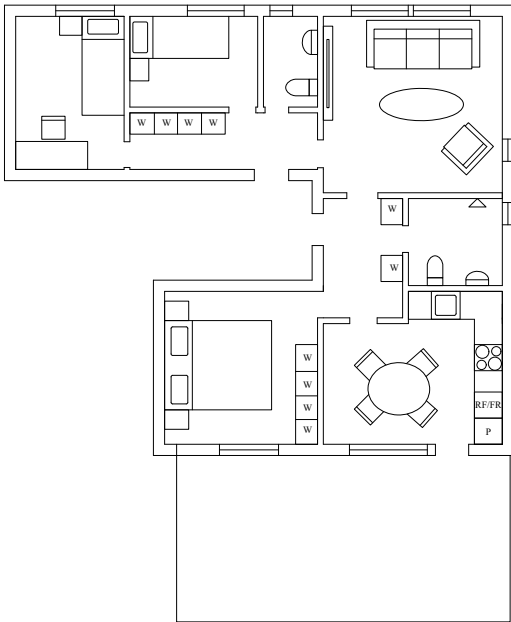
Address: Berdfjällsgatan 40
Year: 1970-1980s
Area: Hammrkullen
Size: 74 sqm



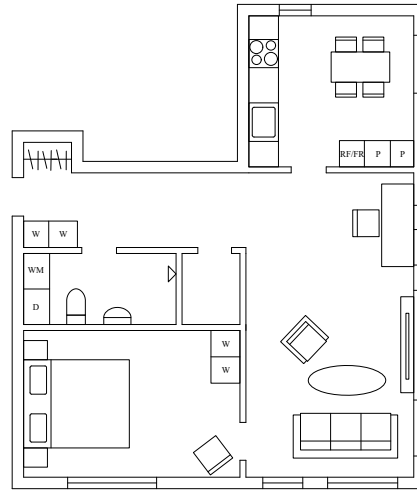
Address: Friskväderstorget 3
Year: 1958
Area: Biskopsgården
Size: 93 sqm



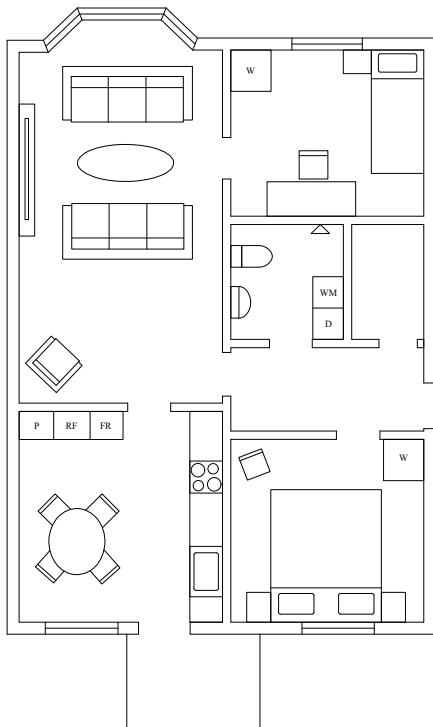
Address: Landalagången 4
Year: 1973
Area: Landala
Size: 33 sqm



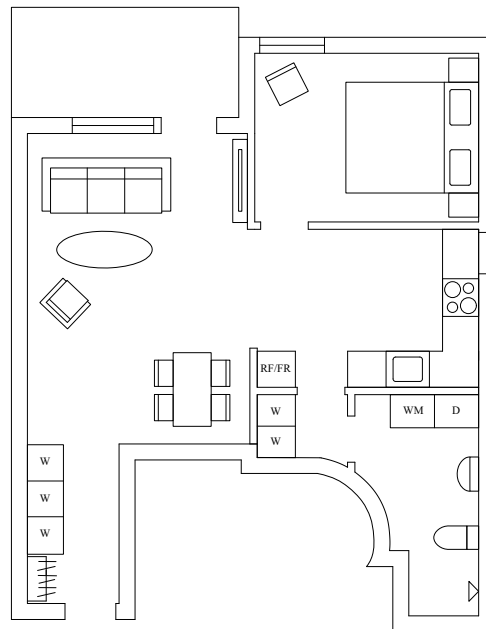
Address: Mejrangatan 14
Year: 1972
Area: Angered
Size: 50 sqm



