

# Crise climática: resposta social por intermédio de Habitação Social Sustentável

*Climate crisis: social response through Sustainable Social Housing*

*Crisis climática: respuesta social a través de Vivienda Social Sostenible*

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## Resumo

O conceito de desenvolvimento sustentável implica encontrar um equilíbrio entre extração e proteção dos recursos do planeta, numa tentativa de sustentar a nossa base de vida. O desenvolvimento sustentável deve satisfazer as necessidades dos atuais cidadãos sem comprometer as gerações futuras de satisfazer as suas. Entre os arquitetos, o conceito de arquitetura sustentável surgiu a partir de vários interesses sociais, baseados em interpretações do problema, e caracterizado por uma série de pensamentos divergentes, cada um apontando soluções sustentáveis como respostas à crise climática. As diversas visões dos arquitetos sobre arquitetura sustentável tornaram-se um campo de batalha para “as atitudes certas” – escolas artísticas de pensamento e movimentos culturais com lógicas concorrentes de sustentabilidade. A este respeito, o papel do arquiteto e a escolha da lógica sustentável tornam-se centrais para o processo de design da arquitetura sustentável – e também para o desenvolvimento da habitação social dinamarquesa. Vários incentivos ajudaram a influenciar a sustentabilidade no contexto dinamarquês, por exemplo, nas condições do local, tecnologias sustentáveis, infraestrutura, instalações, financiamento e ideais sociais. Desde a crise energética da década de 1970, o desenvolvimento da habitação social sustentável na Dinamarca foi também influenciado por vários caminhos nesse sistema fluido de mudança de lógicas, valores e convicção das respostas sociais à crise climática.

## Abstract

The concept of sustainable development implies seeking a balance between exploitation and protection of the Earth's resources in an attempt to preserve our basis for living. Sustainable development must satisfy people's present needs without jeopardizing future generations' chances of satisfying theirs. Among architects, the concept of sustainable architecture emerged from various social interests based on various interpretations of the problem and characterized by quite a number of different pathways, each pointing to sustainable solutions as responses to the climate crisis. Architects' diverse views on sustainable architecture have become a battleground for 'the right attitudes' - artistic schools of thought and cultural movements with competing logics of sustainability. In this respect, the role of the architect and the choice of sustainable logic become central to the design process of sustainable architecture - and also to the development of Danish social housing. Various incentives have helped influence sustainability in a Danish context, for instance in site conditions, sustainable technologies, infrastructure, facilities, financing and social ideals. Since the energy crisis of the 1970s, the development of sustainable social housing in Denmark has also been influenced by various pathways in this fluid system of changing logics, values and beliefs as social responses to the climate crisis.

## Palabras clave:

Arquitectura,  
Desarrollo,  
Dinamarca.

## Resumen

El concepto de desarrollo sostenible implica encontrar un equilibrio entre extraer y proteger los recursos del planeta, en un intento de sostener nuestra base de vida. El desarrollo sostenible debe satisfacer las necesidades de los ciudadanos actuales sin comprometer la satisfacción de las de las generaciones futuras. Entre los arquitectos, el concepto de arquitectura sustentable surgió de varios intereses sociales, basados en interpretaciones del problema, y caracterizado por una serie de pensamientos divergentes, cada uno apuntando a soluciones sustentables como respuestas a la crisis climática. Los diversos puntos de vista de los arquitectos sobre la arquitectura sostenible se convirtieron en un campo de batalla para las "actitudes correctas": escuelas artísticas de pensamiento y movimientos culturales con fundamentos contrapuestos de sostenibilidad. En este sentido, el papel del arquitecto y la elección de la lógica sostenible se vuelven fundamentales para el proceso de diseño de la arquitectura sostenible, y también para el desarrollo de la vivienda social danesa. Varios incentivos han ayudado a influir en la sostenibilidad en el contexto danés, por ejemplo, las condiciones del lugar, las tecnologías sostenibles, la infraestructura, las instalaciones, las finanzas y los ideales sociales. Desde la crisis energética de la década de 1970, el desarrollo de viviendas sociales sostenibles en Dinamarca también se ha visto influenciado por varios caminos en este sistema fluido de lógicas, valores y convicciones cambiantes de las respuestas sociales a la crisis climática.

## The Emergence of Ecovillages

In the late 1960s, the youth revolt started to make its influence felt on residential construction in Denmark. It was an anti-authoritarian protest movement whose dwellings were characterised by spontaneous construction experimentation and decision-making by the dwellers themselves (LUND, 2008, p. 264-269). The residents were tolerant and had a broad outlook on life inspired by global cohesion and social communities and rooted in ecology and spiritualism. The pioneers—a group of young people intent on breaking away from the then normal way of living—were beset by thoughts of proximity to the basic life necessities, work and experience communities, care of mother nature and anti-capitalism (JENSEN et al., 2014, p. 226-227).

The energy crisis and the recession of the early 70s provided fertile ground for a change in society and in residential construction. New forms of cohabitation developed, and new housing habits were established along with a desire for co-determination. This culture of autonomy gradually took an interest in ecology, which would also manifest itself in the users and in architecture (LUND, 2008, p. 264-269).

In the early 1970s, ecological construction was on the rise following the establishment of ecological village communities. Well-educated urban people came together and established themselves in eco-communities in several places in Denmark.

The first ecological communities were established in Northern Jutland, on Funen, on Djursland and on Langeland. “The New Society”—an ecological village at Frøstrup, Northern Jutland, was established in 1970 as a major commune intended to be the scene of a Danish version of the American Woodstock Festival. Residents shared a philosophical ethos and gathered in new communities to follow through new ways of life. The ecological mindset focuses on a more holistic view of ecology and a sustainable model of society (JENSEN, 1985, p. 49-60).

Simon Guy and Graham Farmer define this approach to sustainable architecture as “Eco-social Logic”. “Eco-social Logic” extends the sustainability agenda beyond a concern for the individual to encompass a political discourse suggesting that the root

cause of the ecological crisis stems from wider social factors. It addresses the emblematic issue of democracy as the key to an ecological society (GUY & FARMER, 2001, p. 145).



**Figure 1.** The eco-village “Dyssekilde” in Torup (Denmark).Source: Personal Collection

Only by means of a model of community created to serve common needs and goals, where people experience true freedom and self-realization, will they be able to live in harmony with the natural world. Social-ecologists held the conviction that “human domination and degradation of nature” arise out of social patterns of dominance and hierarchy in which human social life patterns exercise control or dominance over others (GUY & FARMER, 2001, p. 145-146).

The environmental and ecological destruction was perceived as a form of human domination, and the more hierarchical and oppressive a society appears, the more likely that it will abuse and dominate the environment. Therefore, the ecological community can only achieve the “right truth and self-realization” through a network of people based on a non-hierarchical social community (GUY & FARMER, 2001, p. 145-146).

The ecological communities had an ambition to be self-sufficient in food and show environmental consideration for energy, water, sewage, waste, healthy materials, food, etc. The dwellings prioritized the versatility of various autonomous types of housing as well as social engagement with active user involvement in the joint activities. Furthermore, the ecological project should be economically affordable for all walks of life (JENSEN et al., 2014, p. 81-83).

According to Simon Guy and Graham Farmer, the “Eco-social Logic” only aims towards the use of so-called “democratic technologies” which, unlike high-tech technologies, are owned, understood, maintained and applied by the users themselves without them being experts. The idiom of sustainable architecture had a distinctly organic form, prioritizing user participation in the design process (GUY & FARMER, 2001, p. 146).

With the increased interest in the eco-communities, there were more than 50 communes and eco-village societies in Denmark in 1980. New ecological village communities are still being established today (JENSEN et al., 2014, p. 81-84). “Christiania Free State” in Copenhagen is one example of the vision translated into an independent eco-society in an urban context and fully realized (GUY & FARMER, 2001, p. 146).

### **Autonomous Ecological Construction**

Since the energy crisis of the early 1970s, the ecological grassroots movements had sought to translate sustainable thinking into an architectural idiom which was based on environmental considerations and was ecologically grounded. Ecological construction was created with the incorporation of “natural” building materials, recycled materials and alternative shapes of buildings. The architects applied traditional construction methods, using so-called “clean” building materials based on simple manufacture (BEIM et al., 2002, p. 10-11).

Simon Guy and Graham Farmer define this approach to sustainable architecture as the “Eco-centric Logic” which arises from a belief that the solution to the climate crisis should be based on a radical reconfiguration of values. A metaphysical holistic discourse of “getting back to nature” generated through the natural science paradigm (GUY & FARMER, 2001, p. 142-43).