Address: Kaptensgatan 12
Year: 1988
Area: Majorna
Size: 70 sqm

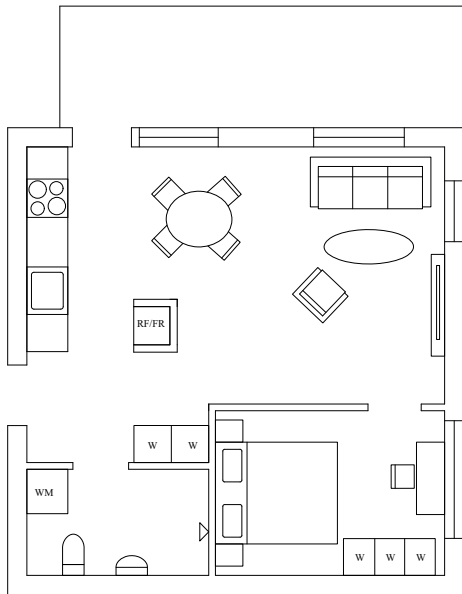


Address: Lotsgatan 3B
Year: 1989
Area: Majorna
Size: 83 sqm

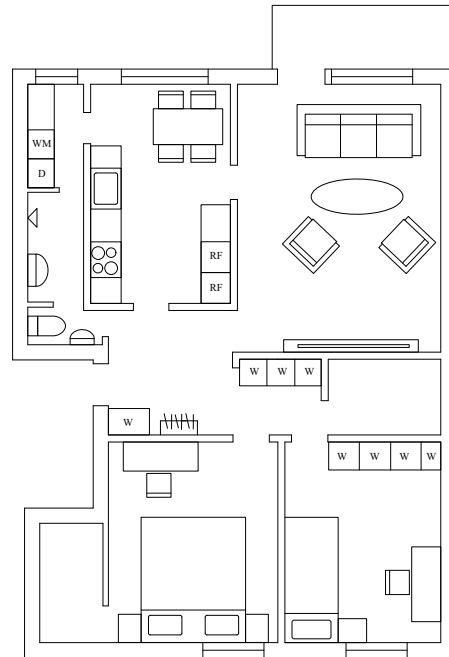


Address: Skånegatan 17E
Year: 1988
Area: Heden
Size: 52 sqm

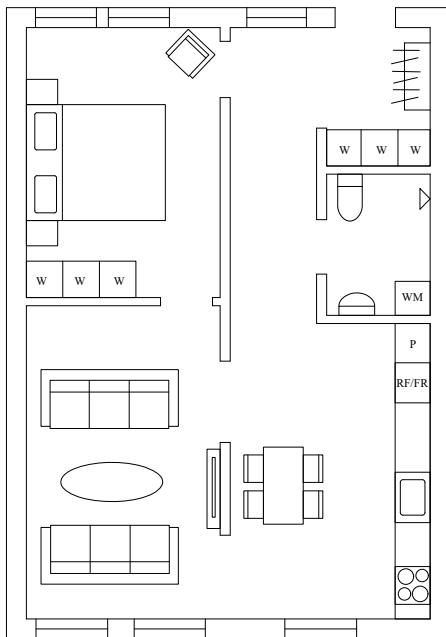
A. Residential Case Study



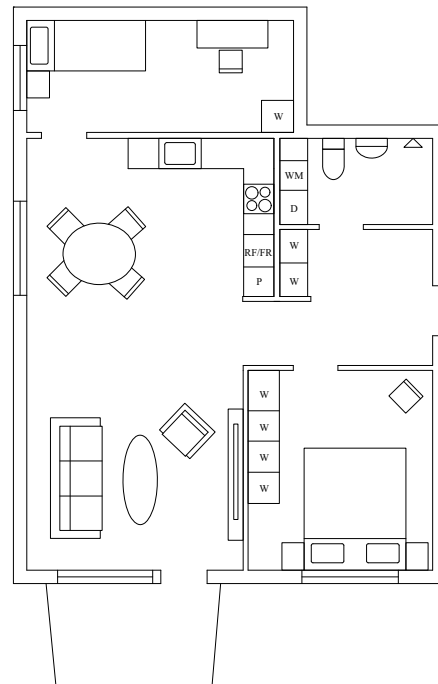
Address: Smörlottsgatan 87
Year: 2000
Area: Björkekärr
Size: 46 sqm



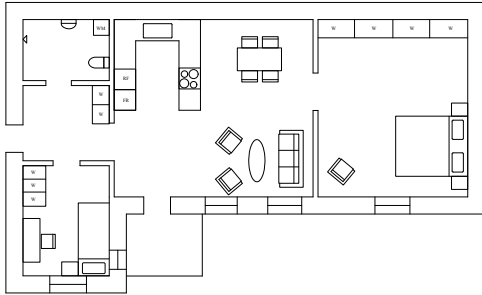
Address: Glöstorps Rösevåg 7
Year: 2009
Area: Tuve
Size: 90 sqm



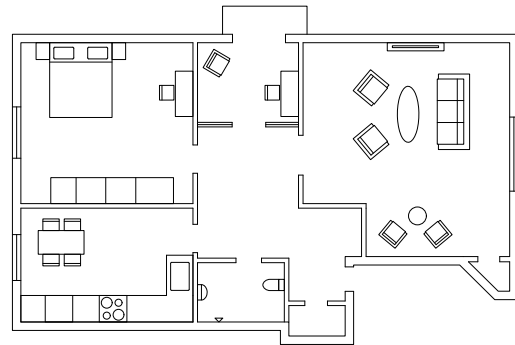
Address: Titteridamm
Year: 2024
Area: Angered
Size: 62 sqm



Address: Adventsvägen 6
Year: 2017
Area: Kortedala
Size: 75 sqm



Address: Karl Gustavsgatan 11
Year: 1900
Area: Vasastaden
Size: 62 sqm



Address: Utåkersgatan 10
Year: 1938
Area: Källtorp
Size: sqm

A.2.1 Data for furnishability**Table A.2:** Furnishability [%] for Rental Apartments

Period	Year	Furnishability
1900s–40s	1900	56.45
	1938	79.10
	1942	40.91
1950s–60s	1958	40.97
	1958	48.71
	1960	54.63
	1967	52.30
	1967	58.87
70–80s	1972	48.62
	1977	56.89
	1979	54.38
2000s	2000	59.61
	2009	31.74
2010s–	2017	39.49
	2017	52.88
	2024	46.66

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