The “Eco-centric Logic” represents an architecture characterized by a holistic way of thinking which must be educative and contribute to a particular culture of living for the users. The physical form forces the users to relate to consumption habits, heating opportunities, recycling, and reusability, among other things (BEIM et al., 2002, p. 10-11). The aim is to be in harmony with nature by ensuring that the individual ecological dwelling is self-sufficient, not only in terms of its own energy and resource needs but also through the recycling of waste and rainwater (VALE & VALE, 1975,

p. 5-26).

The ecological principles included an ecological (VAN DER RYN & COWAN, 1996, P. 82-103) and self-sufficient design (VALE & VALE, 1991, p. 15-42), based on a “One Planet” conviction that weights global “holism” and where the building design must be resilient to the climate crisis (ROAF et. al., 2004, p. 1-31) (DESAI, 2009, chapters 10-11) (GRIERSON & MOULTRIE, 2011, p. 626).

What was sought was a self-sufficient construction that would contribute as small a CO2 footprint as possible, ensured through stability, integrity and local and global biodiversity. The “Eco-centric Logic” is represented by architects Brenda and Robert Vale from Great Britain and Mike Reynold from New Mexico, among others (GUY & FARMER, 2001, p. 141–43).

### **Urban Ecology and User Involvement**

The concept of urban ecology was first described in “Soft City” (“Blød By”), a Danish journal published in 1982 as a reaction to people moving into the countryside. The thinking behind urban ecology was an attempt to transfer the rural elements to an urban context. The challenges are how urban ecology can be politically incorporated into municipal planning with the intervention of users (PEDERSEN & DOMBERNOWSKY, 1982, p. 49-50).

In 1987, grants were allocated by the Danish Ministry of Environment for the promotion of urban ecology. The Ministry of Environment has its very own publication, “Urban Ecology”, and during the period 1988-90, the Danish Building Industry Development Board (Byggeriets Udviklingsråd) published three collections of examples themed ‘Ecology and Construction’.

In Berlin, the German architect Frei Otto set an example with urban ecology, and over the period 1989-1991, he experimented with user involvement in the entire design phase of the ecological concept in the housing project “Ökohaus-Corneliusstrasse”. The idea was to involve residents in the design process since changes in the habits and behavior of users must emanate from the residents themselves. The architects and other experts were assigned the role of presenters at information sessions on the management of environmental considerations in the construction process. However, it was up to the individual family to determine the

extent and nature of the environmental efforts.

In addition, the principle relied on resident autonomy, user participation being central to Frei Otto's construction concept (ØSTERGAARD et al., 2001, p. 30). This is framed by the “Eco-social Logic” by Guy and Farmer (2001, p. 145).

The concepts of urban ecology and sustainability had now become part of the Danish debate on the future of construction and planning (JENSEN, 2004, p. 6). In combination with the Berlin housing experiments, they would come to impact Danish urban ecological housing projects when, in 1992, the urban renewal at Outer Vesterbro (Ydre Vesterbro) in Copenhagen was initiated. One of the special urban ecological projects with user involvement was the building block in Hedebygade, “Hedebygadekarréen”.



**Figure 2.** “Hedebygadekarréen” in Copenhagen (Denmark). © Nina Baron

The Hedebygadekarré underwent major urban renewal from 1998 to 2003 with a number of sub-projects including energy and resource conservation measures (KLEIS et al., 2013, p. 98-99). Solar energy, for instance, is introduced in an effort to reduce energy consumption. Glass facades have integrated solar cells and walls for pre-heating ventilation air; kitchens have plant walls; daylight conditions are optimized with mirrors on the roof of the building. A new community house for social events, laundry, etc. has been built. To date, the Hedebygadekarré project is one of

Denmark's most comprehensive sustainability experiments in a dense urban area (KLEIS et al., 2013, p. 98-99).



**Figure 3.** “Tinggården 1” is designed by Tegnestuen Vandkunsten, and is an example of a user-involving settlement located in Herfølge (Denmark). © Rasmus Hjortshøj

### Targeting Ecology to Terraced Social Housing of the Future

In 1995, the Danish Ministry of Housing published an urban ecological action plan entitled “Urban Ecology—Buildings and Housing” with short-term and long-term objectives for the ministry's activities within the urban ecological area. The aim was to promote the realization of demonstration projects in social housing and showcase ecological solutions that would serve as models for future construction.

Following the action plan, the Ministry of Housing and Urban Affairs and the Building and Housing Administration (KAB) organize an architectural competition, “Ecohouse 99” in 1996 with the aim of integrating well-known environmentally friendly, ecological building principles into modern industrial housing (THE MINISTRY OF TOWN & HOUSING, 2001, p. 2).

The competition aimed at a completely new mindset on social housing based on ecological and architectural considerations. The Ministry of Housing and Urban Affairs asked for architects' ideas in relation to broader ecological considerations, such as longer durability, minimalist structures, significantly lower energy consumption, reduced water consumption, less waste and a better indoor climate.





**Figure 4.** “Ecohouse 99” is designed by Tegnestuen Vandkunsten, and is located in Herfølge in Ikast (Denmark). Source: Personal Collection.

Since the consumption of resources associated with day-to-day operations often exceeds those associated with the other phases of the building's life cycle, the Ministry of Housing and Urban Affairs was interested in social housing that would minimize these resources in a sensible balance between quality, longevity and economy.

It was the intention of the Ministry of Housing and Urban Affairs that the experience of the demonstration construction “Eco-house 99” would form the basis for systematic knowledge building of the ecological solutions and their impact on both technical and functional conditions, while at the same time recording residents’ consumption.

### **Ecological Construction with Technical Accommodation**

The German architect Thomas Herzog argues that it is the role of the architect to professionalize sustainable thinking in architecture. It is the architects who are able to translate the sustainable challenges into proper contextual decoding and designs of constructive solutions and shapes, so that energy consumption can be significantly reduced without loss of comfort (BECH-DANIELSEN, 2005, p. 9). The

eco-technical solutions range widely from translucent insulation, new types of glass and solar shielding to intelligent facades, double-facades, solar-celled roofs and facades (LARSEN & SØRENSEN, 2006, p. 62-63) (BEIM et al., 2002, p. 52-53).

Sustainable construction with technical accommodation is defined by Guy and Farmer as “Ecotechnic Logic”. The “Ecotechnic Logic” arises from a technically rational and politically oriented discourse representing a belief in incremental techno-economic change where science, in interaction with technologies, can provide the solutions to the climate crisis. In practice, the ideas represent a “top-down” view of the climate crisis through the intervention of integrated energy-efficient high-tech solutions in construction (GUY & FARMER, 2001, p. 141-42).

The “Ecotechnic Logic” is perhaps best represented by the architects Norman Foster, Richard Rogers, Nicholas Grimshaw and Michael Hopkins - as well as the Italian architect Renzo Piano and the German architect Thomas Herzog.

Since the late 1970s, Thomas Herzog has experimented with the combination of energy technology solutions and exploitation of passive solar heat. In the period 1986-91, he drew a college located in Windberg and a semi-detached house located in Pullach near Munich, for instance. The building in Pullach features optimal utilization of daylight as well as utilization of passive solar heat in consideration of the environment. The long and narrow body of the building allows sunlight to fully penetrate the rooms. The large eave protects the facades from wind and weather and, according to architect Claus Bech-Danielsen, has an environmental effect in its own right (less maintenance and longer service life). The different environmental issues of building materials and energy optimisation have thus been synthesized (BECH-DANIELSEN, 2005, p. 162).

According to architect Claus Bech-Danielsen, this construction is also a good example of the architect drawing inspiration from more traditional residential construction and interior design of earlier times. Shelter from the wind has been established around entrance doors, and porches help reduce drought as well as energy consumption. The traditional location of the chimney in the middle of the dwelling is also seen in some of the early ecological buildings, with a masonry stove giving off heat to the adjacent rooms. Examples from the more traditional kitchen interior include a north-facing pantry and an insulated “hay box” to keep food warm

without the use of energy (BECH-DANIELSEN, 2005, p. 157-164).

### **Social Low-Energy Housing Built to the Passive House Standard**

In Denmark, a 2nd generation low-energy house was designed and experimented with by architects Knud Peter Harboe and Søren Koch in 1997. It was constructed in collaboration with DTU Civil Engineering. The intention was for the house to be erected without the establishment of advanced technologies and with the supply of approx. 5,000 kWh energy from the outside. In a way this was a further development of the low-energy house to satisfy the principles of the Passive House Standard (JENSEN et al., 2014, p. 76-77).

Up through the 1990s and until 2001, architects in Germany and Austria, among others, had also experimented with the further development of low-energy houses in order to meet the building requirements of the German Passive House Standard, which stated that max. 15 kWh/m<sup>2</sup> per year could be used for heating and cooling without the help of sustainable energy sources (BEIM & VIBÆK, 2013, p. 210-216).

The social housing sector in Denmark also wanted to demonstrate that sustainable social housing could be built to the Passive House Standard. At the end of 2001, the Housing Association Ringgården, in cooperation with the Danish Centre for Urban Ecology, institutes international collaboration with Italian, French and Portuguese housing organizations—SHE Sustainable Housing in Europe—for the purpose of organizing an international architectural competition with a focus on sustainability (THE DANISH ASSOCIATION OF ARCHITECTS, 2003, p. 2).

The winners were the German firm of architects Herzog + Partners and the Danish firm of architects SHL Architects. One of the buildings designed by SHL Architects is “Lærkehaven III”, and the panel of judges was enthusiastic about the combination of semi-detached housing constructed in accordance with the German Passive House Standard and a modernist, architectural expression (THE DANISH ASSOCIATION OF ARCHITECTS, 2003, p. 2).

“Lærkehaven III” positions itself as sustainable construction by selecting two pathways. The first pathway is the previously mentioned “Ecotechnic Logic”, which is characterized by a top-down view of the climate crisis through the integration of

energy-efficient high-tech solutions in construction (GUY & FARMER, 2001, p. 141-142).

At the same time, “Lærkehaven III” also seems to represent the “Eco-aesthetic Logic”. The “Eco-aesthetic Logic” shifts the debate on sustainable construction by focusing on architecturally aesthetic values. Here, architecture plays a metaphorical role as an iconic expression of societal values. Projects based on “Eco-aesthetic Logic” must inspire and convey an identification of nature and the non-human world (GUY & FARMER, 2001, p. 141-142).

The “Eco-aesthetic Logic” is perhaps best represented by the architects Frank Gehry, Santiago Calatrava, Future Systems, Arato Isosaki and SITE (GUY & FARMER, 2001, p. 141-142). “Lærkehaven III” does not represent an idiom as expressive as that of architects Frank Gehry and Santiago Calatrava. Rather, it is the aesthetic neo-modernist expression in interaction with energy efficiency that is being weighted by the firm of architects SHL Architects.



**Figure 5.** “Lærkehaven III” is designed by SHL Architects and is located in Lystrup (Denmark). Source: Personal Collection

### AlmenBolig+ as Terraced Social Housing and User Involvement

Through its commitment to the Brundtland Commission report, the sector of social housing in Denmark has seen a public development of sustainable architecture throughout the 1980s and 1990s aimed at testing, approving and institutionalizing sustainable technologies supported by comprehensive public sector funding (JENSEN et al., 2012, p. 94).

In 2005, former minister, member of the Social Democratic Party and one of the candidates for mayor of Copenhagen, Ritt Bjerregaard, called for the need of housing in Copenhagen that “ordinary people” can pay. She will therefore allow the construction of 5,000 new affordable homes in Copenhagen during the period 2006-2011. The sector of social housing with KAB at the end of the table helped to overcome this challenge but had to realize that the acquisition costs and the operating costs of a new traditional social housing project would be far too high to tackle this challenge. Alternatives were called for!

KAB, the social housing administration firm, took on the challenge and rethought the construction process and day-to-day running in an effort to bring the price down. With funding from Den Almene Forsøgspulje—a pool under the Ministry of Housing, KAB, in collaboration with Boligforeningen 3B and Boligselskabet AKB, had developed the idea for the concept Almenbolig+. A construction concept that will pave the way for a reduction in the acquisition sum through industrial solutions, the homes being built from prefabricated room-sized elements (KAB, 2016, p. 12-19).

In addition, to reduce rent the daily running must be taken care of by the residents themselves. This means that a caretaker will not be assigned to the Almenbolig+ category of housing.

The concept of AlmenBolig+ will pave the way for residents having a say in the design of kitchens and toilets, as long as this is done correctly in terms of construction technology. The residents will also decide on partitioning and the erection of interior walls. The condition is that residents commit to the daily running and that all

communication with KAB's administrative operations department is mainly done digitally (KAB, 2016, p. 24-25).

One of the intentions behind AlmenBolig+ was to reduce residents' rents by up to 30%. The buildings “Grøndalsvænge” and “Signalgården” were the first Almenbolig+ projects to be completed in 2011. “Signalgården” is located in the new district Ørestaden, on the island of Amager, Copenhagen. The building consists of four wings with an inner courtyard. “Grøndalsvænge” is located in Copenhagen's Northwest Quarter and represents traditional family-friendly terraced housing with black facade plates, small passages and separate gardens.



**Figure 6.** “Grøndalsvænge” is designed by OVN Architects and is located in Copenhagen (Denmark). Source: Personal Collection.

“Grøndalsvænge” was one of the first Almenbolig+ demonstration projects in Denmark to be constructed in accordance with the requirements of the Danish Building Regulatory 2015 for low energy construction. The project, on KAB's part, was not launched as a sustainable housing project. However, the fact that the

residents themselves have been in charge of day-to-day running and maintenance makes it interesting to examine the social dimension of sustainability.

**Sustainable Social Housing of the Future** To show the importance of sustainable thinking in a Danish social housing context, the Ministry of Housing, Urban and Rural Affairs, in collaboration with the Danish Association of Architects, organized an architectural competition for “The Social Housing of the Future” in December 2012.

Contestants would have to make suggestions for sustainable social housing for the future. The competition areas are located in Seest at Kolding and Lisbjerg at Aarhus. The intentions were that social housing should meet the requirements of being attractive and price-competitive and feature innovative solutions in relation to energy reduction, reduction of running costs and climate adaptation (THE MINISTRY OF HOUSING, URBAN AND RURAL AFFAIRS, 2013, chapters 1-8).

In support of the sustainable dimension, the requirements for the proposers were tightened in that it should be possible to PRE-certify the homes to the new DGNB standard for sustainable construction. In 2014, the two winners of the architectural competition were presented: Dissing + Weitling Architecture and Tegnestuen Vandkunsten.

In Lisbjerg near Aarhus, Tegnestuen Vandkunsten will project 40 social housing units representing sustainable social housing in the broadest sense according to the architects. The buildings must be economically, socially and environmentally sustainable in the broadest sense and constructed and operated within the current economic framework and other frameworks for social housing (THE DANISH ASSOCIATION OF ARCHITECTS, 2014, p. 1).



**Figure 7.** Settlement located in Lisbjerg (Denmark) designed by Tegnestuen Vandkunsten. ©Helene Høyer Mikkelsen.

The committee's report highlights the housing project by Tegnestuen Vandkunsten as a proposal that breaks with the traditional modernist and abstract thinking by preferring a more popular wooden construction to a concrete construction. Furthermore, focus is on recycling, patination of buildings and occupant involvement (THE MINISTRY OF HOUSING, URBAN RURAL AFFAIRS, 2014, p. 26-33).

There is a consistent use of wood as essential sustainable elements—both outside and inside. The wooden structures, which can be built on site, are built up as solid sandwich structures of solid wood insulated with cellulose. To minimize environmental impacts and maintenance expenses, neither paints nor surface treatments will be used. The building system is demountable, allowing for changes over time to adapt the homes to new needs (THE MINISTRY OF HOUSING, URBAN RURAL AFFAIRS, 2014, p. 26-33).

In Seest at Kolding, Dissing + Weitling Architecture will project dense-low residential housing that also focuses on extensive use of wood in a modular construction system of wooden cassettes paneled and insulated with wood. The committee's report describes it as “print your house” where building components are produced, assembled and erected on site. This allows for a myriad of variations and individual



adaptations (THE MINISTRY OF HOUSING, URBAN RURAL AFFAIRS, 2014, p.18-25).

In recent years, there has been increased focus on the social dimension of sustainability in social housing in Denmark. In 2020, the “House of Generations” was inaugurated as a housing project in Aarhus based on the spirit of community. The “House of Generations” is inhabited by people of all ages with different capacities and life situations. Children, young people, adults and the elderly live and share everyday life in the house, which accommodates children in day care facilities and housing for students, families, people with disabilities and the elderly with and without the need for care.



**Figure 8.** “House of Generations” is located in Aarhus (Denmark). designed by ERIK and RUM Arkitektur. © Francesco Galli



**Figure 9.** “House of Generations” is located in Aarhus (Denmark). designed by ERIK and RUM Arkitektur. © Francesco Galli

Sustainability policies at organizational level have thus seen the light of day as sustainable solutions in social housing in Denmark. More and more Danish architects and social housing organizations are working with the implementation of their own sustainability policies and strategies while giving advice on sustainability to the local housing associations. It is presumed that in the coming years, this development will gradually take root and have a knock-on impact on the objective of more sustainable social housing towards a more sustainable Danish society as a national response to the climate crisis.

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